

Pre-Operations Report

Operation Name: Boulder Dash
County: Tillamook
Management Basin: Upper Salmonberry

Table 1. Operation Areas, Types and Acres

Area	Harvest Type	Gross Acres	Net Acres
1	Modified Clearcut	114	102

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The area has moderate to steep slopes 30-65% with an east aspect. Elevation for this area ranges from 1,750 feet to 2,280 feet. Soils are Jewell, Rye, and Osweg.

The landform is a gentle saddle between Tunnel Creek and a tributary to North Fork Salmonberry River and gentle to steep associated upper slopes of tributary to the North Fork Salmonberry River. The underlying rock units are igneous origin, Tillamook Volcanics, subaerial basalt flows.

II. CURRENT STAND CONDITION:

Approximately 75% of the sale area burned in 1945. A five acre piece of the sale was seeded in 1964. No prior management activities have been done within the sale area.

Approximately 75% of the sale area has been inventoried using the Stand Level Inventory (SLI) procedure and have been classified as Closed Single Canopy (CSC) and Understory Development Stage (UDS) (see Tables 2 and 3). The remaining stands have data that has been imputed from similar inventoried stands.

The sale area is a Douglas-fir dominated stand with a western hemlock component that contributes about 20% of the merchantable volume. Three stand types make up the sale area and range in age from 44 to 72 years. The current condition for the majority of the sale is UDS. The youngest stand type is CSC. The third SLI stand in the sale area has a calculated stand structure of Layered (LYR), but this is likely a result of the stand having imputed data. Field visits and visual recon has determined that the stand is UDS.

Down wood in decay classes 1 and 2 varies across the sale area from 0 to 400 cubic feet per acre. The number of hard snags also varies greatly from 0 to 10 per acre. These numbers are based upon SLI data, imputed data, and visual observation. There are also additional snags and down wood components in decay classes 3 and 4 that are remnants of the fire in 1945.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	MC	7384*	DF	68	17	173	106	43	25
1	MC	7388	DF	44	16	271	201	69	21
1	MC	8318	DF	72	19	303	163	72	56

¹The source of stand inventory information is SLI for trees 8 inches in diameter or larger grown forward to 2008. Stand ID's with an (*) have data that has been imputed from another similar inventoried stand.

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

III. DESIRED FUTURE CONDITION/VISION:

According to the landscape design for the Upper Salmonberry Basin (*Forest Grove District Implementation Plan, June 2009*), the desired future condition (DFC) for the sale area is for non-complex stands or “general”.

The area will be managed heavily for the production of Douglas-fir. Stands will be converted to regeneration every 65 years. There is little evidence of disease, access, harvesting, riparian or other issues. This harvest, along with future entries will be used as opportunities for maintaining species diversity, legacy trees, snags, and down woody components.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	7384*	UDS	REG	GEN	25
	7388	CSC	REG	GEN	21
	8318	UDS	REG	GEN	56

¹ The stand is expected to develop into this condition after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

The prescription for the sale area is modified clearcut. Leave trees will consist of clumps and individual trees scattered and placed in operational locations. A mixture of species will be selected for wildlife trees to provide diversity and natural seed sources. The replacement stand will be planted in Douglas-fir and possibly some small amounts of hemlock, noble fir, or western redcedar. Existing snags will be retained as safety allows. There will be topping of 2 trees per acre for snag creation. Class 1 down woody debris is anticipated through normal logging slash accumulation, bucking practices, wind thrown residual green trees, and other natural recruitment processes.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		x
Planned Quarter:		2	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,600		4,600
Stumpage Value (\$/MBF)	\$200		
Estimated Gross Value	\$920,000		\$920,000
		Project Costs:	\$131,000
		Estimated Net Value:	\$789,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale area access is via the 101 Road to the 118 Road, to the 118A Road. All of these roads are currently all weather, crushed rock roads. This is a total distance of approximately 16 miles from Highway 26 by the Sunset Rest Area.

The access route is almost entirely across private ownership. ODF has easements for all of these roads. The access easement was originally obtained from International Paper and Burlington Northern Rail Road. There are two gates along the route.

The existence of scotch broom along the access route provides opportunity for spread into the sale area. Mitigation efforts will be coordinated during sale preparation.

About 1.3 miles of new road construction and 1.0 miles of improvement will be needed for this sale. Estimated project costs are \$131,000. All new construction in this sale will have rock surfacing to minimize impacts to water quality. Road construction is on ridge tops, moderate side slopes, and old railroad grades. All new roads will be located in areas that preserve the integrity of significant cultural resources on site.

