

# Pre-Operations Report

**Operation Name:** Salmon Derby  
**County:** Tillamook County  
**Management Basin:** Wheeler, Upper Salmonberry

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Gross Acres	Net Acres
1	Modified Clearcut	91	86
<b>Total</b>	<b>Regeneration Harvest</b>	<b>91</b>	<b>86</b>
2	Moderate Partial Cut	73	69
<b>Total</b>	<b>Partial Cut Harvest</b>	<b>73</b>	<b>69</b>

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

Area 1 slopes have a south aspect and range from 10% to 60%. Elevations range from 2000 to 2600 feet. Jewell is the major soil type.

Area 2 slopes have a north aspect and range from 10% to 60%. Elevations range from 2000 to 2600 feet. Jewell and Grindstone are the major soil types.

The sale is located on both sides of the eastern end of Giveout Mountain a narrow ridgeline divide between the west flowing headwaters of the Salmonberry River and the east flowing Derby Creek a tributary of the Nehalem River. Area 1 is in the headwaters of Derby Creek, there are only a few areas of steep slopes in the sale, mostly in the southwest portion. Area 2 is in the headwaters of the Salmonberry River and has only one very small area of steep slope showing on the topographic map. Area 1 is underlain by sedimentary origin rocks of the informal Basaltic sandstone at Roy Creek formation. Area 2 is underlain by igneous origin rocks of the Tillamook Volcanics Formation (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

## **II. CURRENT STAND CONDITION:**

Two of the four stand types within the sale area have been inventoried using the Stand Level Inventory (SLI) procedure, and those stands have been classified as UDS. The remaining two stands were estimated as CSC by SLI expanded data (see table 3).

Area 2 is a well stocked Douglas-fir stand. No significant insect or disease problems have been discovered at this time. There is more than average defect in the stand, possibly a result of the 1962 Columbus Day storm.

The understory is comprised primarily of vine maple, sword fern, salal, and huckleberry.

Area 2 has a Douglas-fir stand that is well stocked. There are minor amounts of hemlock, true fir, cedar, and red alder mixed in. In the UDS stands, the understory is comprised mostly of salal, Oregon grape, huckleberry, vine maple, and scattered small conifer trees. An ocular estimate of 2 hard snags and 3 soft snags per acre are present. Those that exist are mostly small amounts of decay classes 3-5. Large woody debris is present.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age <sup>2</sup>	DBH	BA	TPA	SDI	Net Acres <sup>3</sup>	
1	MC <sup>4</sup>	7359	DF	31, 38-48	14	148	130	39	57	
		7382*	DF	57 est	17	212	136	53	29	
		<i>Target</i> <sup>5</sup>	<i>REG</i>							86
2	PC-M <sup>4</sup>	7336	DF	57-63	21	208	87	47	59	
		8346*	DF	61 est	22	118	45	26	10	
		<i>Target</i> <sup>5</sup>	<i>DF</i>	<i>63-74</i>	<i>20</i>	<i>140</i>	<i>64</i>	<i>30</i>	<i>69</i>	

<sup>1</sup> The source of stand inventory information is from SLI inventory grown forward to 2006. Stand ID shown with (\*) is from SLI expanded data 10/2/2006.

<sup>2</sup> Actual measured breast height ages are shown unless labeled "est."

<sup>3</sup> The acres are based on GIS and exclude existing and planned roads, stream buffers, green tree retention areas, and non-thinnable areas.

<sup>4</sup> PC-H is Moderate Partial Cut, MC is Modified Clearcut.

<sup>5</sup> 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 for the Wheeler and Upper Salmonberry basins, the desired future condition (DFC) for Area 1 is 100% General and the DFC for Area 2 is 32% General, 41% LYR, and 27% OFS.

After harvest of Area 1 will be planted and managed to develop into a vigorously growing stand. In the future, we intend for this stand to be managed along with the adjacent REG stands to the west.

Area 1 will consist of Douglas-fir with lesser amounts of noble fir, western red cedar and grand fir. A few alder are also present. Legacy trees left from the first regeneration harvest will be located in large clumps along the lower portion of the sale area. And all noble fir will be retained in the area above. Snags will be created with the remnant green trees.

