

Pre-Operations Report

Operation Name: Step N Wolf

County: Washington

Management Basin: Upper Salmonberry

Table 1. Operation Areas, Types and Acres

Area	Harvest Type	Gross Acres	Net Acres
1	Modified Clearcut	94	84
2	Modified Clearcut	24	24
Total	Regeneration Harvest	118	108
3	Partial Cut - Moderate	20	19
Total	Partial Cut Harvest	20	19
Total	All Harvest Types	138	127

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale is located on gentle slopes above Wolf Creek, a tributary to the Salmonberry River. Elevations range from 1,750 to 2,400 feet across the sale areas. Slopes range from 0% to 60%. Aspects vary with sale area. Area 1 has a south facing aspects and Areas 2 and 3 face a westerly direction. The major soil types of the sale area are Klickitat and Hembre.

II. CURRENT STAND CONDITION:

Area 3 was fertilized in 1993. Area 2 was partial cut in 2002 and fertilized in 2006.

The sale has been inventoried using the Stand Level Inventory (SLI) procedure. The stands within the sale have been classified as Understory Development Stage (UDS) and Layered (LYR). (see Tables 2 and 3)

Area 1

The timber in this sale area consists of 60-70 year old Douglas-fir, and the current condition is classified as UDS. Minor amounts of younger noble fir, red alder, and western hemlock are also present. The understory is a mixture of vine maple, salal, and dwarf Oregon grape.

Area 2

The sale area consists of a 60-70 year old Douglas-fir dominated stand with low stocking levels. Minor conifer species present include western hemlock, noble fir, and western redcedar. The current condition is classified as UDS. The understory is a mix of vine maple, dwarf Oregon grape, sword fern, and Oregon oxalis.

Area 3

The sale area consists of 60-70-year-old Douglas-fir. The timber in this stand is dense and smaller in diameter. Current condition is classified as LYR. The most prominent

understory species include dwarf Oregon grape, sword fern, Oregon oxalis, and red huckleberry.

Down wood in decay classes 1 and 2 ranges from about 150 cu.ft. per acre to over 650 cu.ft. per acre. Snags in decay classes 1 and 2 range from 0-2 per acre. These numbers are based upon SLI measured data and visual observation.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	MC	7541	DF	66	18	229	124	55	84
		Target³	REG						84
2	MC	7544	DF	66	18	145	84	35	24
		Target³	REG						24
3	PC-M	7560	DF	65	14	296	262	78	19
		Target³			16	140	103	35	19

¹The source of stand inventory information is SLI grown forward to 2008 for trees 8 inches in diameter or larger.

²The acres are based on GIS and exclude roads, stream buffers, reserve areas, etc.

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

III. DESIRED FUTURE CONDITION/VISION:

According to the landscape design for the Upper Salmonberry Basin (*Forest Grove District Implementation Plan, 2009*), all three sale areas are designated for non-complex stands or “general”.

Areas 1 and 2

These areas will be managed heavily for the production of Douglas-fir timber. Replacement stands will be converted to regeneration about every 60 years. These stands appear to be productive sites with little disease, access, harvesting, riparian or other issues. Maintaining and creating some species diversity, legacy trees (scattered and clumped), snags and down wood components will continue to enhance wildlife habitat potential.

Area 3

An initial partial cut is necessary to move this stand toward the desired OFS condition. In the short term, the stand will receive much needed release. This will maintain a healthy, rapidly growing overstory, and allow more light onto the understory vegetation allowing it to further develop as well. Multiple entries will be needed to effectively create the OFS structure desired. Each entry will provide opportunities for snag and down wood recruitment. It is expected that in roughly 25 years, the residual stand will contain enough large diameter trees that a patch cut and heavy thin combination prescription will put the stand on a pathway towards OFS.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	7541	UDS	REG	GEN	84
2	7544	UDS	REG	GEN	24
3	7560	LYR	LYR	GEN	19

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:

Area 1

This is a modified clearcut. In this stand, 5 to 6 green trees will be retained. An additional 2 snags per acre will be created and 2 trees per acre used for down wood. Following harvest, site prep will consist of a chemical application to treat salal and vine maple. The south aspect of the unit makes it a good candidate for a broadcast burn. Green trees will be located to facilitate burning.

