

Pre-Operations Report

Operation Name: Phone Murphy
County: Tillamook
Management Basin: Trask

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Partial Cut - Moderate	148	106
2	Partial Cut - Moderate	131	114
Total		279	220

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 varied aspects and range from 20-60%. Elevations range from 1,750 feet to 2,300 feet. The major soil type is Jewell with minor areas of Osweg and Killam.

The area is located in the headwaters of Bark Shanty Creek and Elkhorn Creek and the gentle divide between the two creeks south of Ginsberg Point. There are only a few bands of steep side slopes and draws in the sale with the most significant slopes located in the northwest portion of Area 2 and the southeast portion of Area 1. The sale is underlain by a mix of igneous and sedimentary origin rocks mostly igneous flow rocks of the Tillamook Volcanics Formation with lesser amounts (northern portions of the sale) sedimentary origin rocks of the Yamhill Formation and one minor area (southeast) igneous intrusive “basalt dikes and sills” 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	112	DF, RA, WH, NF	44	13	210	235	59	106
		Target ³	DF, RA, WH, NF		15	110	90	29	106
2	PC	113	DF, RA, WH, NF	45	15	180	147	47	114
		Target ³	DF, RA, WH, NF		17	130	82	32	114

1. The source of stand inventory information is from stand district summary information and adjacent timber sales.

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 burned in the 1933 (Tillamook), 1939 (Saddle Mountain). The area west of Murphy Grade Road also burned in the 1951 (North Fork/Elkhorn) fires. Portions of Area 1 were hand seeded in 1960 and portions were planted in 1969. Area 2 was aerially seeded in 1951 and portions were replanted in 1969. Some areas have no planting history and may have naturally regenerated. Area 1 has had no prior management. The majority of Area 2 was commercially thinned in 1992 with Thin Murphy.

There is no Stand Level Inventory (SLI) available for Areas 1 or 2. Area 1 is classified as 88% Closed Single Canopy (CSC) and 12% Understory (UDS) and Area 2 is classified as 25% CSC and 75% UDS according to the district stand summary information (1999). See Table 2 for specific stand data.

Area 1 and 2 are primarily Douglas-fir plantations that have alder dominated riparian areas. There is also scattered naturally regenerated hemlock, noble fir and cedar located near the riparian areas. The brush component in both sale areas is comprised primarily of sword fern, vine maple and elderberry. The understory in Area 2 is more established due to the stand being commercially thinned in 1992.

The Douglas-fir in both areas show symptoms of Swiss needle cast but have good live crown ratios (greater than 35%). 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. 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 may be some phellinus root rot in the northeast portion of Area 2. A beaver dam on Elkhorn Creek has created a patchy area with few trees, primarily hemlock. The brush component in all the sale areas is comprised primarily of sword fern, vine maple and elderberry.

There are some large snags in various states of decay and a few 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 and slash from the previous partial cut entry 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	112	CSC	UDS	OFS	93
		UDS	UDS	LYR	13
2	113	CSC	UDS	OFS	29
		UDS	UDS	LYR	85

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) and Older Forest Structure (OFS). 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 90 trees per acre and be about 15 inches in DBH. Another entry is expected in about 10-15 years. 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.

Area 2: The DFC for this area is LYR and OFS. 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 82 trees per acre and be about 17 inches in DBH. Another entry is expected in about 10-15 years. At this time a prescription will be developed to stimulate growth of a new cohort of other conifer species. A new cohort of other conifer will provide both horizontal and vertical diversity creating a stand that has a mixture of sizes, species and densities which will help move it to complex structure.

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 110-130 square feet. All hardwood and other conifer species will be reserved.

Area 2: Merchantable Douglas-fir will be thinned to a basal area range of 120-140 square feet. All hardwood and other conifer species will be reserved.