Area 2 will consist of Douglas-fir with lesser amounts of hemlock, true fir, cedar, and red alder mixed in. Where there are gaps in the overstory, there will be an understory of salal, Oregon grape, huckleberry, vine maple, and scattered small conifer trees. The CSC stand will have mostly ferns and moss on the forest floor, with widely scattered areas of salal and Oregon grape. Minor species, such as cedar, will be reserved from cutting. Existing snags will be retained as safety permits.

**Table 3. Stand Structure Information**

Area	Prescription	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	MC	7359	UDS	REG	GEN	57
		7382	CSC	REG	GEN	29
2	PC-M	7336	UDS	UDS	GEN	22
					LYR	28
		8346	CSC	UDS	OFS	10

<sup>1</sup> 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.

**IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:**

This sale will be a combination of a modified clear-cut of Area 1 and a partial cut of Area 2.

A variety of methods will be used to achieve green tree retention requirements in Area 1. Area 1 will have scattered green tree retention islands and scattered noble fir. These methods will be used in combination to meet the green tree requirement in the Forest Management Plan (FMP).

All existing DWD will be reserved in the sale area. 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 during harvest activities and will develop over time through natural processes.

After harvest, the landing debris not utilized will be burned. At this time it is anticipated that a site prep herbicide treatment will be applied and, prior to planting, mountain beaver will be trapped from this unit.

Following completion of site prep activities, area 1 will be replanted with approximately 85% Douglas-fir and 15% other species including noble fir and western red cedar at a density between 430 and 550 trees per acre. All cedar will be tubed to deter elk and deer browse. Once planting is complete, the operation area will fit the REG classification.

It is likely that at least one herbicide application will be needed within the first 3 years after planting in order to release planted conifer from competing brush. It is also likely that mountain beaver will be trapped again the first year after planting. Alder is expected to seed-in naturally into the stand and may need to be treated, either manually or with herbicides if it is threatening the desired conifer seedlings. By age 12, the stand will have moved from REG to CSC.

If the goals for the stand remain unchanged, it is anticipated that when the stand reaches age 12-15, it is likely that PCT will be used to reduce total trees to between 200 and 250 trees per acre. This will create an even-aged and sized stand that maximizes timber growth for an early commercial thinning. We would expect to leave the biggest and best trees, while also trying to maintain the existing species diversity.

At approximately age 35 the area will be capable of supporting a commercial thin. Contingent on goals in the year 2040, this area could be thinned to an RD of 35, capturing volume that would be lost due to competition mortality. This thinning would also move the stands on the pathway from CSC to UDS by opening the stands enough to allow vegetation to grow in the understory. Approximately 5-10 years following this thinning, the UDS condition will be achieved. At age 60-70 years the stand will be a candidate for another modified clear-cut.

Area 2 will be a moderate thinning and this will be the second entry into this stand. The stand will be a candidate for a possible third entry as it produces natural regen from neighboring cedar, hemlock and hardwoods trees. This will help produce a more layered stand.

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 during harvest activities and will develop over time through natural processes. Area 2 will have one snag per acre created by tree topping. These methods will be used in combination to meet the green tree requirement in the Forest Management Plan (FMP).

**V. ESTIMATED TIMBER AND REVENUE INFORMATION:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		X
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,100		
Stumpage Value (\$/MBF)	375		
Estimated Gross Value	1,537,500		\$1,537,500
		Project Costs:	\$17,000
		Estimated Net Value:	\$1,520,500

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

For Area 1 enter ODF Salmonberry Road between Hwy 26, MP 28 and MP 29. From the Salmonberry Road take Section 10 Road to Wheeler Road to Fire Road #2. Right off Fire Road #2 on spur road to timber sale area. Access is entirely through ODF owned land and on ODF roads. Miles of road from Highway 26 to timber sale area is approximately 7-8 miles.

Access for Area 2 is approximately 26 miles from Forest Grove on Highways 47 and 26, to the Salmonberry Road, 3 miles south to Wheeler Road and then to the sale areas.

Approximately 0.25 miles of road will be constructed to provide access to cable yarding or landing locations. New construction is limited to ridge tops and gentle to moderate side slopes. Proposed roads will not cross any streams. Estimated cost is \$15,000.

