

# Pre-Operations Report

**Operation Name: Hansen Falls**

**Legal: Portions of Sections 9, 10, 15, 16, T3N, R9W, W.M.,  
Tillamook County, Oregon**

**Management Basin: North Fork Nehalem**

**SAH Status: None**

**FDF: 100% BOF**

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

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	Partial Cut – L	46	42
2	Partial Cut -L	3	3
Total		49	45

*1. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, and non-required thinning areas.*

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

Slopes have a varied aspect and range from 5% to 45%. Elevations range from 500 feet to 1000 feet. The major soil types are Rye and Killam.

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

**Table 2. Stand Inventory Information<sup>4</sup>**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	PC	304	DF, RA, WH	95	22	324	132	63	42
		Target <sup>3</sup>	DF, RA, WH			220	89	35-45	
2	PC	305	DF, RA, WH	95	22	324	132	63	3
		Target <sup>3</sup>	DF, RA, WH			200	89	30-35	

*1. The source of stand inventory information is from cruise plots taken in 2007.*

*2. The net acres are based on orthophotos and GIS and exclude roads, and stream buffers, reserve area and non-required thinning areas.*

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

*4. These numbers are based on plot data taken to this point and final numbers may differ significantly. The directive for minor and major modifications will be followed for further review.*

The sale areas were logged in the early 1900's and naturally regenerated. Areas 1 and 2 have had no prior stand management. Area 3 was clear-cut in the 1960's and then planted. Stand Level Inventory (SLI) is available for Area 1 as well as timber cruise for Areas 1 and 2. (cruise will be completed in October for Area 3)

The sale areas are classified as 90% Understory (UDS) and 10% Closed Single Canopy (CSC) according to SLI. See Table 2 for specific stand data.

**Area 1:** The current age of this stand is approximately 95 years old and is composed of large, western hemlock and Douglas-fir with small components of spruce and red cedar and pockets and stringers of alder scattered throughout. The average DBH for this stand is approximately 25 inches. The stand is currently categorized as Understory (UDS) with an average stand density index (SDI) for western hemlock of approximately 58% and an SDI for Douglas-fir of approximately 77%. The stand is dense and there are signs of mortality in the understory conifer and shrub species, receding live crown ratios on dominant trees, and reduced diameter growth. Height to diameter ratios may be an issue and will need to be evaluated during sale layout.

**Area 2:** The current age of this stand is approximately 95 years old and is composed of large, well stocked western hemlock and Douglas-fir with small components of spruce and red cedar and pockets and stringers of alder scattered throughout. The average DBH for this stand is approximately 25 inches. The stand is currently categorized as Understory (UDS) with an average stand density index (SDI) for western hemlock of approximately 58% and an SDI for Douglas-fir of approximately 77%. Field visits by Area Biologist indicates a more complex stand structure than area 1, this includes patchier development and tree clusters, including marbled murrelet habitat trees and non habitat trees.

**III. DESIRED STAND CONDITION AND VISION:**

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	304	UDS	UDS	OFS	42
2	305	UDS	UDS	OFS	3

*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.*

See Section IV: Proposed Management Prescription for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition (DFC) goals.

**Sub-Basin Perspective**

The Hansen Falls sale is within the Middle North Fork Nehalem sub-basin. Much of the basin is mixed species conifer stands and recent management has focused on partial cut of mixed conifer stands and regeneration harvest of stands severely impacted by Swiss needle cast. Much of the basin is designated as Marbled Murrelet Management Areas.

After the Hansen Falls sale, there are not many opportunities for management. Some small operations are possible focusing on partial cuts and patch cuts of the mixed species conifer.

**Area 1 and 2:** The DFC for this stand is Older Forest Structure (OFS).

The *short term* vision for this stand is to have reduced density which promotes individual tree growth, increased light to the forest floor and the maintenance of high quality marbled murrelet management area. Reduced density in accordance with proper protection to existing habitat trees will allow establishment of a tolerant understory cohort, release existing understory conifer and maintain high quality habitat.

