

# Pre-Operations Report

**Operation Name:** Cougar Ridge  
**County:** Tillamook County  
**Management Basin:** Larch Mountain

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

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	134	121
<b>Total</b>	<b>Partial Cut Harvest</b>	<b>134</b>	<b>121</b>

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

There are east, west, and south aspect slopes within the sale area that range from 0% to 90%. Elevations range from 1920 to 2560 feet. The major soil types are Jewell and Killam.

The sale is located on moderate to steep slopes in the headwaters of an unnamed tributary of Devils Lake Fork of the Wilson River, between Elk Creek and Idiot Creek. The sale is underlain by igneous origin rocks of the Tillamook Volcanics Formation in the northern portion of Area 1 and by sedimentary origin rock, Basaltic sandstone, in the southern portions of both areas (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

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

The sale area has had no prior stand management.

The entire sale area has been inventoried using the Stand Level Inventory (SLI) procedure and the stand has been classified as UDS.

The stand is heavily stocked with Douglas-fir with a minor component of western hemlock, noble fir, cedar and pockets of red alder along riparian areas.

The stand contains minor amounts of *Phellinus weirii*. The root disease will not be treated at the time of harvest.

The understory in the sale area is comprised primarily of vine maple, sword fern, salal, dwarf Oregon grape. Average ground cover from SLI data is 72%.

Several hemlock and pacific yew have also been established in the understory.

SLI data indicates approximately 6 snags per acre, within all decay classes including 2 hard snags per acre. Approximately 5000 ft<sup>3</sup>/acre of DWD, including 65 ft<sup>3</sup>/acre of classes 1 & 2.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age <sup>2</sup>	DBH	BA	TPA	SDI	Net Acres <sup>3</sup>
1	PC-M <sup>4</sup>	7672	DF	39, 44-49	15	232	195	61	121
		<i>Target</i> <sup>5</sup>	<i>DF</i>		19	120	65	29	121

<sup>1</sup> The source of stand inventory information is from SLI inventory completed in 2006.

<sup>2</sup> Actual measured breast height ages are shown unless labeled “est.”

<sup>3</sup> The acres are based on GIS and exclude existing and planned roads, stream buffers, and non-thinnable areas.

<sup>4</sup> PC-M is Moderate Partial Cut.

<sup>5</sup> The Target row for partial cut areas identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

### III. DESIRED FUTURE CONDITION/VISION:

According to the Forest Grove District’s landscape design for the Larch Mountain basin, the desired future condition (DFC) for Area 1 is 100% OFS.

The harvest operation will maintain the UDS structure of this stand and move it toward the OFS structure in the longer term. All hemlock, cedar, noble fir, and red alder will be reserved. This will help to maintain the species diversity and allow additional natural seeding to enhance the developing understory of shade tolerant conifers. Another entry 15-20 years post harvest will continue to develop the understory and intermediate layers. A prescription allowing the minor species to have a more dominant presence should be prescribed and one that will create a more variable density. The area has at least 6 hard snags per acre and a higher component of DWD.

**Table 3. Stand Structure Information**

Area	Prescription	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	PC-M	7672	UDS	UDS	OFS	121

<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 AND PATHWAY:

**Partial Cut - Moderate:** The target SDI is approximately 29. Douglas-fir will be selected for harvest. All other species will be reserved. On average, the stand will be thinned to a target basal area of 120 square feet. The average DBH of the residual stand will be approximately 19 inches.

The target prescription will be 130 sq. ft of Douglas-fir. Approximately 8-12 areas 2-5 acres in size (approx. 35 acres total) will be harvested down to 80 sq. ft. of basal area. Exact sizes and distribution will be better evaluated at time of layout.

Residual trees will those that have the largest DBH and height, and are of the best form and vigor. All cedar, noble fir and hardwoods and trees less than 8 inches shall be reserved and shall not count toward the target basal area.

Operations will result in a UDS stand condition 5-10 years after harvest. LYR condition hopefully will be achieved 20-30 years after harvest.

One tree per acre shall be topped to create hard snags. Snags shall be evenly distributed throughout the sale area and have a DBH of at least 16 inches, and be at least 50 feet in height.

No under-planting is planned because it is anticipated existing shade tolerant species will continue to develop and that regeneration of these species will occur naturally.

All existing DWD will be reserved in the sale areas. DWD recruitment is expected through mortality, windthrow of residual trees, felled snags, and logging slash.

Existing snags determined not to be a safety hazard will be retained and any felled snags will be left for down wood. Additional snags will be created over time through natural processes.

