

Pre-Operations Report

Operation Name: Peak Out

**Legal: Portions of Sections 23, 24, T1N, R9W, W.M., Tillamook
County, Oregon**

Management Basin: Kilchis

SAH Status: 100%

FDF: 100%

Operation Name: Peak Out

County: Tillamook

Management Basin: Kilchis

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Modified Clearcut	160	119
Total		160	119

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have primarily a northwest aspect. Elevations range from 400 to 1640 feet. The major soil types are Killam and Humbug with smaller area of Rye and Neddon.

The sale is located above a portion of the Little South Fork Kilchis River. The sale area is dominated by several deep draws and punctuated with moderate to steep ridges.

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information⁴

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
Area 1	RC	302	RA,DF,WH, SS	37	15	190	158	42	119
		Target ³	DF, WH, SS		21	30	13	6	119

1. The source of stand inventory information is from SLI.

2. The net acres are based on orthophotos and 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.

The sale area burned in both the 1933 Tillamook and again in the 1939 Saddle mountain fires. This sale was logged in the late 1950's to early 1960's. Approximately 10% was re-planted in 1966-67, with an additional 5% seeded in 1971-72 and the remainder of the area was naturally regenerated. This stand has been inventoried using the Stand Level Inventory (SLI) procedure and has been identified as Understory (UDS). Additional timber cruise information was collected in the sale. See Table 2 for specific stand data.

This stand is comprised of patchy pockets of conifer species and alder. The primary conifer species is western hemlock, with minor species consisting of Douglas-fir and spruce. There are contiguous alder pockets 5-15 acres in size. In addition conifer and hardwood mixed areas are within the sale area. There are also pockets of large remnant hemlock and Douglas-fir that did not burn in the 1933 or 1939 fires located mainly in the draws and scattered on and around a ridge area located in the center of the sale area.

The conifer dominated portions of this stand are moderately dense and have reached stem exclusion, resulting in poor height to diameter ratios, poor live crown ratios, slowed diameter growth, and very little understory. However, there are also pockets of conifer that are thinning themselves out and show vigor in growth.

Due to its age, alder throughout the sale area is beginning to die. Alder snags and down wood are found throughout the sale. This has allowed for some natural conifer regeneration. A conifer understory can be found in several of the alder dominated pockets but are beginning to stagnate as alder crowns fill in the overstory.

The major draws in the sale area are dominated by alder with merchantable alder and natural conifer regeneration in the upper reaches and non merchantable alder in the lower reach. The younger cohort of hardwoods is due to recent slide activity in the draws.

The sale area consists of two stand types (east and west). Stand Level Inventory information on these stand types show the following: the west side of the sale has only 0.5 snags per acre with 125 cubic feet of down wood in decay class 1 and 2. The total down wood in this portion of the sale is 1565 cubic feet. The stand type in the eastern half of the sale has an average of 10 snags per acre with 5 of those being over 24 inches.

Cruise data recorded 4 snags per acre with half of those under 24" DBH. Down wood totals 3,374 cubic feet per acre and 180 of that in decay classes 1 and 2.

III. DESIRED STAND CONDITION AND VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	302	UDS	REG	LYR	119

1. The stand is expected to develop into this condition in the five to ten years after this operation is completed.

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.

The DFC for this stand is 95% Layered (LYR) and the other 5% is General (GEN).

The short term vision for this stand is to put it on a pathway that moves the stand toward complex structure. The stand complexity will increase through variable density harvest which will release understory conifer trees from the alder overstory, creating space for a new cohort to be established and maintaining growth of overstory trees.

After harvesting, the sale area will have a mosaic of green trees in pockets ranging from 1 to 10 acres as well as openings and gaps ranging from 2 to 40 acres. The residual trees will consist of large overstory conifers as well as understory conifers. Structurally, an upper and lower diameter limit will leave pockets of green trees dominated by larger overstory and a small to mid size understory.

The long term vision for this stand is to have a mixed species stand, including Douglas-fir, western hemlock, spruce, cedar, and hardwoods. A new cohort of western hemlock, Douglas-fir, and cedar will be planted and alder and spruce will seed into the alder clearcut areas and larger gaps. This will provide both horizontal and vertical diversity and the remaining pockets of green trees will help the stand to develop into a layered condition. A precommercial thinning is expected in 12-15 years. After approximately 20-30 years of growth and development the stand will have a mixture of sizes, species and densities and likely be in a Layered condition.

