

Pre-Operations Report

Operation Name: Rock N' Roy
County: Tillamook
Management Basin: Lower Nehalem

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Retention Cut	128	126
2	Partial Cut – Group Select	105	102
Total		233	228

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

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes in Area 1 have primarily a southern aspect. Area 2 has mainly a northern aspect. Elevations range from 240 to 1500 feet. The major soil types are Killam, Rye, and Pittsburg.

Area 1 of the sale is located on the ridgeline divide between Eck Creek and Peterson Creek including an un-named tributary of the Nehalem River. Area 2 is located northeast in the headwaters of a tributary to Fall Creek. There are steep to very steep side-slopes below the ridgeline in both Areas. The sale is underlain by igneous and near source sedimentary origin rocks 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
Area 1	RC	217	RA,DF,WH,SS	70	15.2	223	177	58	126
		Target ³	DF, WH,SS	70	22.8	71	25	16	126
Area 2	RC	218	RA,DF,WH,SS	70	16.2	265	186	67	102
		Target ³	DF, WH,SS	70	21.6	127	50	29	102

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, 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.

Area 1 was logged in the late 1950's to early 1960's. Approximately 40% was planted in 1966 the remainder of the area was naturally regenerated. Area 2 burned in the 1933 Tillamook Fire and naturally regenerated. These stands have had no prior stand management. Both of these areas have been inventoried using the Stand Level Inventory (SLI) procedure and have been identified as Understory (UDS). See Table 2 for specific stand data.

Area 1 and Area 2 are very similar stand types that are comprised of dense conifer species and pockets of alder. There is alder mixed in with the conifer pockets and conifer mixed in the alder pockets. The conifer dominated portions of these stands are very dense (approx. 60% SDI) and have reached stem exclusion, resulting in poor height to diameter ratios, poor live crown ratios, slowed diameter growth, and very little understory. There are also many pockets of alder throughout these areas that are small in size (less than 5 acres). There are also a couple of alder areas in Area 1 that may be larger than 5 acres. The actual size and location of these will be determined during sale prep and will be treated as modified clearcuts if they are larger than 5 acres. Due to stand age, the alder in this stand has poor height and diameter growth. There are some lower density patches scattered throughout the sale area that are comprised of more open grown conifer with an established understory of conifer and shrub species. The alder has an established understory of salmonberry, spruce, and hemlock.

There are some large snags in various states of decay and some hard snags created from wind damage. 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. Stand Level Inventory information for snags and down wood are unavailable at this time.

III. DESIRED STAND CONDITION AND VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	217	UDS	UDS	GEN	68
1	217	UDS	UDS	LYR	58
2	218	UDS	UDS	OFS	102

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 General (GEN) and Layered (LYR). The 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, alder, spruce, and cedar in the alder clearcut areas and larger gaps will provide both horizontal and vertical diversity. After thinning in approximately 20-30 years the stand will have a mixture of sizes, species and densities and likely be in a Layered condition.

Area 2: The DFC for this area is Older Forest Structure (OFS). The vision is for a mixed stand of Douglas-fir, western hemlock and alder. The stand will be composed of a mixture of species, size classes, and densities. A new cohort of western hemlock, alder, spruce, and cedar in the alder clearcut areas and larger gaps will provide both horizontal and vertical diversity. After thinning in approximately 20-30 years the stand will have a mixture of sizes, species and densities and likely be in a Layered condition. Periodic thinnings will produce a multilayered stand with some of the larger tree trees approaching 32 inches in diameter. In about 60 years there is a high probability that this stand will meet the requirements of OFS.

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.**

In Area 1, a retention cut will harvest the merchantable alder. A diameter limit will be used to remove the smaller Douglas-fir, hemlock, and spruce (approximately 14 inches DBH). A higher diameter limit may be used to remove the conifer with poor height to diameter ratios. The remaining Douglas-fir, hemlock, and spruce will be thinned to a basal area range of 140 to 160 square feet. All other hardwood and conifer species will be reserved.