These partial cut prescriptions will reduce the amount of overstocking. The resulting stands will have a stand density index of 29-32% which will maintain the crown ratios, stand vigor, and develop healthier and larger trees in the residual stand. Area 1 is a first entry management operation. The majority of Area 2 is a second entry. This thinning will continue to move these areas along the pathway to more complex structure. The conifer other than Douglas-fir and the sprayed alder which is non-merchantable will remain in the stand and add to the species diversity. Openings and gaps will allow for understory reinitiation of shrubs and tree species creating increased horizontal and vertical diversity. There may also be some planting opportunities in the larger openings created by prior beaver activity and/or phellinus pockets where other conifer species can be introduced. 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 areas. 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. Snags will be created in Areas 1 and 2. A prescription will be developed after the cruise has been completed.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	1556	--	1556
Stumpage Value (\$/MBF) *	\$175	--	
Estimated Gross Value	\$272,300	--	\$272,300
		Project Costs:	\$151,170
		Estimated Net Value:	\$121,130

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Telephone Shack, Bark Shanty and Toll Roads. These are currently all weather, crushed rock roads. See maps for specific road locations and conditions. The Trask Road Use fee will be applied to this sale.

Approximately 2.0 miles of existing surfaced 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 0.67 miles of road will be constructed to provide access to cable yarding areas. It is anticipated that following harvest these roads will be closed. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on road closure. A non-fish passable culvert on Megan Creek will be replaced with a bridge on the North Fork Trask Road. The operation will be 80% cable yarding and 20% ground yarding.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct				0.67
Improve		2.0		
Maintain ²		10.7		
Close/Block ³				0.67
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 has been completed for the Trask basin. Recommendations from the analysis will be implemented where feasible.

Elkhorn Creek is a small Type F stream within and adjacent to Area 1. There are additional unnamed small perennial and seasonal Type N streams within the sale areas. 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.

There is a wetland area created by a beaver pond within Area 1.

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.

The ODFW fish biologist will work with ODF to identify possible stream enhancement projects in upper Elkhorn Creek.

Approximately 101 acres of Area 1 is within the Elkhorn 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 areas have been reviewed with the ODF Northwest Oregon Area Biologist. Surveys for marbled murrelets are not required due to the absence of potentially suitable habitat. It was determined that there is potential northern spotted owl habitat within or adjacent to the sale boundary. Surveys have been conducted during the 2006 survey season and will be conducted during the 2007 survey season. All northern spotted owl surveys were and will be conducted in accordance with USFWS endorsed 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:

There are only a few bands of steep to very steep side slopes and draws located in both Areas 1 and 2 of the sale. The initial risk assessment by the geotechnical specialist for the sale is moderate. The geotechnical specialist will be consulted during sale layout field work to determine if a field visit is necessary.

The majority of Area 1 is within a 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 areas are designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator.

Ginsberg Point Trail (ADOPT a Trail) and 3 other unnamed trails are located within the sale boundary. Short term closure of these trails will occur to facilitate logging and public safety. Use of these trails for logging will be avoided where possible but a small portion of these trails will be improved for logging access. A plan will be developed in conjunction with the District Recreation Coordinator to address these situations. Slash will be removed from the trails upon completion of the operation. A plan will also be developed to advise the public when trails are closed due to harvest activity. Recreational use common to this area includes hunting and OHV use.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* does not list any cultural sites within the proposed sale boundary. A site has been identified just south of the sale and is classed Level 1 – Legally Mandated Protection. The district will work with the Public Use Coordinator during sale prep to determine appropriate protections and tracking. If additional sites are identified the Public Use Coordinator will be contacted.