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

Tillamook District
Final

Peak Out Pre-Operations Report

Retention Clearcut

Merchantable alder will be harvested and dense patches of conifer will be thinned to 60-80 square feet per acre or a diameter limit will be used to leave the largest conifer. Douglas-fir will be reserved.

Green Tree

The prescription will leave approximately 13 trees per acre, some scattered but mostly in clumps. The leave trees are anticipated to be 10 hemlock, 2 Douglas-fir, and 2 spruce trees. In addition, alder will be left in the large HLHL areas and stream buffers within the unit. Non-merchantable alder will be retained in the stand.

Snags

Snags will be created on the sale area mostly within the riparian areas and headwalls. One snag per acre is planned to be created for this sale. Existing snags not determined to be a safety hazard will be retained and any felled snags will be left for down wood. Creation of snags is also expected during harvest activities (rub trees, lift trees, or tail trees) and over time by natural processes.

Down Wood

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and windthrow of residual trees, felled snags, long-butting of defect from logs, 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.

Pathway

The stand will be planted with mixed conifer and it is anticipated that alder, spruce, and hemlock will seed into the sale area also. The stand will likely be precommercially thinned between age 12 and 17. It is expected that the stand will be commercially thinned around age 30-40 years of age to move it toward Layered structure. The current prescription will leave large legacy trees and a variety of species and sizes to add to the planted stand.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		x
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	326	**1153	1479
Stumpage Value (\$/MBF) *	\$75	\$200	
Estimated Gross Value	\$24,240	\$230,810	\$255,050
		Project Costs:	\$74,587
		Estimated Net Value:	\$180,463

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

****Hardwood pulp volume is expected on this sale.**

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Kilchis County Road to Kilchis Forest Road to Sam Downs Road to Kilchis Lookout Road. Forest roads are currently an all weather crushed rock. See maps for specific road locations and conditions.

Approximately 5 miles of existing surfaced road will need maintenance during the harvest operations. Approximately 1.3 miles of existing road will need improvement, which includes grading, widening and rocking. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 0.2 miles of constructed and 0.2 miles of reconstruction of abandoned roads will be needed within the unit to access to cable yarding landings. Following harvest roads within the sale areas will be blocked. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on road closure.

A culvert replacement is planned on the Little South Fork Kilchis Road. The existing culvert is not passing fish due to design problems.

The operation will be 95% cable yarding and 5% ground yarding.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct			0.4	
Improve			1.3	

Maintain ²		5		
Close/Block ³			0.4	
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:

The timber sale is located in the Middle Kilchis Salmon Anchor Habitat (SAH) Basin. The streams will be protected according the most recent SAH strategies at the time of sale prep.

The Little South Fork Kilchis is a large Type F stream that is adjacent to the northern boundary of the sale. High landslide areas with potential to deliver to Little South Fork Kilchis will be buffered out of sale.

There are additional Type N streams within the sale area. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain.

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.

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.

A culvert replacement is planned on the Little South Fork Kilchis Road. The existing culvert is not passing fish due to design problems.

VIII. T&E SPECIES CONSIDERATIONS:

The sale area was reviewed with the ODF Northwest Oregon Area Biologist. It was determined that in the sale areas there is potential marbled murrelet habitat within or adjacent to the sale boundary. Surveys have been and will be conducted during the 2007 and 2008 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol.

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 high landslide hazard locations scattered throughout the sale. The sale drains into the Little South Fork of the Kilchis River and Sam Downs Creek. The risk of landslides delivering directly from the sale to the Little South Fork of the Kilchis River and Sam Downs Creek is high. The eastern portion of the sale appears 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.

