

Pre-Operations Report

Operation Name: Steelhead Falls
County: Tillamook
Management Basin: Upper Salmonberry

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	152	124
2	Heavy Partial Cut	68	63
3	Moderate Partial Cut	105	100
Total	Partial Cut Harvest	325	287

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale is located on moderate side-slopes along the North Fork of the Salmonberry River.

Slopes within the sale area are north and northwest aspect and range from 5% to 100% slope but are predominantly 0% to 30%. Elevations range from 1600 to 2700 feet. Jewell, Osweg, and Rye are the major soil types of the sale area.

II. CURRENT STAND CONDITION:

The sale area burned in the 1945 Wilson River/Salmonberry fire and portions of the sale area were seeded in the mid-1950's and mid-1960's. The stands in the sale area have had no prior management.

The entire sale area has been inventoried using the Stand Level Inventory (SLI) procedure and the stands have been classified 100% UDS.

Areas 1 and 3:

The stand is composed of mostly Douglas-fir with a mix of hemlock, noble fir, cedar and red alder present throughout the sale areas.

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

Area 2:

The stocking of this stand is significantly higher with a smaller average DBH than that of Areas 1 and 3. Consequently, the understory is lacking in comparison to the other sale areas. The stand is still predominately Douglas-fir, but has a large amount of western hemlock as well when compared to the other sale areas.

The understories of all sale areas are comprised primarily of vine maple, red huckleberry, sword fern, salal, dwarf Oregon grape, bracken fern, and oxalis. Average ground cover from SLI data is 50%. SLI data show that there are approximately 12 snags per acre within all decay classes, including 5 hard snags per acre ranging from DBH class 12-20 inches. The data shows that there is 2,750 ft³/acre of DWD, of which 102 ft³/acre is in classes 1 & 2.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC-M ³	7390	DF, WH	41	16	245	185	63	20
		7406	DF	43	15	226	196	60	30
		7407	DF	45	14	255	228	68	74
		<i>Target</i> ⁴	<i>DF</i>		17	130	82	32	124
2	PC-H ³	7407	DF	45	14	255	228	68	57
		7408	DF	48	16	174	126	44	6
		<i>Target</i> ⁴	<i>DF</i>		16	100	71	25	63
3	PC-M	7352	DF	44	16	239	171	61	93
		7374	DF	42	17	167	108	41	7
		<i>Target</i> ⁴	<i>DF</i>		17	130	82	32	100

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, green tree retention areas, and non-thinnable areas.

³ PC-M is Moderate Partial Cut, PC-H is Heavy 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:

According to the Forest Grove District's landscape design, the desired future condition (DFC) for Areas 1 and 2 is 100% LYR. The DFC for Area 3 is 94% LYR and 6% OFS.

Areas 1 and 3:

In order to help facilitate growth, these stands will receive a first entry moderate partial cut. Currently, the stands have an SDI of 63; they're beginning to self-thin, lose understory structure and decline in overall stand health. By releasing the trees with best form and vigor, the understory will gain growing space, and vegetation will improve at ground level.

All existing snags and down woody debris of all decay classes shall be retained as safety allows.

Area 2:

This area is a first entry heavy partial cut. It currently has a very high stocking level (SDI 66) with low average DBH. A heavy thinning would increase growth rates on the dominant residual trees. In addition, added light to the understory will promote development of a second cohort.

Table 3. Stand Structure Information

Area	Prescription	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	PC-M	7390	UDS	UDS	LYR	20
		7406	UDS	UDS	LYR	30
		7407	UDS	UDS	LYR	74
2	PC-H	7407	UDS	UDS	LYR	57
		7408	UDS	UDS	LYR	6
3	PC-M	7352	UDS	UDS	LYR	87
					OFS	6
		7374	UDS	UDS	LYR	7

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 and 3 - Moderate Partial Cut:

The target SDI is approximately 32. Conifers will be selected for harvest. All other species will be reserved. The stand will be thinned to a target of 130 square feet of basal area. The average DBH of the residual stand will be approximately 17 inches. Residual trees will be the trees of best form and vigor. All trees less than 8 inches, western redcedar, and hardwoods shall be reserved from harvest. There will be approximately 82 trees per acre left after harvest.

This stand has been designated for a moderate partial cut prescription which will result in a LYR stand condition 15-25 years after harvest. It is expected to remain in a LYR condition for an additional 20-30 years.

