

# Pre-Operations Report

**Operation Name: Steam Donkey**

**County: Tillamook**

**Management Basin: Wilson**

**Legal: Portions of Sections 10, 15 and 16 of T2S, R8W, W.M.**

**SAH Status: None**

**FDF: 100% CSL: 0%**

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

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	Modified Clearcut	126	120
2	Modified Clearcut	131	120
Total		257	240

*1. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, reserve area and non-required thinning areas.*

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

Slopes have a primarily northeast aspect and range from 20% to 90%. Elevations range from 680 to 2,280 feet. The major soil type is Rye.

The landform is primarily steep slopes on both sides of a knife ridge dividing Spaur Creek and South Fork Jordan Creek. Both of these are tributaries of Jordan Creek.

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

**Table 2. Stand Inventory Information<sup>3</sup>**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	MC	130	DF/RA	53	14	210	189	56	120
2	MC	131	DF/RA/WH /BM	53	15	142	117	37	120

*1. The source of stand information is from a timber cruise and Stand Level Inventory..*

*2. The net acres are based on orthophotos and GIS and exclude roads, and stream buffers, reserve areas and non-required thinning areas. Modified clear cut acres are not contiguous and do not exceed 120 acres*

*3. These numbers are based on plot data taken to this point and final numbers may differ significantly from the actual conditions significantly. The directive for minor and major modifications will be followed for further review.*

The sale areas burned in the 1933 (Tillamook) and the 1945 (Wilson River) fires and were planted in 1953. These areas have had no prior stand management.

Areas 1 and 2 were inventoried using the Stand Level Inventory (SLI) procedure and the stands are identified as UDS.

Areas 1 and 2 are Douglas-fir stands with alder scattered and/or in pockets.

The Douglas-fir show light impact due to Swiss needle cast (SNC). The stands are overstocked and have become overly dense resulting in poor live crown ratios (<40%) and slowed diameter growth. There are scattered Sitka spruce, western hemlock and other minor conifer species throughout the sale areas.

Due to stand age and site quality, the alder in Areas 1 and 2 have poor height and diameter growth. The alder component in Area 2 was aerially sprayed in the 1970's resulting in alder trees with short boles and many tops. There is scattered big leaf maple and other minor hardwood species throughout the sale areas.

See Table 2 for current stand data.

The brush component in the sale areas is comprised primarily of sword fern, vine maple and huckleberry.

Down wood consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow in decay classes 1 and 2. SLI measurements in this area shows 70 cubic feet per acre down wood in decay classes 1 and 2 with a total down wood at 4,067 cubic feet per acre.

A timber cruise recorded 11 snags per acre in the sale areas. 71% were legacy snags from the Tillamook Burn and 29% are from bear kill and wind damage.

### **III. DESIRED STAND CONDITION and VISION:**

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	130	UDS	REG	GEN	21
				OFS	99
2	131	UDS	REG	OFS	120

*1. The stand is expected to develop into this condition in the five to ten years after this operation is completed except in REG stands which occur after harvest.*

See Section IV: Proposed Management Prescription for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition goals.

## **Sub-Basin**

The sale is within the Jordan Creek sub-basin which is a large tributary system to the Wilson River. In the late 1990's many acres of the Jordan Creek basin had first entry density management by either precommercial or commercial thinning. The landscape is dominated by Douglas-fir and stands in CSC and UDS structure. Past regeneration harvests occurred in the alder stands until 2005. Recently conifer clearcuts have occurred in the basin to address Swiss needle cast.

After the harvest of Steam Donkey, additional opportunities in the basin will consist of first and second entry thinning. Currently there are not many opportunities available but in 5-10 years, activity is expected to increase in the basin.

## **Areas 1 and 2**

**Area 1-**The DFC's for Area 1 are Older Forest Structure (OFS) and the northern portion of Area 1 (12%) is designated as General (GEN).

**Area 2-** The DFC's for Area 2 is OFS.

### **Short Term Vision:**

The present stand is not a good candidate to reach the DFC due to stand age, quality of the alder stands, and the Swiss needle cast, small live crown ratios, and poor growth of the Douglas-fir. After the regeneration harvest the stand will be composed of legacy trees, snags, down wood from the present stand and a new cohort of western hemlock and Douglas-fir.