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:

None Known

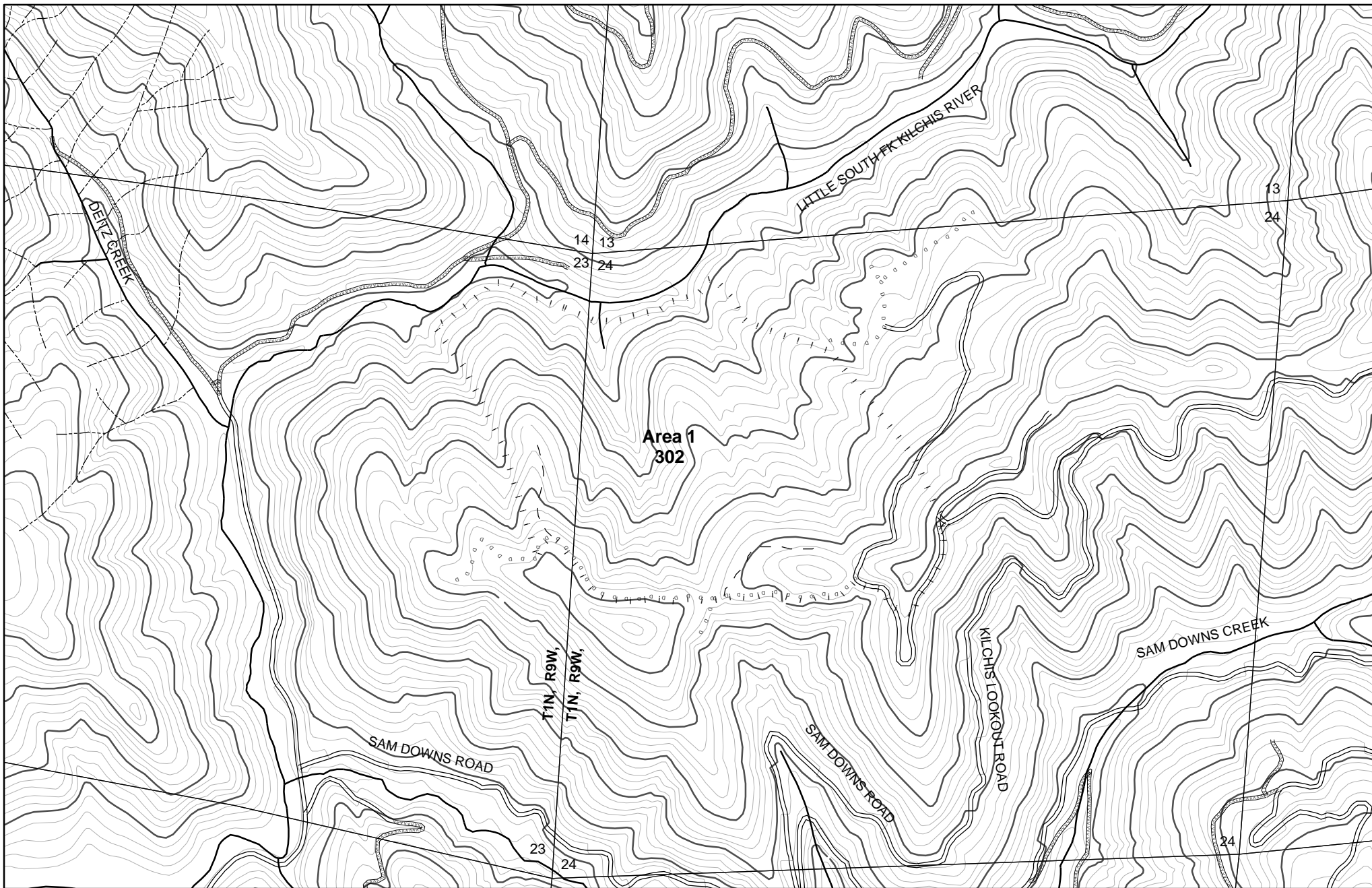
Tillamook District
Final

Peak Out Pre-Operations Report

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

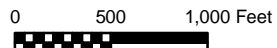
The sale areas contain Focused and Special, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