Another regeneration harvest will take place in approximately 60 years post harvest. In the interim, management activities will include a pre-commercial thin at age 15 and a moderate partial cut at age 40.

Area 2

This is a modified clearcut. Leave trees will consist of clumps and individual trees scattered throughout the unit. There will be topping of 48 trees for snag creation, assuming a 24 acre clearcut area. These snags will be dispersed in either Area 2, 3, or both.

Another regeneration harvest will be prescribed approximately 60 years post harvest.

Area 3

During this first entry partial cut, the area will be thinned to a RD of 35. The average DBH is expected to be about 16 inches. All minor species will be reserved. The creation of snags and down wood through logging operations will add to wildlife habitat potential.

A second entry will be necessary in about 20 years, after the overstory trees have had time to increase in diameter, and become more wind firm. The second entry will be the ideal time for heavy thinning and patch cuts.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		X
Planned Quarter:		4	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,700		4,700
Stumpage Value (\$/MBF)	180		
Estimated Gross Value	\$846,000		\$846,000
		Project Costs:	\$20,000
		Estimated Net Value:	\$826,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale area can be accessed via Storey Burn Road to Standard Grade Road, to Wolf Creek Grade. All of these roads are currently all-weather, crushed rock surface roads. This is a total distance of approximately 10 miles from the summit of Highway 6.

Access crosses several miles of private ownership. There is one gate along the route which will require a key. ODF has easements for all roads. There will be no road use fees.

The majority of the timber sale can be harvested from existing roads. Two new roads, totaling about 0.25 miles, will be constructed to provide sale access in Area 1, costing \$20,000. New construction will be limited to ridge tops. The first road is very short, and just allows a tower and machinery to operate while still keeping Wolf Creek Grade passable to vehicle traffic. The second new spur will have an unfavorable steep grade, about 22%, and will likely require truck assist. In comparison to a much longer side slope road requiring full bench type construction, this ridge top location results in minimal construction costs and is much less likely to have an impact on water quality. Having this road in place will significantly increase logging productivity by shortening yarding distances from an average of 1,000 feet to about 300 feet.

Old grades are present in the sale area, but their use was determined to be undesirable. Although these grades may be favorable for yarding activity, they would result in unnecessary stream crossings, an increased impact on habitat, and would increase construction costs as well.

The sale is 80% cable based yarding and 20% ground based yarding. Average yarding distance for Areas 1 and 2 is about 800 feet. Area 3 averages about 300 feet.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0.25	0
Improve	0	0	0	0
Maintenance	0	0	0	0
Block (Closed)	0	0	0	0
Vacate	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

Several small perennial and seasonal Type-N (non fish) 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.

According to Forest Grove’s GIS stream layer, two Type-F (fish bearing) stream segments are in close proximity to the sale areas. Wolf Creek flows along the western boundary of Area 3 (partial cut). Along this section, Wolf Creek will have a minimum no-touch buffer of 25 feet. The inner and outer zones, along with the entirety of Area 3, will be managed for OFS condition. The second stream is a small unnamed Type-F stream, which transitions to a Type-N stream, and serves as a tributary to Wolf Creek. This stream flows along the western boundary of Area 1 (MC). The Type-F segment and the Type-N segment within 500 feet of confluence will have the sale boundary buffering the stream a minimum of 120 feet. There are also Type-N streams inside Area 1. These streams will be buffered an average of 50 feet. These buffer widths and protection measures are designed to meet the conifer retention targets and riparian management standards in the Forest Management Plan.