This partial cut prescription will remove the slow growing alder and reduce the conifer stocking to 30-35% which will maintain the crown ratios, stand vigor, and develop healthier and larger conifer in the residual stand. The resulting stand will have a stand density index of 15 - 20% which is relatively open, and will maintain stand vigor, and develop healthier and larger trees in the pockets of thinned conifer. The harvest prescription is designed to achieve variable densities throughout the area. The resulting stand will have conifer thinning pockets of various sizes, several small alder clearcuts (3 to 5 acres), and residual conifer scattered in the alder clearcuts. This is a first entry harvest that will begin to move the stand along the pathway to a more complex structure. The openings and gaps will allow for understory reinitiation of shrubs and tree species creating

horizontal and vertical diversity. Another thinning will likely be needed in 15 to 20 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.

In Area 2, a partial cut will harvest the merchantable alder. A diameter limit will be used to remove the smaller Douglas-fir, hemlock, and spruce (approximately 14 inches DBH). A higher diameter limit may be used to remove the conifer with poor height to diameter ratios. The remaining Douglas-fir, hemlock, and spruce will be thinned to a basal area range of 140 to 160 square feet. All other hardwood and conifer species will be reserved.

This partial cut prescription will remove the slow growing alder and reduce the conifer stocking to 30-35% which will maintain the crown ratios, stand vigor, and develop healthier and larger conifer in the residual stand. The resulting stand will have a stand density index of 25-30% which will maintain stand vigor, and develop healthier and larger trees in the residual stand. The harvest prescription is designed to achieve variable densities throughout the area. The resulting stand will have predominately conifer thinning pockets and large residual conifer scattered in the small alder patch cuts. This is a first entry harvest that will begin to move the stand along the pathway to a more complex structure. The openings and gaps will allow for understory reinitiation of shrubs and tree species creating horizontal and vertical diversity. Another thinning will likely be needed in 15 to 20 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. Down wood in decay class 1 will be created in Areas 1 and 2. A prescription will be developed after the cruise has been completed.

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"/>	x
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	1906	1395	3301
Stumpage Value (\$/MBF)*	\$129	\$200	
Estimated Gross Value	\$245,874	\$279,000	\$524,874
		Project Costs:	\$181,628
		Estimated Net Value:	\$343,246

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

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Petersen Road. This road is currently an all weather crushed rock road. See maps for specific road locations and conditions.

Approximately 0.5 miles of existing surfaced road will be improved which includes grading, culvert installation, culvert replacement and rocking. This work will bring all roads up to standards described in *the Forest Roads Manual*.

Approximately 1.7 miles of road will be constructed and 0.1 miles will be reconstructed in order to provide access to cable yarding areas. Following harvest it is anticipated that the 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. No other project work is currently planned with this sale. The operation will be 100% cable yarding. See summary document for more information on this topic. 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			1.8	
Improve			.05	
Maintain ²		3.0		
Close/Block ³			1.8	
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:

Dubois Creek is a small Type F stream that is adjacent to Area 2. There are additional 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 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. The inner and outer riparian zones of these Type N streams will be managed towards mature forest condition.

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 unnamed stream delivers water to several known water rights downstream from Area 1 and will be protected accordingly.

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 (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 2006 and 2007 survey season for marbled murrelets. All surveys for marbled murrelet were and will be conducted in accordance with Pacific Seabird Group (PSG) protocol. There have been no marble 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 and will be conducted during the 2006 and 2007 survey season for northern spotted owl. All
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Final June 2007

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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:

There are steep slopes associated with the tributary streams especially in Area 1 and the northeastern part of Area 2. The initial risk assessment by the geotechnical specialist for the sale is high. The geotechnical specialist will be consulted during sale layout field work.

