

Pre-Operations Report

Operation Name: Mary's Butte (Alternate)
County: Tillamook
Management Basin: Wilson

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Partial cut	177	135
Total		177	135

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have primarily a south aspect and range from 10% to over 90%. The major soil type is Enright with minor amount of Nedonna and Cochran.

The sale is located on the moderate to very steep slopes below the narrow divide between Cedar Creek and the North Fork of the Wilson River. There are steep to very steep side slopes in the northern portion of Area 1. The sale is underlain by sedimentary origin rocks, basaltic mudstones at the base of the Tillamook Volcanics Formation. Refer to the Overview of Harvest Operations in the Summary document for information.

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	108	DF/RA	45	14"	220	206	59	135
		Target ³	DF/RA		16"	120	86	30	135

1. The source of stand inventory information is from field reconnaissance cruise plots taken in 199, 2001 and 2006 and district Stand Summary Inventory information.

2. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, reserve areas 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 area burned in the 1933 (Tillamook), 1939 (Saddle Mountain), and the 1945 (Wilson River) fires. Area 1 was planted in 1956 and 1965 with portions

replanted in 1963 and 1967. Portions of Area 1 were pre-commercially thinned with the Diamond Mill PCT sale in 1991. The remaining acres have had no prior stand management. Stand level inventory has not been completed. Area 1 is classified as 100% Closed Single Canopy (CSC) according to the district stand summary information (1999). See Table 2 for specific stand data.

Area 1 is a Douglas-fir plantation that has alder dominated draws and small pockets of alder (less than 1 acre) scattered throughout.

The Douglas-fir shows symptoms of Swiss needle cast but have good live crown ratios (greater than 40%). The Douglas-fir is becoming overstocked resulting in the loss of live crown ratios and slowed diameter growth. Due to stand age, the alder in this stand has poor height and diameter growth. A portion of the alder in the northern part of the sale was aerially sprayed in the 1970's to release the planted conifer resulting in alder trees with short boles and many tops. No other significant insect or disease problems have been discovered at this time. The brush component is comprised primarily of swordfern, huckleberry, and vine maple.

There are some large snags in various states of decay and some hard snags created from natural causes. Down wood consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow 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	108	CSC	UDS	GEN	30
1	108	CSC	UDS	LYR	105

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.

Area 1: The DFC for this stand is Layered (LYR). The vision for this stand is to have a mixed species stand, including Douglas-fir, western hemlock, and hardwoods. The stand after harvesting will be a Douglas-fir stand that averages approximately 86 trees per acre and be about 16 inches in DBH. In about 10-15 years after this entry the stand will have a diameter of approximately 19 inches in diameter, and will have an SDI of approximately 40%. At this time a prescription will be developed to stimulate understory growth. Other conifer species may

need to be introduced into the stand at this time in order to increase species diversity.

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.**

Area 1: Merchantable Douglas-fir will be thinned to a basal area range of 110 to 130 square feet. All other conifer species and hardwood will be reserved.

This partial cut prescription will harvest the smaller, slow growing Douglas-fir that has poor crown ratios. The resulting stand will have a stand density index of 25-30% which will maintain the crown ratios, stand vigor, and develop healthier and larger trees in the residual stand. This thinning will continue to move the stand along the pathway to more complex structure. Openings and gaps will allow for understory reinitiation of shrubs and tree species creating increased horizontal and vertical diversity. Another thinning will likely be needed in 10 to 15 years to keep this stand on a trajectory to complex stand structure. At this time managers will review density stand health, and landscape goals to decide future management prescriptions

Down Wood and Snag Strategies

Existing down wood will be left in the sale area. Down wood recruitment is expected through mortality and windthrow of residual or leave trees, felled snags and tops left during harvest. Obvious defect in conifer logs will be bucked out in all harvest areas to enhance down wood levels. 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.

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 expected during harvest activities (rub trees, lift trees, or tail trees) and over time by natural processes.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

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

	Conifer	Hardwood	Total
Net Volume (MBF)	1482	--	1482
Stumpage Value (\$/MBF)	\$175	--	
Estimated Gross Value	\$259,350	--	\$259,350
		Project Costs:	\$75,250
		Estimated Net Value:	\$184,100

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale area is accessed via North Fork Wilson River, Cedar Creek, and Diamond Mill roads. These are currently all weather, crushed rock roads. See maps for specific road locations and conditions.