Approximately 2.0 miles of existing spur roads from earlier timber sales will be closed or vacated, at an estimated cost of \$2,000.

Additional purchaser select landings will be constructed in the ground operable portion of the unit areas.

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.

Total estimated project costs are \$17,000.

Costs for landing construction and spur road closure are included in harvesting costs.

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

**Table 5. Transportation Management Summary (Miles).**

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	0.25	0
Improvement	0	0	0	0
Maintenance	0	3.5	0.25	0
Closure/Vacation	0	0	2.0	0

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

In Area 1, a small type N perennial tributary of Doty Creek flows through the sale area and two small Type N streams originate in the sale Area and flow into the perennial N stream at the bottom of the unit. In Area 2, a small type N stream flows through the sale and the eventually runs into the Salmonberry River. Riparian area stand types along these streams are a Douglas-fir and red alder mix.

The cable operations will tailhold across these streams. This is expected to result in minimal impacts to the RMA.

Snags will be created from green trees in and adjacent to the RMAs of each of these streams. Creating these snags will allow other co-dominate trees to increase in size and vigor, will allow more light to reach the understory, and will add snags to this stand type, each of which contribute to developing mature forest conditions in the RMA.

Area 2 is within the Upper Nehalem watershed. The Upper Nehalem Watershed Analysis will be checked for recommendations that could be applied during this sale.

Area 1 is within the Lousignont/Upper Nehalem basin. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. Stream buffers within harvest unit boundaries will be managed according to Salmon Anchor Habitat guidelines. This will include the green tree retention along seasonal small type N streams.

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. There will be no culverts constructed that will cross any type F fish streams.

### **VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:**

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

Surveys for northern spotted owls were conducted in 2006 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Salmon Derby was surveyed for spotted owls three times in 2006 with no responses, and the second year of survey will be completed in 2007. 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.

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:**

The steep slopes in the southwest portion Area 1 appear to be directly above the pond in Derby Creek. The initial risk assessment by the geotechnical specialist for the sale is low except for this area of steep slopes in the western portion of Area 1. If these steep sloped areas remain within the sale area as the sale layout proceeds, the geotechnical specialist will be consulted to determine if a field visit is needed (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

### **X. RECREATION RESOURCES:**

The sale is in the area of the forest designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). There are no recreation facilities in or adjacent to the sale area.

Some dispersed camping and hunting does occur in this area however this sale is not expected to greatly impact these activities.