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

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		2	

	Conifer	Hardwood	Total
Net Volume (MBF)	1,800		1,800
Stumpage Value (\$/MBF)*	\$350		
Estimated Gross Value	\$630,000		\$630,000
		Project Costs:	\$45,000
		Estimated Net Value:	\$585,000

\*Combined Douglas-fir and hemlock stumpage values

**VI. TRANSPORTATION PLANNING AND HARVESTING:**

The sale area is accessed via Idiot Creek Road. This is an all-weather, crushed rock road. Haul route is entirely on ODF ownership.

Approximately 0.75 miles of road will be constructed to provide access to cable yarding or landing locations. New construction is limited to ridgetops and gentle to moderate sideslopes. Proposed roads will not cross any streams.

All haul roads will have high quality crushed rock or pit run surfacing. Roads will provide access to all timber within the sale area and allow for logging methods and hauling which will minimize impacts to soils, residual timber, streams, and riparian areas.

Skid trails within the sale areas will be blocked and closed.

Project work: estimated costs- \$45,000 for road construction.

The operation will be 90% cable yarding and 10% ground yarding.

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction			0.75	
Improvement				
Maintenance		5.0		
Closure/Vacation				

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

There is one unnamed, small, perennial, Type F stream which dissects the sale area.

There is one unnamed, small, perennial Type N stream within the sale area, and several other seasonal streams.

Riparian area stand types along these streams are generally a hardwood/conifer mix.

All streams are tributary to Idiot creek which is a tributary of the Wilson River.

In order to protect water quality 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, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging and hauling operations. Culvert installment and

replacement in live streams will be conducted between July 1 and Aug. 31. Operations outside of this period will be reviewed with ODFW.

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

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist (Area Biologist).

Surveys for northern spotted owls were conducted in 2006 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Cougar Ridge was surveyed for spotted owls six times in 2006.

During the 2006 survey season, a spotted owl was heard within 1.5 miles of Cougar Ridge during two separate nighttime surveys. The first 2006 response was a vocalization that is characteristic of both sexes; therefore it is unknown whether the first observation was a male or a female. The owl was not located during the daytime follow-up visit. The second 2006 nighttime response was detected during the third additional visit. The response was confirmed as a female, but she was not located during the daytime follow-up visit. Therefore, the status of the two observations was classified as "non-territorial single" in 2006. A second year of survey will be completed in 2007. All surveys were/will be conducted in accordance with USFWS protocol.

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The District T&E Coordinator made the determination that the sale area is non-suitable habitat for marbled murrelets. The ODF wildlife biologist for the NW Oregon Area reviewed and approved this determination.

This operation does not involve an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. Neither the sale area nor the haul route is in close proximity to a stream with listed fish.

The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations, as well as against local records in the Land Management Classification System (LMCS). No listed plant records were identified within or adjacent to the sale areas.

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

Most of the steepest slopes in sale area are associated with the unnamed tributary that runs between the two areas. The initial risk assessment by the geotechnical specialist for the sale is moderate. If these steep sloped areas remain within the sale area as the sale layout proceeds, the geotechnical specialist will be consulted to determine if a field visit is needed (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

**X. RECREATION RESOURCES:**

The sale area is designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993).

Recreational use common to this area includes hunting.

**XI. CULTURAL RESOURCES:**

The sale area and proposed road construction right-of-way were checked against the Tillamook State Forest Cultural Resource Inventory Database (GIS format). No cultural resource records were identified within or adjacent\* to the operation areas. If any significant cultural resources are located during sale preparation, the Public Use Coordinator (ODF Salem Staff) will be consulted regarding potential protection measures.

*\*Adjacent refers to approximately one tree length from an operation area. For the purpose of this screen, a 200 foot buffer around the sale boundary and proposed road construction right-of-way was assessed for cultural resource locations.*

**XII. SCENIC RESOURCES:**

The sale area has a visual classification of Level 3, low sensitivity.