There will be no snag creation and DWD enhancement in these areas. DWD recruitment is expected through logging activity and in windthrow post harvest. All existing snags will be retained where safety permits. Snag recruitment is also expected as a result of post harvest mortality.

No underplanting is planned because it is anticipated that natural regeneration from shade tolerant species will enhance the understory vegetation.

Area 2 – Heavy partial Cut:

The target SDI is approximately 25. Douglas-fir and hemlock will be selected for harvest. Noble fir, and other species will be reserved. The stand will be thinned to a target of 100 square feet of basal area. The average DBH of the residual stand

will be approximately 16 inches. Residual trees will be of the best form and vigor. All trees less than 8 inches, Noble fir, western redcedar, and hardwoods shall be reserved and shall not count toward the target basal area. There will be approximately 71 trees per acre remaining post harvest.

There will be no snag creation in Area 2.

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.

The stand will not be underplanted. It is anticipated that natural regeneration from shade tolerant species will enhance the understory vegetation.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		<input checked="" type="checkbox"/>
Planned Quarter:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	3,600		3,600
Stumpage Value (\$/MBF)	\$300		\$300
Estimated Gross Value	\$1,080,000		\$1,080,000
		Project Costs:	\$160,000
		Estimated Net Value:	\$920,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to the sale Area from Forest Grove is North on Hwy 26 to Salmonberry Road, N. Fork Salmonberry Road, and Beaver Slide Road. Access is entirely through ODF owned land and on ODF roads.

Approximately 0.9 miles of road will be constructed to provide sale access costing approximately \$60,000. New construction is limited to ridge tops and gentle to moderate side slopes. Proposed roads will not cross any perennial streams.

Approximately 2.0 miles of road will be improved with the timber sale for better access and to improve sustainability. Estimated cost for improvement is \$100,000. Improvement will likely consist of brushing, spot rocking, removal of one tank-trap, and culvert installation/replacement. One assumed Type F stream will be crossed with road improvement on the North Fork Salmonberry Road. This stream will be surveyed to verify fish presence prior to road improvement.

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.

Total project cost is \$160,000.

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

The operation will be approximately 70% cable yarding and 30% ground yarding.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	0.9	0
Improvement	0	0	2.0	0
Maintenance	0	9.5	2.9	0
Closure/Vacation	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

There is one Type F stream within the sale boundary, and several Type N perennial streams inside the sale. Riparian area stand types along these streams are a hardwood/conifer mix, and stream buffers within harvest unit boundaries will be managed according to FMP Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

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 August 15 and September 15. Operations outside of this period will be reviewed with ODFW.

Approximately 6 acres of the timber sale (Area 1) is in the South Fork Salmonberry River. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. There are no streams present within or adjacent to the sale area requiring SAH management strategies.

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. Steelhead Falls 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 in Areas I and II. There are no high landslide hazard locations within Area III. The sale drains into unnamed tributaries of the North Fork of the Salmonberry River. The risk of landslides delivering directly to unnamed tributaries of the North Fork of the Salmonberry River from the sale is low. Area I and 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:

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

Recreation use specific to this area is use of the N. Fork Salmonberry Road to gain access to falls on the river for fish and wildlife viewing. Upon consultation with the district recreation coordinator, an interest to maintain access during spring months (March-June) was expressed. During sale preparation, this issue will be addressed.

Other recreation use common to this area includes hunting and mushroom picking. The spur roads will be evaluated for closure and/or vacation after sale activities are completed.

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.