### **Long Term Vision:**

The long term vision is a mixed species stand of conifer and hardwood. The conifer would dominate the stand and allow for multiple entries commercial thinnings moving the stand along a pathway toward complex structure.

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

The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

### **MODIFIED CLEARCUT:**

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

**Prescription:** Merchantable Douglas-fir and alder will be removed. All other species will be reserved.

**Green Tree:** A diameter limit will be used to reserve an average of 6 Douglas-fir trees per acre. The residual Douglas-fir trees will be distributed both in clumps and scattered within the area. A component of alder and other conifer will also be retained in the stream buffers and high landslide hazard locations (HLHL).

**Snags:** Existing snags that are not a safety hazard will be retained in the stand. In addition, two Douglas-fir trees per acre with a DBH of 15” and greater will be reserved for snag creation. These trees can be girdled or topped at 60 feet, if greater than 20 inches DBH, to create snags.

**Down Wood:**

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and wind throw of residual trees, felled snags and tops and cull sections left during harvest. In addition, two Douglas-fir trees per acre with a DBH of 24” and greater will be felled to create down wood.

**Pathway:**

The area will be reforested with a mixture of conifer species: western hemlock, SNC tolerant Douglas-fir, western red cedar and/or noble fir. A pre-commercial thinning is anticipated at 12 to 17 years when the crowns begin to close. A commercial thinning will then be planned at age 35 to 40. At this time managers will review density, stand health and landscape goals to decide future management prescriptions to move the stand to its DFC of OFS.

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

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		x
Planned Qtr:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,130	570	4,700
Stumpage Value (\$/MBF)*	\$225	\$200	
Estimated Gross Value	\$929,250	\$114,000	\$1,043,250
		Project Costs:	\$105,600
		Estimated Net Value:	\$937,650

*\*Conifer average based on species, size, and harvest type.*

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

The sale areas are accessed via Fox Creek Ridge Road and Hembre Ridge Road. These are currently all-weather, crushed rock roads. The last 0.9 miles (Spaur Road) is currently a pit run road. See maps for specific road locations and conditions.

Approximately 2.07 miles of miles of road will be constructed to provide access to cable yarding areas. Approximately 0.63 miles of road improvement will be needed which includes widening, culvert replacement and side cast pullback.

The main access, ridge road (1.44 miles) will be built with FEMA funding in lieu of other access into the basin. The work is planned to be done summer of 2008.

Rock for road surfacing will come from the Hembre Pit accessed from the Smith Bypass Road. Additional pit run sources close to the sale will be reviewed during sale prep for rock quality. Following harvest, roads within the sale areas will be reviewed for closure. See summary document for more information on this topic.

The operation will be 100% cable yarding.

**Table 5. Transportation Planning Summary (Miles)<sup>4</sup>**

Activity	Mainline	Collector	Rocked Spur <sup>1</sup>	Dirt Spur <sup>1</sup>
Construct			1.78	0.29
Improve			0.94	
Maintain <sup>2</sup>		9.2		
Close/Block <sup>3</sup>				
Vacate <sup>3</sup>				

1. *Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest*
2. *All roads accessing the sale area will be maintained during the life of the timber sale contract. Maintenance miles in the table are those roads not being constructed or improved.*
3. *Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.*
4. *The numbers in this table reflect planned Project Work associated with the sale.*

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

A watershed analysis is being conducted for the Wilson River basin at this time. Recommendations from this assessment will be incorporated into the sale where feasible. Stream enhancement opportunities may be available in areas where cables will hang over Jordan Creek and Spaur Creek during harvest operations.

Spaur Creek is a verified, large and medium Type F stream adjacent to the sale. There are also two verified, small Type F streams adjacent to the sale. There are additional unnamed small perennial and seasonal Type N streams within the sale areas. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain. The inner and outer riparian zones of these Type N streams will be managed towards mature forest condition in Areas 1 and 2.

Stream buffers within or adjacent to harvest unit boundaries will be managed according to *Forest Management Plan* Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

Refer to Aquatic Resource Protection Strategies in the Summary document for information on in the “in stream work period’ road work and stream improvement projects.

