

Pre-Operations Report

Operation Name: Scotty Dog

County: Tillamook

Management Basin: Larch

Legal Description: Sections 1, 2 & 3, T1N, R7W, W.M.

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	337	229
2	Moderate Partial Cut	135	96
Total	Partial Cut Harvest	472	325

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a generally south aspect and range from 10% to 70%. Elevations range from 700 to 1800 feet. The sale areas occupy the ridges and upper slopes. The landform is moderate to very steep slopes on the south flank below Kings Mountain including Scott Creek and Dog Creek drainages tributaries of the Wilson River. The underlying rocks are mostly igneous origin of the Tillamook Volcanics Formation. There is a very large landslide deposit mapped in the east portion of Area 2.

II. CURRENT STAND CONDITION:

The sale areas are within the boundaries of the 1933 and 1945 Tillamook Burns and the west portion of Area I was also burned in 1939. The stands in the sale area were artificially regenerated in the 50's, and other than a portion of Area I being pre-commercially thinned in the early 80's, they have had no management. There is an old jeep road that goes to the top of Area I used in the 70's for the PCT project and numerous old skid trails in Area II.

All of Area 1 and 80 acres (83%) of Area 2 has been inventoried using the Stand Level Inventory (SLI) procedure, and those stands have been classified as UDS and CSC. The remaining 16 acres of Area 2 (17%) are classified as UDS according to the Current Condition map that appears in the Forest Grove District Implementation Plan (*March 2003*).

The stands are composed of well-stocked Douglas-fir, 50-55 years old with significant amounts of red alder and minor amounts of other conifers and bigleaf maple.

The stands are lightly infected with *Phellinus weirii* and will not be treated at time of harvest. Approximately 1/3 of Area 1 is moderately infected with Swiss needlecast. Partial cutting is an acceptable management option for stands with moderate infections of Swiss needlecast.

The understory in the sale area is comprised primarily of vine maple, sword fern, salal, dwarf Oregon grape, and oxalis.

Understory vegetation is lacking in amount and species diversity in many parts of the sale areas as a result of a closed canopy. Measured ground cover throughout all areas varies from 28% to 88%.

SLI data for Area 1 show a range of 1.5 – 10.3 snags per acre within all decay classes including up to 1.6 hard snags per acre. The data for Area 1 show a range of 1800 to 2600 cu. ft. per acre total down woody debris, including up to 260 cu.ft. per acre of classes 1 & 2.

SLI data for Area 2 show a range of 1.8 – 4.8 snags per acre within all decay classes including up to 1.9 hard snags per acre. The data for Area 2 show a range of 2300 - 4600 cu. ft. per acre total down woody debris, including up to 170 cu.ft. per acre of classes 1 & 2.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age ⁵	DBH	BA	TPA	SDI	Net Acres ²
1	PC-M ⁴	7860	DF	35-46	15	208	179	55	156
		7886	DF	35-45	17	211	138	53	10
		7888	DF/WH/R A	28-30, 42-47	14	175	165	47	10
		7896	DF	36-45	14	178	177	48	42
		7898	DF	35-44	17	213	135	53	11
		<i>Target</i> ³			18	130	74	31	229
2	PC-M	7860	DF	35-46	15	208	179	55	25
		7866	DF	34-47	14	178	177	48	20
		7869	DF/RA	39-48	15	183	155	48	35
		7878*	DF	34-47	14	178	177	48	16
		<i>Target</i> ³	<i>DF</i>		18	130	74	31	96

¹ The source of stand inventory information is from SLI inventory grown to 2005. Stand ID shown with (*) is from expanded SLIP information based on similar stands as of 9/30/2005.

² The acres are based on GIS and exclude existing and planned roads, stream buffers, green tree retention areas, and non-thinnable areas. Clear cut acres do not exceed 120 acres.

³ The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

⁴ PC-M is Partial Cut – Moderate.

⁵ Actual measured breast height ages are shown unless labeled “est.”

III. DESIRED FUTURE CONDITION/VISION:

The harvest operation will develop these stands into UDS structure in the short term. According to the Forest Grove District's landscape design, the desired future condition (DFC) for Area 1 and 2 is OFS.

The proposed management for the sale areas is to conduct a first entry partial cut. Reducing the stand density will enhance vigorous growth of the overstory and provide light for the understory to develop. It is anticipated that this stand will be scheduled for second and possibly third entry partial cuts at 15-20 year intervals. If shade tolerant conifer tree species have not been established by natural regeneration by the second entry harvest, then the stand will be underplanted. Approximately 10-20 years after the third entry, this stand will develop into the OFS stand condition.