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



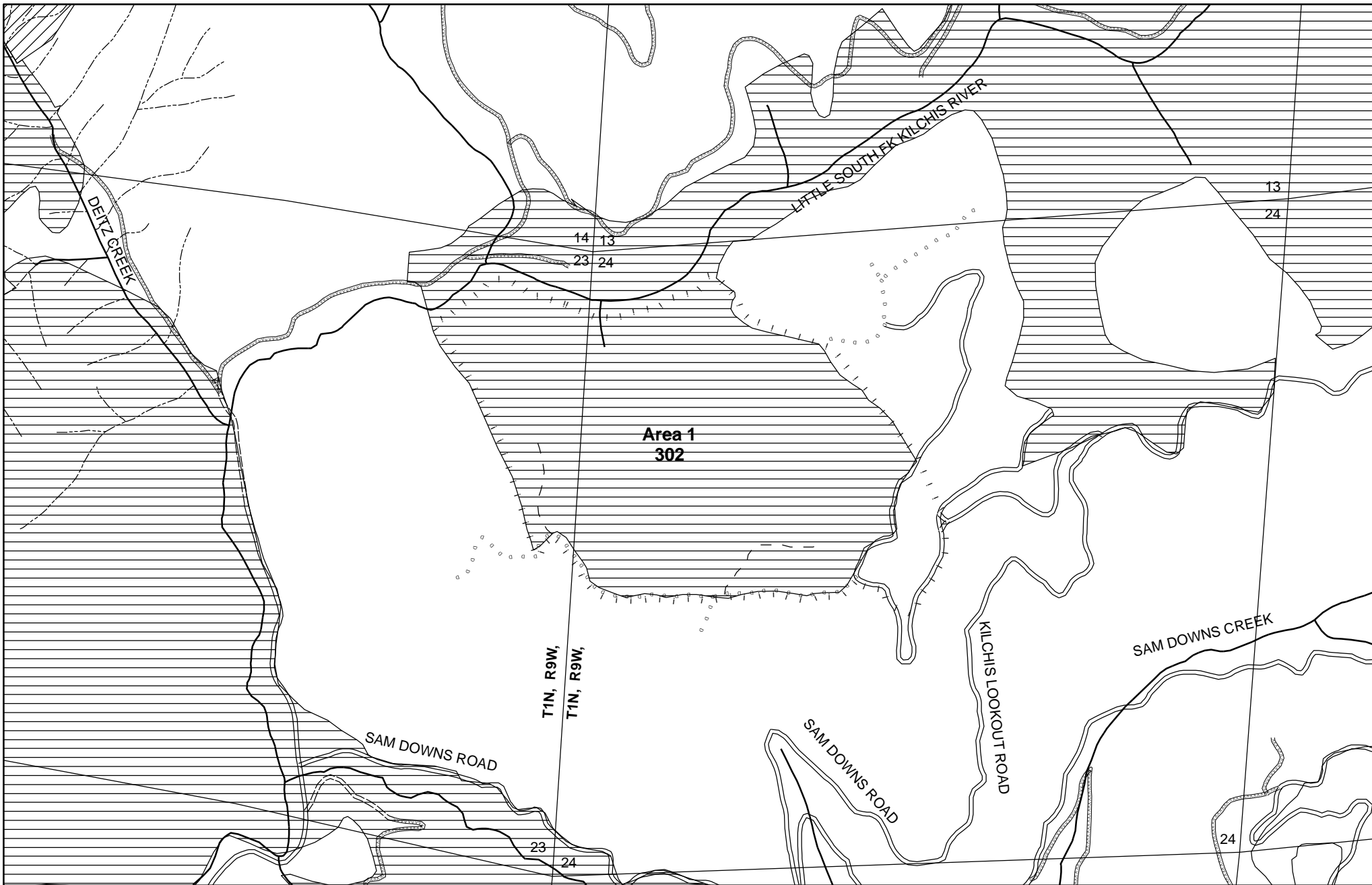
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**Peak Out
-- Topography --
2009 SALE PLAN
TILLAMOOK DISTRICT**
Portions of Sections 23 and 24
T1N, R9W, W.M.,
Tillamook County, Oregon

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

Tillamook District GIS
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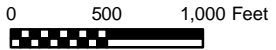
Area	Type of Operation
1	Modified Clearcut