Approximately 0.51 miles of existing surfaced road and 0.45 miles of legacy road will be improved which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and/or adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 0.27 miles of road will be constructed to provide access to cable yarding areas. Following harvest it is anticipated that the roads within the sale area will be blocked. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on this topic.

No other project work is planned for the sale. Approximately 30% of the sale will be ground yarded and the remainder will be cable yarded.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct			0.27	
Improve			0.96	
Maintain ²		3.4		
Close/Block ³			0.27	
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:

A watershed analysis is being conducted for the Wilson River basin at this time. Recommendations from this assessment will be incorporated into the sale where feasible.

Jones Creek, a large Type F stream, and an unnamed small Type F tributary to Jones Creek are within or adjacent to the sale area. There are additional unnamed small perennial and 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. 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.

Approximately 95% of the net acres of the sale are within the Cedar Creek sub-basin. This sub-basin has been identified as a Salmon Anchor Habitat (SAH) Basin. The SAH Basin Strategies will be used in addition to the FMP Riparian Strategies at the time of sale layout and contract development. See the Salmon Anchor Summary Table for tracking of acres managed in each basin.

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 has been reviewed with the ODF Northwest Oregon Area Biologist. Surveys for marbled murrelets are not required due to the absence of potentially suitable habitat. Spotted owl surveys are not required as the sale is within the

Tillamook burn (see November 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*).

T & E Plant species: The sale area was 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 area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

There are steep and very steep side slopes in the northern portion of Area 1 but most of these slopes appear to have low downslope risk. The slopes along the western most boundary of this upper (steep) portion of Area 1 may have higher downslope risk for impacts to Jones Creek. The initial risk assessment by the geotechnical specialist for the sale is moderate. The geotechnical specialist will be consulted during sale layout field work.

The sale is within the Cedar Creek SAH Basin. The most current slope stability SAH Strategies will be used at the time of contract development. See the Summary Document for more information.

X. RECREATION RESOURCES:

The sale is designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator. Portions of Area 1 are in the Land Management Classification System as Focused Recreation, campground buffer.

Mike's Trail and Odin's Ridge are Off Highway Vehicle (OHV) trails which go through Area 1. Short term closure of this trail will occur to facilitate logging and public safety. Portions of the trails may be improved for logging access. Slash will be removed from the trails upon completion of the operation and portions of the existing trails may need to be rebuilt.

Coordination with the Tillamook Recreation Coordinator, Tillamook Forest Center (TFC), and interpretive staff will be utilized to develop a public safety plan to be implemented during the harvest operations. Seasonal and daily operating restrictions may be utilized to minimize disturbance to the public. Opportunities for harvest and reforestation prescriptions which would enhance interpretive education opportunities will be evaluated during sale preparation. The District Recreation Coordinator will be consulted throughout the sale preparation and administration processes. Recreational use common to this area includes hiking, camping, fishing, swimming and OHV use.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* does list a cultural sites within or adjacent to the proposed sale boundary. The cultural resource classification for this site is Class III – No Protection Required. If additional sites are identified during sale preparation or administration, the Public Use Coordinator will be contacted for appropriate protection and tracking.