All down woody debris and as many existing snags as possible of all decay classes shall be retained. Trees less than eight inches and conifer species other than Douglas-fir will not be targeted for removal. Natural mortality from *Phellinus*, snow and ice, and windthrow will create snags over time.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	7860	UDS	UDS	OFS	156
	7886	UDS	UDS	OFS	10
	7888	UDS	UDS	OFS	10
	7896	UDS	UDS	OFS	42
	7898	UDS	UDS	OFS	11
2	7860	UDS	UDS	OFS	25
	7866	CSC	UDS	OFS	20
	7869	CSC	UDS	OFS	35
	7878	UDS	UDS	OFS	16

¹ 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 & 2:

Moderate partial cut. The target SDI is approximately 31. The stand will be thinned to a target basal area of 130 square feet. The average DBH of the residual stand will be approximately 18 inches. Species other than DF will not be targeted for harvest. Residual trees will be the trees that have the largest DBH and height, and are of the best form and vigor. Trees less than 8 inches shall be reserved when possible.

Understory vegetation will be enhanced from the additional growing spaces that are made available. Shade tolerant species like hemlock, true fir and cedar will gradually seed in to the understory and help to form another layer. The stand may need several additional partial cut entries every 15-20 years and underplanting of shade tolerant species to maintain the pathway to OFS. The phellinus root rot pockets will not be treated allowing some measure of naturally occurring decadence and diversity in the stand.

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:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,600		4,600
Stumpage Value (\$/MBF)	\$250		
Estimated Gross Value	\$1,150,000		\$1,150,000
		Project Costs:	\$182,000
		Estimated Net Value:	\$968,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

The sale areas are accessed via the Wilson River Highway. The sale will be a combination of helicopter, cable and ground yarding. Area 1 will be approximately 30% helicopter yarding. Area 2 will be 95% helicopter yarding.

Area 1: An old jeep road that goes to the rock pit at the upper end of the Area will be improved for all season log hauling. Four spurs will be constructed off of this road for cable and shovel logging access. Two or three helicopter log landings will be constructed along this road system. Surfacing will be high quality crushed rock. An option was explored to construct additional roads that

would have reduced helicopter logging but it is not the preferred option due to trail issues and steep slopes which would have resulted in high road costs from large amounts of end hauling. During harvest, the access road will be gated to prevent public access to the trail areas. After harvest, the road into Area 1 will be cross ditched before culverts on steep stretches and blocked near the highway. The pipe at the beginning of the road on the fish stream will be temporary and pulled out after hauling.

Area 2: A short spur road will be constructed off Highway 6 for a helicopter service and log landing. This will be an all season road with crushed rock surfacing. An option was explored to reconstruct an old road that goes into the east and north end of the sale area. This could be used for shovel access for pre-bunching. This option was rejected due to trail and water quality issues as it parallels a Type F stream and has steep side slopes. It crosses the hiking trail and would have required 200 feet of end haul. The helicopter landing access road will be blocked and the Type F stream crossing structure removed after firewood is removed from the landing.

Project work estimated costs: 1.5 miles of road improvement costing: \$30,000. 1 mile of road construction costing: \$24,000. Road surfacing: 2.5 miles with crushed rock costing: \$125,000. Road closing: \$3,000. Total project work cost: \$182,000.

Table 5. Transportation Planning Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	1.0	0
Improvement	0	0	1.5	0
Maintenance	0	0	2.5	0
Vacation	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

Both sale areas are within the Ben Smith Creek basin. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. SAH Basin Strategies will be applied during timber sale layout and contract development.

There is one small Type F stream flowing out of Area 2. There are 3-4 other potential Type F streams in and adjacent to the sale areas that need surveys to determine fish presence. Scotty Creek is a medium Type F stream that flows out of the west end of Area 1. Riparian area stand types along these streams are generally hardwood/conifer mixed, with the exception of the Type F portion of Scotty Creek, which is primarily alder. All of these streams flow into 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 September 15. 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).

Spotted owl surveys are not required for Scotty Dog, as the sale area is within the Tillamook Burn (see November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*).

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The ODF wildlife biologist for the NW Oregon Area made the determination that the sale area is non-suitable habitat for marbled murrelets.

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:

There are scattered steep slopes in both Areas 1 & 2 but very significant “no harvest” areas appear to mitigate any potential down slope risk. The initial hazard and risk assessment from the geotechnical specialist is moderate. The geotechnical specialist will be consulted during field work to determine if a field visit is needed.