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

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist. Surveys for marbled murrelets and northern spotted owls are not required due to the absence of potentially suitable habitat.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants were identified within or adjacent to the sale areas.

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

There are significant steep slopes throughout both sale areas with some very steep slopes in Area 1. The initial hazard and risk assessment from the geotechnical specialist is high. The geotechnical specialist will be consulted during field work to determine if a field visit is needed.

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

The sale areas have been designated Motorized Off Road Use in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator.

Duane’s Trail, a downhill-only motorcycle trail, is the only designated trail within the sale area. Short term closure of this trail may occur to facilitate logging and public safety. Portions of the trail on the ridge will be improved for logging access. A motorcycle filter will be installed where the trail leaves the road. Slash will be removed from the OHV trails upon completion of the operation. A plan will be developed to advise the public when trails are closed due to harvest activity. The District Recreation coordinator will be consulted during sale layout.

Recreational use common to this area consists mainly of OHV use and hunting.

**XI. CULTURAL RESOURCES:**

The *Tillamook State Cultural Assessment* lists cultural sites adjacent to the access road (Spaur Road). The cultural resource classification for this site is Class II – ODF Identified for Protection. The site was protected during previous operations and Steam Donkey access and harvest operations will not impact the site.

**XII. SCENIC RESOURCES:**

The sale areas have a visual classification of Level 3, low sensitivity.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

A permanent plot is located on the northern part of Area 1. The plot was not located during planning reconnaissance but will be located during sale prep and protected appropriately.

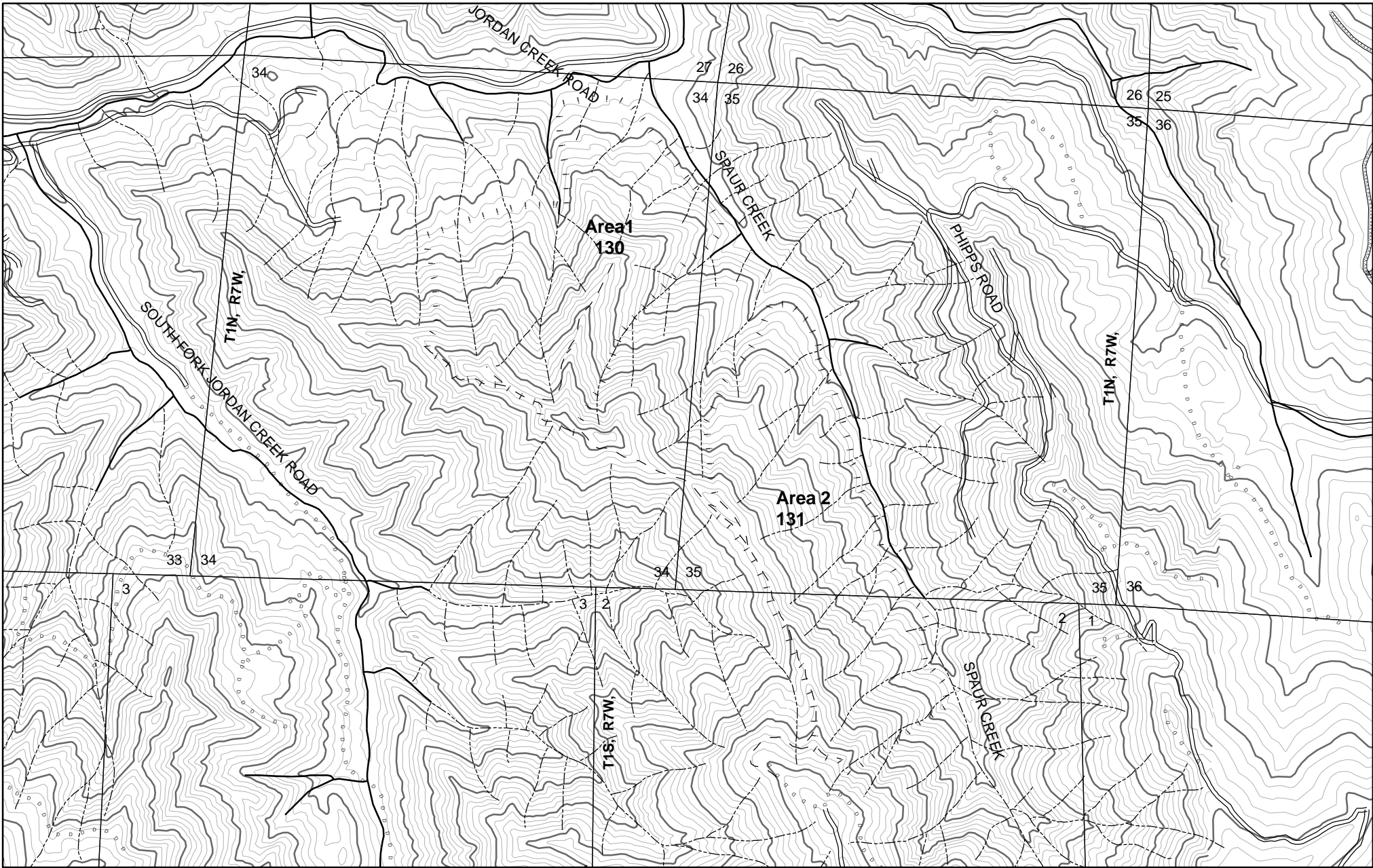
**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The sale areas contain Focused and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality for the management guidelines to be utilized.