XII. SCENIC RESOURCES:

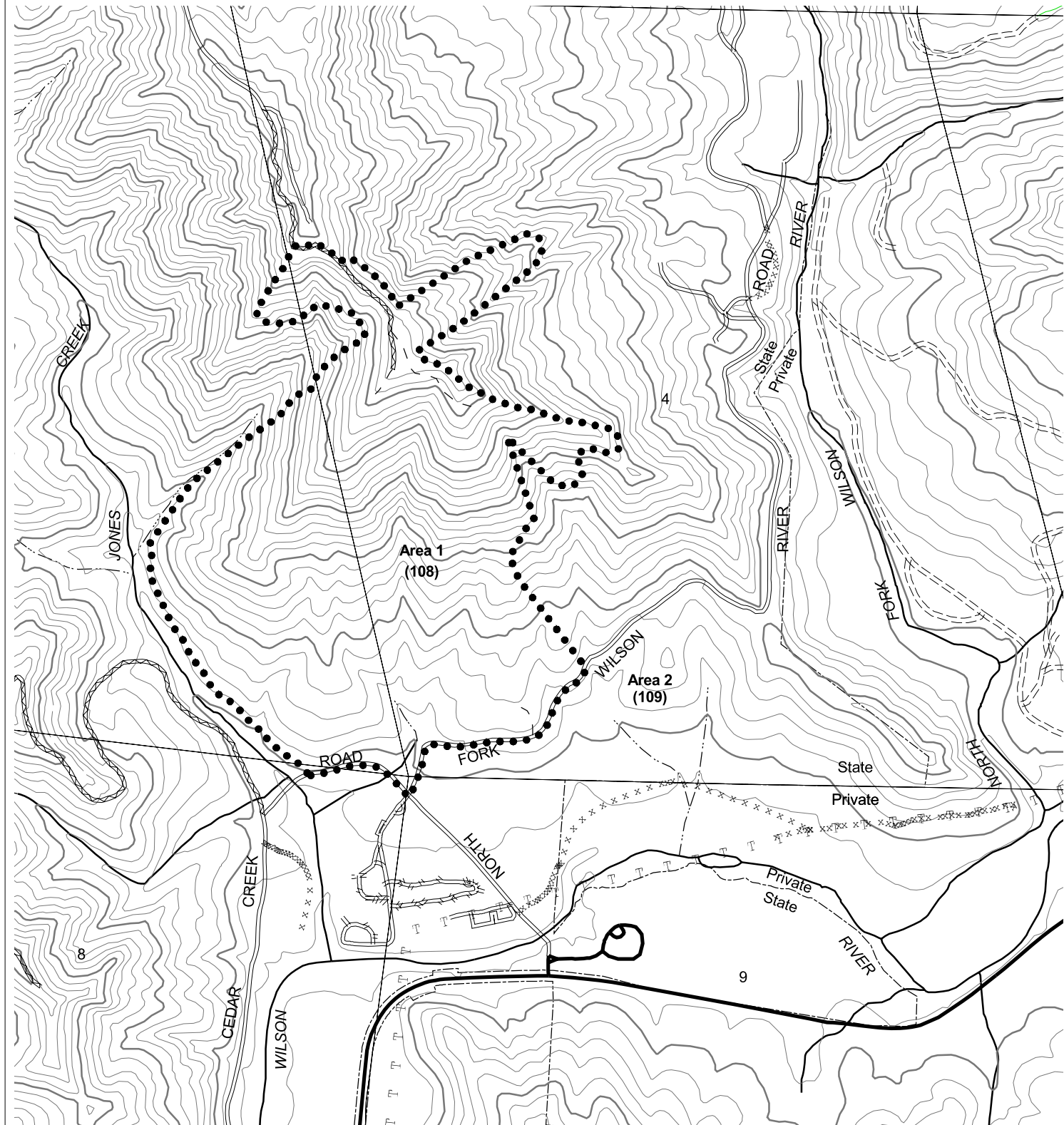
The majority of Area 1 has a visual classification of Level 1, high sensitivity. The sale area is visible from Highway 6, Jones Creek Campground, and the Smith Homestead Day Use Area as well as heavily used hiking and OHV trails. The remainder of Area 1 has a visual classification of Level 3, low sensitivity. The sale will be reviewed by the Public Use Coordinator to determine methods to minimize visual impact. Visual impact in Area 1 will be minimized by the partial cut prescription.

XIII. OTHER RESOURCE CONSIDERATIONS:

None known.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

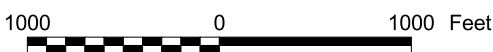
The sale area contains Focused and Special Stewardship, Aquatic and Riparian Habitat. Area 1 contains Focused, Wildlife for the portions in the Cedar Creek Salmon Anchor Habitat Basin. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale area contains Focused Recreation. See Section X. Recreation Resources. The sale also contains Focused Visual. See Section XII, Scenic Resources. 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
 - xxxxxx Legacy road
 - xxxxxx Blocked road
 - - - - Road construction
 - County road
 - T T Transmission line