X. RECREATION RESOURCES:

The sale area is designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). Two non-motorized trails are impacted by this sale. The Wilson River Corridor trail runs through Areas 1 & 2. The Kings Mountain trail runs between the 2 Areas. Coordination,

collaboration, cooperation and communication between the District Recreation Coordinator and the lead Sale Planner are ongoing regarding the mitigation of impacts.

Some initial ideas discussed include: Sale boundaries and roads have been adjusted to lessen impacts. Trees may be left immediately adjacent to the trail. Phellinus root rot will not be treated. Short-term closure of this trail may occur to facilitate logging and public safety. Slash will be removed from the trails upon completion of the operation. A plan will be developed to advise the public when trails are closed due to harvest activity.

Recreational use common to this area includes hunting, hiking, mountain biking and other non-motorized uses.

XI. CULTURAL RESOURCES:

The sale area was checked against the Tillamook State Forest Cultural Resource Inventory database. This database lists three cultural sites adjacent to the sale area (within 200 feet).

The resources are described as:

- “Reynolds homestead” (Class 3 – No Protection Required)
- “Arch Cape Mill #1” (Class 3 – No Protection Required)
- “WPA highway rock work” (Class 3 – No Protection Required)

The district will consult the Public Use Coordinator (ODF Salem Staff) for appropriate protection measures of these sites.

XII. SCENIC RESOURCES:

The sale area has a visual classification of Level 2, moderate sensitivity. Measures will be taken to mitigate the visual impact. A minimum 100 foot no harvest buffer along the length of Highway 6 will apply. Visual impact is expected to be minimal due to the amount of residual trees being left in the sale area.

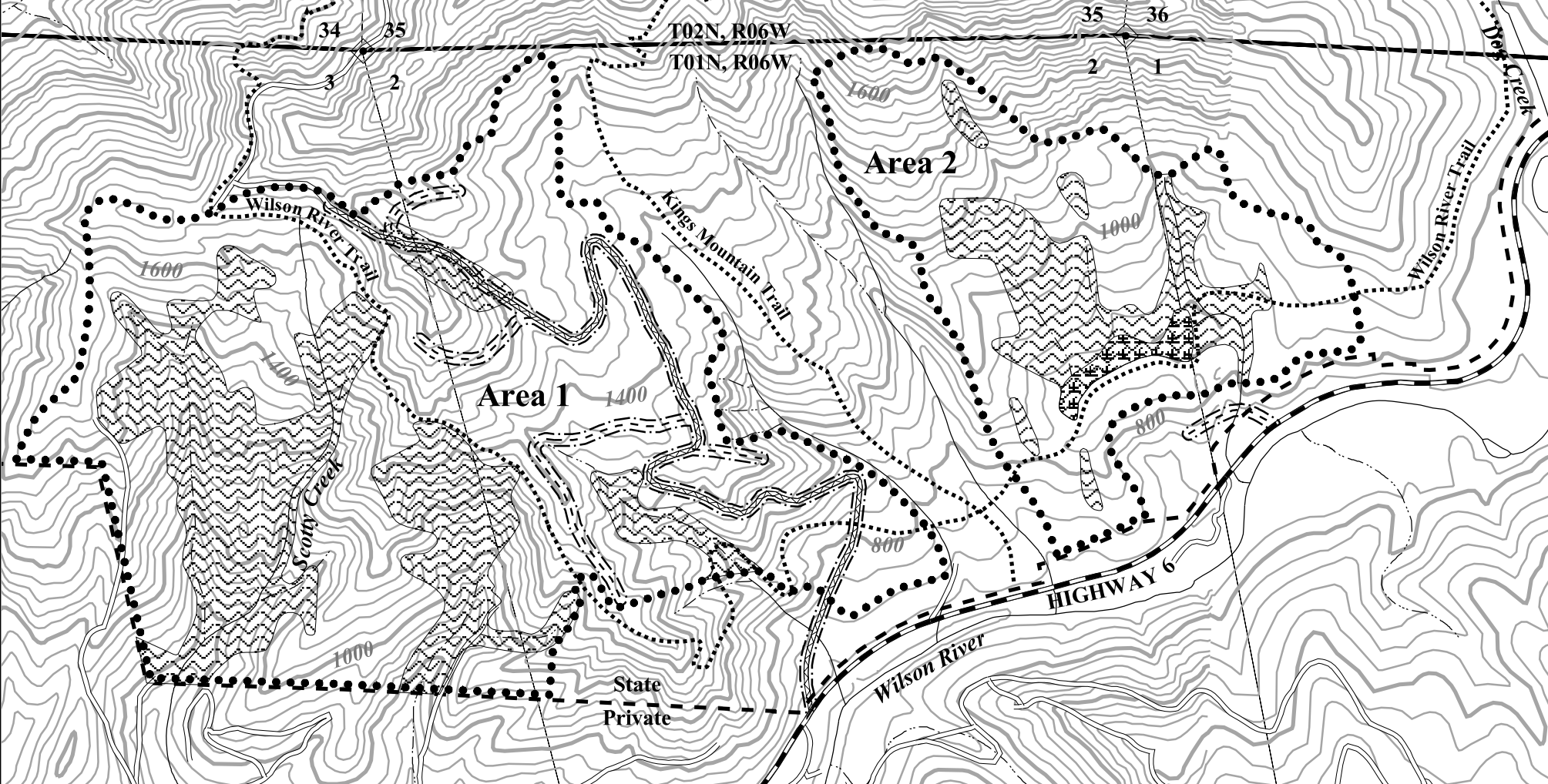
XIII. OTHER RESOURCE CONSIDERATIONS:

All known survey corners and witness trees shall be protected from damage during any operations. The property line in Area 1 needs to be marked.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Areas 1 and 2 contain Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of perennial streams within the sale areas. The two sale areas are Focused Stewardship, Wildlife Subclass, because they are within the Ben Smith Creek Salmon Anchor Habitat (SAH). See Section VII, Aquatic Resources and Water Quality, for the management

guidelines to be utilized. Areas 1 and 2 also contain Focused Stewardship, Recreation Subclass. See Section X, Recreation Resources, for the strategies that will be implemented to minimize impacts to trail resource. Area 1 contains Focused Stewardship, Visual Subclass. See Section XII, Scenic Resources, for a discussion of scenic considerations. Areas 1 and 2 contain Special Stewardship, Operationally Limited Subclass. The Geotechnical Specialist will conduct an onsite evaluation of the sale areas for slope stability. See Section IX, Slope Stability and Geotechnical Issues for further discussion.

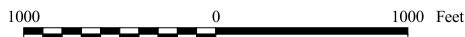


LEGEND

- Timber Sale Boundary
- ▨ Non-Thinnable Area
- 400' Contour Intervals
- 80' Contour Lines
- Existing Roads
- Highway
- - - Road Construction
- ▨ Road Improvement
- · - · - Right-of-Way Boundary
- - - ODF Ownership
- Perennial Type F stream
- Perennial Type N stream
- · · · · Hiking Trail
- ▨ Wetland