The new road construction along the western sale boundary is almost entirely located on an old railroad grade. This placement minimizes soil compaction and reduces the amount of land that will be taken out of production. At the same time, this road will access landing locations that are essential for cable yarding operations. The new road construction in the southern portion of the sale area has been laid out strategically to accomplish multiple goals. The new road construction in this sale provides the opportunity to access adjacent stands for timber harvests in the future. These spur roads facilitate logging during the current harvest by increasing the number of acres available for ground based operations and decreasing yarding distances. This will increase logging efficiency, which in turn decreases logging costs. The increased access also aids activities associated with young stand management.

The operation is 70% cable based yarding and 30% ground based yarding. Yarding distances average about 1000 feet.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	1.3	0
Improve	0	0	1.0	0
Maintenance	0	0	0	0
Block (Closed)	0	0	0	0
Vacate	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

Several unnamed small, seasonal Type N streams flow through the sale. All streams are in the FPA Coastal Zone. The RMA's are a conifer and alder mix. The North Fork Salmonberry River is less than 1½ miles downstream. The FMP riparian strategies will be applied.

All perennial streams in the sale area will have a 25 foot no-touch buffer established along their reach. Additional trees, including wildlife trees will be retained as well resulting in an approximately 50 foot wide buffer.

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: log hauling restrictions by number of loads per day and weather conditions between November 1 and March 31 of each year, maintaining culverts and other road drainage structures, and using sediment control devices in road ditches when necessary. 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 has been reviewed by the Northwest Oregon Area Biologist (ODF).

The sale was surveyed for Northern Spotted Owls during the 2008 survey season with no responses. The sale will be surveyed again during the 2009 survey season. 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. 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.

Streams in this sale area are in the headwaters of the Salmonberry basin. This operation does not involve an activity that is listed in the National Marine Fisheries Service adopted rules under Section 4(d) of the Endangered Species Act. The Type-F

stream segment of concern is located more than 500 feet down stream from the sale area. The riparian and aquatic strategies combined with road and harvest practices described in this Annual Operations Plan and out Northwest Oregon State Forests Management Plan (FMP) are designed to minimize impacts and or restore aquatic habitats that influence aquatic species.

The sale area was checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations, as well as against local records in the district Land Management Classification System (LMCS). No listed plant records were identified within or adjacent to the sale area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based on USGS 1:24,000 topographic maps and available geologic maps. There are high landslide hazard locations scattered throughout the sale area. The entire sale area drains to an unnamed tributary of the North Fork of the Salmonberry River. The risk of landslides delivering to this stream from the sale area is moderate to high. There may be large, deep-seated landslides in the sale area. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

X. RECREATION RESOURCES:

The sale is located within an area designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). There are no trails or designated recreational activities within the vicinity of the sale area. Due to the location and restricted access, not many people use this area for recreation.

XI. CULTURAL RESOURCES:

The sale was checked against the Statewide Cultural Resource Inventory GIS data. There is an old logging camp and an old railroad incline located within the sale area. The Public Use Coordinator (ODF) has been out to the sale to look at the sites in the field to determine appropriate protection measures for the resources to be implemented during timber sale layout. The old logging camp and railroad incline will be posted outside the harvest area.