The *long term* vision for this stand is to have a mixed species stand, including Douglas-fir, western hemlock, spruce, cedar, and hardwoods. The different species within the stand will be providing for both horizontal and vertical diversity. A more complex stand, will also add to the creation of unique habitat niches, by allowing for increased growth of existing and developing platforms for marbled murrelet nesting and improved access to limbs with platforms.

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

The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

**See Table 2 for prescription targets.**

##### **Prescription:**

**Area 1:** To reach OFS condition and maintain high quality marbled murrelet habitat, this area has been designated as an automark thinning. The Douglas-fir, hemlock, and spruce will be thinned to a basal area range of 200-220 square feet with a target stand density index (SDI) of 35-45.

Minor species and all hardwoods will be reserved and efforts will be made to reserve the understory. There will be a lower end and upper end diameter limit set to insure that mixture of large and small diameter classes are reserved. Additional measures, including protecting all trees with limbs 5 inches and greater shall also be taken to minimize limb breakage on developing platform trees and prevent potential damage to all habitat trees (See VI Harvesting and Access Considerations).

**Area 2:** To reach OFS condition and maintain high quality marbled murrelet habitat, this area has been designated as marked thinning (painting leave and/or take trees). The Douglas-fir, hemlock and spruce will be thinned to a basal area range of 180-200 square feet with a target stand density index (SDI) of 30-35. Minor species and all hardwoods will be reserved and efforts will be made to reserve the understory. There will be a lower end and upper end diameter limit set to insure that a mixture of large and small diameter classes are reserved.

Due to the presence of suitable and developing murrelet nesting habitat within this area, a biologist trained in murrelet habitat management shall assist on the ground in refining sale prescription. A marked thinning will allow sale preparation forester to work with Area Biologist to designate leave and take trees. These measures will be taken in order to minimize limb breakage on developing platform trees and prevent potential damage to all habitat trees (See VI Harvesting and Access Considerations).

## **Snags**

**Area 1 and Area 2:** Existing snags not determined to be a safety hazard will be retained and any felled snags will be left for down wood. The current numbers of snags in this area are sufficient to meet the Forest Management Plan (FMP) guidelines for OFS; however the topping and/or girdling of tailhold and intermediate support trees will be required for additional snag recruitment. This will insure that the minimum requirements are met and/ or exceeded throughout the sale.

## **Down Wood**

**Area 1 and Area 2:** Existing down wood will be left in the sale areas. The current numbers for down wood in this area are sufficient to meet the Forest Management Plan (FMP) guidelines for OFS, however it is anticipated that an additional 100-200 cubic feet per acre of down woody debris will be recruited during harvesting activities and through mortality and windthrow of residual or leave trees, felled snags and tops left during harvest. Small non-merchantable hardwood and conifer will be retained where possible in harvest units with the expectation they will become short term snags and down wood. Tops resulting from ground yarding will also be left in the unit.

## **Pathway**

**Area 1 and Area 2:** The light thinning prescription of these areas along with future monitoring for down wood and snags should move this stand into OFS without further management.

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

**Table 4. Timber and Revenue**

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

	Conifer	Hardwood	Total
Net Volume (MBF)	1080	0	1080
Stumpage Value (\$/MBF)*	\$100	0	
Estimated Gross Value	\$111,318	0	\$111,400
		Project Costs:	\$31,790
		Estimated Net Value:	\$79,610

*\*Combined Douglas-fir and hemlock stumpage values based on harvest type.*

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

**Special harvest Considerations:** This sale is located within the Rackheap Creek Marbled Murrelet Management Area (MMMA). A draft Biological Assessment is being completed as part of the sale. The Biological Assessment will address specifics of prescription and operational activities. Due to a preponderance of suitable habitat trees, protection measures shall include but not be limited to reserving all trees with platform limbs (limbs  $\geq$  5 inches in diameter) and any tree which poses a risk to habitat trees or platform limbs through felling. Additionally, the use of guy trees and tail trees for all operations will be restricted to those trees which do not show any habitat potential (an upper diameter limit as well as suitability for habitat i.e. developed or developing limbs) will be used to make this determination.