Seasonal hauling restrictions will be applied in order to protect the water quality on all streams along the haul route. Hauling restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or having an alternate haul route. Additional sedimentation prevention methods may include maintaining culverts and other road drainage structures and using sediment control devices in road ditches when necessary.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed by the ODF Northwest Oregon Area (NWOA) Biologist.

The sale has been surveyed for Northern Spotted Owls (NSO) during the 2008 survey season with no owls detected. The sale will be surveyed again during the 2009 season. All surveys will be/were conducted in accordance with USFWS protocol.

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale. The District T&E Coordinator made the determination

that the sale is non-suitable habitat for marbled murrelets. The ODF wildlife biologist for the NW Oregon Area reviewed and approved this determination.

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. Streams in the sale are in the Salmonberry basin. As of May 1996, 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. No listed plant records were identified within or adjacent to the sale areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based on USGS 1:24,000 topographic maps and available geologic maps as well as a LiDAR-generated 1 m digital elevation model that covers the southern portion of the sale area. There are high landslide hazard locations scattered throughout the sale area. The entire sale area drains to Wolf Creek. The risk of landslides delivering to Wolf Creek from the sale area is moderate.

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:

The sale area is in an area of low visual sensitivity.

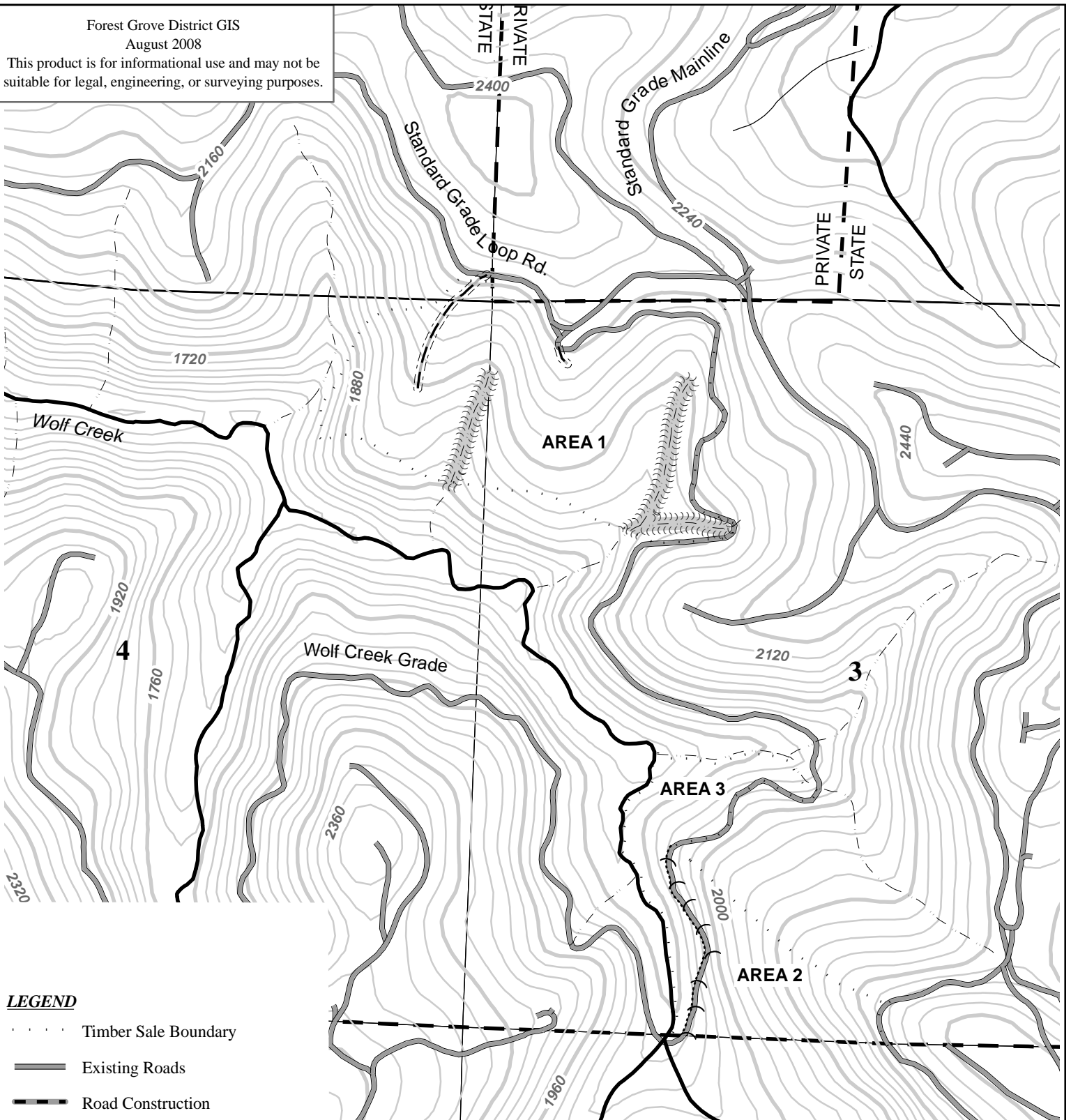
XIII. OTHER RESOURCE CONSIDERATIONS:

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

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The sale contains Focused and Special Stewardship, Aquatic and Riparian Habitat due to the presence of streams within the sale. Section VII "Aquatic Resources and Water Quality" describes the management guidelines to be applied in these areas.

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



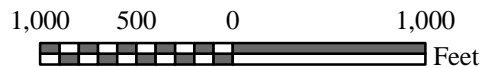
LEGEND

- Timber Sale Boundary
- Existing Roads
- Road Construction
- Road Construction Right-of-Way
- Perennial Fish Stream
- Perennial Non-fish Stream
- Stream, Unknown Fish Presence
- Stream Buffer
- ODF Ownership
- 200' Contour Intervals
- 40' Contour Lines

FY 2010
STEP IN WOLF
PORTIONS OF SECTIONS 3 & 4 T02N, R06W &
SECTION 33 T03N, R06W, W.M.
WASHINGTON COUNTY, OREGON

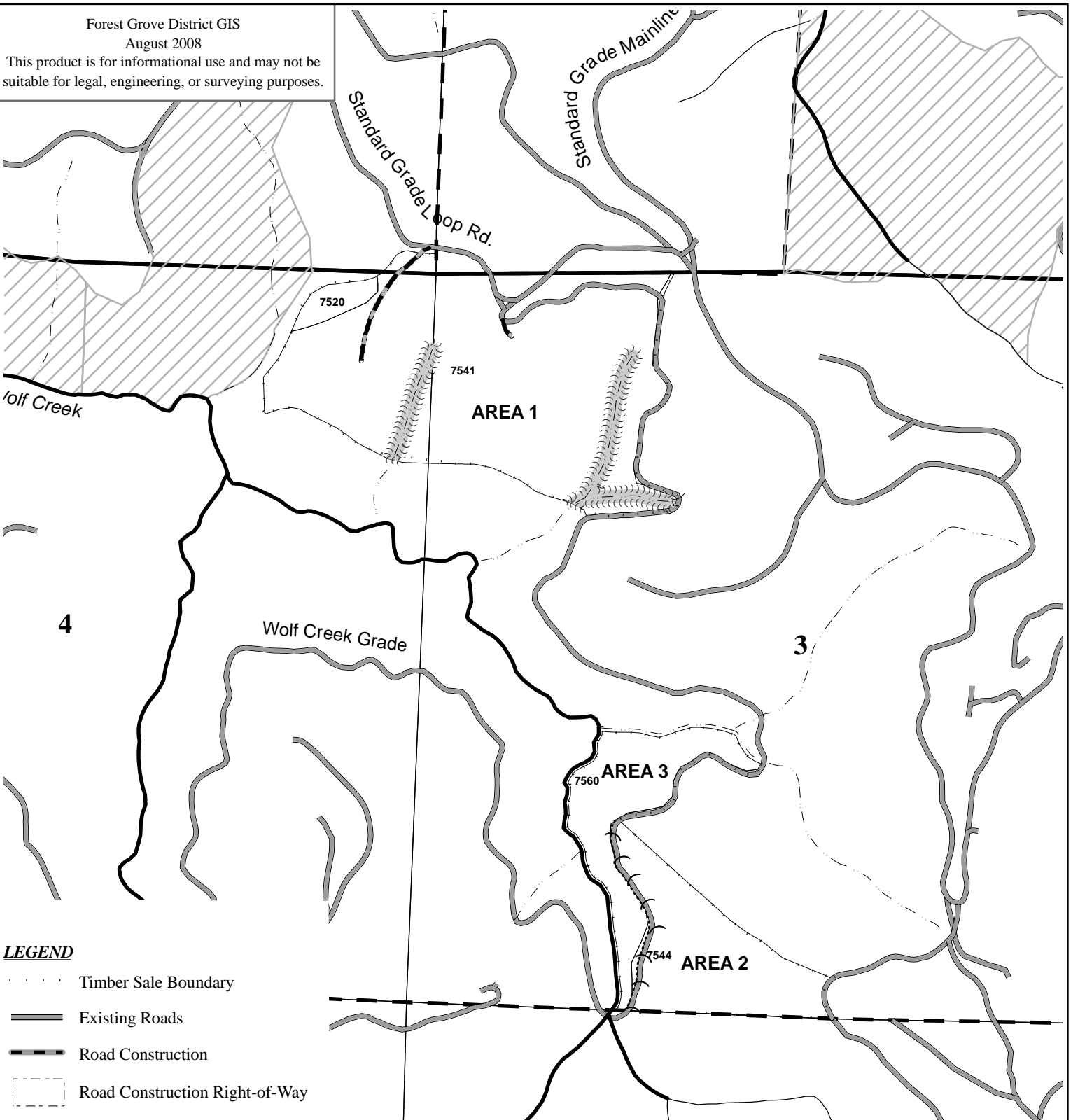
Attachment A: Topography

Scale
1:12000
1 inch = 1000 feet



APPROXIMATE NET ACREAGE		
Area 1	84	ACRES (MC)
Area 2	24	ACRES (MC)
Area 3	19	ACRES (PC-M)
TOTAL	127	ACRES

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LEGEND

- Timber Sale Boundary
- Existing Roads
- Road Construction
- Road Construction Right-of-Way
- Perennial Fish Stream
- Perennial Non-fish Stream
- Stream, Unknown Fish Presence
- Stream Buffer
- ODF Ownership
- Stand ID
- DFC - Layered
- DFC - Older Forest Structure

FY 2010
STEP IN WOLF
PORTIONS OF SECTIONS 3 & 4 T02N, R06W &
SECTION 33 T03N, R06W, W.M.
WASHINGTON COUNTY, OREGON
Attachment B: Desired Future Condition