XII. SCENIC RESOURCES:

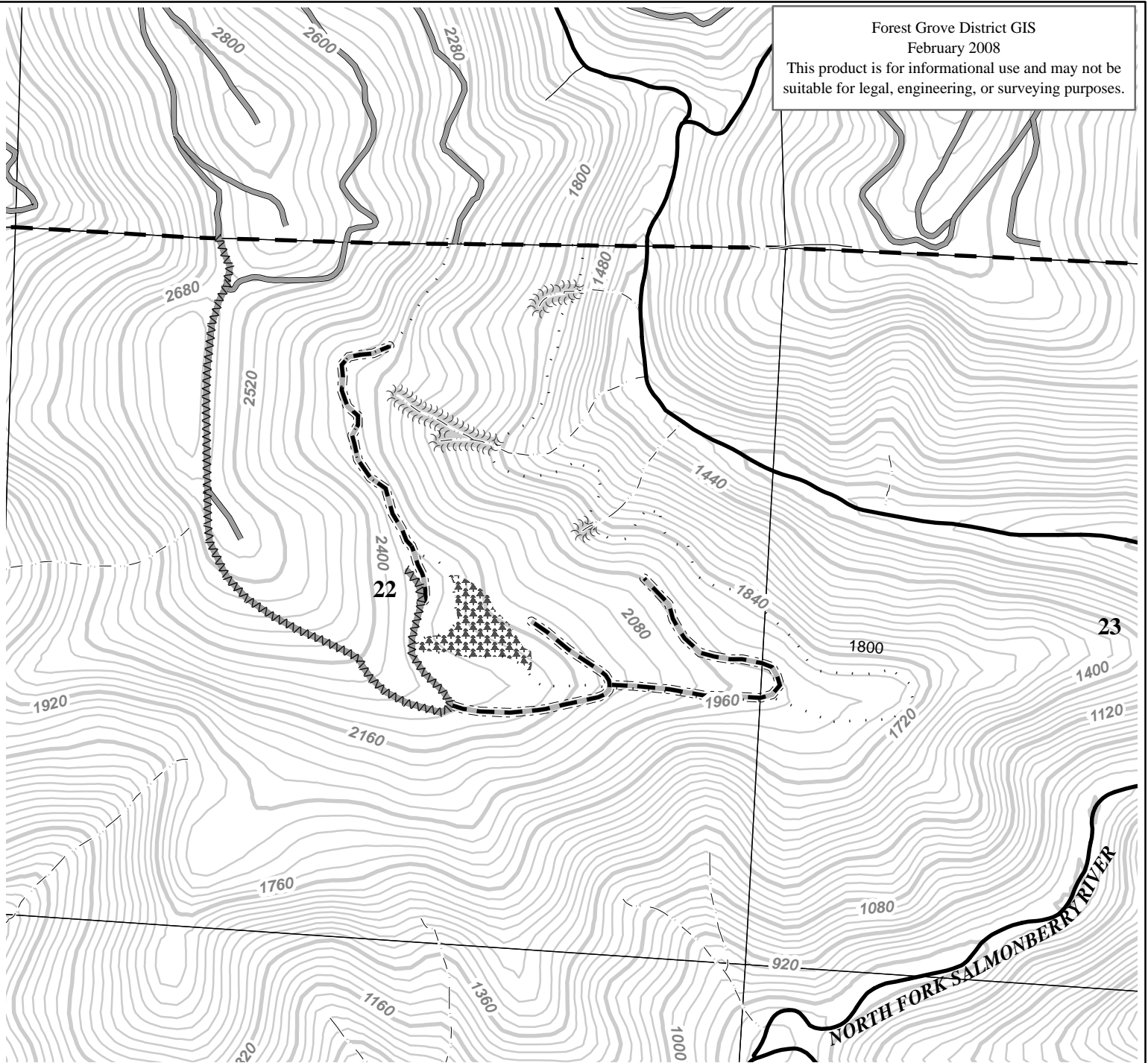
The sale area is in an area of low visual sensitivity.

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.



LEGEND

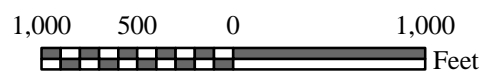
-  Timber Sale Boundary
-  Existing Roads
-  Road Construction
-  Road Improvement
-  Ownership
-  Perennial Type F Stream
-  Perennial Type N Stream
-  Stream, unknown fish presence
-  Posted Stream Buffer
-  200' Contour Intervals
-  40' Contour Lines
-  Green Tree Retention Area
-  Road Construction Right of Way