XII. SCENIC RESOURCES:

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

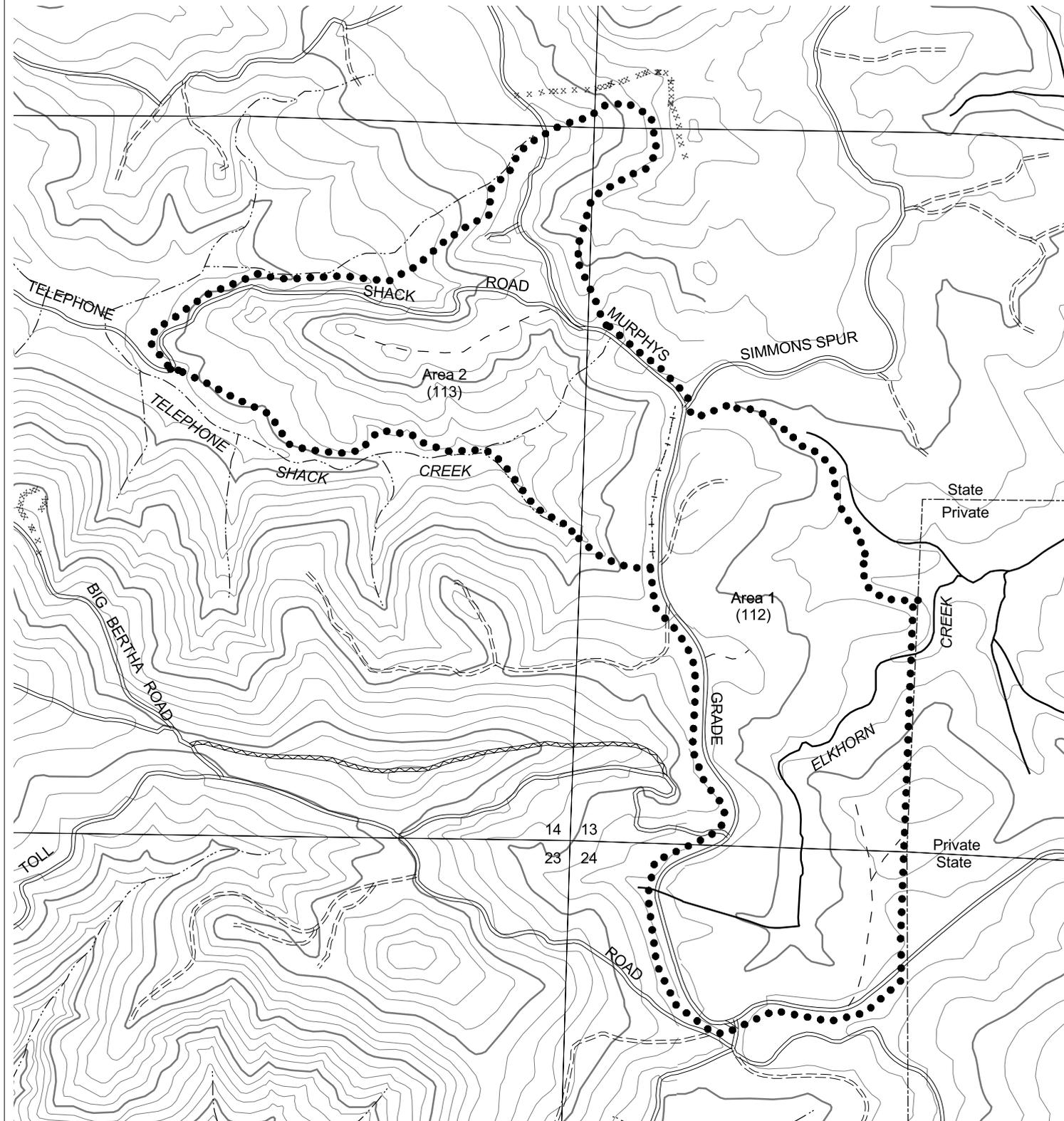
XIII. OTHER RESOURCE CONSIDERATIONS:

A Swiss needle cast Retrospective Plot is located in Area 2. Contact Alan Kanaskie (ODF) to determine protection measures needed for this plot. No other known research plots are within the sale area.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The sale areas contain Focused and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. Area 1 contains Focused, Recreation. (see Section X) and Focused Stewardship, Cultural Resources (see Section XI).

