

Pre-Operations Report

Operation Name: North Coal (Alt)

Legal: Portions of Section 1, T3N, R10W, W.M., Tillamook County

Management Basin: North Fork Nehalem

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1 (Alt)	Partial Cut - Moderate	25	23
Total		25	23

1. The net acres are based on orthophotos and GIS and exclude roads and stream buffers.

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Located in portions of Section 1, T3N, R10W, W. M. The slopes have a predominantly east and west aspects and range from 10% to 90%. Elevations range from 200 feet to 480 feet. The major soil type is Tillamook.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC	201	WH/DF/RC/ RA	75	19	338	173	60	23
	Target ³		WH/DF/RC/ RA		24	191	63	31	23

1. The source of stand inventory information is from cruise plots.

2. The net acres are based on GIS and exclude roads and stream buffers.

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.

5. Includes 13 big leaf maple trees with a basal area of 16 ft² per acre.

Area 1 : The sale area was railroad logged during the late 1920's and early 1930's. Only the Douglas-fir and red cedar were harvested. The existing western hemlock was left standing and yarded through and became legacy trees. The sale area naturally regenerated with a mixed, dense stand of western hemlock, Douglas-fir, western red cedar and a minor component of red alder located in the riparian areas. Throughout the sale area, the scattered, legacy western hemlock trees contain defect from mistletoe and past logging practices. The north half of Tillamook District
2010 AOP

North Coal Pre-Operations Report

the stand is predominantly Douglas-fir while the south half is predominantly western hemlock. The basal area per acre for the western hemlock is 122 ft², 36 ft² for the Douglas-fir and 15 ft² for the red cedar.

Since the stand is approaching stem exclusion, there is little understory.

III. DESIRED STAND CONDITION AND VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest	Desired Future	Net Acres
1	201	UDS	UDS	OFS	23

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.

Watershed Perspective

Area 1 is within the North Fork Nehalem watershed. Much of the watershed is mixed species conifer stands. Recent management has focused on partial cut of mixed conifer stands and regeneration harvest of stands severely impacted by Swiss needle cast.

Area 1 -The desired future condition (DFC) for the sale area is OFS.

Short Term Vision:

The naturally regenerated western hemlock and Douglas-fir will be partial cut that will help move the stand to its DFC of LYR structure. The partial-cut harvest will reduce stand densities to allow for continued growth of vigorous trees, reduction of natural mortality, development of healthier, more wind-firm and generally more valuable trees. The legacy western hemlock, containing defect and mistletoe will be left adding more complexity to the stand.

Long Term Vision:

In the long term this operation moves the stand toward a more complex structure. This prescription will allow for openings and gaps in the stand which allows the residual trees to grow larger in diameter, height and crown depth. The openings and gaps will also allow for a greater understory initiation of shrubs and tree species creating horizontal and vertical diversity. The expectation is future density management on the naturally regenerated trees to continue the growth of over story trees as well as understory trees and shrubs species. It is also expected that the defect in the legacy trees will continue to increase causing mortality and/or wind throw adding even more complexity to the stand.

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.

Refer to Green Tree, Snag and Down Wood Strategies in the Summary document for strategies used on every sale.

Partial Cuts

Area 1

Prescription: A partial cut will remove a portion of the naturally regenerated western hemlock and Douglas reducing the stand basal area to a range of 180 to 200 ft² and a SDI of 29 to 33%. All other conifer and hardwood will be reserved.

Snags and Down Wood: Down wood or snag creation in this area will be done through standard harvesting practices. The legacy trees from the original stand will also be left. It is expected that there will be mortality and/or wind throw in these trees because of the defect. A component of hardwoods and conifers will also be retained in the stream buffers and high landslide hazard locations (HLHL). All hardwoods species other than red alder will be reserved.