Mary's Butte
-- Topography --
2008 SALE PLAN
TILLAMOOK DISTRICT

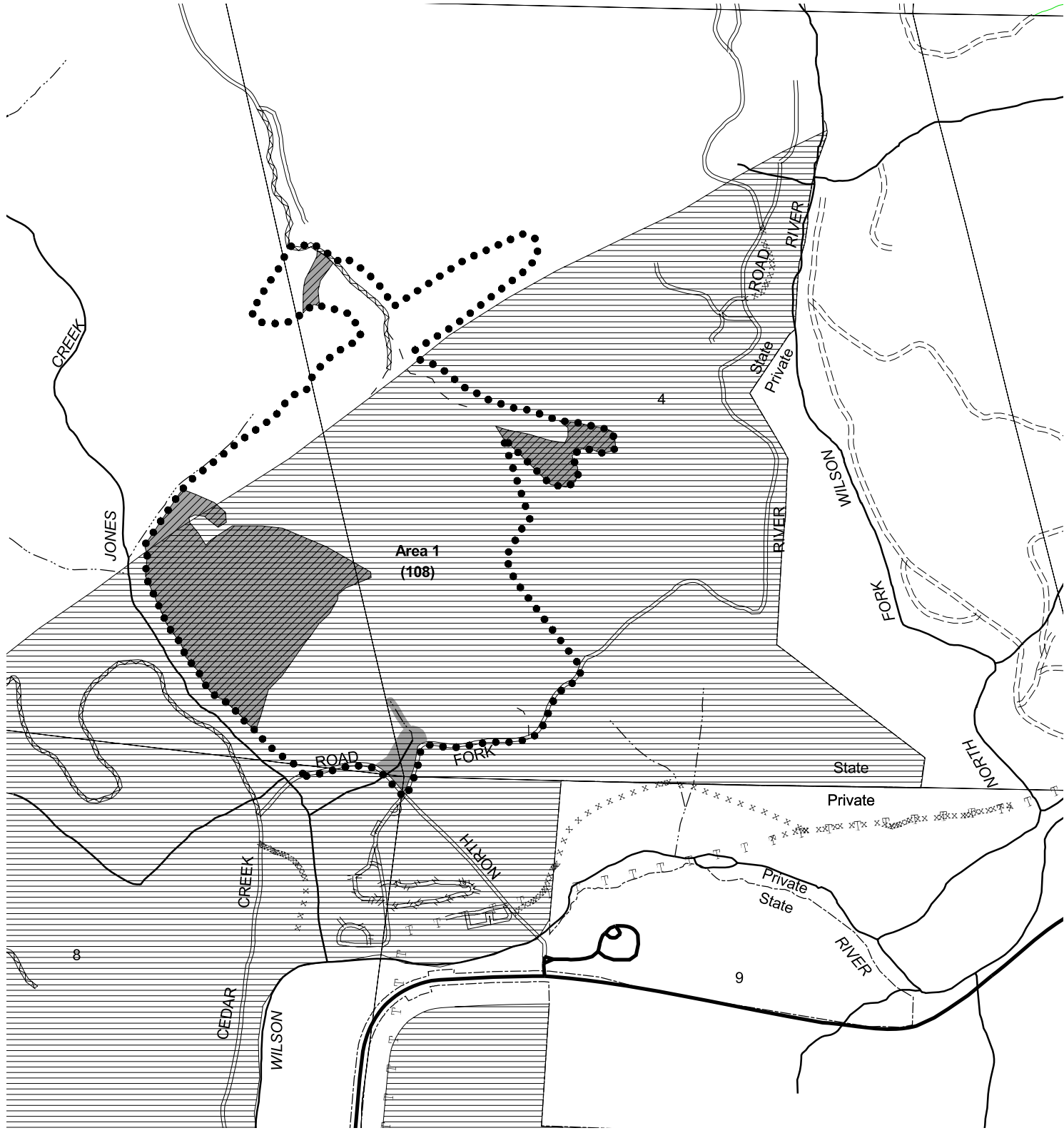
Portions of Sections 4, 5, 8, and 9,
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 Tillamook County, Oregon



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Area	Type of Operation
1	Partial cut

