

Pre-Operations Report

Operation Name: Big Bell (Alternate)
County: Washington
Management Basin: Gales Creek, Wheeler, Upper Salmonberry

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	274	250
Total	Partial Cut Harvest	274	250

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale straddles a low ridge that divides the headwaters of Pennoyer Creek, the headwaters of the South Fork of the Nehalem River, and the headwaters of Gales Creek. The sale is located on a gentle ridgetop and moderate side-slopes.

Slopes have a varied aspect and range from 0% to 60%. Elevations range from approximately 2400 to 2700 feet. Jewell is the primary soil type of the moderate and steep slopes, and Elsie and Osweg which both are well drained soils. The sale area covers from ridge top to lower slopes.

II. CURRENT STAND CONDITION:

A portion of the sale area burned in the 1945 Wilson River/Salmonberry Fire. Most of this stand has been previously managed.

Approximately 18% of the sale area has been inventoried using the Stand Level Inventory (SLI) procedure and those stands have been classified as UDS and CSC (see Table 3). The current stand structure of the unmeasured stands (82% of the sale area) is estimated to be CSC, according to SLI expanded data.

The stand is composed of well stocked Douglas-fir. There are minor amounts of *Phellinus weirii* present. It will not be treated. No other significant insect or disease problems have been discovered at this time. There is some scattered noble and alder throughout Area 1.

The understory in all the sale areas is comprised primarily of salal, bracken fern, and Oregon grape.

SLI data shows 0 hard snags per acre and 67 ft³ per acre of decay classes 1 and 2 through down woody debris (DWD) over 18% of the stand. The remainder 83% of the stand averages an amount of snags in the wheeler basin of 1.1 per acre and .4 per acre in the Gales Cr. Basin. The average DWD in classes 1 and 2 for the wheeler basin is 198 ft³ per acre and 359 ft³ per acre in the Gales Cr. Basin.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC-M ³	7494*	DF	44	17	215	136	53	34
		7537*	DF	44	17	215	136	53	170
		7544	DF	52	18	143	85	35	9
		7551	DF	39	16	205	150	52	25
		7553	DF	44	14	201	185	54	12
		<i>Target⁴</i>			18	140	45	35	250

¹ 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.

² The acres are based on GIS and exclude existing and planned roads, stream buffers, and non-thinnable areas.

³ PC-M is Moderate Partial Cut.

⁴ 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:

The harvest operation will continue the development of these stands into UDS structure in the short term. According to the Forest Grove District's landscape design, the desired future condition (DFC) for these stands is 22% Layered, 55% OFS, and 23% GEN.

The vision for this stand is to develop a complex forest structure as quickly as possible creating habitat for older forest dependant wildlife species. The prescription is to thin the stand to SDI 35, with scattered gaps being cut randomly throughout the stand. Gaps will range from ¼ acre to 2 acres. At this time approximately 25 gaps are planned.

Table 3. Stand Structure Information

Area	Prescription	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	PC-M	7494	CSC ²	UDS	GEN	34
		7537	CSC ²	UDS	GEN	24
					LYR	48
					OFS	98
		7544	UDS	UDS	LYR	6
					OFS	3
		7551	CSC ²	UDS	OFS	25
7553	UDS	UDS	OFS	12		

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.

² Current stand condition is based on expanded data; see discussion above.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

Partial Cut - Moderate:

Area 1 is a PC-M, with gaps. The target SDI is approximately 35. Approximately 25 gaps ranging from ¼ to 2 acres will be randomly spaced throughout the timber sale area.

Douglas-fir will be selected for harvest. All other species will be reserved.

The stand will be thinned to a target basal area of 130 to 150 square feet. The average DBH of the residual stand will be approximately 18 inches. Residual trees will be the trees that have the largest DBH and height, and are of the best form and vigor.

Understory vegetation will be enhanced from the additional growing spaces made available.

All existing snags which do not present a safety hazard, and down woody debris of all decay classes shall be retained. Additional DWD recruitment is expected through felled snags, tree topping and logging slash. One snag per acre will be created. The overstory of large trees will provide some future snags and down wood as the understory develops.