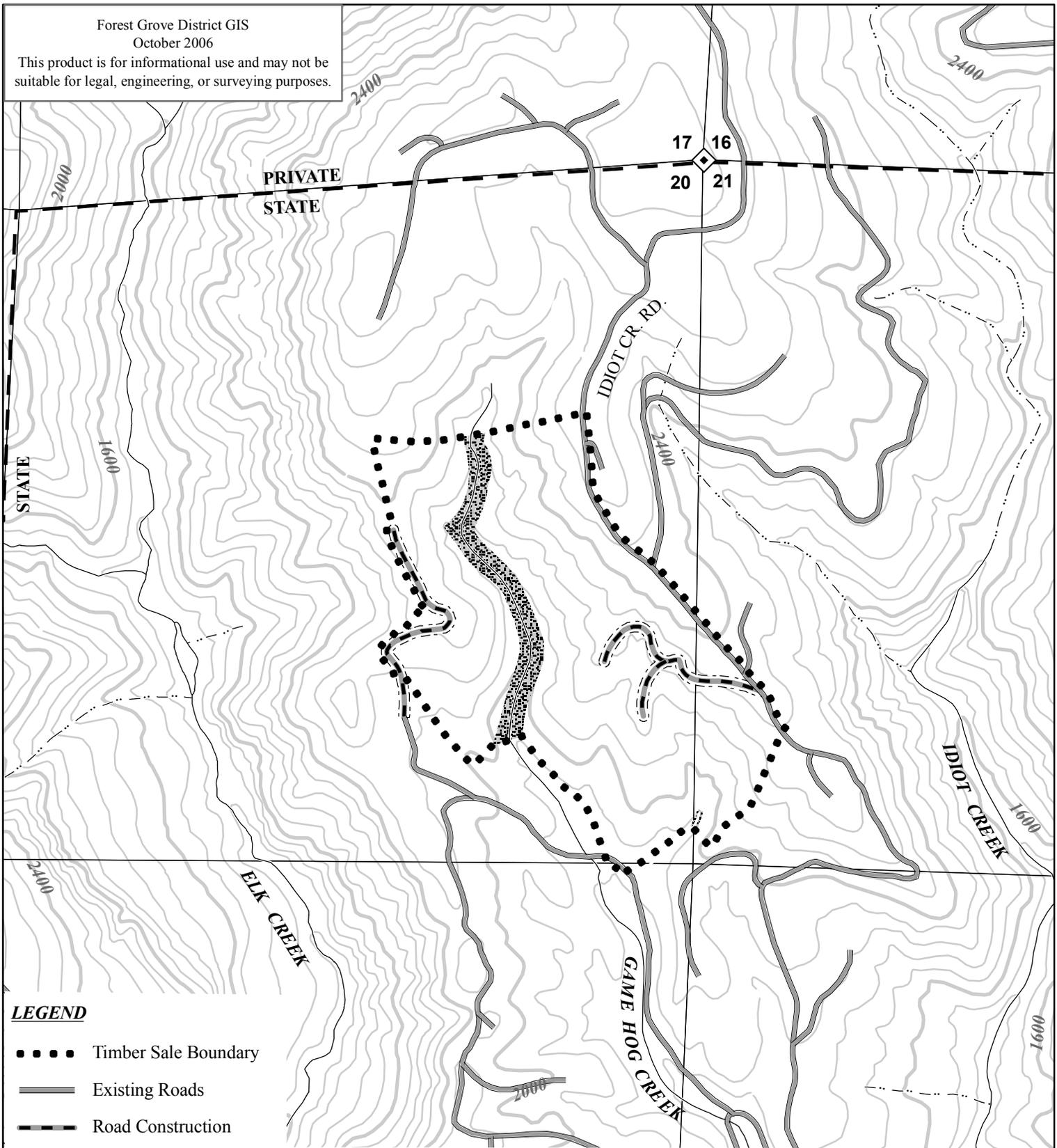
**XIII. OTHER RESOURCE CONSIDERATIONS:**

No property survey is needed. No other resources of significance are involved. Any survey corners and witness trees shall be protected from damage during any operations.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

Area 1 contains Focused Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of perennial streams within the sale areas. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.



**LEGEND**

- ● ● Timber Sale Boundary
- Existing Roads
- - - Road Construction
- - - Road Construction Right-of-Way
- Perennial Type F Stream
- - - Perennial Type N Stream
- ▨ Stream Buffer
- ▨ ODF Ownership
- 400' Contour Intervals
- 80' Contour Lines