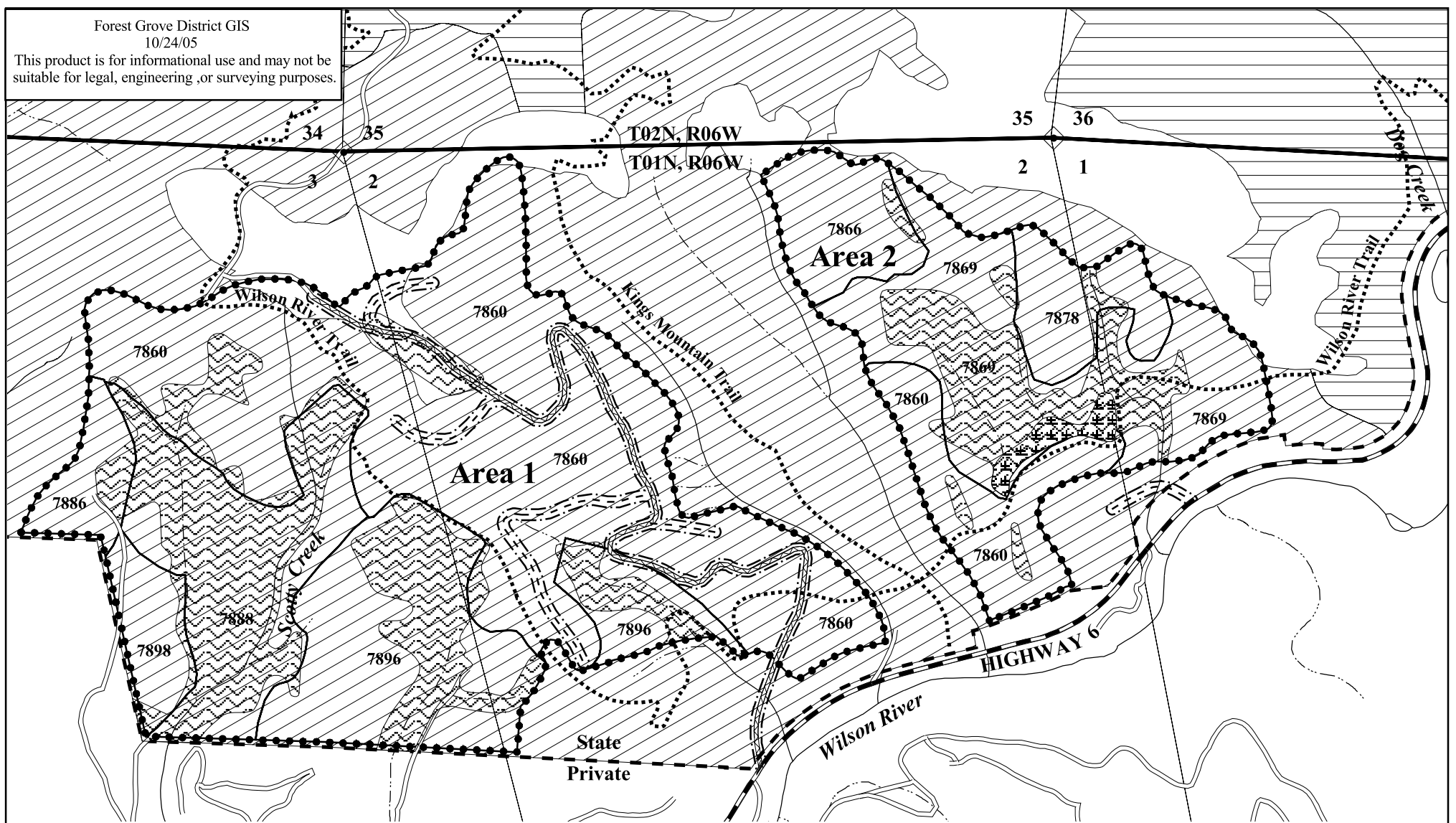
FY2007
Scotty Dog
Sections 1, 2 & 3, T1N, R7W, W.M.
Tillamook County
Attachment A: Topography

Scale
1:12000
1 Inch = 1000 Feet



APPROXIMATE NET ACREAGE

AREA 1	229 ACRES (PC-M)
AREA 2	96 ACRES (PC-M)
TOTAL	325 ACRES



LEGEND

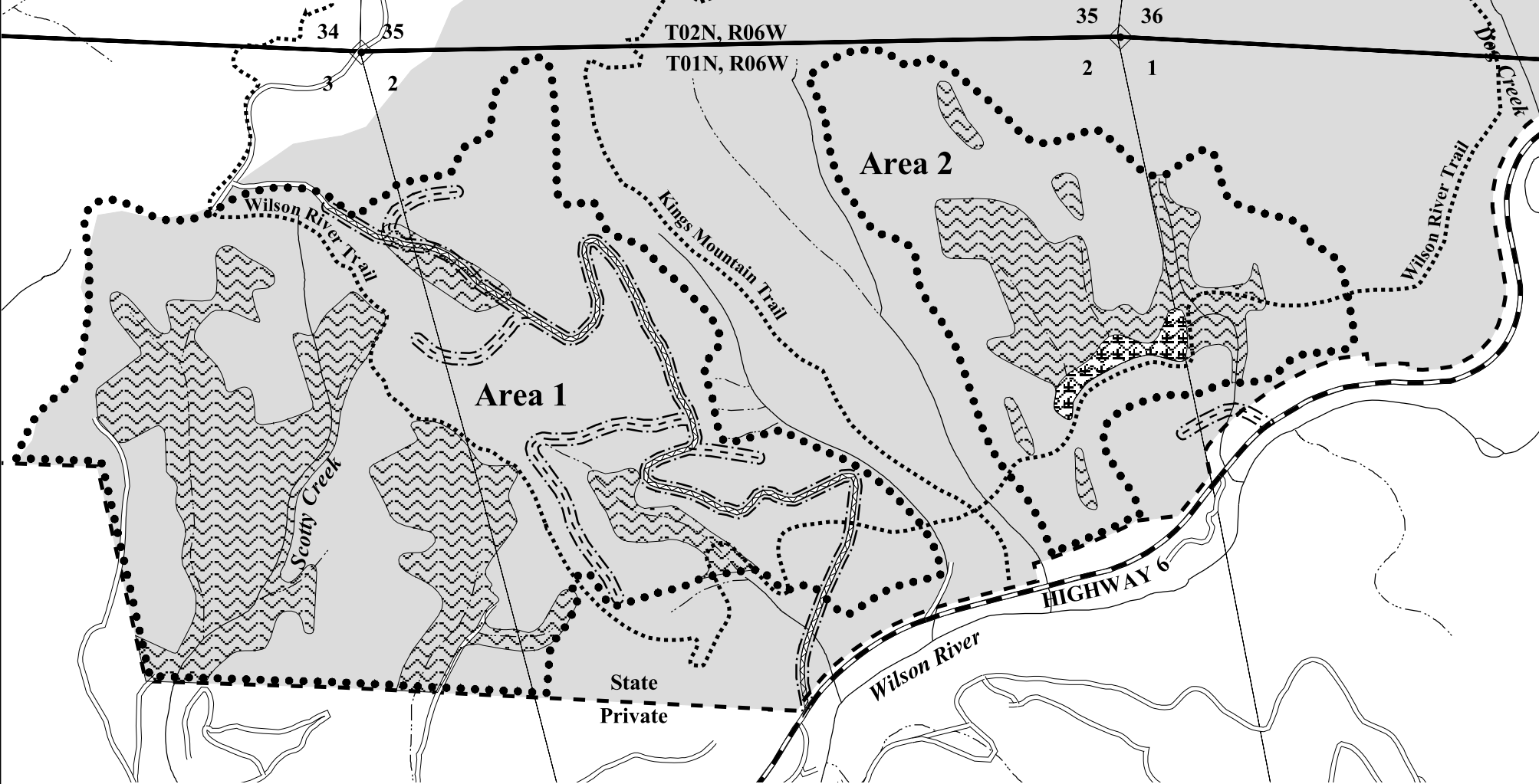
- Timber Sale Boundary
- Non-Thinnable Area
- DFC Stand Type
- Layered
- Older Forest Structure
- SLI Polygons (Stand ID#)
- Existing Roads
- Highway
- - - Road Construction
- Road Improvement
- · - · - Right-of-Way Boundary
- - - ODF Ownership
- Perennial Type F stream
- · - · - Perennial Type N stream
- · - · - Hiking Trail
- Wetland