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



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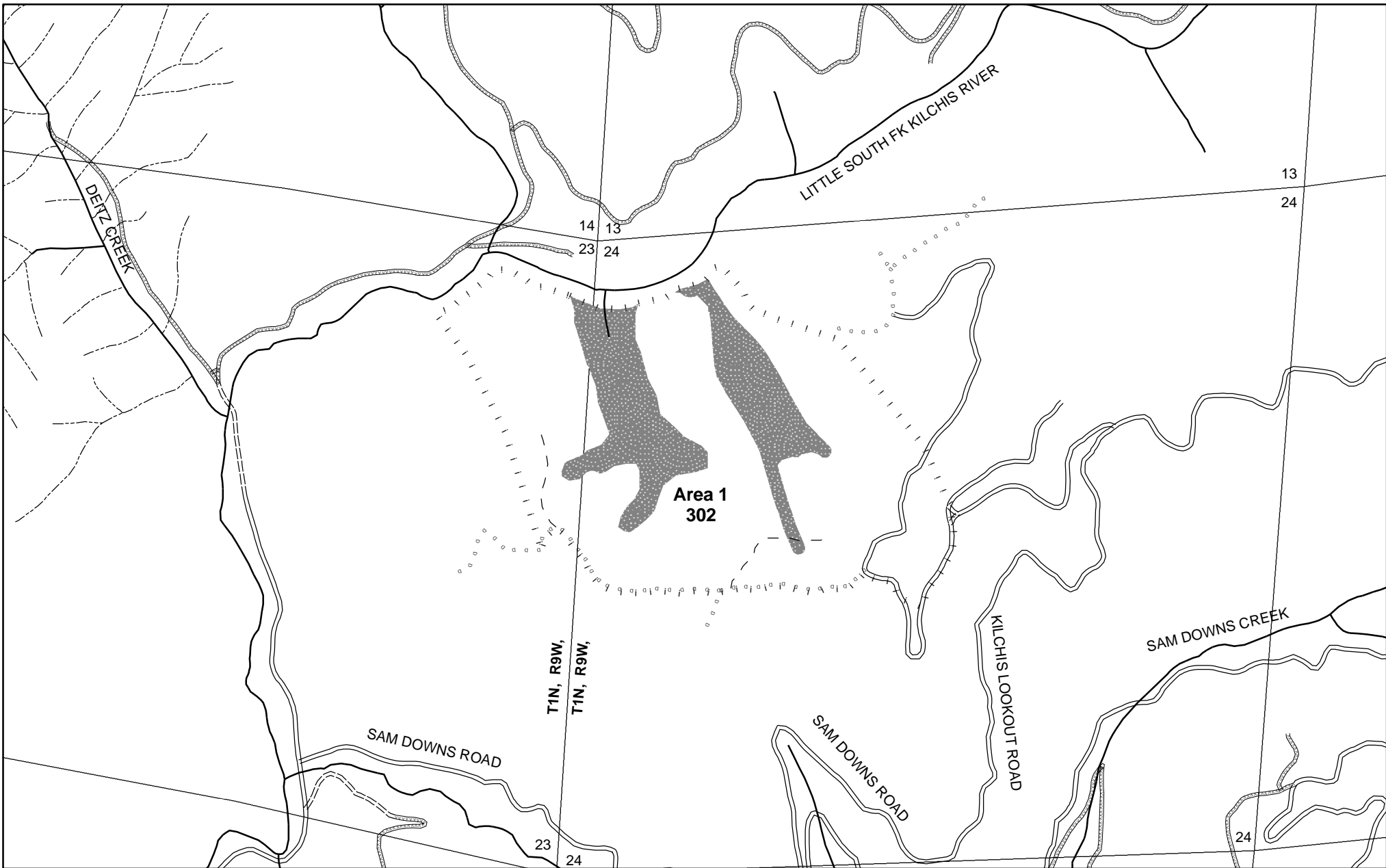
**Peak Out
 -- Current and Future Condition --
 2009 SALE PLAN
 TILLAMOOK DISTRICT**















Portions of Sections 23 and 24
 T1N, R9W, W.M.,
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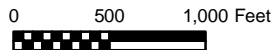
*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

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Type of Operation
 Area 1 Modified Clearcut



-  Buffer
-  Green Tree Retention
-  Non-required thinning
-  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

**Peak Out
-- Key Resources --
2009 SALE PLAN
TILLAMOOK DISTRICT**

Portions of Sections 23 and 24
T1N, R9W, W.M.,
Tillamook County, Oregon

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Area 1	Type of Operation Modified Clearcut
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