

# Pre-Operations Report

**Operation Name:** Moose and Squirrel (Alternate)

**County:** Columbia

**Management Basin:** McGregor

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

Area	Type of Operation	Gross Acres	Net Acres
1	Modified Clearcut	22	17
2	Modified Clearcut	95	89
<b>Total</b>	<b>Regeneration Harvest</b>	<b>117</b>	<b>106</b>
3	Moderate Partial Cut	10	10
<b>Total</b>	<b>Regeneration Harvest</b>	<b>10</b>	<b>10</b>

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

The sale is located on moderate side-slopes along the Upper North Fork of Clear Creek.

Slopes within the sale area have a predominantly western aspect and range from 10% to 50%. Elevations range from 1200 to 1400 feet. Humbug and Pinochle are the major soil types of the sale area.

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

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

Most of the sale areas are comprised of well-stocked stands of Douglas-fir. Other conifers are scattered throughout the sale in minor amounts and mainly of western redcedar, western hemlock and noble fir. There is also a somewhat significant amount of alder in both sale areas. Some parts of the sale areas are showing signs of competition with receding crowns and poor height to diameter ratios. The underbrush consists mostly of salal, dwarf Oregon-grape, sword fern, bracken fern, vine maple, and huckleberry.

In general the areas lack adequate amounts of snags and downed woody debris, in accordance to the FMP strategies. Both stands show zero snags per acre greater than fifteen inches in diameter in decay classes one and two. SLI data identified only 30 cubic feet per acre of Class 1 DWD in Area 1, and 200 cubic feet of Class 1 and 2 DWD in Area 2. However, there is a fair amount of class 4 and 5 large woody debris scattered relatively evenly across the sale areas. The sale areas currently average 17 hard snags per acre (in smaller DBH classes), which will likely add to the DWD post harvest.

The sale area shows minor evidence of *Phellinus*.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	MC <sup>3</sup>	7125	DF	50	18	205	121	50	17
		<i>Target<sup>4</sup></i>	<i>REG</i>						17
2		7145	DF	48	20	248	118	58	89
		<i>Target<sup>4</sup></i>	<i>REG</i>						89
3	PC-M <sup>3</sup>	7145	DF	48	20	248	118	58	10
		<i>Target<sup>4</sup></i>			22	130	50	29	10

<sup>1</sup> The source of stand inventory information is from SLI inventory grown forward to 2007. Stand ID's shown with a (\*) are unmeasured stands, and the source of inventory information for these stands is expanded SLI data.

<sup>2</sup> The acres are based on GIS and exclude existing and planned roads, stream buffers, green tree retention areas, and non-thinnable areas.

<sup>3</sup> MC is Modified Clearcut, PC-M is Moderate Partial Cut.

<sup>4</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, the desired future condition (DFC) for Area 1 and Area 2 is 100% General.

#### **Areas 1 and 2:**

Both sale areas have a DFC of General, thus making them available candidates for regeneration harvest. The stands are very uniform while current SLI data identifies them as UDS. Creation of hard conifer snags, green tree retention, and DWD scattered throughout the sale areas will be in compliance with FMP strategies. The future of these areas is to manage for maximum timber yields. The stand should receive regeneration harvest again in 60 years.

#### **Area 3:**

Area 3 will receive a moderate partial cut in order to help develop the inner RMA zone towards mature forest condition. The area extends from the 25 foot stream buffer on the Upper North Fork Clear Creek to 125 feet which will encompass the entire inner zone and a portion of the outer zone of the RMA. Post harvest, the area will be under-planted with a mix of shade tolerant species (hemlock and cedar) in order to promote accelerated understory growth. Approximately 100 trees per acre will be planted in the understory. This area will be available in addition to other parts of the sale for hard snag creation (to meet FMP requirement). Creation of hard snags in the RMA zone will promote understory regeneration through increased light penetration because of the crown reduction.