Area 1 contains Focused Stewardship, Recreation. See Section X., Recreation Resources for additional information.

The southeastern portion of the ridgeline in Area 1 was classed as Special Stewardship, Operationally Limited. This area will be evaluated further with the geotechnical specialist to determine if this classification shows in the correct location. See Section IX, Slope Stability and Geotechnical Issues, for additional information.

Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process.

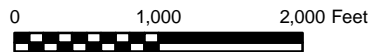


Contour Interval 40'

- Area boundary
- ! - - Sale boundary
- - - Ownership boundary
- Perennial Type-F stream\*
- - - Perennial Type-N stream\*
- == Unsurfaced road
- Surfaced road
- State/Federal highway

- Legacy road
- Blocked road
- - Road construction
- County road
- ; ; Transmission line

**3**



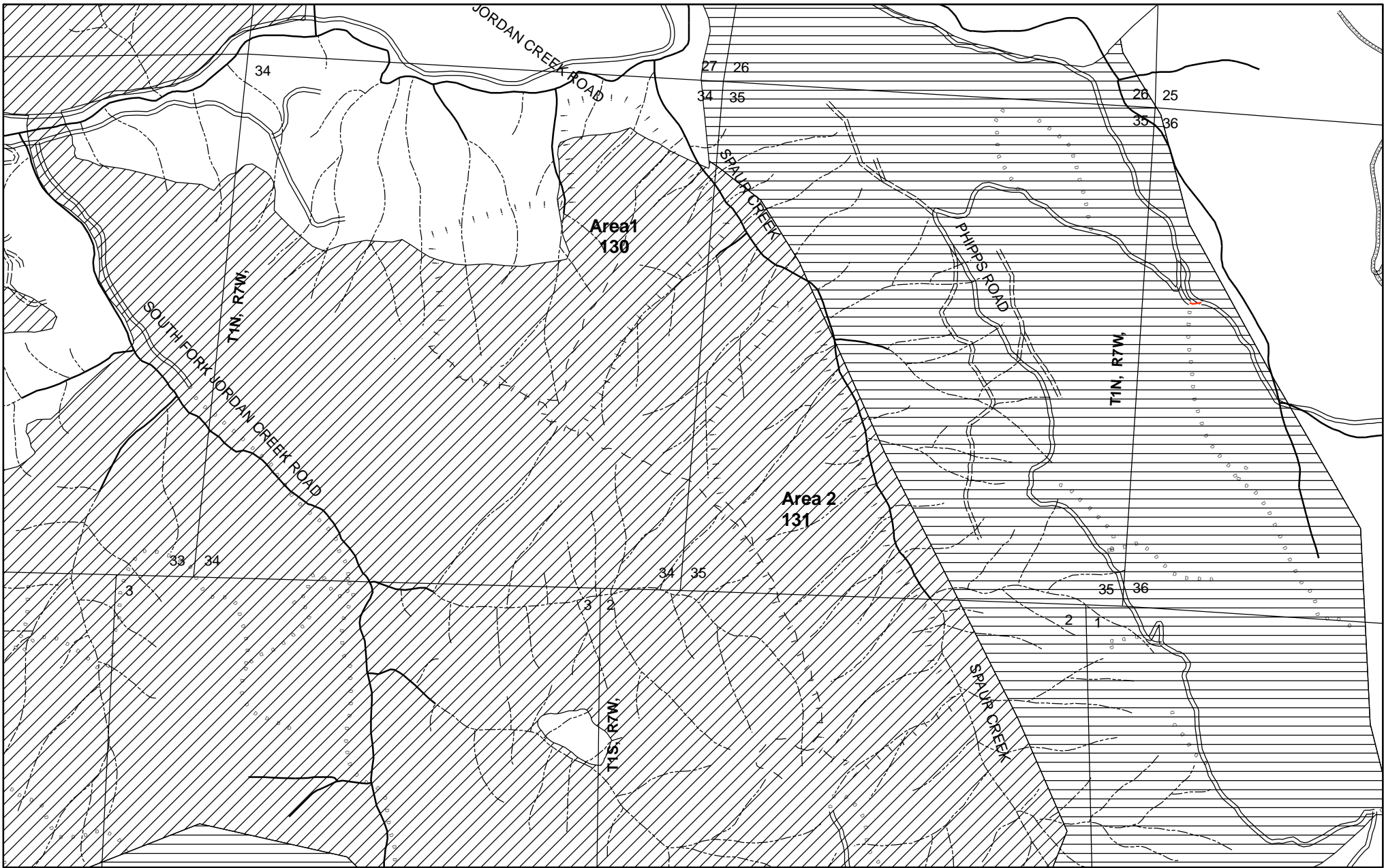
**Steam Donkey  
-- Topography --  
2009 SALE PLAN  
TILLAMOOK DISTRICT**

Portions of Section 2  
T1S, R7W, W.M.,  
Portions of Section 27,34,35  
T1N,R7W,W.M.,  
Tillamook County, Oregon

\*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Area	Type of Operation
1	Modified Clearcut
2	Modified Clearcut

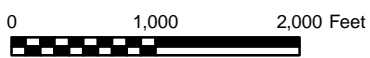
Tillamook District GIS  
10/24/2007  
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Desired future condition  
 Layered  
 Older forest

- - - Area boundary
- ! ! Sale boundary
- - - Ownership boundary
- - - Perennial Type-F stream\*
- - - Perennial Type-N stream\*
- == Unsurfaced road
- == Surfacd road
- State/Federal highway

- Legacy road
- Blocked road
- Road construction
- County road
- Transmission line