FY2007
Scotty Dog
Sections 1, 2 & 3, T1N, R7W, W.M.
Attachment B: Desired Future Condition

Scale
1:12000
1 Inch = 1000 Feet



APPROXIMATE NET ACREAGE	
AREA 1	229 ACRES (PC-M)
AREA 2	96 ACRES (PC-M)
TOTAL	325 ACRES



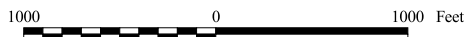
LEGEND

- Timber Sale Boundary
- ▨ Non-Thinnable Area
- Existing Roads
- ══ Highway
- - - Road Construction
- ▨▨▨▨ Road Improvement
- · · · · Right-of-Way Boundary
- ODF Ownership
- Perennial Type F stream
- · · · · Perennial Type N stream
- · · · · Hiking Trail
- ▨▨▨▨ Wetland
- Salmon Anchor Habitat (SAH)

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Scotty Dog
Sections 1, 2 & 3, T1N, R7W, W.M.
Tillamook County

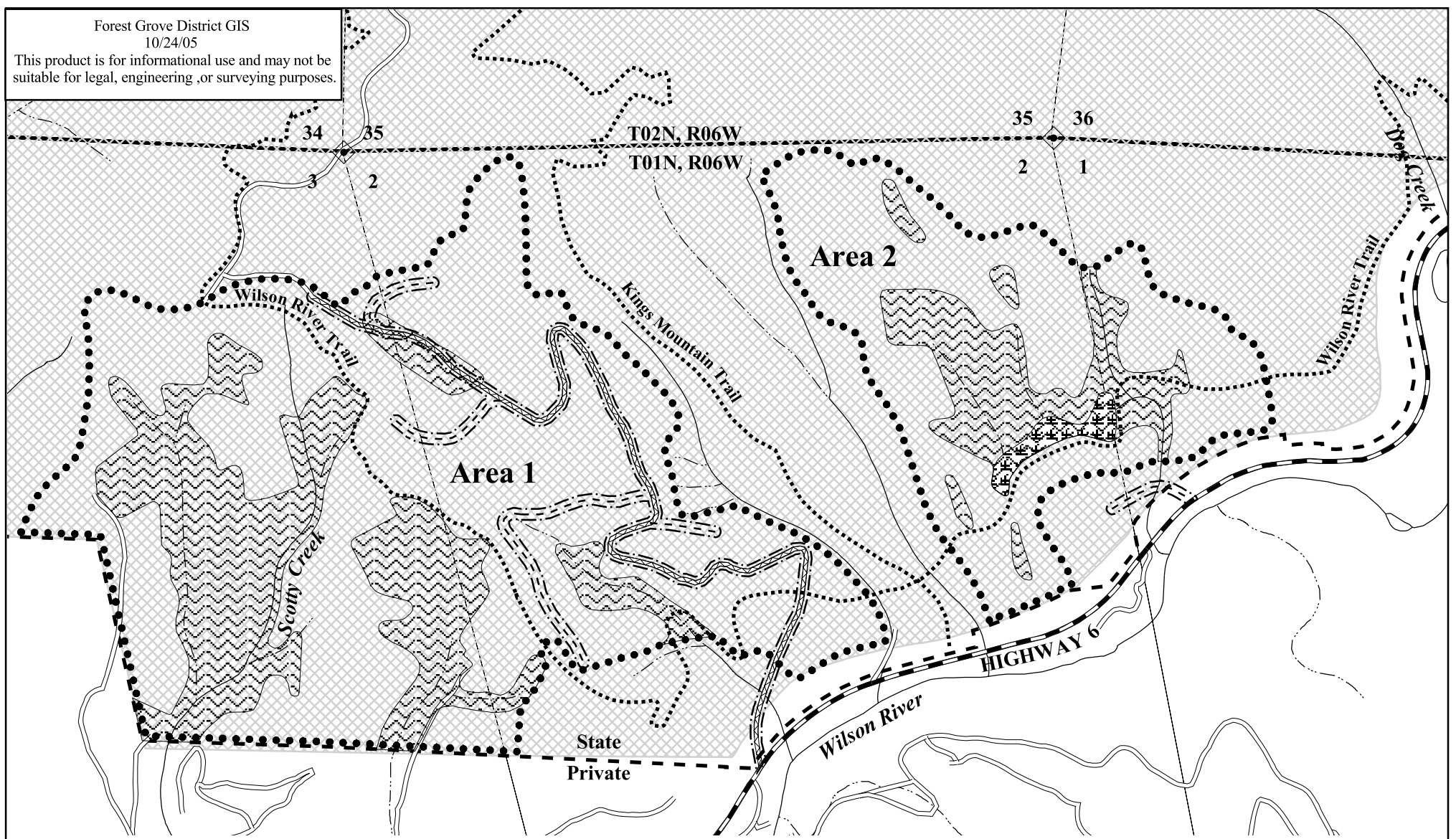
Attachment C1: Key Resources
(Recreation / SAH)

Scale
1:12000
1 Inch = 1000 Feet



APPROXIMATE NET ACREAGE

AREA 1	229 ACRES (PC-M)
AREA 2	96 ACRES (PC-M)
TOTAL	325 ACRES



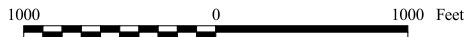
LEGEND

- | | | | |
|-----------|-----------------------|-----------|------------------------------|
| ●●●●● | Timber Sale Boundary | - - - | ODF Ownership |
| ▨ | Non-Thinnable Area | — | Perennial Type F stream |
| — | Existing Roads | - · - · - | Perennial Type N stream |
| == | Highway | · · · · · | Hiking Trail |
| - - - | Road Construction | ▤▤▤▤▤ | Wetland |
| ▨▨▨▨▨ | Road Improvement | ▧▧▧▧▧ | Focused Stewardship - Visual |
| - · - · - | Right-of-Way Boundary | | |