Scale
1:12000
1 inch = 1000 feet

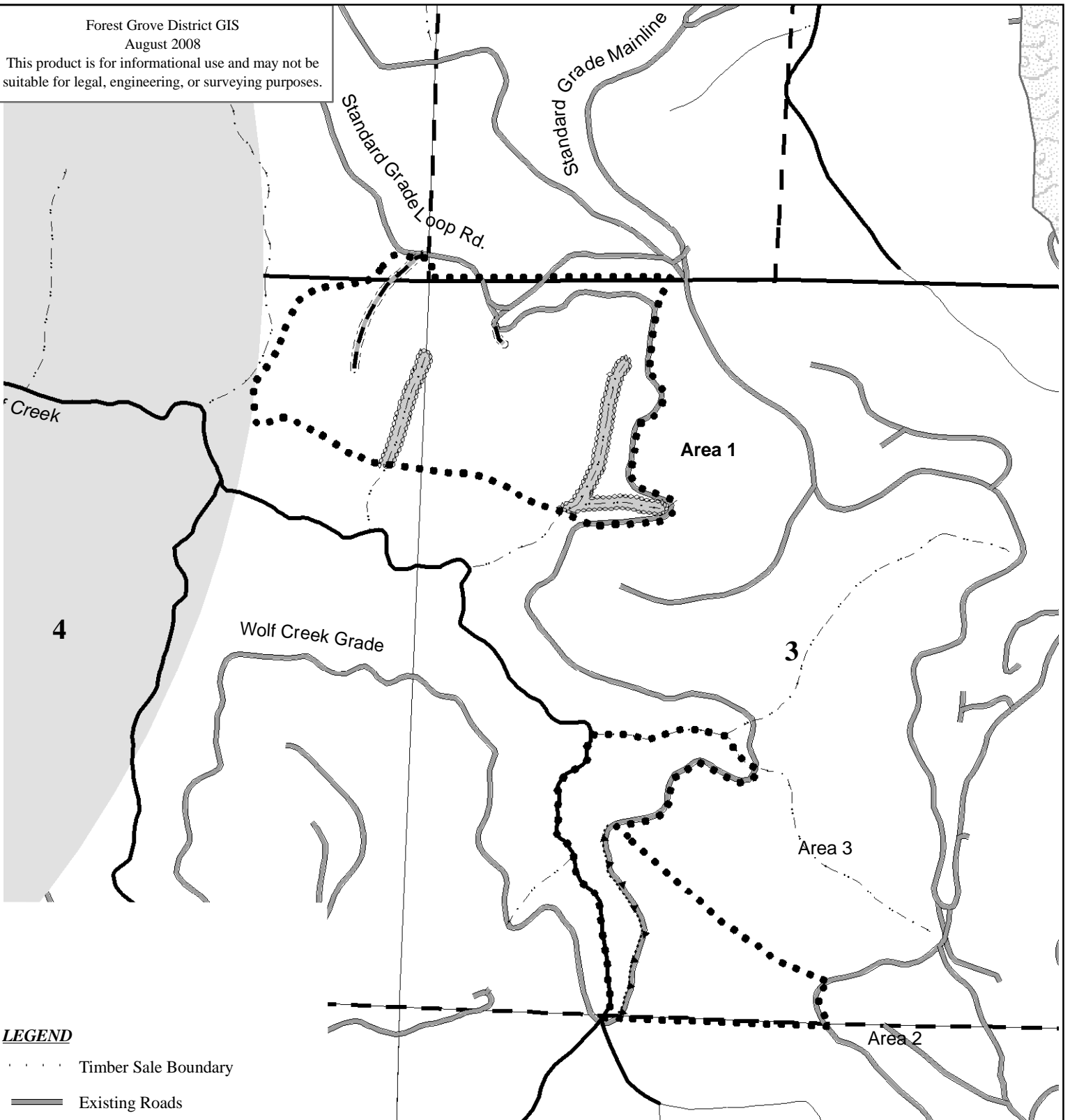


APPROXIMATE GROSS ACREAGE

Area 1	84	ACRES (MC)
Area 2	24	ACRES (MC)
Area 3	19	ACRES (PC-M)
TOTAL	127	ACRES

3

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LEGEND

- Timber Sale Boundary
- Existing Roads
- - - Road Construction
- - - Road Construction Right-of-Way
- Perennial Fish Stream
- Perennial Non-fish Stream
- - - Stream, Unknown Fish Presence
- Stream Buffer
- ODF Ownership
- NSO Site

FY 2010
STEP IN WOLF
PORTIONS OF SECTIONS 3 & 4 T02N, R06W &
SECTION 33 T03N, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment C: Key Resources

Scale
1:12000
1 inch = 1000 feet



APPROXIMATE NET ACREAGE

Area 1	84	ACRES (MC)
Area 2	24	ACRES (MC)
Area 3	19	ACRES (PC-M)
TOTAL	127	ACRES

3