In order to assure adequate protection measures are followed, sale preparation foresters and Area Biologist will be on site for initial harvest operation to monitor harvest operations.

**Access:** The sale areas are accessed via Gods Valley Road to Hansen Road to Fall Helloff Road. These are currently all weather, crushed rock and pit run roads. See maps for specific road locations and conditions.

Approximately 4.5 miles of existing surfaced road will be maintained which includes grading, rocking, culvert replacement, spot rocking, and adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately .75 miles of road will be constructed in order to provide access to cable yarding areas.. Approximately 0.75 miles of spur roads will be blocked following harvest operations roads.

Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on road closure. The operation will be approximately 95% cable yarding and 5% ground yarding. In addition .2 miles of road will be vacated as part of the sale.

**Table 5. Transportation Planning Summary (Miles)<sup>4</sup>**

Activity	Mainline	Collector	Rocked Spur <sup>1</sup>	Dirt Spur <sup>1</sup>
Construct			.75	
Improve				
Maintain <sup>2</sup>	4.5			
Close/Block <sup>3</sup>			.75	
Vacate <sup>3</sup>				.2

1. Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest
2. All roads accessing the sale area will be maintained during the life of the timber sale contract. Maintenance miles in the table are those roads not being constructed or improved.
3. Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.
4. The numbers in this table reflect planned Project Work associated with the sale.

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

Fall Creek is a small Type F stream that is located adjacent to sale area. The inner and outer riparian zones of these Type N streams will be managed towards mature forest condition.

The Oregon Department of Fish and Wildlife (ODFW) will be requested to complete stream surveys prior to sale layout. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use.

Stream buffers within or adjacent to harvest unit boundaries will be managed according to *Forest Management Plan* Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

An area adjacent to this sale has been identified by ODFW fish biologist and planners for a stream enhancement project. The site is located in the northeast corner of the sale area at the confluence of two type F streams (small, unnamed,

perennial and Fall Creek). Fall Creek Road spurs from Fall Helloff Road and where it crosses Fall Creek is currently disrupting flow and has potential to obstruct fish passage. As part of the sale, the existing earth and wood crossing will be pulled back. Flow and wetland will be restored to a healthy functioning state. Approximately .2 miles of this road will be vacated.

Refer to Aquatic Resource Protection Strategies in the Summary document for information on in the “in stream work period’ road work and stream improvement projects.

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

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

The sale is located within a Marbled Murrelet Management Area. A preliminary biological assessment is being prepared by the Area Biologist according to ODF policy. The Area wildlife Biologist shall be involved with on-the-ground sale preparation activities, including marking take and leave trees within area 2 and 4.

Surveys have been conducted and completed for the 2007 survey and new surveys will be conducted for the 2008 season for marbled murrelets. The surveys are part of on-going monitoring of murrelet activity in the MMMA as well as pre and post harvest activity levels. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol. There have been no marbled murrelet detections during the 2006 survey season.

It was determined that in the sale areas there is potential northern spotted owl habitat within or adjacent to the sale boundary. Surveys have been conducted and are complete for the 2007 survey and new surveys will be conducted during the 2008 season for northern spotted owl. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed protocol. There have been no northern spotted owl detections during the 2006 survey season.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants 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 no high landslide hazard locations within Areas II and III. There is a band of high landslide hazard locations along the eastern edge of Area I. The eastern portion of Area I drains into Fall Creek. The remainder of the sale drains

into Rackheap Creek. The risk of landslides delivering directly from the sale to Fall Creek is moderate and to Rackheap Creek is low. Areas II, III, and the western portion of Area I appear to be located on a large, deep-seated landslide landform.

The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

**X. RECREATION RESOURCES:**

The sale areas are designated as Non-Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator. No OHV trails were identified within or adjacent to the sale areas. Recreational use common to this area includes hiking, fishing, and hunting.