**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:**

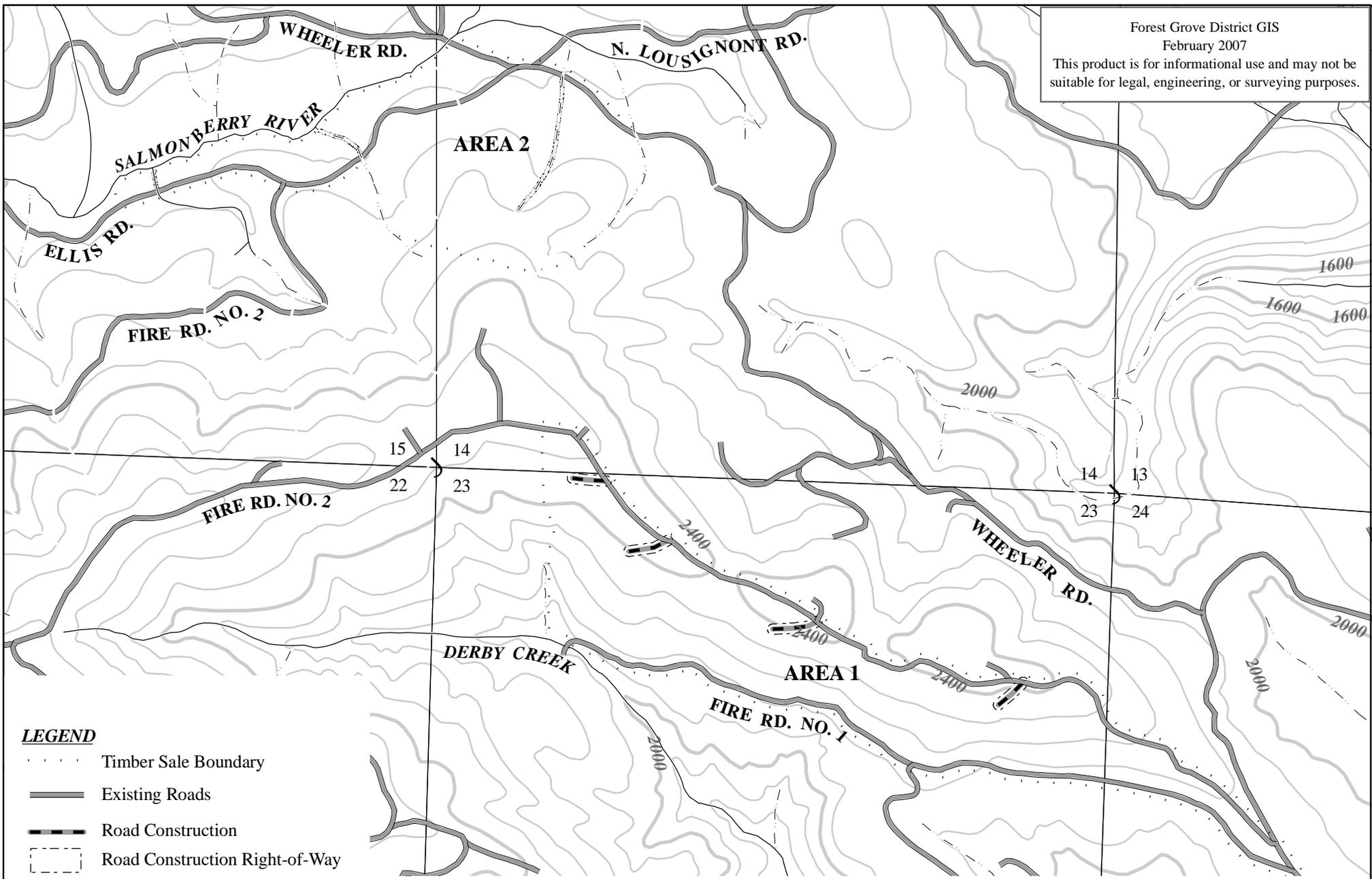
The sale has a visual classification of Level 3, low sensitivity. No scenic impact is expected.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

No property survey is needed.  
No other resources of significance are involved.

**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 Type N and Type F streams within the sale area. Area 1 is also classified as Focused Stewardship, Wildlife Subclass, because the sale area is within the Lousignont/Upper Nehalem Salmon Anchor Habitat (SAH). See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