One tree per acre shall be topped to create hard snags. Snags shall have a DBH of at least 18 inches, and be at least 60 feet in height.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

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

	Conifer	Hardwood	Total
Net Volume (MBF)	3,500		3,500
Stumpage Value (\$/MBF)*	350		
Estimated Gross Value	1,225,000		\$1,225,000
		Project Costs:	\$48,000
		Estimated Net Value:	\$1,177,000

*Combined Douglas-fir and hemlock stumpage values

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Cochran, Round Top, and Bell Camp roads. These are currently all weather roads.

Approximately 0.8 miles of road will be constructed to provide access to landing locations. New construction is limited to ridge tops and gentle to moderate side slopes. Proposed new roads will not cross streams.

The rock source will be the Round Top Pit.

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. Following harvest, roads and skid trails within the sale areas will be evaluated for closure.

Estimated cost of project work is \$48,000

The operation will be 50% cable yarding and 50% ground yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	0.8	0
Improvement	0	0	0	0
Maintenance ¹	3.0	7.0	0	0
Closure/Vacation	0	0	0	0

¹ Includes third party roads.

VII. AQUATIC RESOURCES AND WATER QUALITY:

Several small perennial and seasonal Type N streams are within and adjacent to the sale. During sale layout, all streams will be field verified as to size, type, locations, and/or source. Riparian areas along these streams range from pure hardwood to a mix of conifer and hardwoods.

35% of the sale is within the Lousignont Creek/Upper Nehalem River basin. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. SAH Basin Strategies will be applied to streams within the SAH boundary during the timber sale layout and contract development.

Seasonal hauling restrictions will be applied in order to protect the water quality on all streams along the haul route. Restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or having an alternate haul route.

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 Type N streams adjacent to this sale were not prioritized for any action in the watershed analysis. The report did note that reaches of the South Fork Nehalem further downstream had areas of low wood recruitment potential. The district will consult with the ODFW Fish Habitat Biologist to evaluate potential opportunities for stream enhancement (large wood placement) projects associated with this sale.

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 having an alternate haul route. Culvert installment and replacement in live streams will be conducted between July 1 and August 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.

Surveys for northern spotted owls were conducted in 2007 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Big Bell was surveyed for spotted owls three times in 2007 with no responses, and the second year of survey will be completed in 2008. 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 isolated high landslide hazard locations within the sale. The sale drains into Pennoyer Creek, the headwaters of the South Fork of the Nehalem River, and Gales Creek. The risk of landslides delivering directly to Pennoyer Creek, the headwaters of the South Fork of the Nehalem River, and Gales Creek from the sale is low (*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:

The sale is designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator has reviewed this sale and provided comments on the planned operation. No concerns were identified.

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:

Areas1 has a visual classification of Level 2, medium sensitivity.