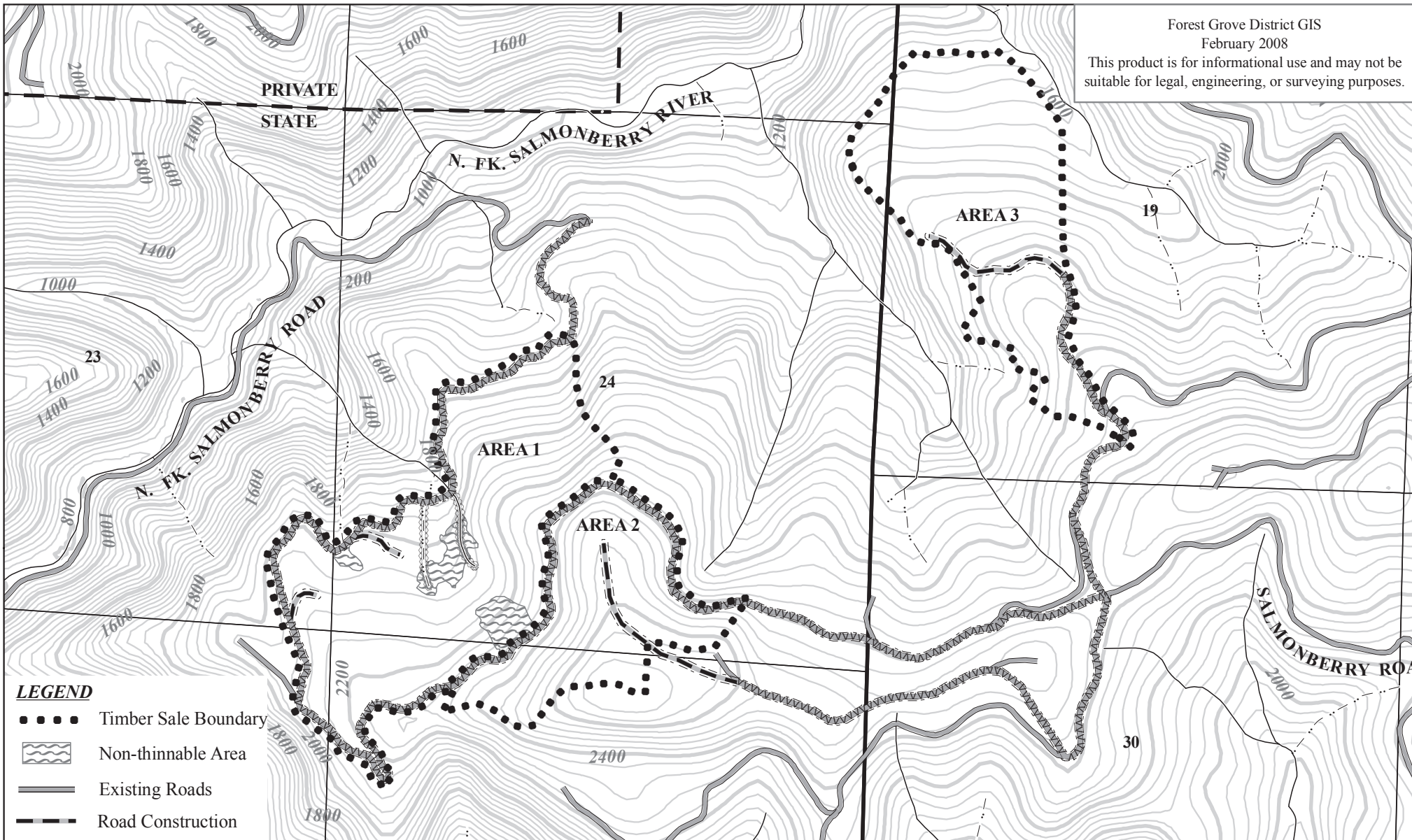
XIII. OTHER RESOURCE CONSIDERATIONS:

No property survey is needed. No other resources of significance are involved. 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, The sale area also contains Focused Stewardship, Wildlife Subclass, because the sale area is within the South Fork Salmonberry River Salmon Anchor Habitat (SAH). See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale area also contains 3 acres of Special Stewardship, Operationally Limited Subclass. The Geotechnical Specialist will conduct an evaluation of the sale areas for slope stability. See Section IX, Slope Stability and Geotechnical Issues for further discussion.

Forest Grove District GIS
 February 2008
 This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.