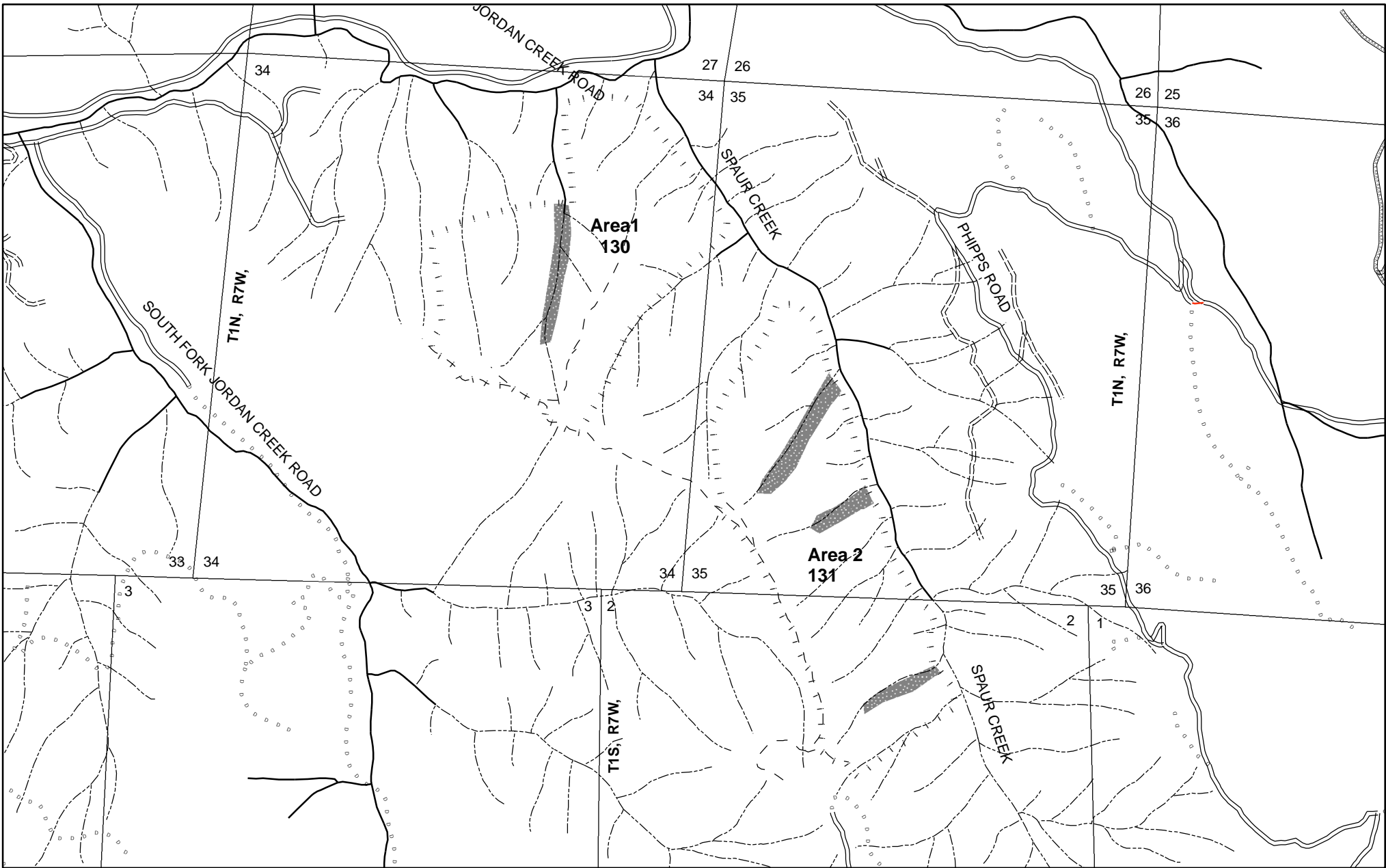
**3**

**Steam Donkey**  
**- Current and Future Condition -**  
**2009 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Section 2  
 T1S, R7W, W.M.,  
 Portions of Section 27,34 and 35  
 T1N, R7W, W.M.,  
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Tillamook District GIS  
 01/08/2008  
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- Buffer
- Green Tree Retention
- Non-required thinning
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream\*
- Perennial Type-N stream\*
- Unsurfaced road
- Surfaced road
- State/Federal highway
- Legacy road
- Blocked road
- Road construction
- County road
- Transmission line

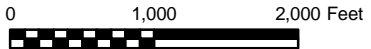
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**Steam Donkey  
-- Key Resources --  
2009 SALE PLAN  
TILLAMOOK DISTRICT**