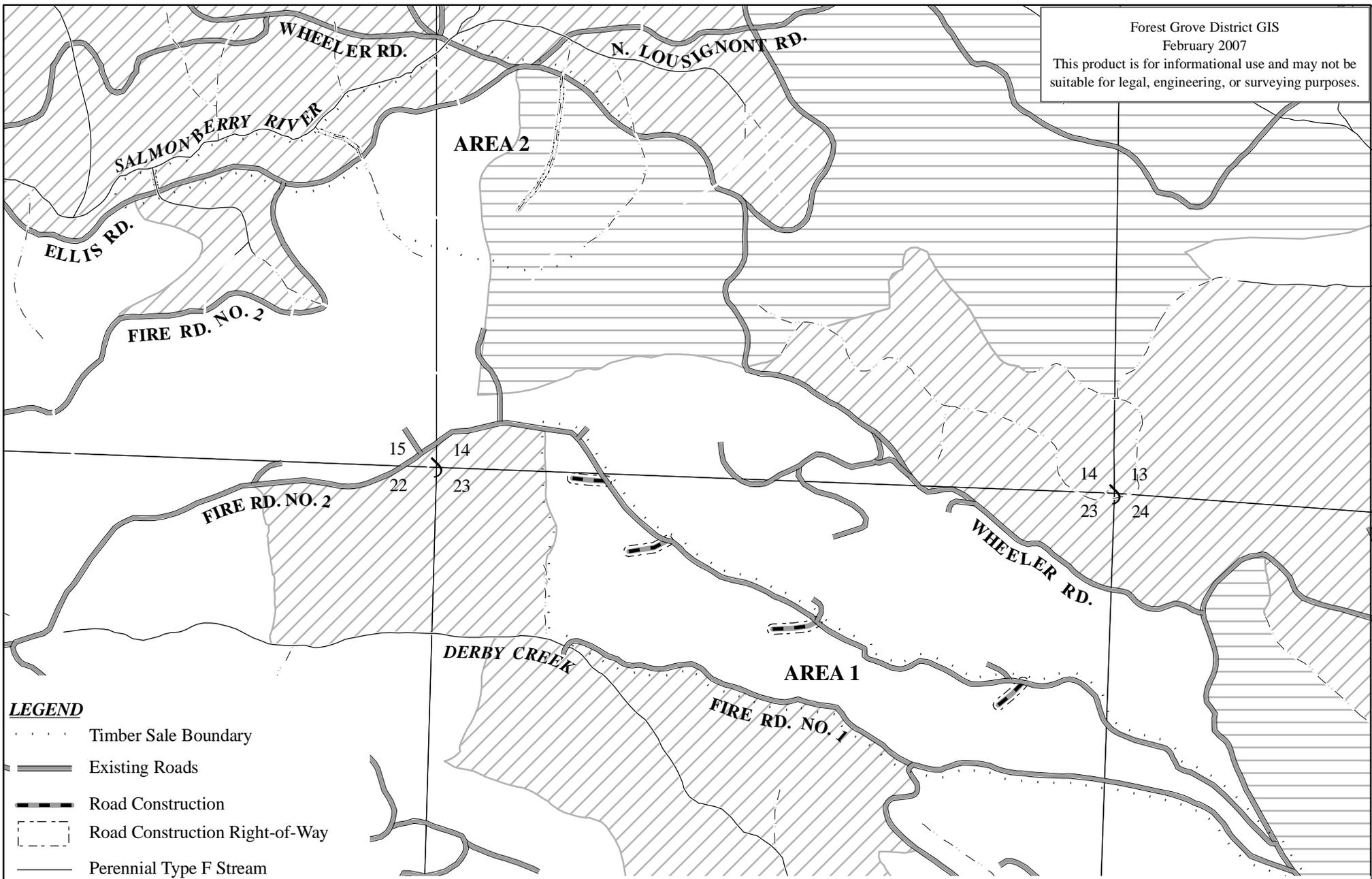
- LEGEND**
- Timber Sale Boundary
  - Existing Roads
  - Road Construction
  - Road Construction Right-of-Way
  - Perennial Type F Stream
  - Perennial Type N Stream
  - Stream Buffer
  - 400' Contour Intervals
  - 80' Contour Lines



FY 2008  
 SALMON DERBY  
 PORTIONS OF SECTION 14, 15, 23, & 24, T03N, R06W, W.M.  
 TILLAMOOK COUNTY, OREGON  
 Attachment A: Topography

**3**

APPROXIMATE NET ACREAGE	
AREA 1	86 ACRES (MC)
AREA 2	69 ACRES (PC-M)
<b>TOTAL</b>	<b>155 ACRES</b>



- LEGEND**
- Timber Sale Boundary
  - Existing Roads
  - Road Construction
  - Road Construction Right-of-Way
  - Perennial Type F Stream
  - Perennial Type N Stream
  - Stream Buffer