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 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:

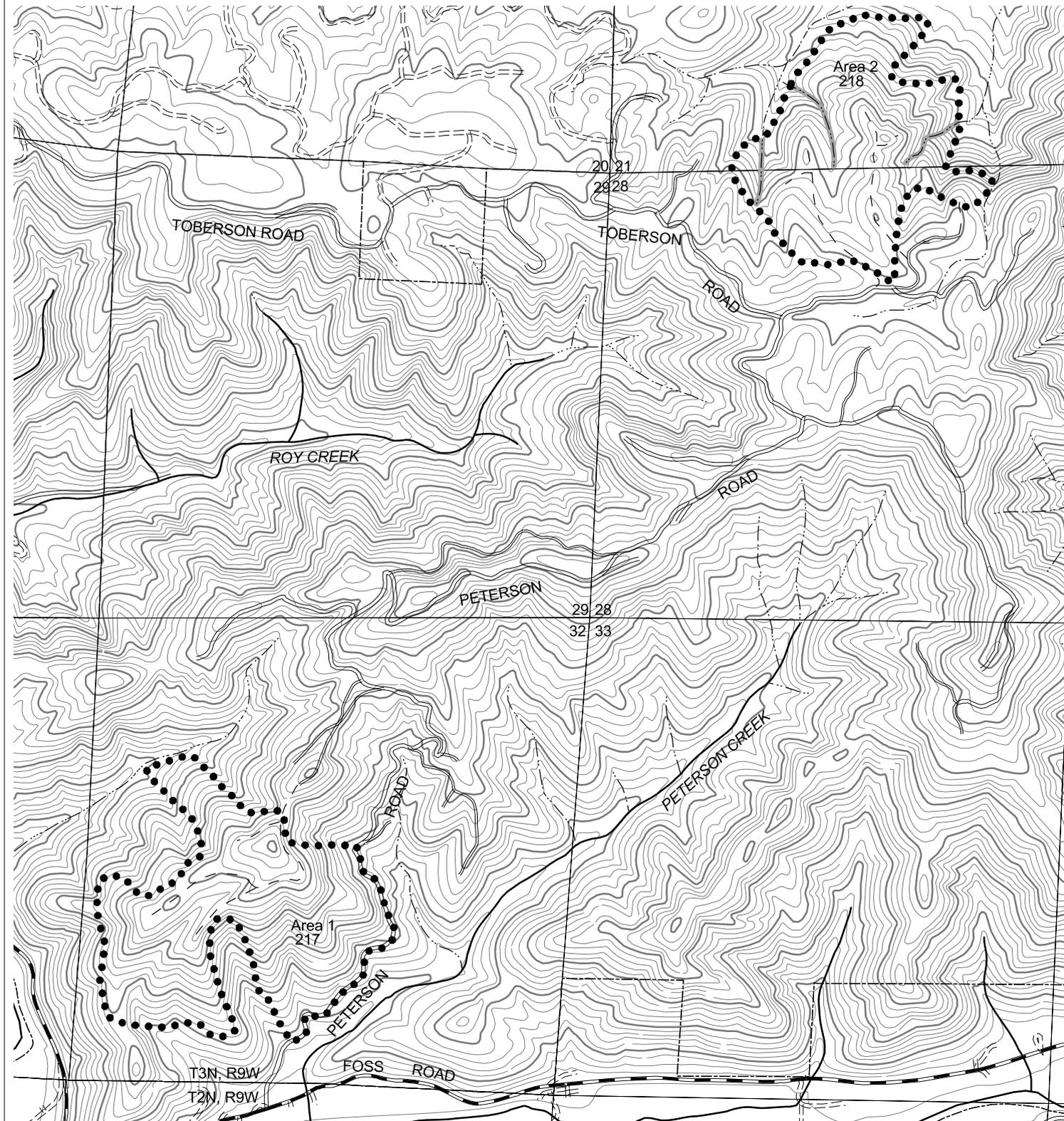
The sale areas have a visual classification of Level 3, low sensitivity. No scenic impact is expected.

XIII. OTHER RESOURCE CONSIDERATIONS:

None known.

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.