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



- 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

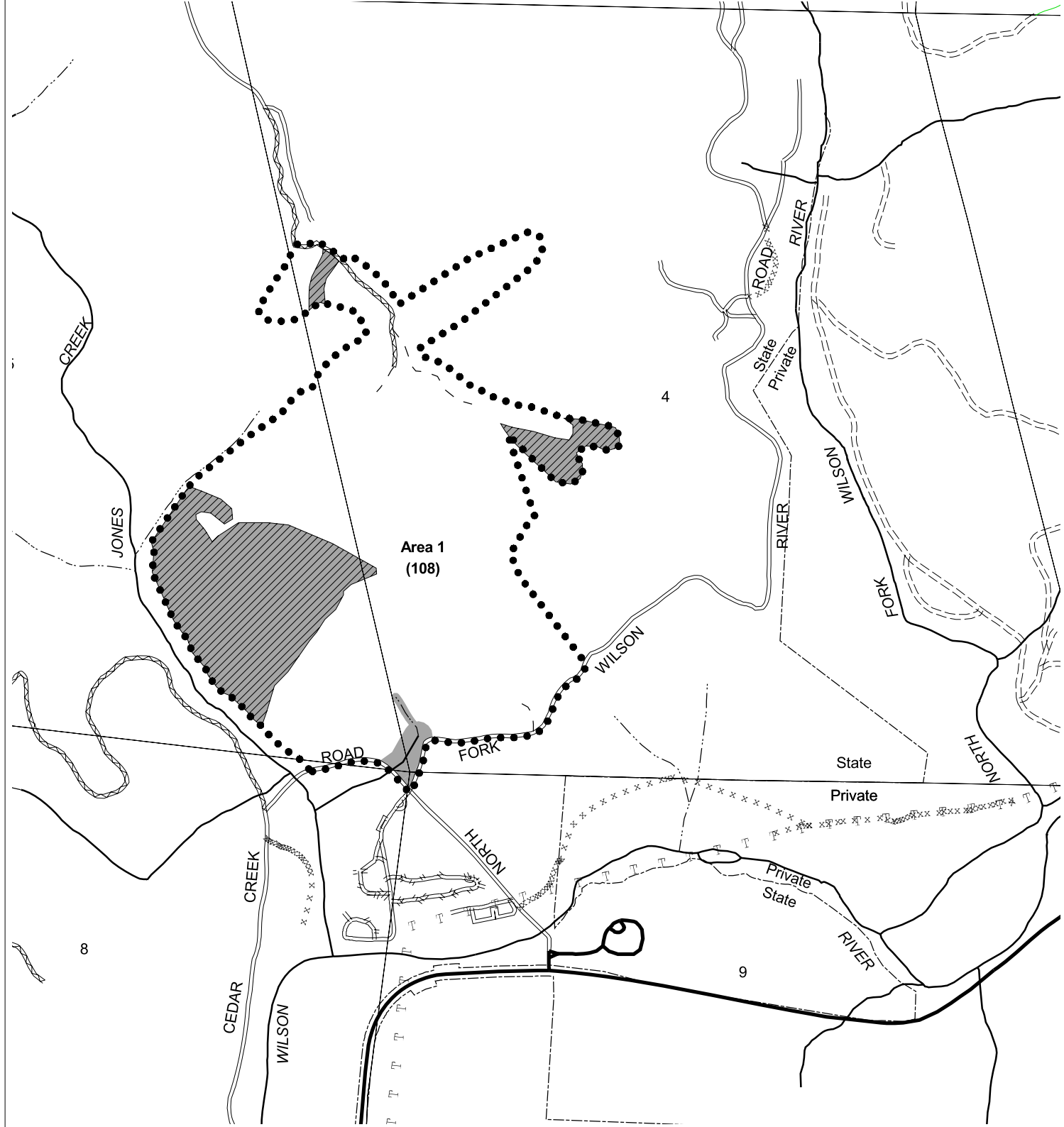
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














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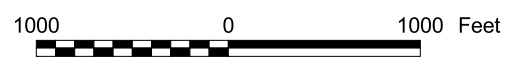
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-  Buffer
-  Non-required thinning
-  Area boundary
-  Sale boundary
-  Ownership boundary
-  Perennial Type-F stream *
-  Perennial Type-N stream *
-  Unsurfaced road
-  Surfaced road
-  State/Federal highway
-  Legacy road
-  Blocked road
-  Road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