**XI. CULTURAL RESOURCES:**

The *Tillamook State Cultural Assessment* does not list any cultural sites within or adjacent to the proposed sale boundary.

**XII. SCENIC RESOURCES:**

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

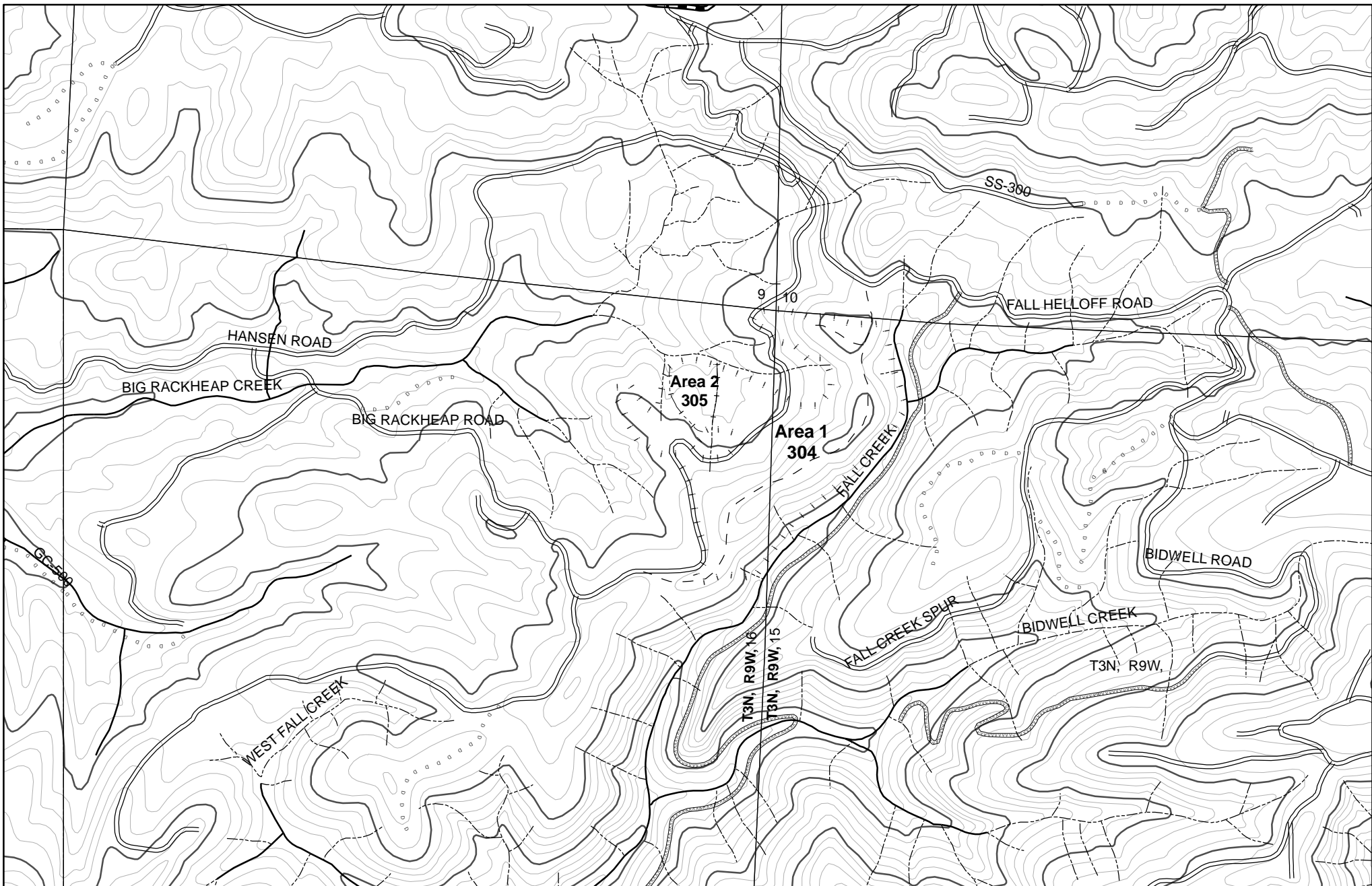
**XIII. OTHER RESOURCE CONSIDERATIONS:**