XIII. OTHER RESOURCE CONSIDERATIONS:

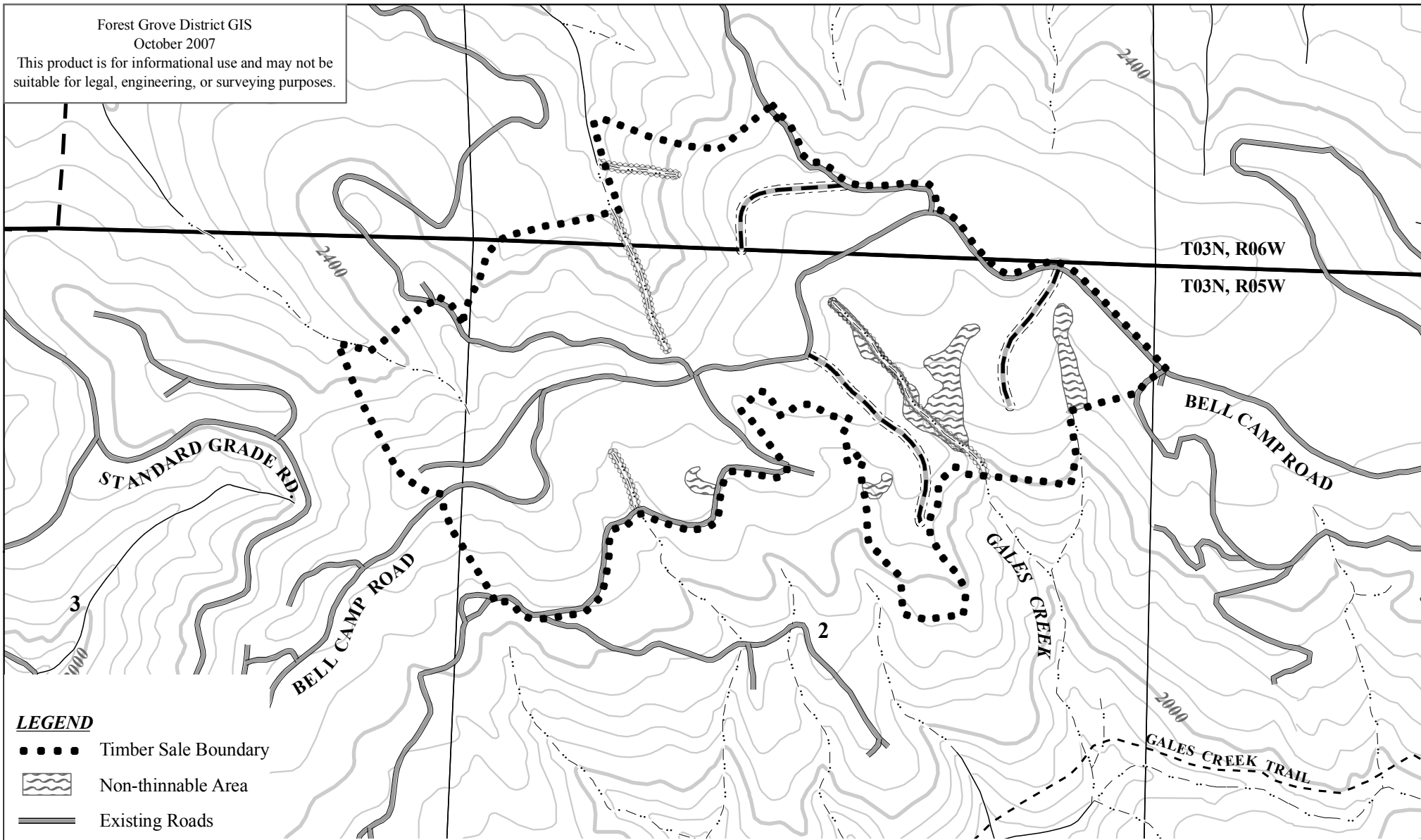
Property lines are true blazed and posted.

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

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The sale area contains Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass. 88 acres of the sale area is also classified as Focused Stewardship, Wildlife Subclass, because the sale area is within the Lousignont Creek/Upper Nehalem River SAH. 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.



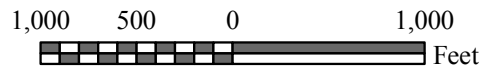
- LEGEND**
- ● ● ● Timber Sale Boundary
 - Non-thinnable Area
 - Existing Roads
 - Road Construction
 - Road Construction Right-of-Way
 - Perennial Type F Stream
 - Perennial Type N Stream
 - Stream Buffer
 - 400' Contour Intervals
 - 80' Contour Lines

FY 2009
BIG BELL
PORTIONS OF SECTION 35 & 36, T03N, R06W, W.M.
& SECTION 2 & 3, T02N, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment A: Topography