FY2007
Scotty Dog
Sections 1, 2 & 3, T1N, R7W, W.M.
Tillamook County

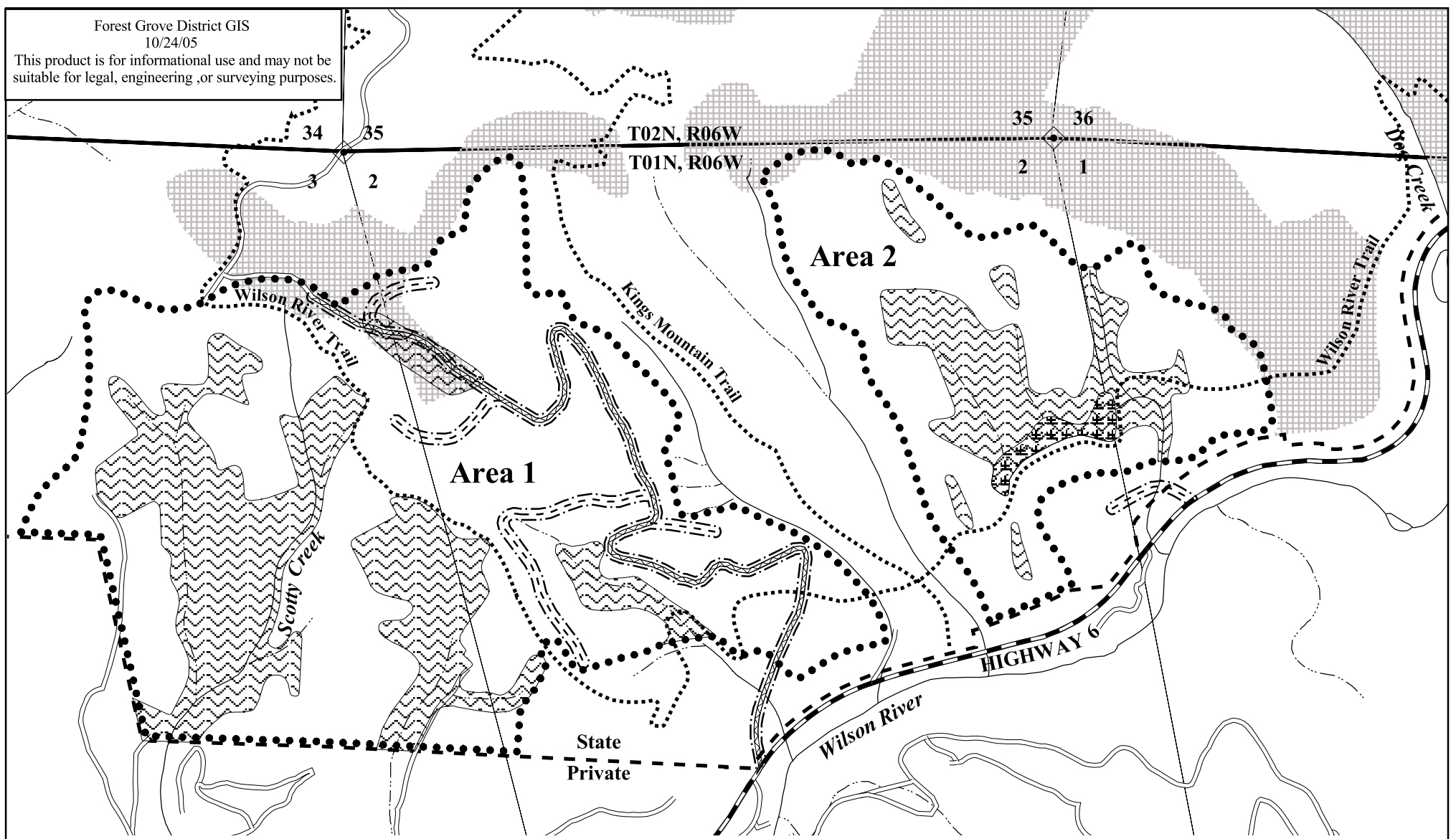
Attachment C2: Key Resources
(Focused Stewardship - Visual)

Scale
1:12000
1 Inch = 1000 Feet



APPROXIMATE NET ACREAGE

AREA 1	229 ACRES (PC-M)
AREA 2	96 ACRES (PC-M)
TOTAL	325 ACRES



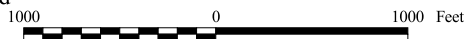
LEGEND

- | | | | |
|-----------|-----------------------|-----------|-----------------------------------|
| ●●●●● | Timber Sale Boundary | - - - | ODF Ownership |
| ▨ | Non-Thinnable Area | — | Perennial Type F stream |
| — | Existing Roads | - · - · - | Perennial Type N stream |
| == | Highway | · · · · · | Hiking Trail |
| - - - | Road Construction | ▤▤▤▤▤ | Wetland |
| ▨▨▨▨▨ | Road Improvement | ▧▧▧▧▧ | Special Stewardship - Op. Limited |
| - · - · - | Right-of-Way Boundary | | |

FY2007
Scotty Dog
Sections 1, 2 & 3, T1N, R7W, W.M.
Tillamook County

Attachment C3 Key Resources
(Special Stewardship - Operationally Limited)

Scale
1:12000
1 Inch = 1000 Feet



APPROXIMATE NET ACREAGE

AREA 1	229 ACRES (PC-M)
AREA 2	96 ACRES (PC-M)
TOTAL	325 ACRES