There is a permanent inventory plot within the eastern portion of Area 1. Permanent plot markings will be protected according to guidelines.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The sale areas contain Focused and Special, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale areas also contain Focused, Wildlife Habitat. See Section VIII, T&E Species Considerations.

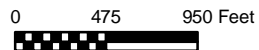
Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process.



Contour Interval 40'

- Area boundary
- ! ! Sale boundary
- Ownership boundary
- Perennial Type-F stream\*
- - - Perennial Type-N stream\*
- == Unsurfaced road
- == Surfaced road
- State/Federal highway

- Legacy road
- o o o Blocked road
- - - Road construction
- County road
- ; ; Transmission line



**3**

**Hansen Falls  
-- Topography --  
2009 SALE PLAN  
TILLAMOOK DISTRICT  
Portions of Sections 15 and 16  
T3N, R9W, W.M.,  
Tillamook County, Oregon**

\*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Tillamook District GIS  
10/24/2007  
This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

Area	Type of Operation
1	Partial Cut-L
2	Partial Cut -L



Desired future condition  
 Layered  
 Older forest

- - - Area boundary
- ! ! ! Sale boundary
- - - Ownership boundary
- Perennial Type-F stream\*
- - - Perennial Type-N stream\*
- == Unsurfaced road
- Surfaced road
- State/Federal highway

- Legacy road
- Blocked road
- Road construction
- County road
- Transmission line