FY 2010
 BOULDER DASH
 PORTIONS OF SECTION 22 & 23, T03N, R07W, W.M.
 TILLAMOOK COUNTY, OREGON

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Attachment A: Topography

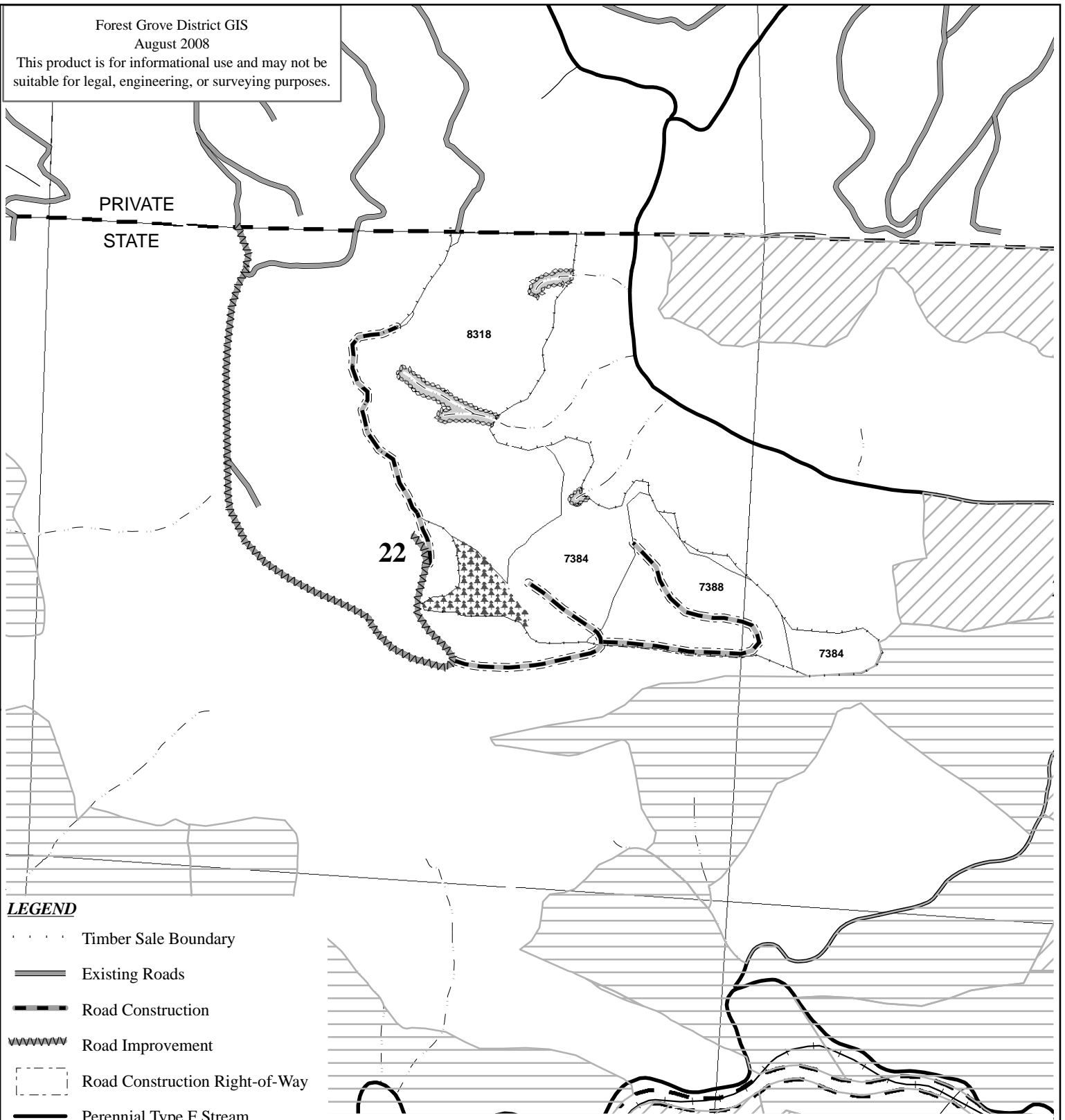
Scale
 1:12000
 1 inch = 1000 feet



APPROXIMATE NET ACREAGE	
AREA 1	102 ACRES (MC)
TOTAL	102 ACRES

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

PRIVATE
STATE



LEGEND

- Timber Sale Boundary
- Existing Roads
- Road Construction
- Road Improvement
- Road Construction Right-of-Way
- Perennial Type F Stream
- Perennial Type N Stream
- Stream, unknown fish presence
- Stream Buffer
- Green Tree Retention Area
- ODF Ownership
- Stand ID
- DFC - Layered
- DFC - Older Forest Structure