Pathway: Another thinning will be needed in these stands in 15 to 20 years to keep these stands on a trajectory which will maintain the crown ratios, stand vigor, and develop healthier and larger hemlock and Douglas-fir in the residual stand. At this time managers will review density, stand health, snag and down wood levels, and landscape goals to decide future management prescriptions.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%	<input type="checkbox"/>	<input type="checkbox"/>
Planned Quarter:		(Alt)	

	Conifer	Hardwood	Total
Net Volume (MBF)	504	0	504
Stumpage Value (\$/MBF)	\$50*	-	
Estimated Gross Value	\$25,200	-	\$25,200
		Project Costs:	\$4,900
		Estimated Net Value:	\$20,300

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

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Area 1 is accessed via Coal Creek Ridge Road. This road is a surfaced, all-weather road except. See maps for specific road locations and conditions.

Approximately 0.2 miles of road will be constructed to provide access to cable harvest areas. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on this topic.

There will be no other project work included with this sale.

The operation will be 100% cable harvested.

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct				0.2
Improve				
Maintain ²		1.5		
Close/Block ³				0.2
Vacate ³				

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

There is a small, unnamed Type F stream and its tributaries which include additional unnamed, small, seasonal Type N streams within the sale area. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain.

Approximately 2 net acres of the sale area is within the Coal Creek sub-basin. This sub-basin has been identified as a Salmon Anchor Habitat (SAH) Basin and the most current SAH Basin Strategies will be used at the time of contract development.

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

Other known aquatic habitat within the sale areas includes seeps, springs and waterfalls.

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. A 25' no-harvest buffer will be established along the small type N streams.

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

Riparian management areas result in leave trees adjacent to the stream which protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat.

VIII. T&E SPECIES CONSIDERATIONS:

The sale area has been reviewed with the ODF Northwest Oregon Area Biologist.

Surveys have been conducted during the 2008 and 2009 survey season for marbled murrelets. All surveys for marbled murrelet were conducted in accordance with Pacific Seabird Group (PSG) protocol.

Surveys have been conducted during the 2008 and 2009 survey season for northern spotted owl. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed protocol.

The sale area was given a preliminary review for bald eagles and nest trees by the ODF NW Area Biologist. This area is a historic location for nesting bald eagles although the nest no longer exists. The sale area will need further review by the ODF NW Area Biologist at the time of sale layout.

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).

Streams in this sale are in the headwaters of Fall Creek, a sub-basin of the Nehalem basin. As of March 2008, coastal coho salmon are listed as threatened for the Oregon Coast. The riparian and aquatic strategies combined with road and harvest practices described in this Annual Operations Plan and our Northwest Oregon State Forests Management Plan (FMP) are designed to minimize impacts and or restore aquatic habitats that influence aquatic species.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based on USGS 1:24,000 topographic maps and available geologic maps. There are a few high landslide hazard locations in Area 1, which drains to Fall Creek, a tributary to the North Fork of the Nehalem River. The risk of landslides delivering to Fall Creek from Area 1 is low to moderate. The geotechnical specialist will conduct a field review of this sale.

X. RECREATION RESOURCES:

The sale area is not 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 area. No campgrounds or trails are located within the sale area, although there is a mountain bike trail in the vicinity. Recreational use common to this area includes mountain biking, hunting and hiking.

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.

XIII. Other Resource Considerations

None known.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

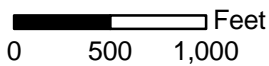
The sale area contains Focused and Special, Aquatic and Riparian Habitat. See section VII. Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale areas also contain Focused, Wildlife Habitat for Salmon Anchor Habitat (See section VII. Aquatic Resources and Water Quality).