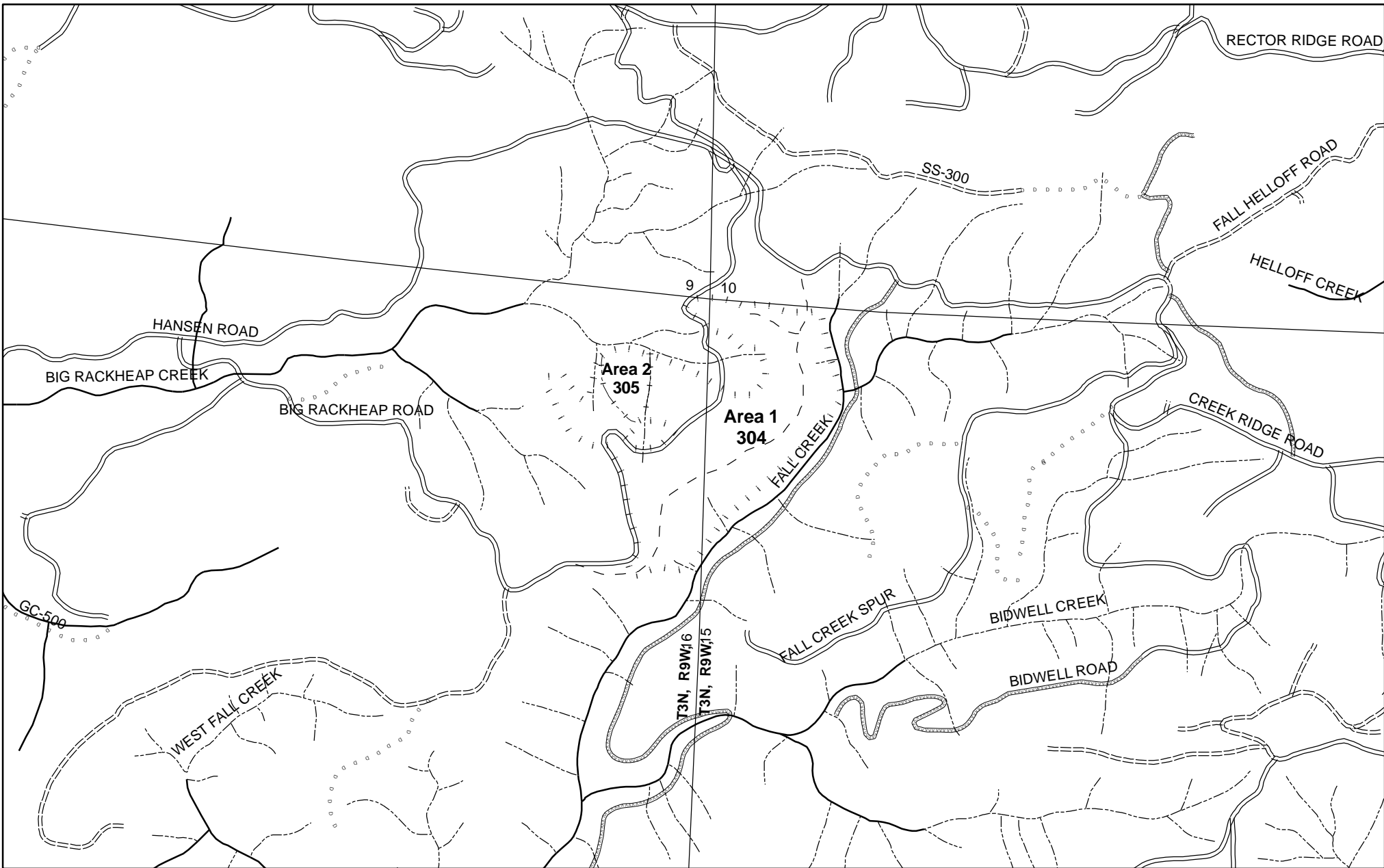
# 3

**Hansen Falls**  
**– Current and Future Condition –**  
**2009 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Sections 15 and 16  
 T3N, R9W, W.M.,  
 Tillamook County, Oregon

\*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Tillamook District GIS  
 01/08/2008  
 This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

Area	Type of Operation
1	Partial Cut-L
2	Partial Cut-L



- |  |                       |  |                          |  |                   |
|--|-----------------------|--|--------------------------|--|-------------------|
|  | Buffer                |  | Area boundary            |  | Legacy road       |
|  | Green Tree Retention  |  | Sale boundary            |  | Blocked road      |
|  | Non-required thinning |  | Ownership boundary       |  | Road construction |
|  |                       |  | Perennial Type-F stream* |  | County road       |
|  |                       |  | Perennial Type-N stream* |  | Transmission line |
|  |                       |  | Unsurfaced road          |  |                   |
|  |                       |  | Surfaced road            |  |                   |
|  |                       |  | State/Federal highway    |  |                   |