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

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-- Topography --
2008 SALE PLAN
TILLAMOOK DISTRICT

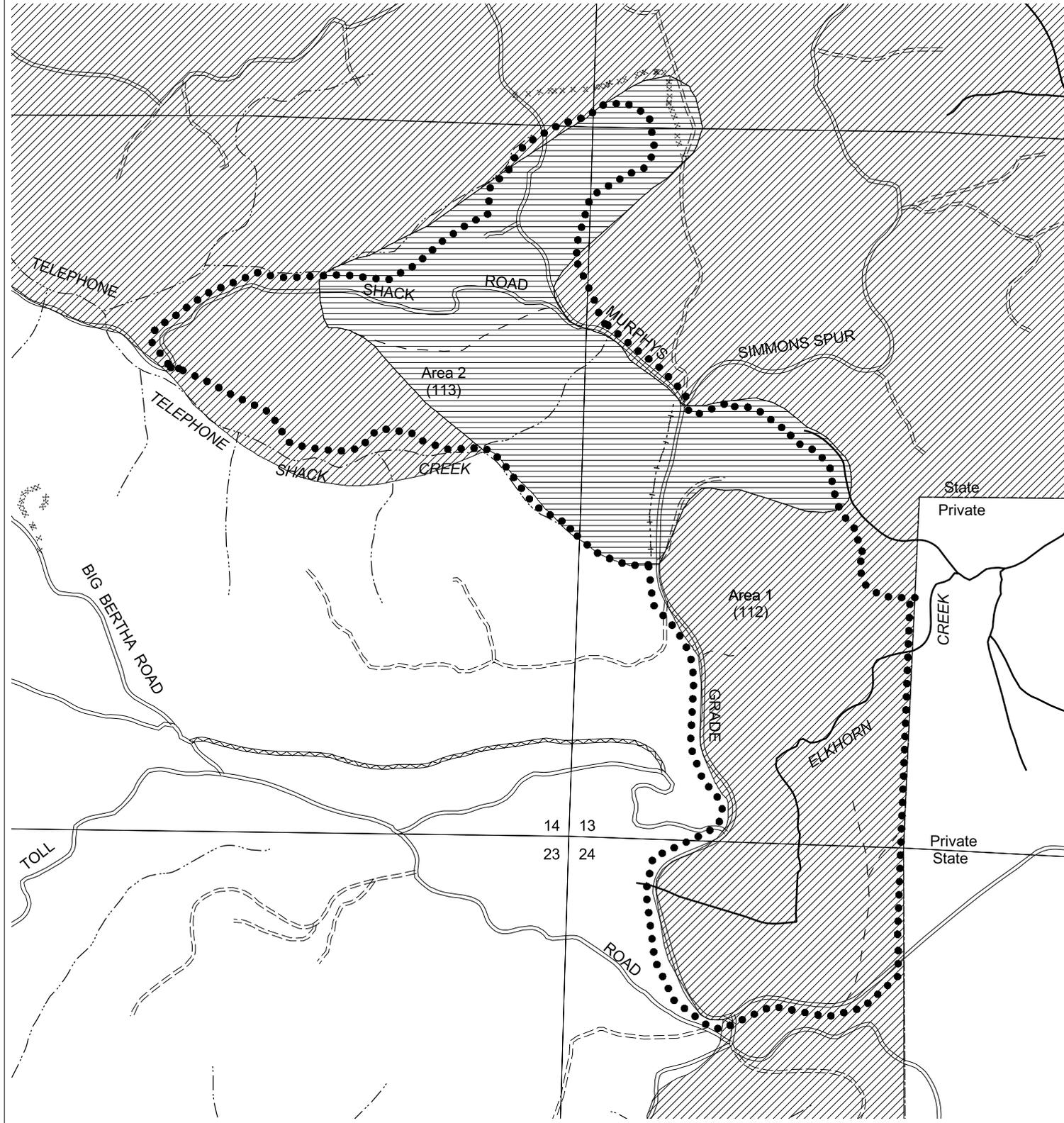
Portions of Sections 11,12,13,
 14, and 24, T2S, R7W, W.M.,
 Tillamook County, Oregon

Area	Type of Operation
1	Partial cut
2	Partial cut



Tillamook District GIS
 02/06/2007
 This product is for informational use and
 may not have been prepared for, or suitable
 for legal, engineering, or surveying purposes.