**Table 3. Stand Structure Information**

Area	Prescription	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
1	MC	7125	UDS	REG	GEN	53
2	MC	7145	UDS	REG	GEN	65
3	PC-M	7145	UDS	UDS	GEN	10

<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:**

##### **Areas 1 and 2:**

Both areas will receive the same treatment of modified clearcut; seven trees per acre will be left (two of which will be topped for snag creation) as reserve in order to meet FMP guidelines. A variety of methods will be used to achieve green tree retention requirements in all sale areas. This includes clumping, extended stream buffers, and trees scattered throughout the units. Two trees per acre will be topped for the creation of hard snags. Approximately 400 cubic feet per acre of class 1 down wood will result from normal logging slash. All existing DWD will be reserved. Other sources of DWD will result from the felling of snags (which are identified as safety hazards) during harvest activity, modified bucking practices (removing defect and breakage), and natural recruitment through windfall post harvest. During sale preparation (and on the ground reconnaissance of the stands) it will be determined whether additional trees should be left throughout the unit for the purpose of DWD recruitment.

##### **Area 3:**

This area will receive a moderate partial cut with a target of 50 trees per acre. This prescription will leave an estimated basal area of 130 ft<sup>2</sup> with an approximate SDI of 29. The area will be available for snag creation to meet the FMP requirement for the sale. All existing snags will be retained where safety permits. All existing DWD will be reserved.

After harvest the area may receive herbicidal application (to be determined after examination by the district reforestation forester), and will be planted with Douglas-fir and other coniferous species.

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

**Table 4. Timber and Revenue**

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

	Conifer	Hardwood	Total
Net Volume (MBF)	4000		4000
Stumpage Value (\$/MBF)	\$350		
Estimated Gross Value	1,400,000		\$1,400,000
		Project Costs:	\$177,000
		Estimated Net Value:	\$1,223,000

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

Access is from Highway 26 (MP 35) to North Fork of Wolf Creek Road to McGregor Road to Eastside Grade Road and Pit Road. Access is 100% ODF owned roads. These roads are rocked, all-weather roads.

All new construction will be done on ridge tops and in locations that avoid steep side slopes and new construction will not cross any streams. The upper access road to Area 2 (see attached exhibit) will also require a truck turnaround located 0.3 miles from the junction with Pit Road, as well as general maintenance for improvement.

A road use agreement will be requested for approximately 1300 feet (.25 miles) of road owned by Longview Timber, to access a portion of Area 2. This access agreement will include road improvement and 200 feet of new construction.

Area 1 will not require new road construction, but may require improvement of some of the existing roads. Also, widening in two parts of Area 1 will be required for landings.

Total road construction for the sale will be 500 feet (0.1 miles), costing \$6,000. Road widening for landings and spot rocking will be required at an estimated cost of \$35,000. Improvement of 0.25 miles of Longview Timber road will cost about \$10,000. Upon completion of logging, 0.1 miles of road will be vacated. Estimated cost of road vacating is \$1,000.

A 10,000 CY stockpile of 1 ½"-0 rock from the Lower Rock Creek Rockpit will be constructed at the junction of McGregor Road and Lower Rock Creek Road. Estimated stockpile construction costs are \$125,000.

The area is 80 percent cable logging, and 20 percent ground based operation.

Total Project costs are \$177,000

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	0.1	0
Improvement	0	0	0.25	0
Maintenance	0	8.5	0.35	0
Closure/Vacation	0	0	0.1	0

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

Several small seasonal and perennial Type N streams exist within and adjacent to the sale boundaries. These waters are tributaries to Clear Creek, which flows into the Nehalem River. The FMP riparian strategies will be applied to all streams.

During sale preparation a written plan will be applied to Area 3 in order to ensure protection of the watershed, as well as meet FPA and FMP guidelines.

All haul roads will be surfaced with a crushed rock and maintained in a manner as to avoid negative impacts to water quality. Hauling from November 1 - March 31 may also be monitored and restricted if necessary.

This operation involves an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. The primary haul route crosses several streams within 500 feet from the confluence of a stream of which contains threatened or endangered fish species (North Fork of Wolf Creek).

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. Restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or using an alternate haul route (McGregor Road). Culvert installment and replacement in live streams will be conducted between July 1 and September 30. Operations outside of this period will be reviewed with ODFW.