FY 2008  
COUGAR RIDGE  
PORTIONS OF SECTION 20 & 21, T02N, R06W, W.M.  
TILLAMOOK COUNTY, OREGON

Attachment A: Topography

Scale

1:12000

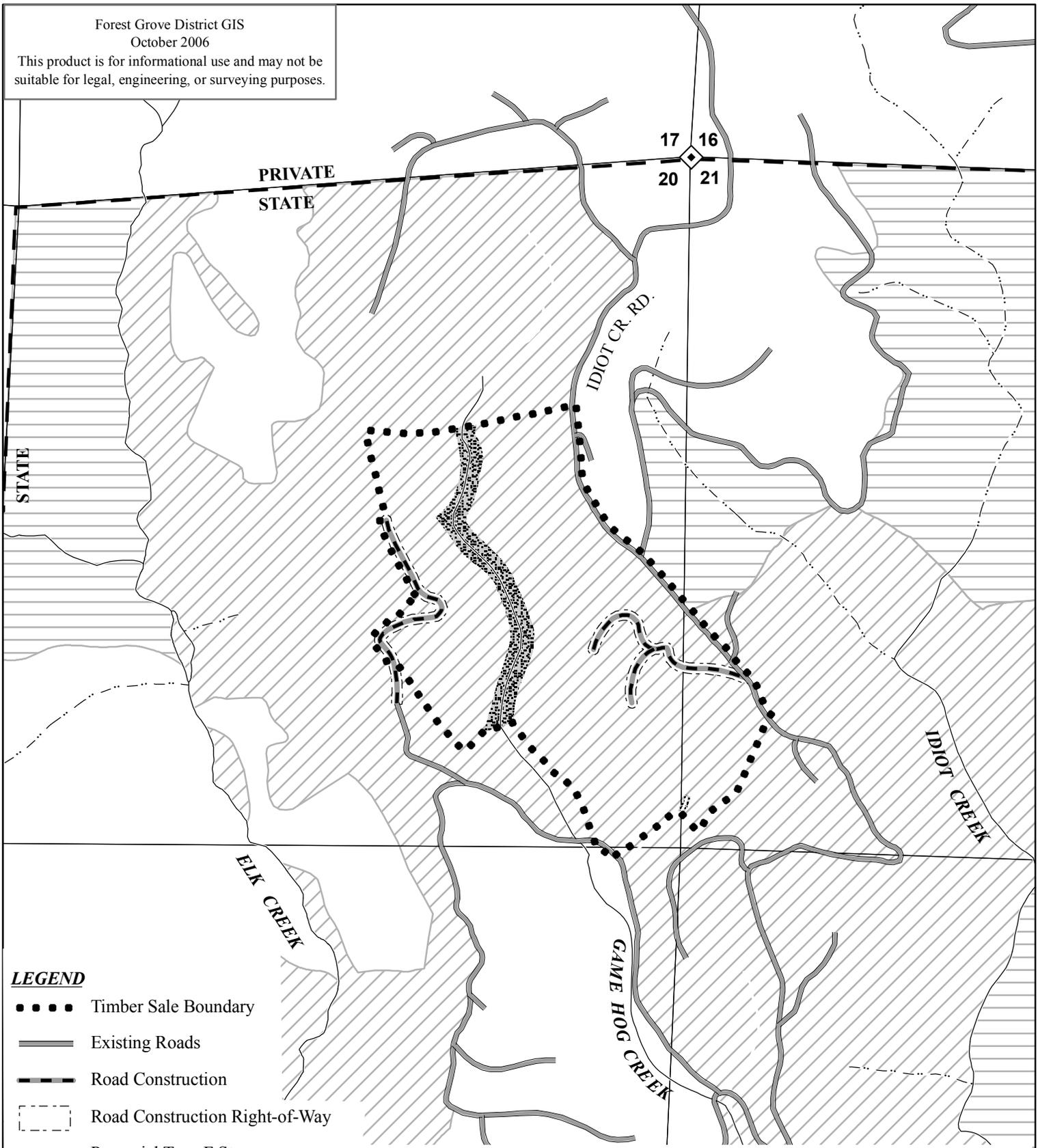
1 inch = 1000 feet



**APPROXIMATE NET ACREAGE**

AREA 1	121 ACRES (PC-M)
TOTAL	121 ACRES

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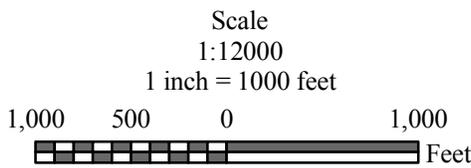


**LEGEND**

- Timber Sale Boundary
- Existing Roads
- - - Road Construction
- - - Road Construction Right-of-Way
- Perennial Type F Stream
- - - Perennial Type N Stream
- ▨ Stream Buffer
- ▭ ODF Ownership
- DFC Stand Type
- ▭ Layered
- ▨ Older Forest Structure