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



- | | | |
|--------------------------|-------------|---------------------------|
| Desired future condition | ---+---+--- | Area boundary |
| | ●●●●● | Sale boundary |
| | ----- | 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 |

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-- Current and Future Condition --
2008 SALE PLAN
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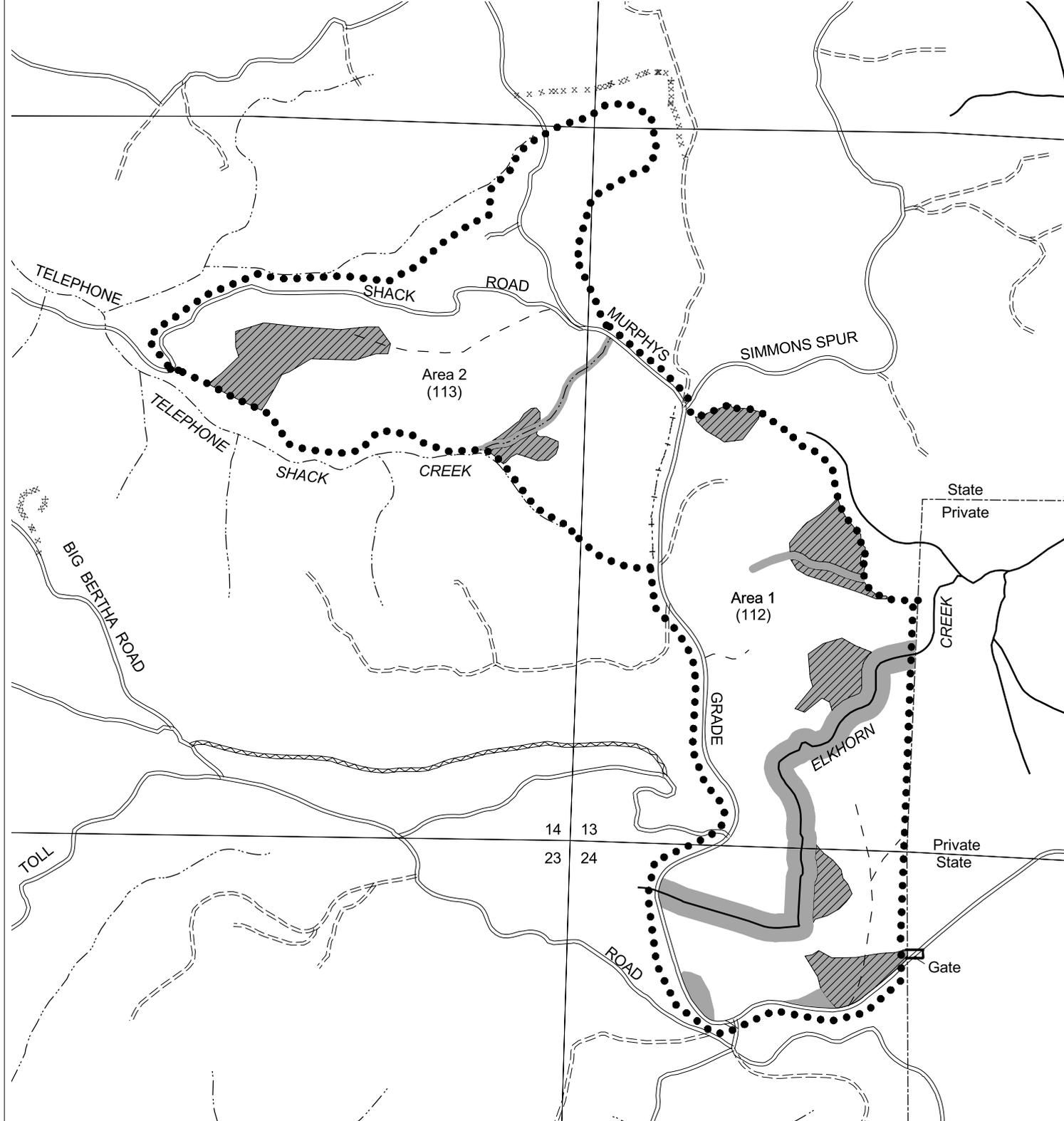
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**Phone Murphy
-- Key Resources --
2008 SALE PLAN
TILLAMOOK DISTRICT**