3

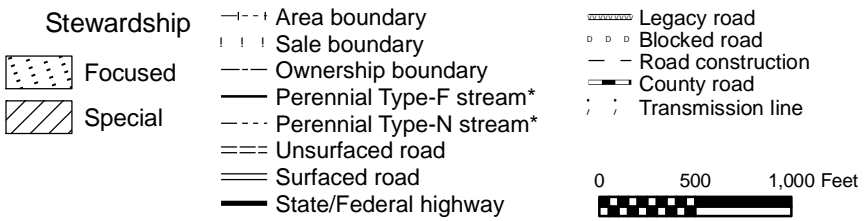
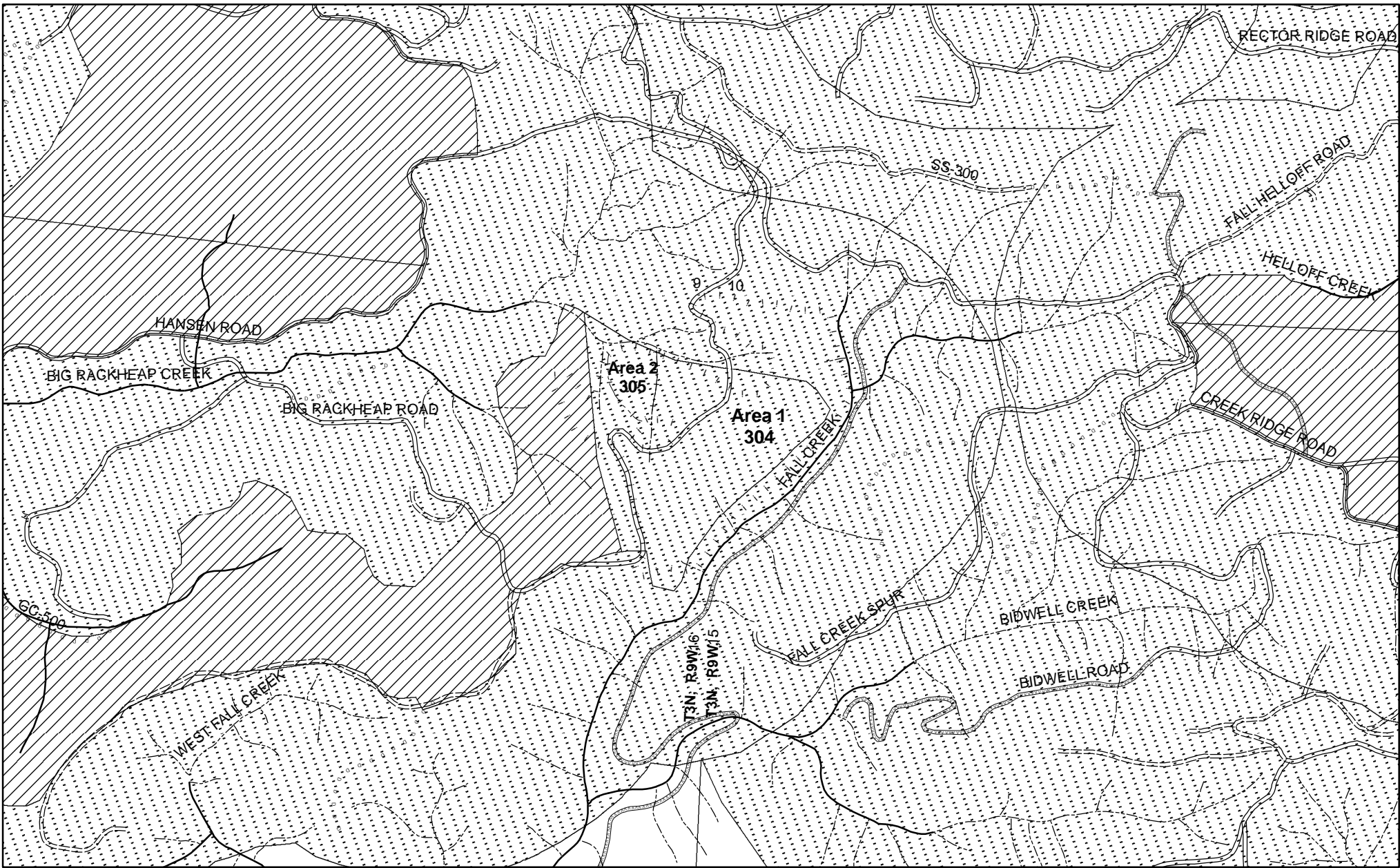
**Hansen Falls**  
**-- Key Resources --**  
**2009 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Sections 15 and 16  
 T3N, R9W, W.M.,  
 Tillamook County, Oregon

\*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Area	Type of Operation
1	Partial Cut-L
2	Partial Cut-L

Tillamook District GIS  
 01/08/2008

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



# 3

## -- Key Resources/Wildlife Habitat--

### 2009 SALE PLAN

#### TILLAMOOK DISTRICT

Portions of Sections 15 and 16  
T3N, R9W, W.M.,  
Tillamook County, Oregon

\*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Tillamook District GIS  
01/08/2008  
This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

Area	Type of Operation
1	Partial Cut-L
2	Partial Cut-L