The sale area is within the Upper Nehalem watershed. The Upper Nehalem Watershed Analysis was checked for recommendations that could be applied to this sale. The watershed analysis identified this reach of the Upper North Fork Clear Creek as having low wood recruitment potential, but it did not make the short list for top priority sites. ODFW Fish Habitat Biologist (Dave Plawman) has evaluated potential opportunities for stream enhancement (large wood placement) projects associated with this sale. Plawman has indicated that the reach of Upper North Fork Clear Creek adjacent to the sale area is a good candidate for a stream enhancement project. During sale prep, Plawman will be consulted for input regarding the design and implementation of the project.

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

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

Surveys for northern spotted owls were conducted in 2006 and 2007 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Moose and Squirrel was surveyed for spotted owls three times in 2006 and three times in 2007 with no responses, and a third 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.

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:**

This assessment is based on analysis of USGS 1:24,000 topographic maps.

There are no high landslide hazard locations within the sale. The sale drains into the Upper North Fork of Clear Creek. The risk of landslides delivering directly to the Upper North Fork of Clear Creek from the sale is low. Portions of Area II appear to be located on a large, deep-seated landslide landform (*per Northwest Oregon Area Geotechnical Specialist*).

The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

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

This sale is in the area of the forest designated as Non-Motorized by the Tillamook State Forest Comprehensive Recreation Plan (1993). There are no designated recreation facilities in or adjacent to the sale area. Some dispersed camping and hunting does occur in the area; however this sale is not expected to greatly impact these activities.

The lower portion of the sale will have restricted access through Longview Timber's road system.

**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 is in a landscape of Low Visual Sensitivity (Level 3). No scenic impact is expected.

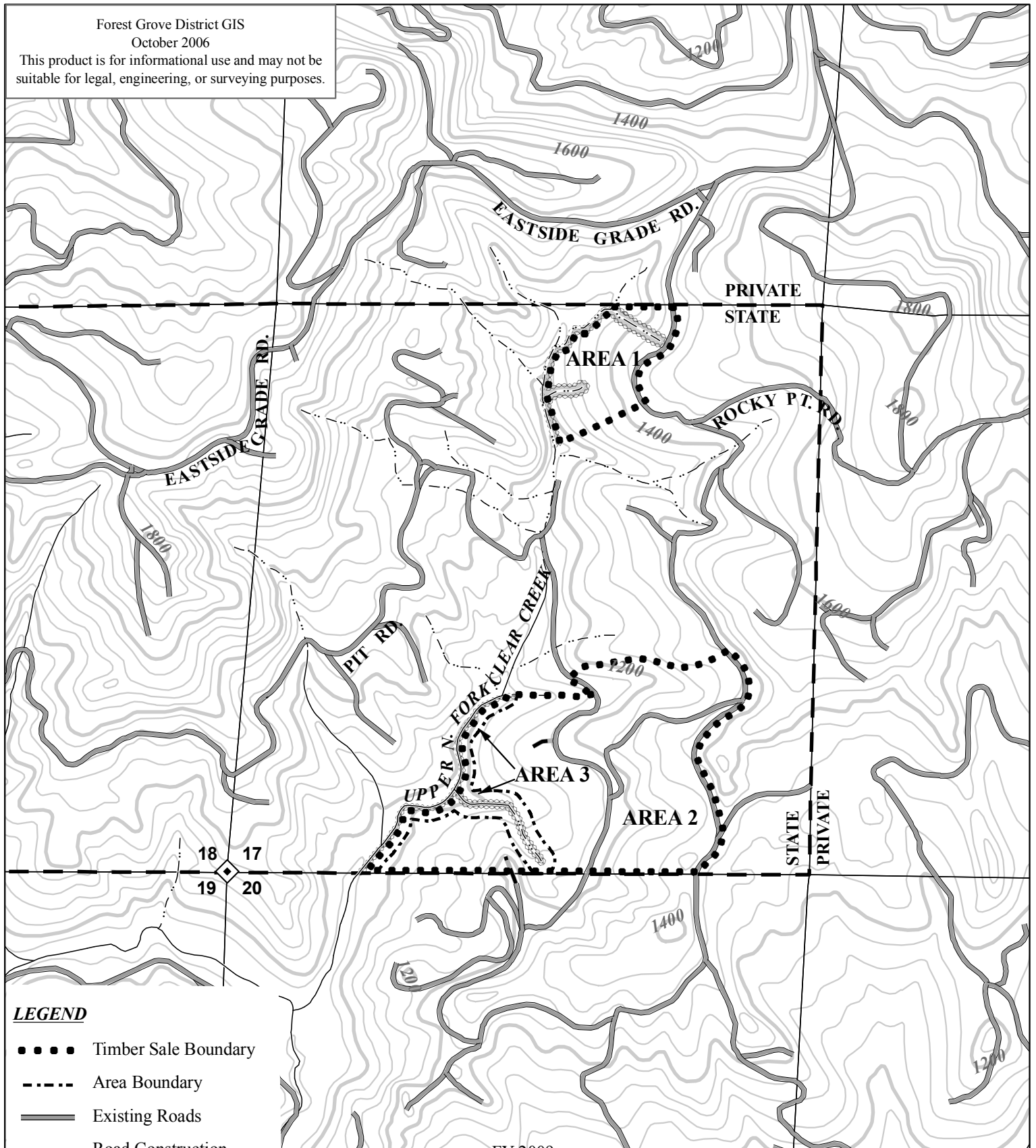
**XIII. OTHER RESOURCE CONSIDERATIONS:**