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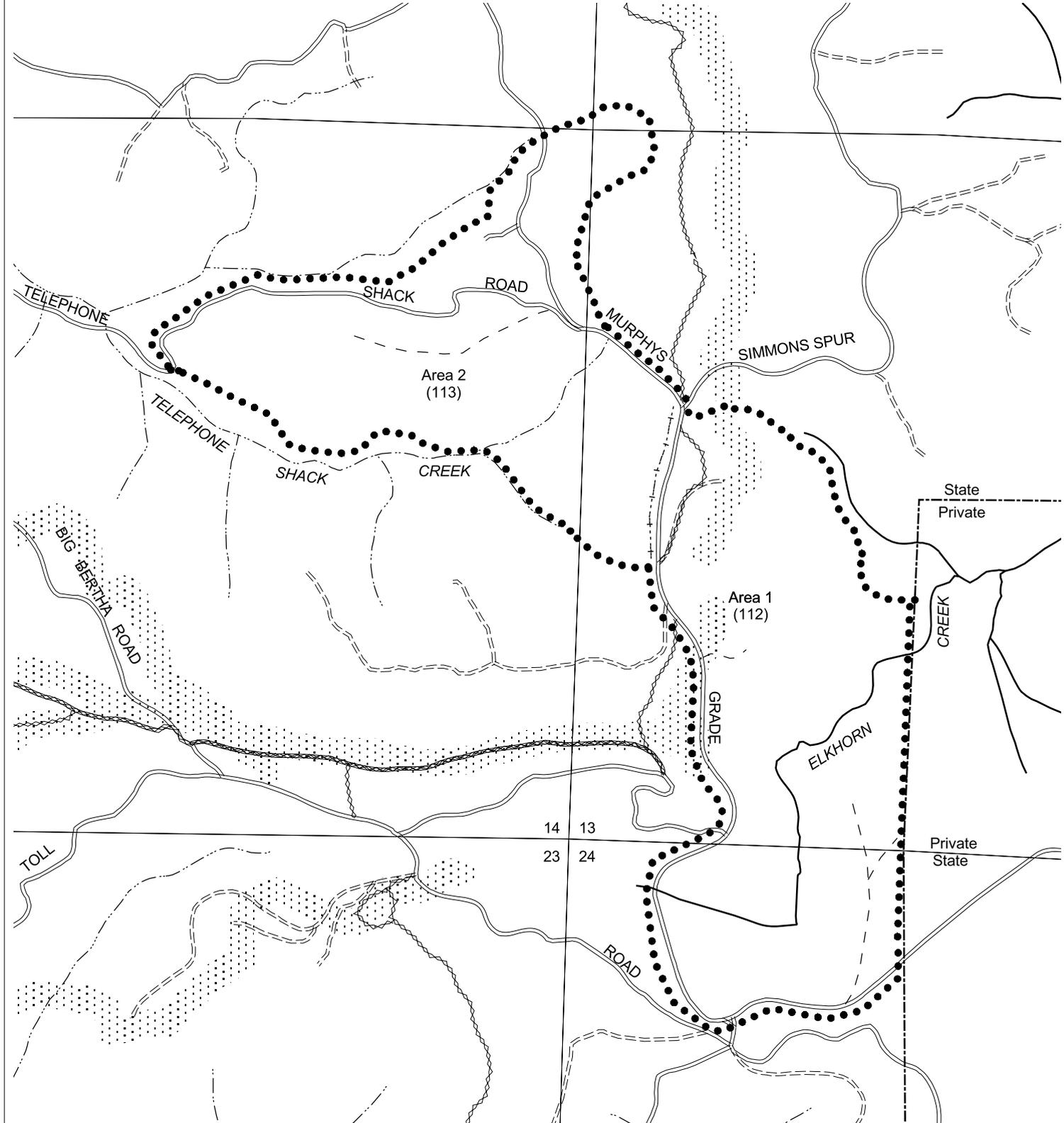
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- Campground
- Day Use Site
- OHV Staging Area
- Trail Head
- Boat Launch
- Interpretive or Administrative Site
- Stewardship
- Focused
- Special
- OHV trail
- Non-motorized trail
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F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