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



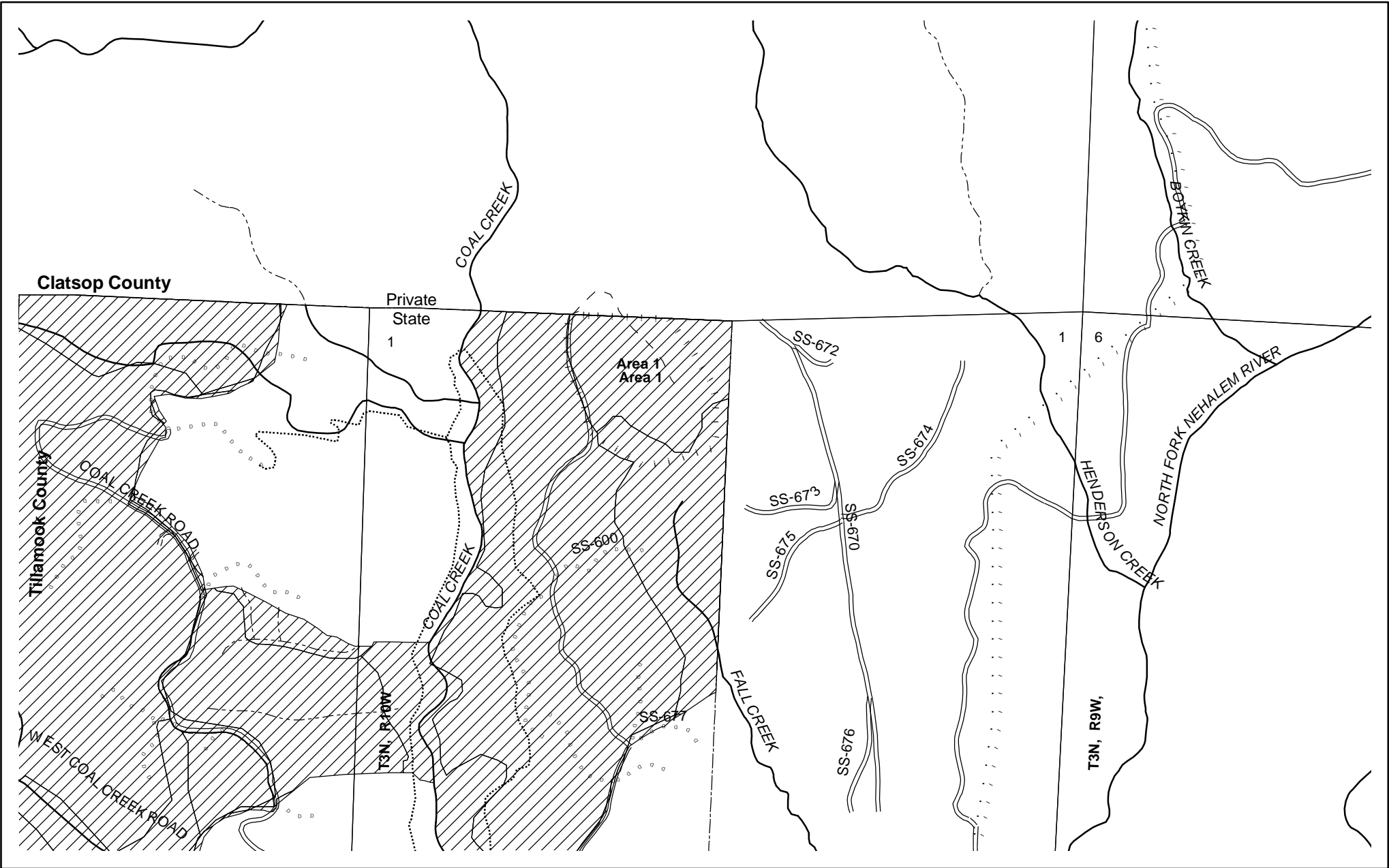
**North Coal
-- Topography --
2010 SALE PLAN
TILLAMOOK DISTRICT**

Section 1
T3N, R10W, W.M.,
Tillamook County, Oregon

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

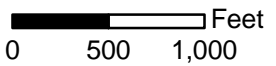
Area	Type of Operation
1	Partial Cut

Tillamook District GIS
5/20/2009
This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.