FY 2010
BOULDER DASH
PORTIONS OF SECTIONS 22 & 23 T03N, R07W, W.M.
TILLAMOOK COUNTY, OREGON

APPROXIMATE NET ACREAGE

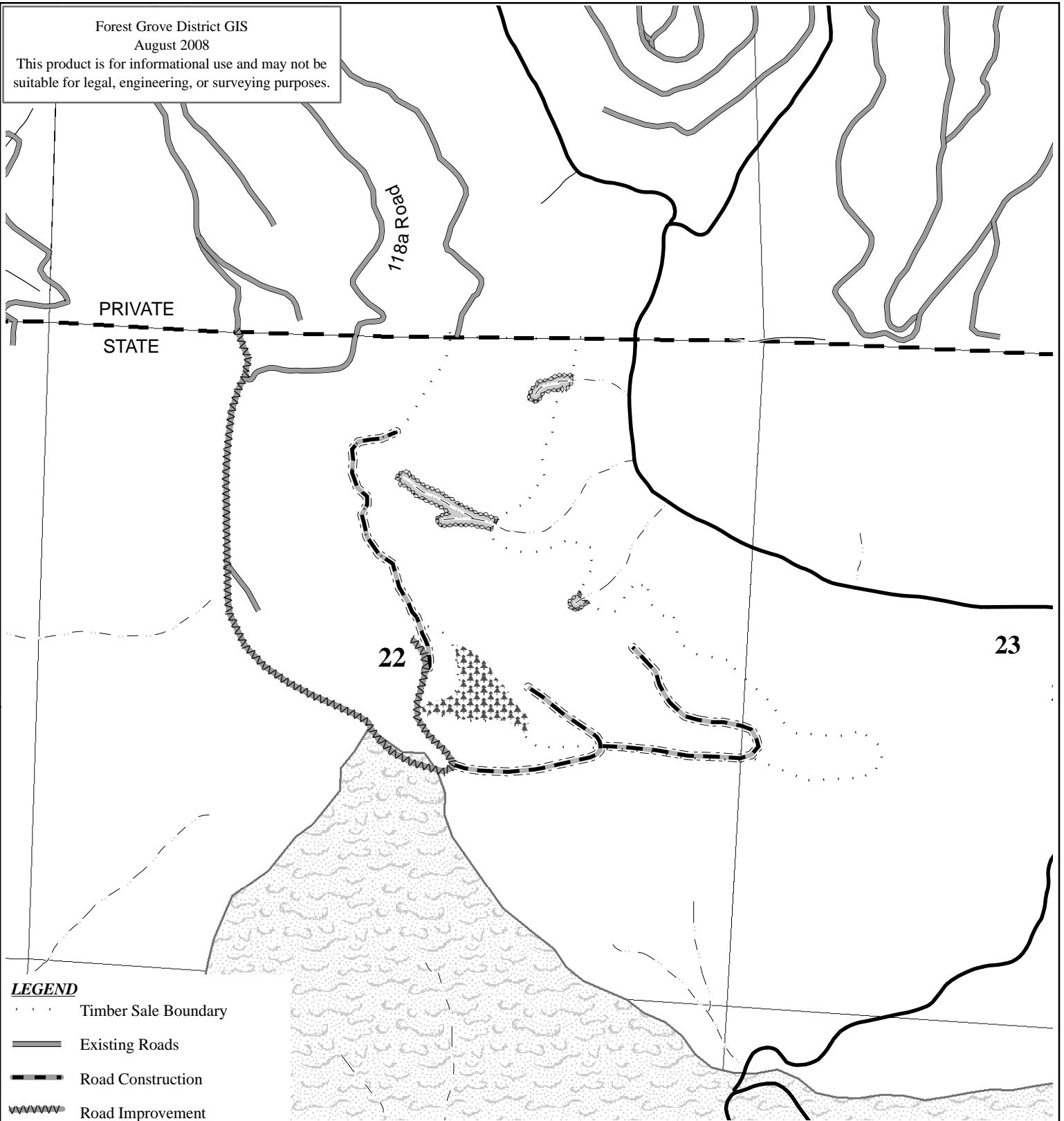
Area 1	102	ACRES (MC)
TOTAL	102	ACRES

Attachment B: Desired Future Condition













Scale
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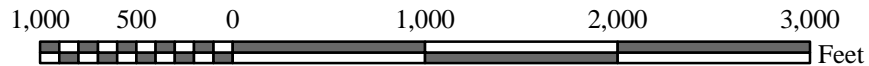
LEGEND

-  Timber Sale Boundary
-  Existing Roads
-  Road Construction
-  Road Improvement
-  Perennial Type F Stream
-  Perennial Type N Stream
-  Stream, unknown fish presence
-  Road Construction Right-of-Way
-  Stream Buffer
-  Green Tree Retention Area
-  ODF Ownership
-  Salmon Anchor Habitat

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BOULDER DASH
PORTIONS OF SECTIONS 22 & 23 T03N, R07W, W.M.
TILLAMOOK COUNTY, OREGON

Attachment C: Key Resources

Scale
1:12000
1 inch = 1000 feet



APPROXIMATE NET ACREAGE

	Area 1	102	ACRES (MC)
TOTAL	102	ACRES	