

## Pre-Operations Report

**Operation Name: Hammerhead**  
**County: Klamath**

Table 1. Operation Areas, Types and Acres

Stand	Type of Operation	Gross Acres	Net Acres
133	Partial Cut	333	333
135	Partial Cut	193	193
<b>Total</b>		<b>526</b>	<b>526</b>

### I. PHYSICAL DESCRIPTION OF OPERATION AREA:

**Soil Types:** The sale area consists primarily of the Hallet series soil. This is a deep, coarse textured soil developed from coarse pumice and volcanic ash. It is operable with ground based skidding equipment at any time of year.

#### **Vegetation Zone**

Stands 133, 135: White fir forest zone. Plant association – Mixed conifer/snowbrush/sedge (CWS1-15)

#### **Slope, Aspect, and Topography:**

In both stands, slopes range from level to 28%, while aspect is primarily southwest.

### II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information.

Area	Prescription	Stand ID <sup>1</sup>	Species	DBH <sup>3</sup>	BA <sup>4</sup>	TPA <sup>5</sup>	SDI <sup>6</sup>	Acres <sup>2</sup>
1	PC	133	IC	13	2.1	9.7	4.6	333
			PP	11	57.8	161.2	115.3	
			SP	14.1	16.5	24.5	29	
			WF	13.8	75	478.5	176.5	
		<b>Totals</b>			<b>151.4</b>	<b>673.9</b>	<b>325.4</b>	
1	PC	135	PP	14.6	26.7	142	60.6	193
			SP	15.4	0.9	2.8	1.8	
			WF	15.9	68.7	156.7	131.6	
		<b>Totals</b>			<b>96.3</b>	<b>301.5</b>	<b>194</b>	

1 The source of stand inventory information is from 2003 field inventory.

2 The acres are based on GIS and roads, stream buffers, reserve areas, etc are included in gross acreage.

3 The DBH represented is the average DBH of trees 8" and larger for volume and value computations.

4. BA – Basal Area

5. TPA – Trees per Acre

6. SDI – Stand Density Index

Stand 133 is overstocked with stand density index (SDI) of 325. Current guidelines in this area call for keeping stands under SDI 270 in order to maintain stand health at levels to resist insect attacks. Stand 135 is not overstocked, however both stands are severely infected with armellaria root disease. Armellaria causes very high mortality in white fir and sugar pine. Ponderosa pine and lodgepole pine are the most resistant conifer species

The following table shows the current condition for large trees in the sale area.

<u>Stand</u>	<u>TPA &gt;20"</u>	<u>TPA &gt;30"</u>
133	12.2 (2.5 p. pine)	0.6
135	12.4 (2.9 p. pine)	1.1

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

Two entries from now, in 30-50 years, stands 133 and 135 will have the following characteristics:

- A healthy all aged stand consisting of ponderosa pine and lodgepole pine in the root disease areas. Areas not infected with root disease will consist of a mix of ponderosa pine, sugar pine, white fir, and incense cedar.
- Stand composition and structure allows sustained periodic harvest entries at a 15 to 25 year interval.
- The stands meet or are closely approaching the “Desired Future Condition for Large Trees in the Sun Pass State Forest” goals. The goal is to have 10 trees >20” dbh with at least 2 of those trees >30” dbh.
- There are younger cohorts of lodgepole and ponderosa pine in the root disease areas and incense cedar, sugar pine, and ponderosa pine in the root disease free areas scattered individually and in small clumps.
- Fuels are arranged and at acceptable levels to reduce the adverse impacts of wildfires.
- Snags, down wood, and cover, are at the desirable levels to provide wildlife habitat.
- Shrubs and forbs are maintained at desired levels to provide forage production.