Mary's Butte
-- Key Resources --
2008 SALE PLAN
TILLAMOOK DISTRICT

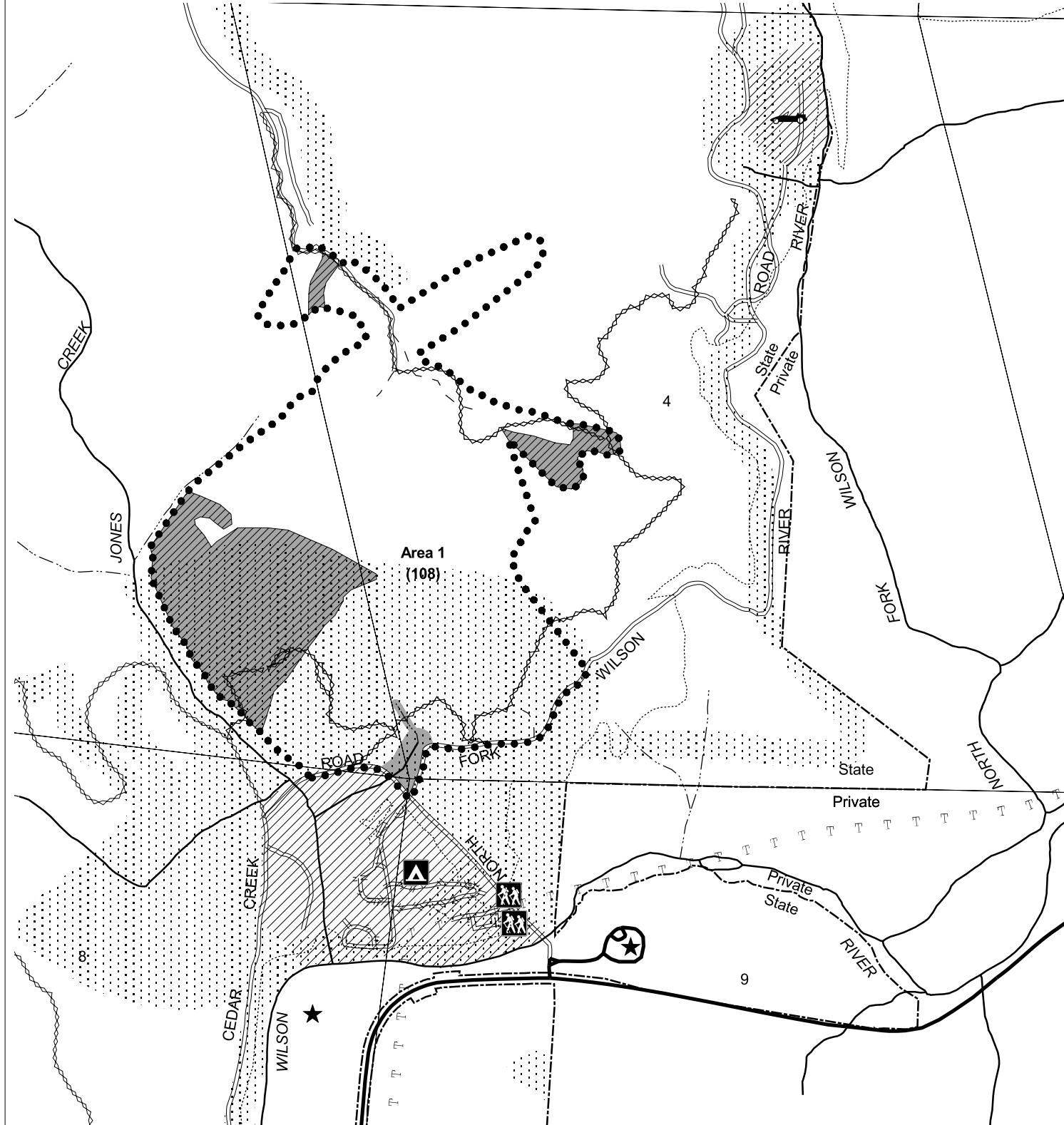
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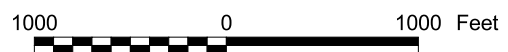
Area	Type of Operation
1	Partial cut

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- | | | | |
|--|-------------------------------------|--|---------------------------|
| | Campground | | Area boundary |
| | Day Use Site | | Sale boundary |
| | OHV Staging Area | | Ownership boundary |
| | Trail Head | | Perennial Type-F stream * |
| | Boat Launch | | Perennial Type-N stream * |
| | Interpretive or Administrative Site | | Unsurfaced road |
| | Stewardship | | Surfaced road |
| | Focused | | State/Federal highway |
| | Special | | Legacy road |
| | OHV trail | | Blocked road |
| | Non-motorized trail | | Road construction |
| | | | County road |
| | | | Transmission line |