- DFC Stand Type**
- Layered
  - Older Forest Structure

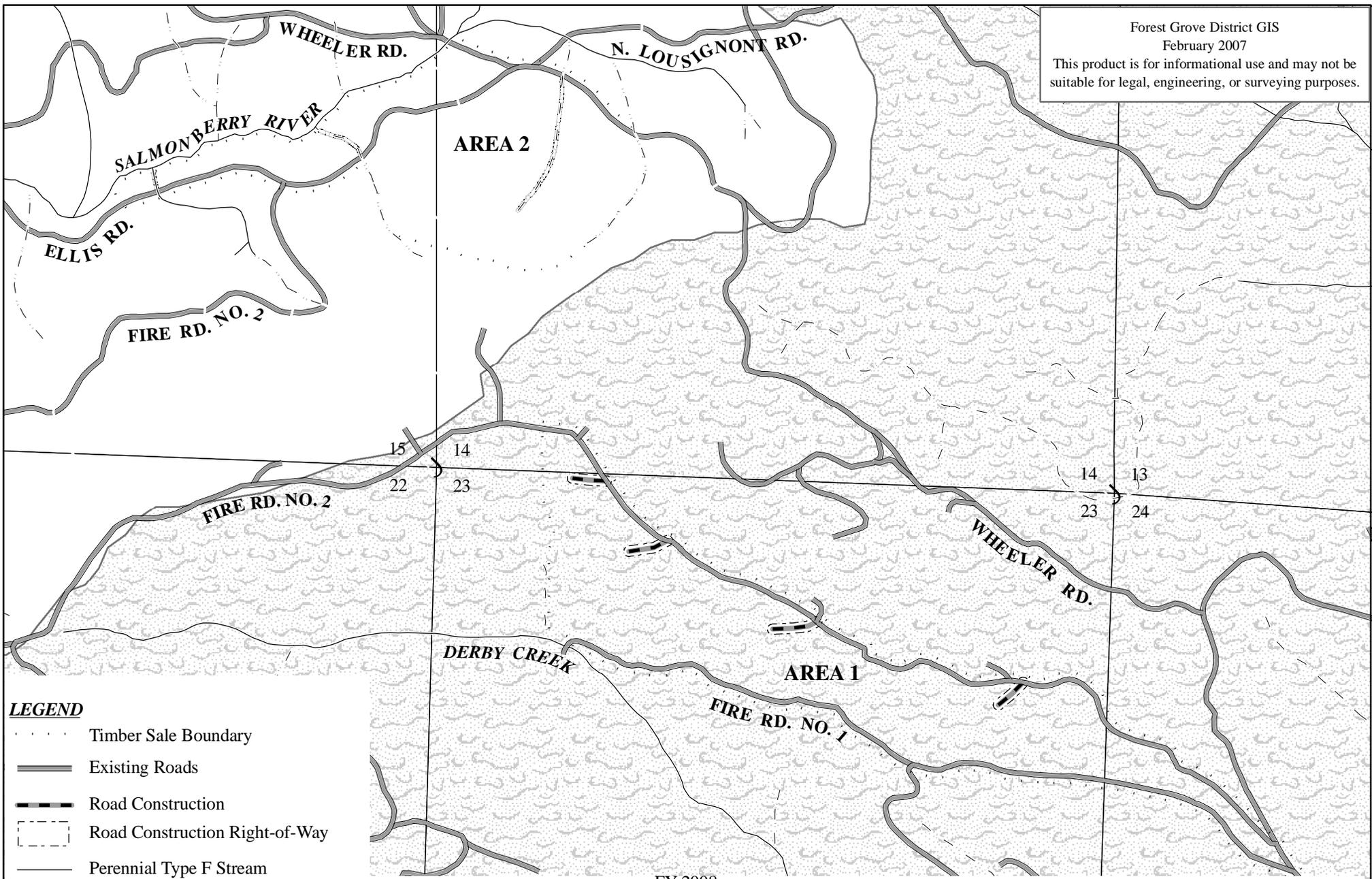


FY 2008  
 SALMON DERBY  
 PORTIONS OF SECTION 14, 15, 23, & 24, T03N, R06W, W.M.  
 TILLAMOOK COUNTY, OREGON  
 Attachment B: Desired Future Condition

Scale  
 1:12000  
 1 inch = 1000 feet

**3**

APPROXIMATE NET ACREAGE	
AREA 1	86 ACRES (MC)
AREA 2	69 ACRES (PC-M)
<b>TOTAL</b>	<b>155 ACRES</b>



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



FY 2008  
 SALMON DERBY  
 PORTIONS OF SECTION 14, 15, 23, & 24, T03N, R06W, W.M.  
 TILLAMOOK COUNTY, OREGON  
 Attachment C: Key Resources (SAH)  
 Scale 1:12000  
 1 inch = 1000 feet

**3**

APPROXIMATE NET ACREAGE	
AREA 1	86 ACRES (MC)
AREA 2	69 ACRES (PC-M)
<b>TOTAL</b>	<b>155 ACRES</b>