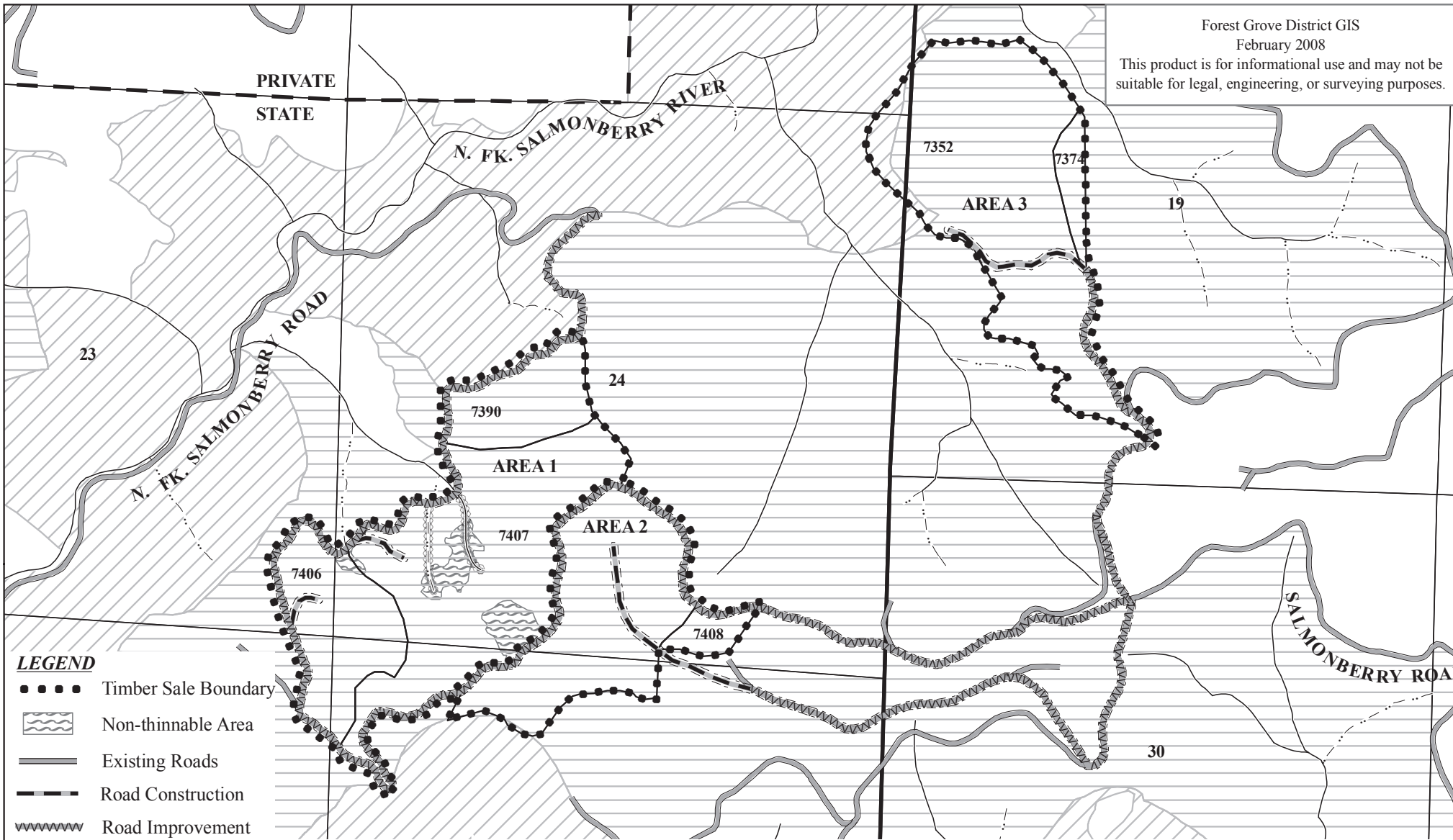
- LEGEND**
- Timber Sale Boundary
 - ▤ Non-thinnable Area
 - Existing Roads
 - Road Construction
 - wwwwww Road Improvement
 - ▭ Road Construction Right-of-Way
 - Perennial Type F Stream
 - - - Perennial Type N Stream
 - ▤ Stream Buffer
 - 400' Contour Intervals
 - 80' Contour Lines

FY 2009
 STEELHEAD FALLS
 PORTIONS OF SECTION 23, 24, 25 & 26 T03N, R07W, W.M.
 TILLAMOOK COUNTY, OREGON

Attachment A: Topography
 Scale
 1:15840
 1 inch = 1320 feet



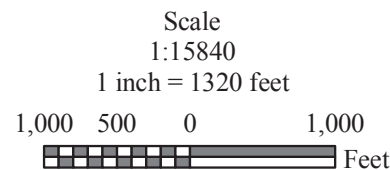
APPROXIMATE NET ACREAGE		
AREA 1	124	ACRES (PC-M)
AREA 2	63	ACRES (PC-M)
AREA 3	100	ACRES (PC-M)
TOTAL	287	ACRES