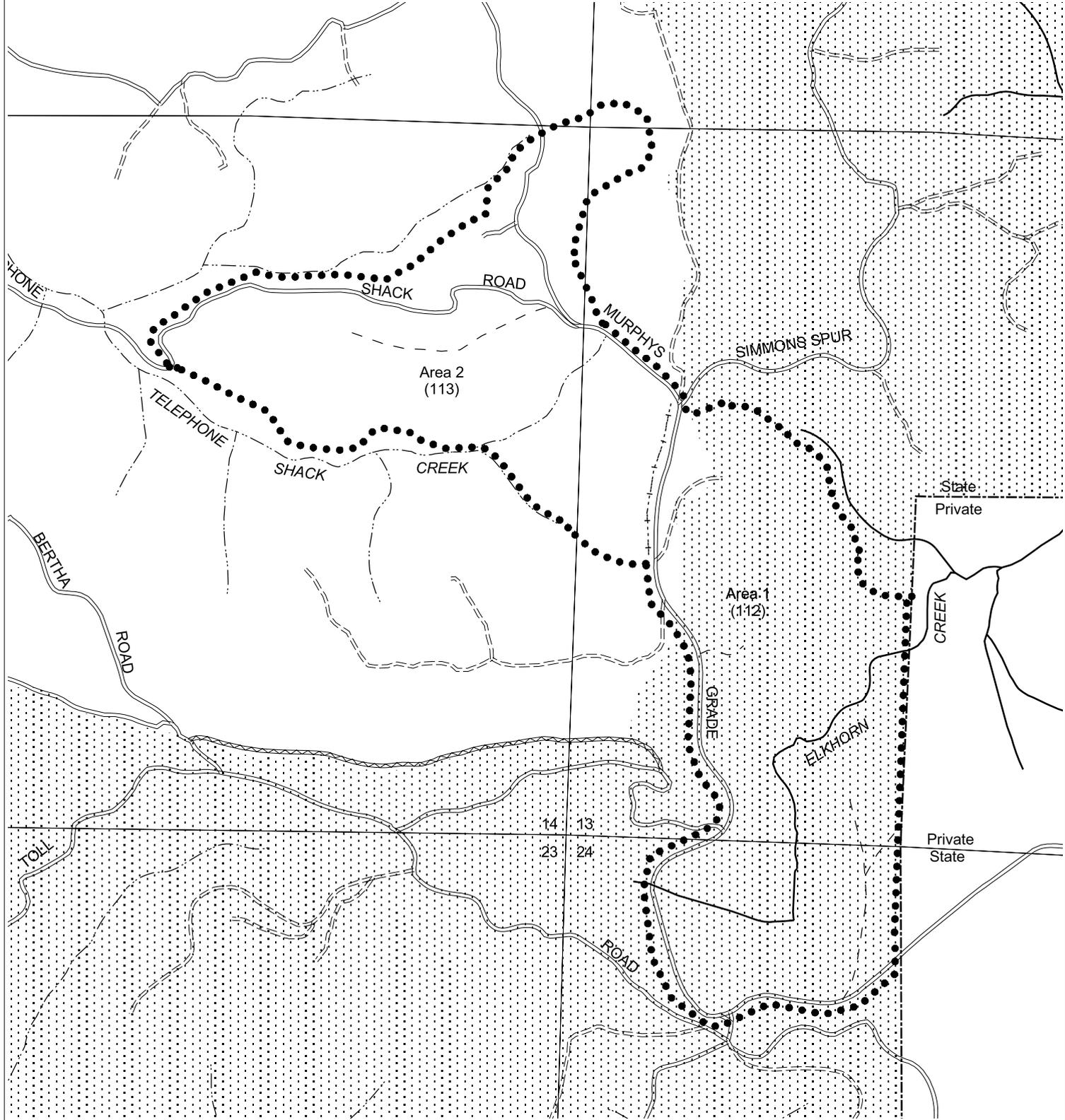
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--Key Resources/Recreation --
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TILLAMOOK DISTRICT
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-- Key Resources/Wildlife Habitat --
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