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

The sale objective is to develop an uneven-aged stand dominated by ponderosa and lodgepole pine in the root disease areas and incense cedar, sugar pine, ponderosa pine, and white fir in the root disease free areas. In this entry, white fir and sugar pine will be eliminated in the active root disease areas. In the disease-free areas, all species will be retained. Both stands are above the desired future condition goal for trees greater than 20”dbh, while both are under the goal for trees over 30” dbh. Because of the high levels of root disease, most

of the large white firs will need to be removed. For this reason it will take at least 30 to 50 years to meet this goal with disease resistant ponderosa pine. Large, high defect white fir will be left for wildlife throughout the stands. In addition, white fir groups left in the root disease-free areas will contain some large white fir.

The forest health objectives will be accomplished by reducing stand density, by species composition manipulation, and by favoring and planting disease resistant trees in the root disease areas. Past harvests both prior to and since state ownership have led to white fir dominance in this mixed conifer site. In disease free areas, silvicultural manipulation will include group selection in white fir clumps and single tree selection generally as a thin from below favoring ponderosa, sugar pine, and incense cedar. Group selection will focus on white fir and sugar pine in the root disease areas. Group selection sizes will depend on the arrangement of groups of susceptible tree species in the disease areas. All of the group selections in the root disease areas will be planted with ponderosa and lodgepole pine. Any group selections in the disease free areas will be planted with ponderosa pine, sugar pine, and incense cedar.

Most of the existing snags and high defect trees will be retained for wildlife habitat enhancement unless their juxtaposition conflicts with the safety of the logging operation. Existing large downed wood, long butts from the logging operation, and cull logs will be left in place or skidded from the landing and scattered on the sale area.

The sale plan is intended to include the treatment of both sawlog sized material and subsawlog sized material. Designated trees 5" to 8" dbh will be required to be yarded to the landing as part of the project work. These trees will be chipped or utilized as poles if the market allows or the piles will be burned.

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

Table 4. Timber and Revenue

Sale Type:	Recovery	Planned Quarter:	4
Fund Percentage	100	% BOF	
Net Volume	2,579	Conifer MBF	
Stumpage Value	\$249.34	Conifer (\$/MBF)	
Estimated Gross Value	\$643,060		
Project Costs:	\$34,190		
Estimated Net Value	\$608,870		

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

Existing roads and skid trails from the previous sale in 1978 are present on the sale area. There are no access issues. Haul roads are all on state owned land. Because of the gentle terrain, ground based logging equipment will be employed. A mechanical feller-buncher will be required for harvesting of the smaller diameter timber and submerchantable material. This will result in minimal damage to reserved trees. Existing landings and skid trails shall be utilized when possible.

The District will close an estimated 6.1 miles of existing roads using methods described in the Summary Document under Road Access Management.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Dirt Spur
Construction	0.0	0.0	0.0
Improvement	0.0	9.0	0.3
Maintenance	5.1	0.0	0.0
Vacation	0.0	5.8	0.3

See AOP Summary Document for road use level definitions.

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

None.

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

Surveys for Spotted Owls have been conducted, as outlined in the LRP, and no spotted owls have been detected in or near the sale area. Monitoring surveys were completed on the forest in 2005 and 2006. These two year surveys are completed every five years. Spotted owl surveys are not done for individual sales. No owls were detected. The forest will not be surveyed again during the life of the contract.

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.

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

None. The entire sale area is under 28% slope.

**X. RECREATION RESOURCES:**

Hunting and mushroom picking are the only known recreational uses of the sale area.

**XI. CULTURAL RESOURCES:**

There are no known cultural resources in the sale area.