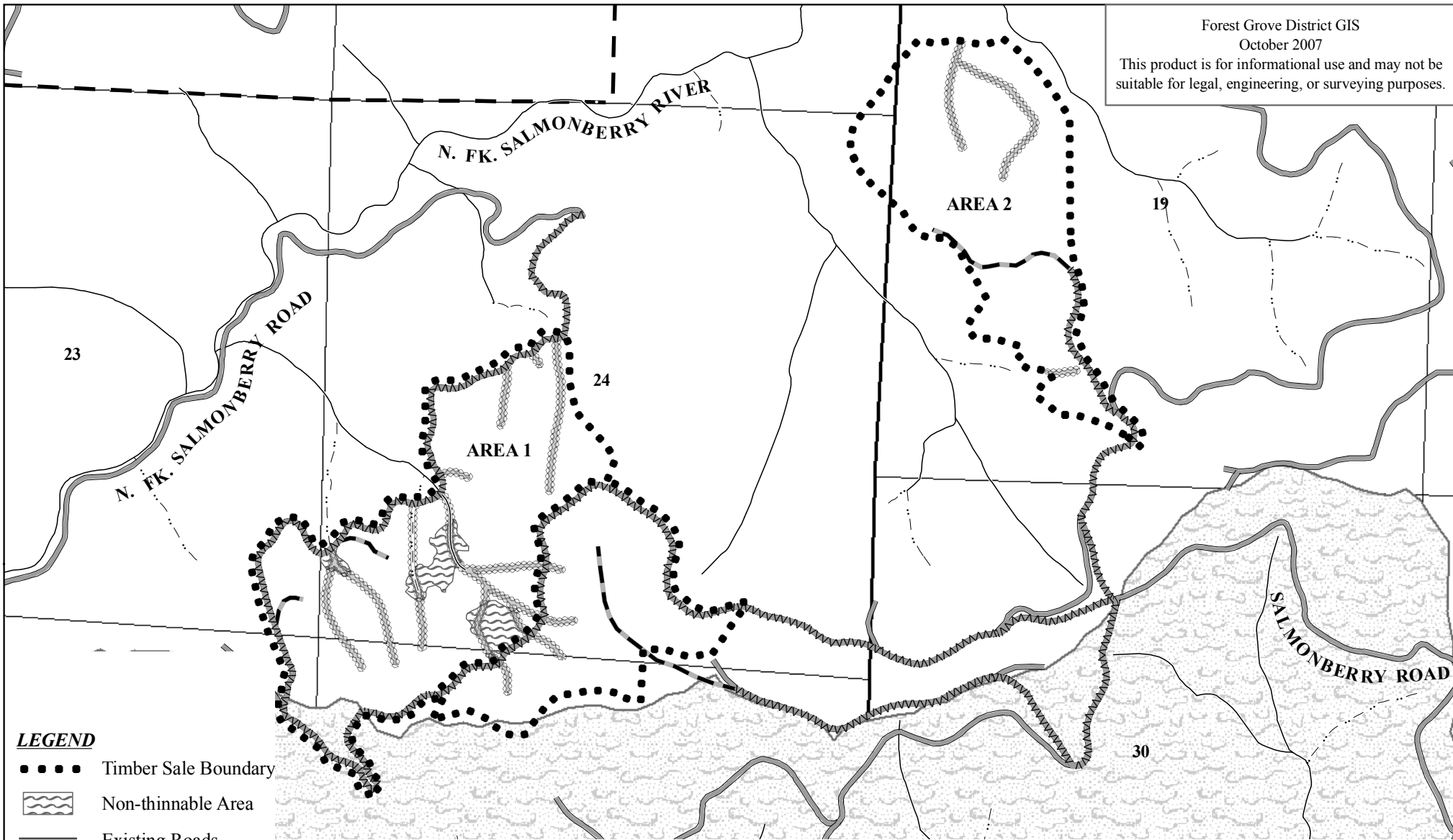
LEGEND

- ● ● ● Timber Sale Boundary
- Non-thinnable Area
- Existing Roads
- Road Construction
- Road Improvement
- 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
STEELHEAD FALLS
PORTIONS OF SECTION 23, 24, 25 & 26 T03N, R07W, W.M.
TILLAMOOK COUNTY, OREGON
Attachment B: Desired Future Condition



APPROXIMATE NET ACREAGE		
AREA 1	124	ACRES (PC-M)
AREA 2	63	ACRES (PC-M)
AREA 3	100	ACRES (PC-M)
TOTAL	287	ACRES



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

FY 2009
 STEELHEAD FALLS
 PORTIONS OF SECTION 23, 24, 25 & 26 T03N, R07W, W.M.
 TILLAMOOK COUNTY, OREGON

Attachment C: Key Resources
 (SAH)
 Scale
 1:15840
 1 inch = 1320 feet

1,000 500 0 1,000
 Feet



APPROXIMATE NET ACREAGE		
AREA 1	124	ACRES (PC-M)
AREA 2	63	ACRES (PC-M)
AREA 2	100	ACRES (PC-M)
TOTAL	287	ACRES