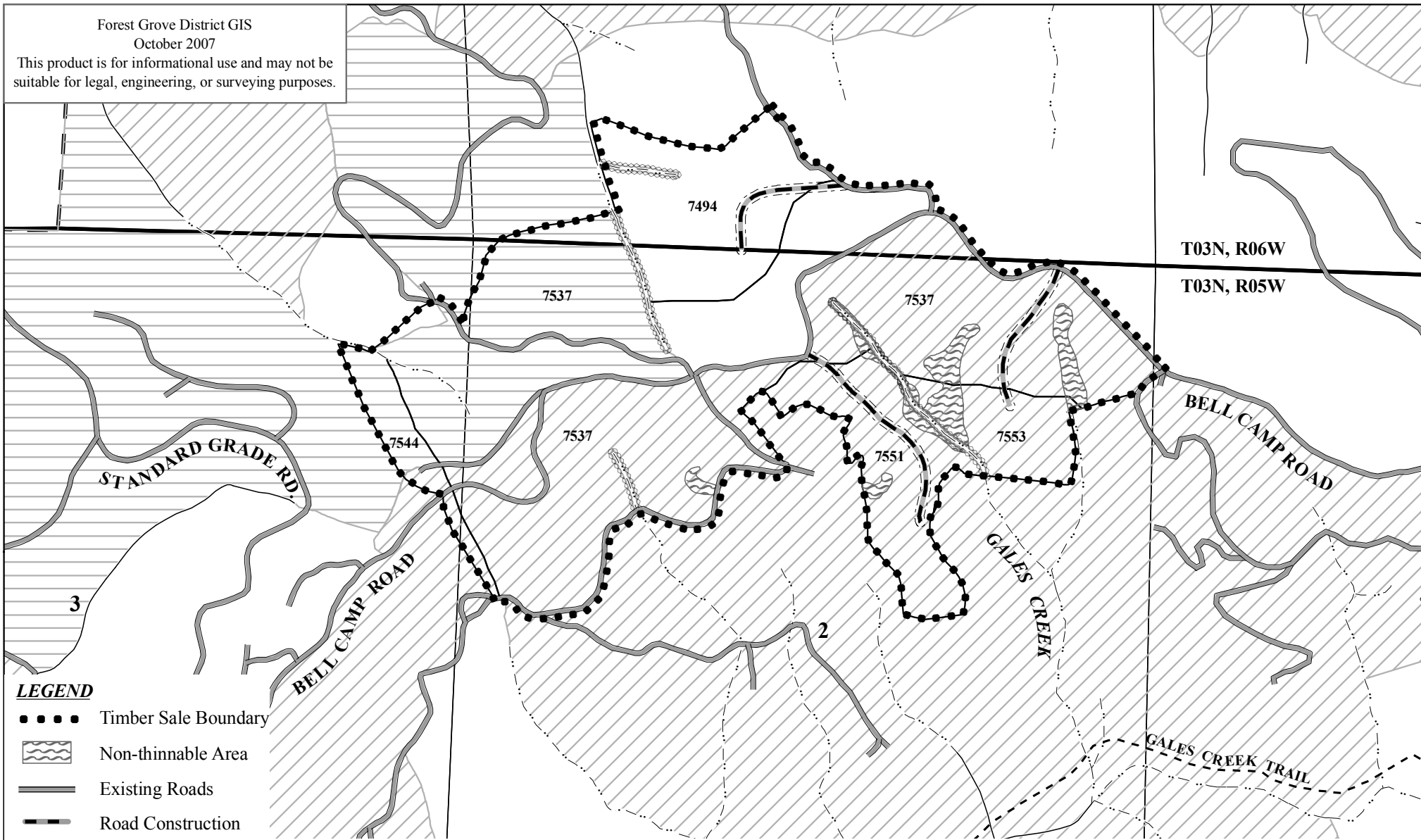
Scale
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1 inch = 1000 feet



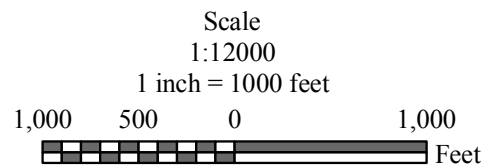
APPROXIMATE NET ACREAGE	
AREA 1	250 ACRES (PC-M)
TOTAL	250 ACRES