**XII. SCENIC RESOURCES:**

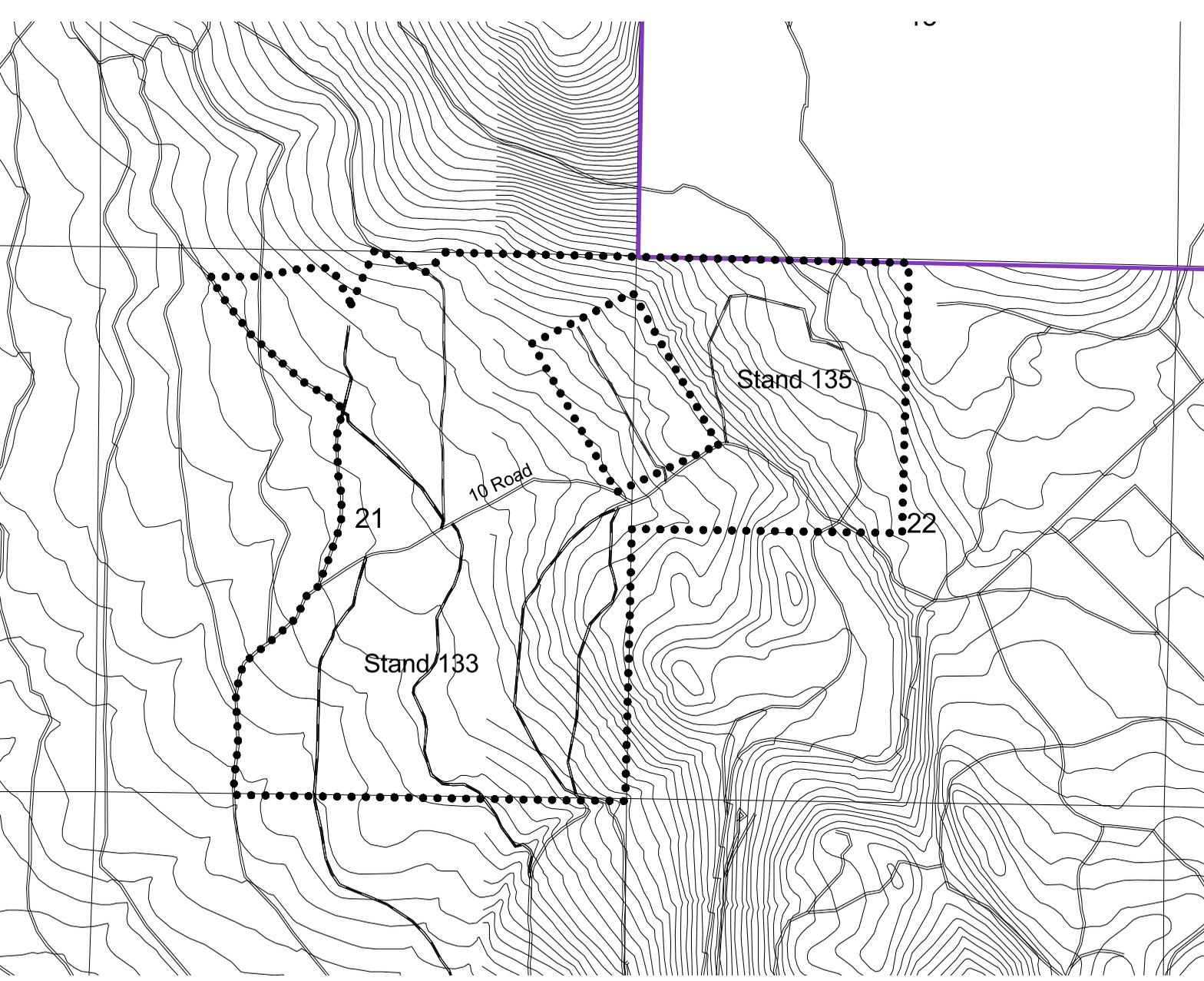
There are no visual concerns associated with the sale area.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

None

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY**

The sale area is classified as General Stewardship.



**Legend**

- Timber Sale Boundary
- Existing Roads
- Road Improvement
- Sun Pass State Forest Boundary



FY 08  
 Klamath-Lake District  
 Hammerhead Timber Sale  
 T.32S.,R.7.5E.,Sec. 16, 21,22 W.M.  
 Klamath County, Oregon  
 Approximately 526 Acres  
 Attachment A

This product is for informational purposes and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.