Property lines have been true blazed and posted.

All known survey corners and witness trees shall be protected from damage during any operations.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

Areas 1 and 2 contain Focused Stewardship and Special Stewardship, Aquatic and Riparian Habitat Subclass. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



**LEGEND**

- Timber Sale Boundary
- - - - Area Boundary
- Existing Roads
- Road Construction
- Perennial Type F Stream
- · - · Perennial Type N Stream
- ▨ Stream Buffer
- ▬ ODF Ownership
- 400' Contour Intervals
- 80' Contour Lines

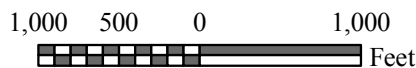
FY 2009  
 MOOSE AND SQUIRREL  
 PORTIONS OF SECTION 17, T04N, R05W, W.M.  
 COLUMBIA COUNTY, OREGON

Attachment A: Topography

Scale

1:12000

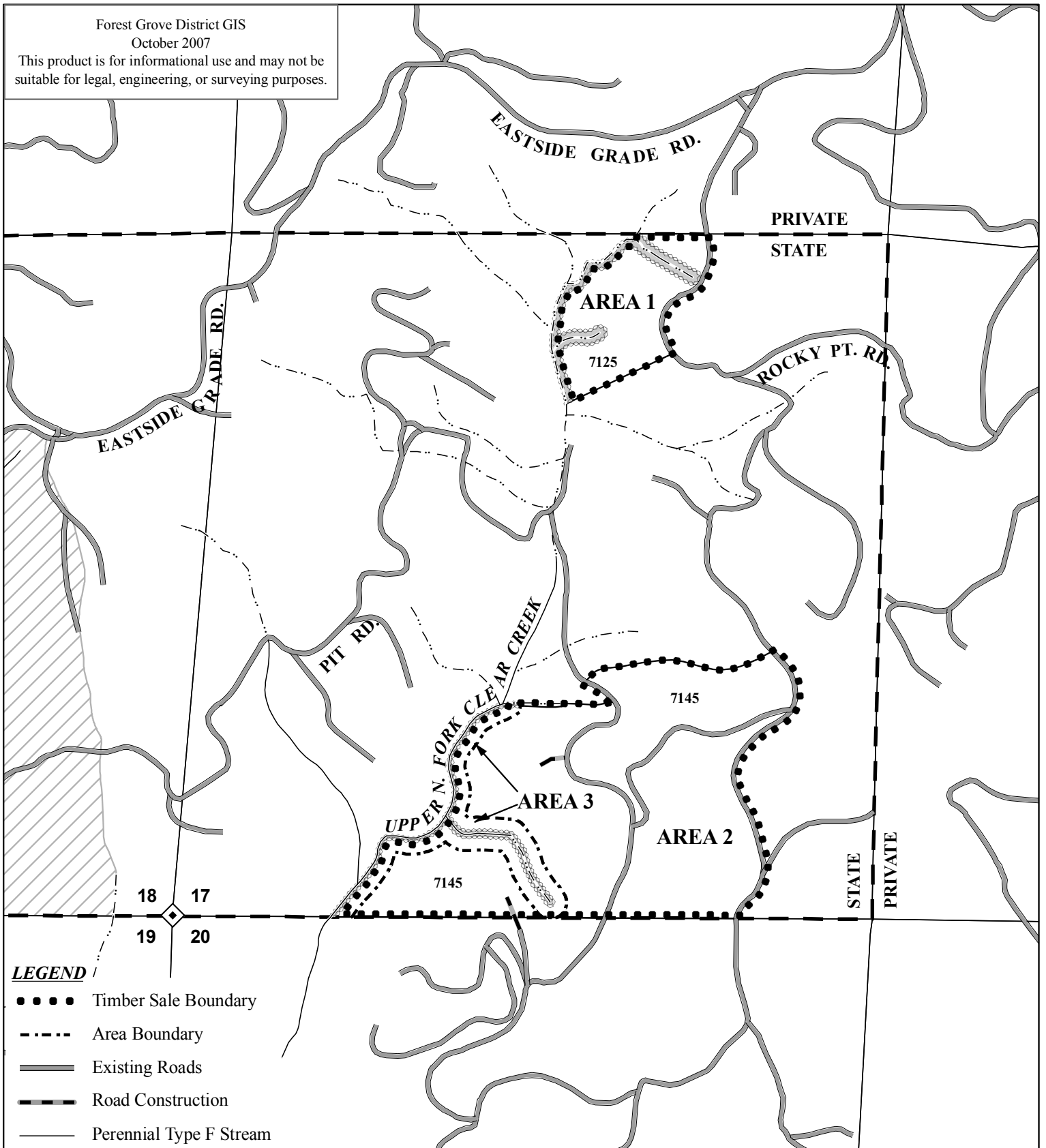
1 inch = 1000 feet



**APPROXIMATE NET ACREAGE**

AREA 1	17	ACRES (MC)
AREA 2	89	ACRES (MC)
AREA 3	10	ACRES (PC-M)
<b>TOTAL</b>	<b>116</b>	<b>ACRES</b>

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



**LEGEND**

- Timber Sale Boundary
- - - - Area Boundary
- Existing Roads
- Road Construction
- Perennial Type F Stream
- · - · Perennial Type N Stream
- ▨ Stream Buffer
- ▬ ODF Ownership
- ▭ SLI Polygons (Stand ID#)
- DFC Stand Type
- ▭ Layered
- ▨ Older Forest Structure