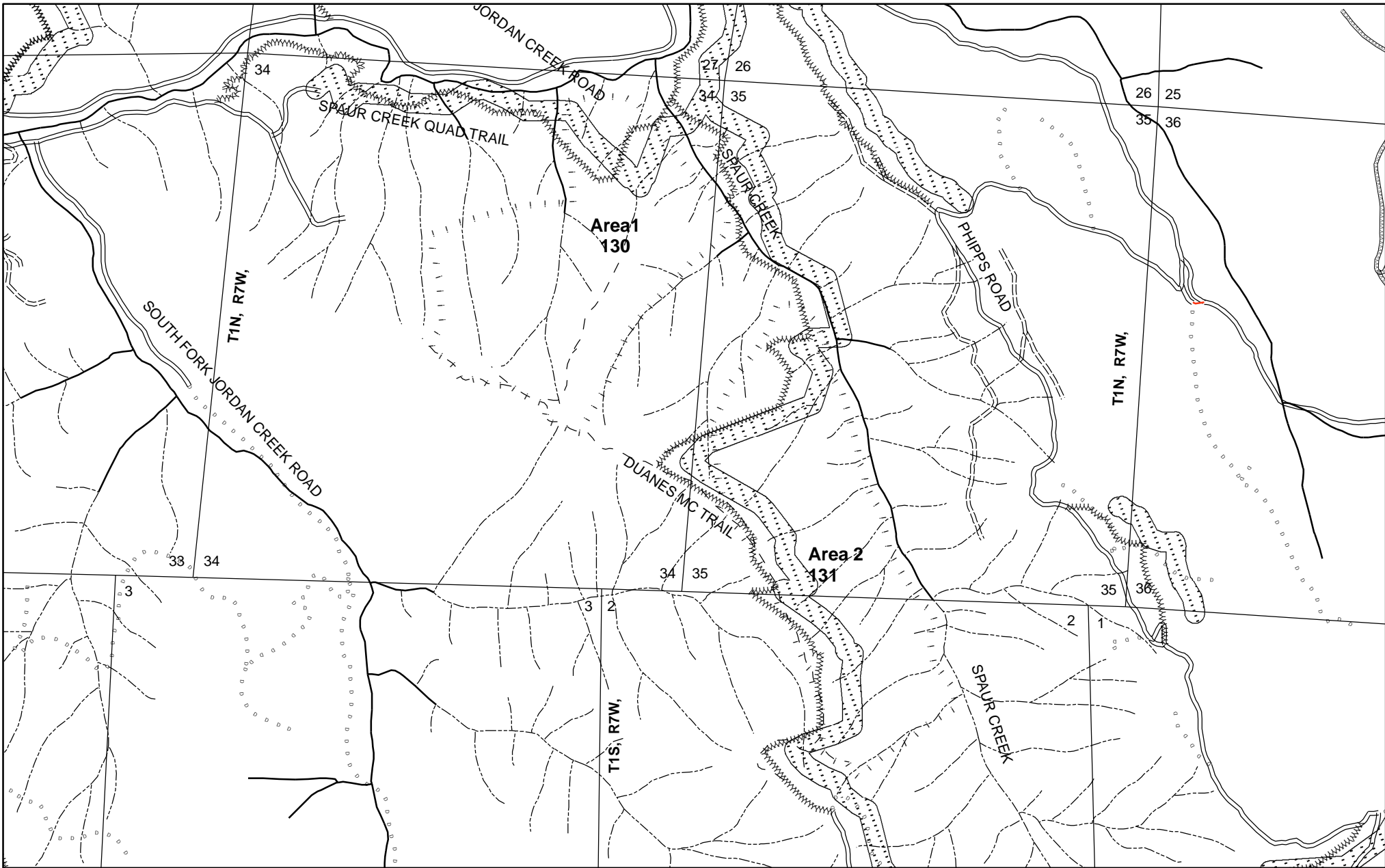
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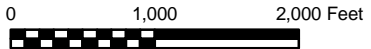
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Tillamook District GIS  
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- |  |                   |  |                          |  |                   |
|--|-------------------|--|--------------------------|--|-------------------|
|  | Administrative    |  | Area boundary            |  | Legacy road       |
|  | Boat Launch       |  | Sale boundary            |  | Blocked road      |
|  | Campground        |  | Ownership boundary       |  | Road construction |
|  | Day Use           |  | Perennial Type-F stream* |  | County road       |
|  | Interpretive Site |  | Perennial Type-N stream* |  | Transmission line |
|  | OHV Staging Area  |  | Unsurfaced road          |  |                   |
|  | Trail Head        |  | Surfaced road            |  |                   |
|  | Motorized Trail   |  | State/Federal highway    |  |                   |



**3**

**Steam Donkey  
-- Key Resources / Recreation--  
2009 SALE PLAN  
TILLAMOOK DISTRICT**

Portions of Section 2  
T1S, R7W, W.M.,  
Portions of Section 27, 34 and 35  
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