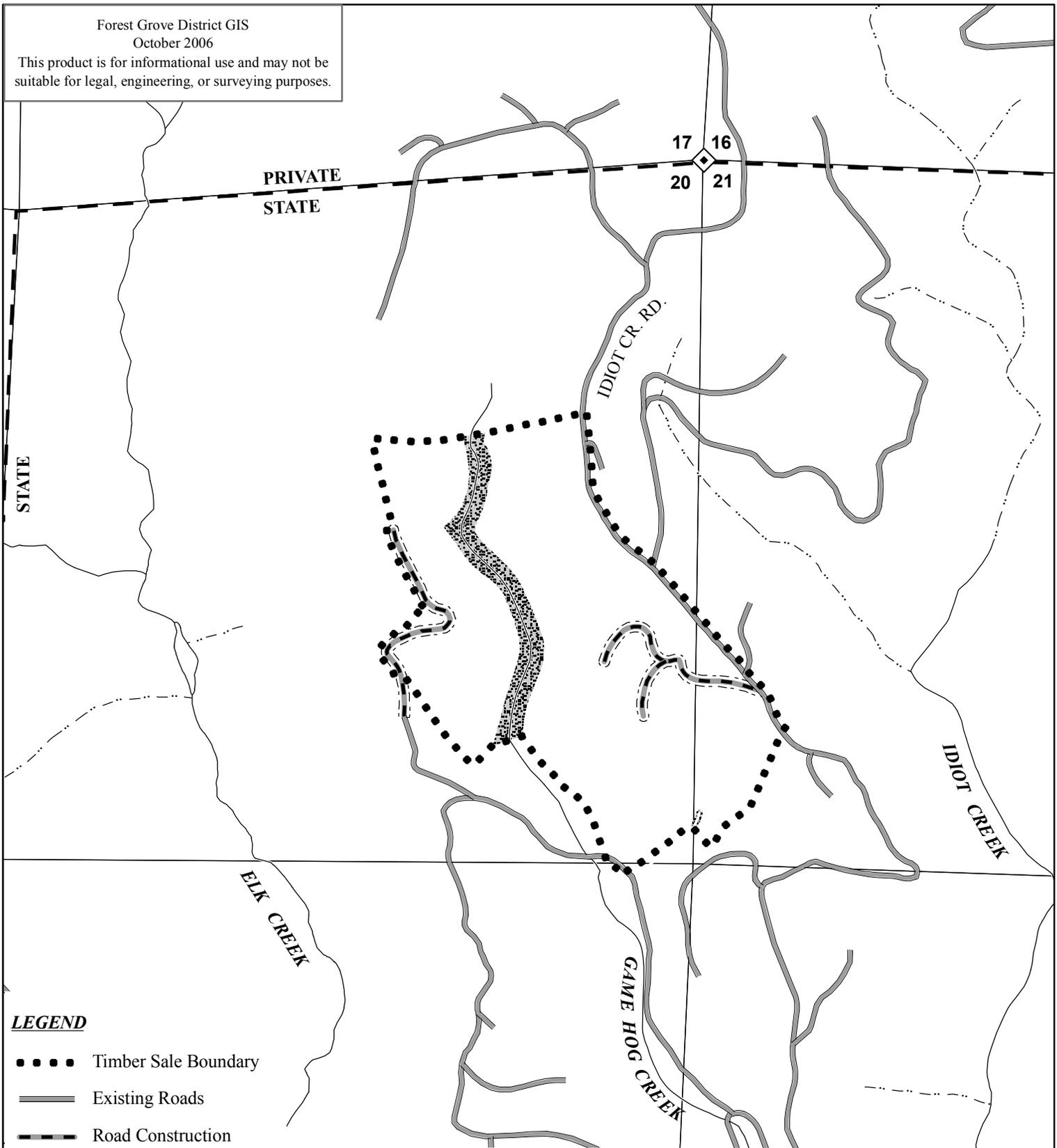
FY 2008  
COUGAR RIDGE  
PORTIONS OF SECTION 20 & 21, T02N, R06W, W.M.  
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Attachment B: Desired Future Condition



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- Existing Roads
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- Perennial Type F Stream
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- ▒ Stream Buffer
- ODF Ownership

FY 2008  
COUGAR RIDGE  
PORTIONS OF SECTION 20 & 21, T02N, R06W, W.M.  
TILLAMOOK COUNTY, OREGON  
Attachment C: Key Resources

Scale  
1:12000  
1 inch = 1000 feet



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