FY 2009  
MOOSE AND SQUIRREL  
PORTIONS OF SECTION 17, T04N, R05W, W.M.  
COLUMBIA COUNTY, OREGON

Attachment B: Desired Future Condition

Scale

1:12000

1 inch = 1000 feet

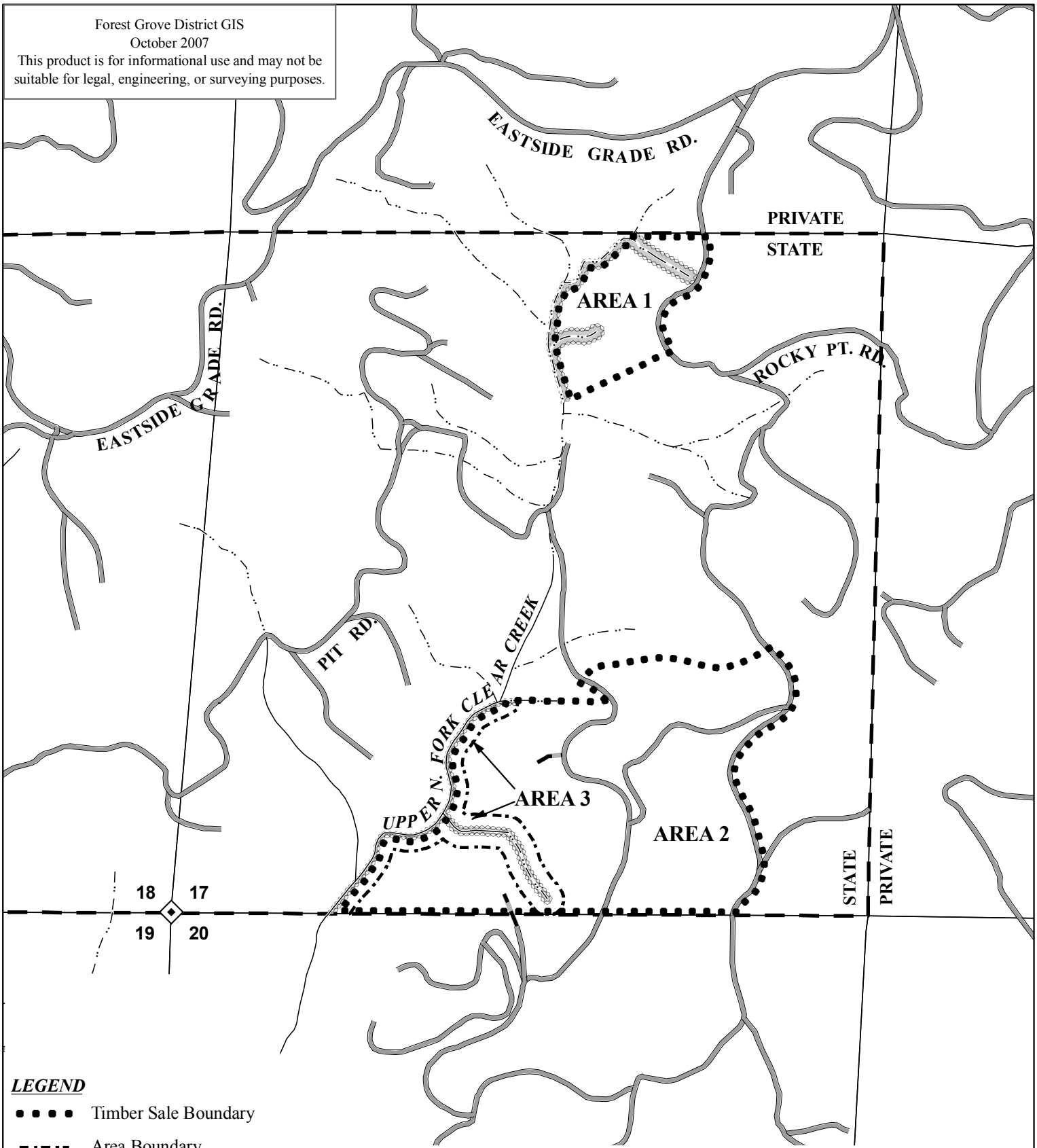
1,000 500 0 1,000



APPROXIMATE NET ACREAGE

AREA 1	17	ACRES (MC)
AREA 2	89	ACRES (MC)
AREA 3	10	ACRES (PC-M)
<b>TOTAL</b>	<b>116</b>	<b>ACRES</b>

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



18 17  
19 20

**LEGEND**

- Timber Sale Boundary
- - - - Area Boundary
- Existing Roads
- - - - Road Construction
- Perennial Type F Stream
- · - · Perennial Type N Stream
- ▨ Stream Buffer
- ▬ ODF Ownership

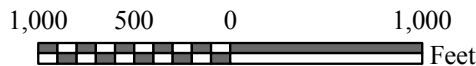
FY 2009  
MOOSE AND SQUIRREL  
PORTIONS OF SECTION 17, T04N, R05W, W.M.  
COLUMBIA COUNTY, OREGON

Attachment C: Key Resources

Scale

1:12000

1 inch = 1000 feet



APPROXIMATE NET ACREAGE

AREA 1	17	ACRES (MC)
AREA 2	89	ACRES (MC)
AREA 3	10	ACRES (PC-M)
<b>TOTAL</b>	<b>116</b>	<b>ACRES</b>