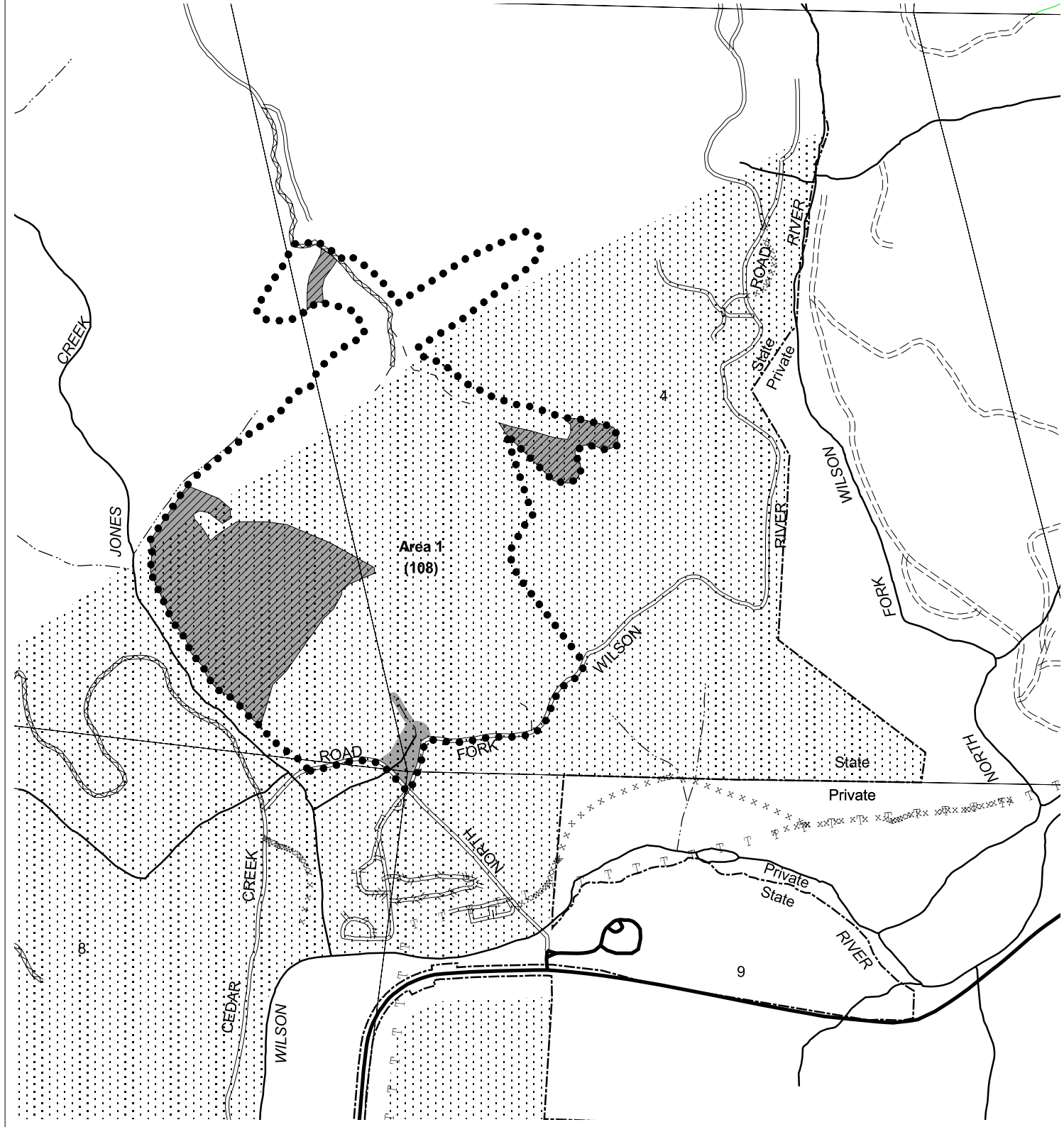
Mary's Butte
--Key Resources/Recreation --
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Area	Type of Operation
1	Partial cut

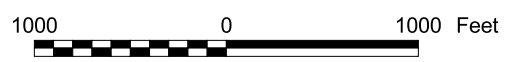
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- | | | |
|-------------|-------|---------------------------|
| Stewardship | ----- | Area boundary |
| Focused | | Sale boundary |
| Special | //// | Ownership boundary |
| | ----- | Perennial Type-F stream * |
| | ----- | Perennial Type-N stream * |
| | ==== | Unsurfaced road |
| | ==== | Surfaced road |
| | ==== | State/Federal highway |
| | ----- | Legacy road |
| | xxxxx | Blocked road |
| | --- | Road construction |
| | --- | County road |
| | T T | Transmission line |

Mary's Butte
-- Key Resources/Visual --
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TILLAMOOK DISTRICT

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