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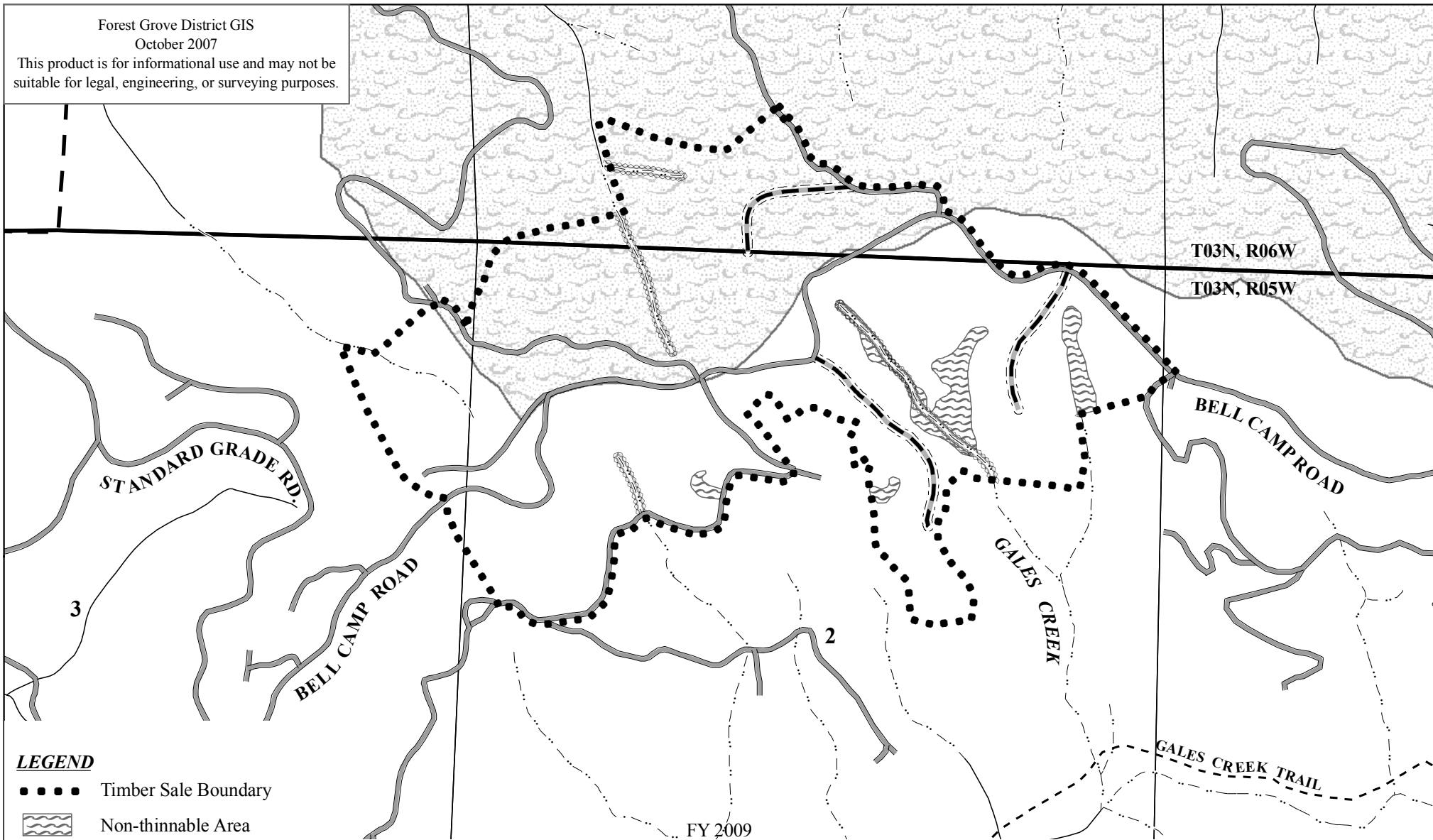
- LEGEND**
- ● ● ● Timber Sale Boundary
 - Non-thinnable Area
 - Existing Roads
 - Road Construction
 - Road Construction Right-of-Way
 - Perennial Type F Stream
 - Perennial Type N Stream
 - Stream Buffer
 - SLI Polygons (Stand ID#)
 - DFC Stand Type
 - Layered
 - Older Forest Structure

FY 2009
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PORTIONS OF SECTION 35 & 36, T03N, R06W, W.M.
& SECTION 2 & 3, T02N, R06W, W.M.
WASHINGTON COUNTY, OREGON
Attachment B: Desired Future Condition



APPROXIMATE NET ACREAGE	
AREA 1	250 ACRES (PC-M)
TOTAL	250 ACRES

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- LEGEND**
- ● ● ● Timber Sale Boundary
 - Non-thinnable Area
 - Existing Roads
 - Road Construction
 - Road Construction Right-of-Way
 - Perennial Type F Stream
 - Perennial Type N Stream
 - Stream Buffer
 - Salmon Anchor Habitat (SAH)

FY 2009
BIG BELL
PORTIONS OF SECTION 35 & 36, T03N, R06W, W.M.
& SECTION 2 & 3, T02N, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment C: Key Resources
(SAH)

Scale
1:12000

1 inch = 1000 feet



APPROXIMATE NET ACREAGE	
AREA 1	250 ACRES (PC-M)
TOTAL	250 ACRES