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
- Abandoned road
- o o o Blocked road
- - - Road construction
- County road
- Transmission line
- OHV trail
- Non-motorized trail



3

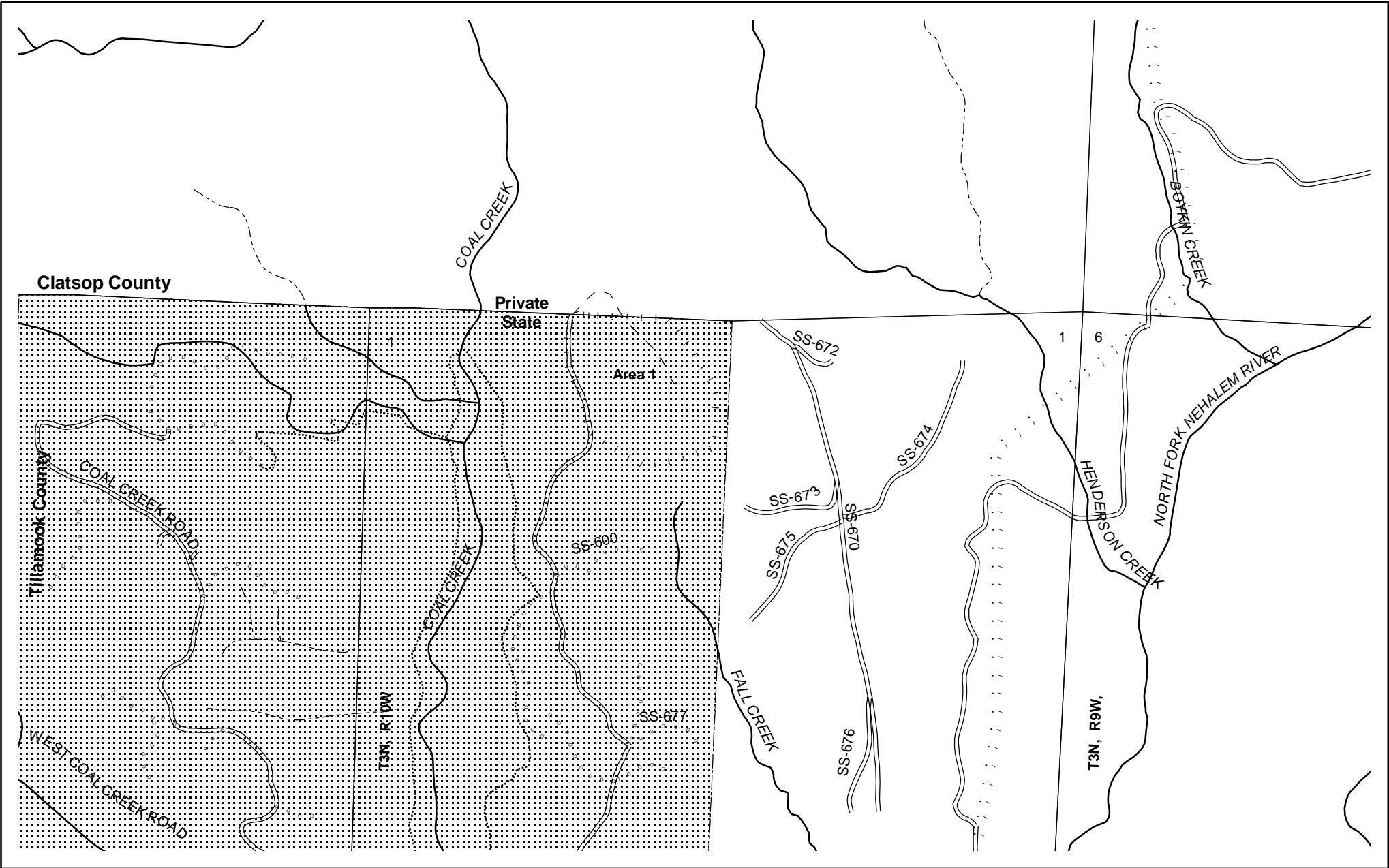
North Coal
-- Current and Future Condition --
2010 SALE PLAN
TILLAMOOK DISTRICT

Section 1
 T3N, R10W, W.M.,
 Tillamook County, Oregon

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

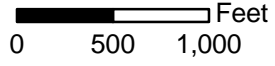
Area	Type of Operation
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Tillamook District GIS
 6/20/2009
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- Non-motorized trail



**North Coal
-- Key Resources --
2010 SALE PLAN
TILLAMOOK DISTRICT**

Section 1
T3N, R10W, 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

Tillamook District GIS
6/20/2009
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