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

Rock N Roy
-- Topography --
2008 SALE PLAN
TILLAMOOK DISTRICT

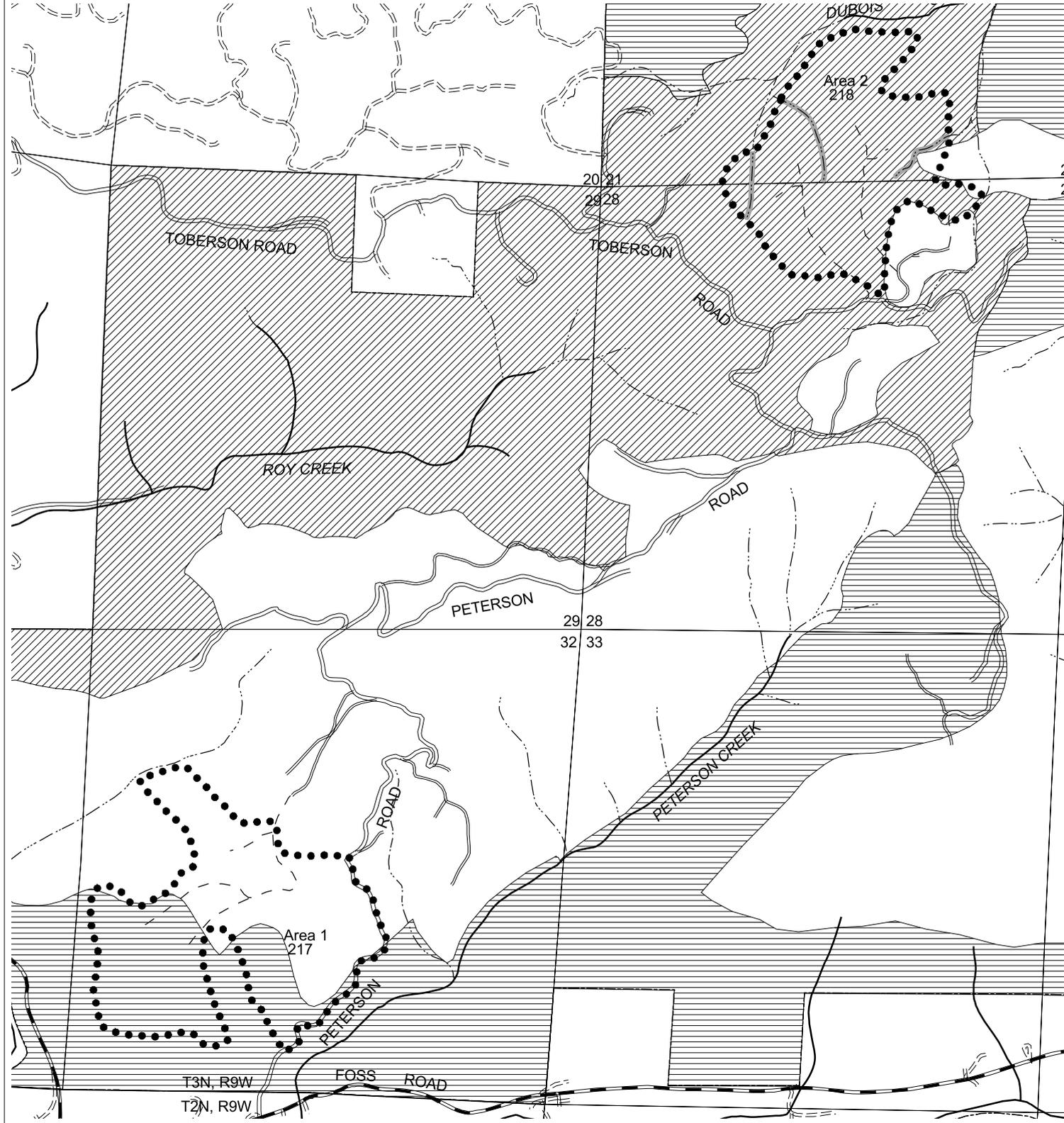
Portions of Sections 21, 28, and 32
 T3N, R9W, W. M.
 Tillamook County, Oregon

Area	Type of Operation
1	RC
2	PC



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 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
- 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

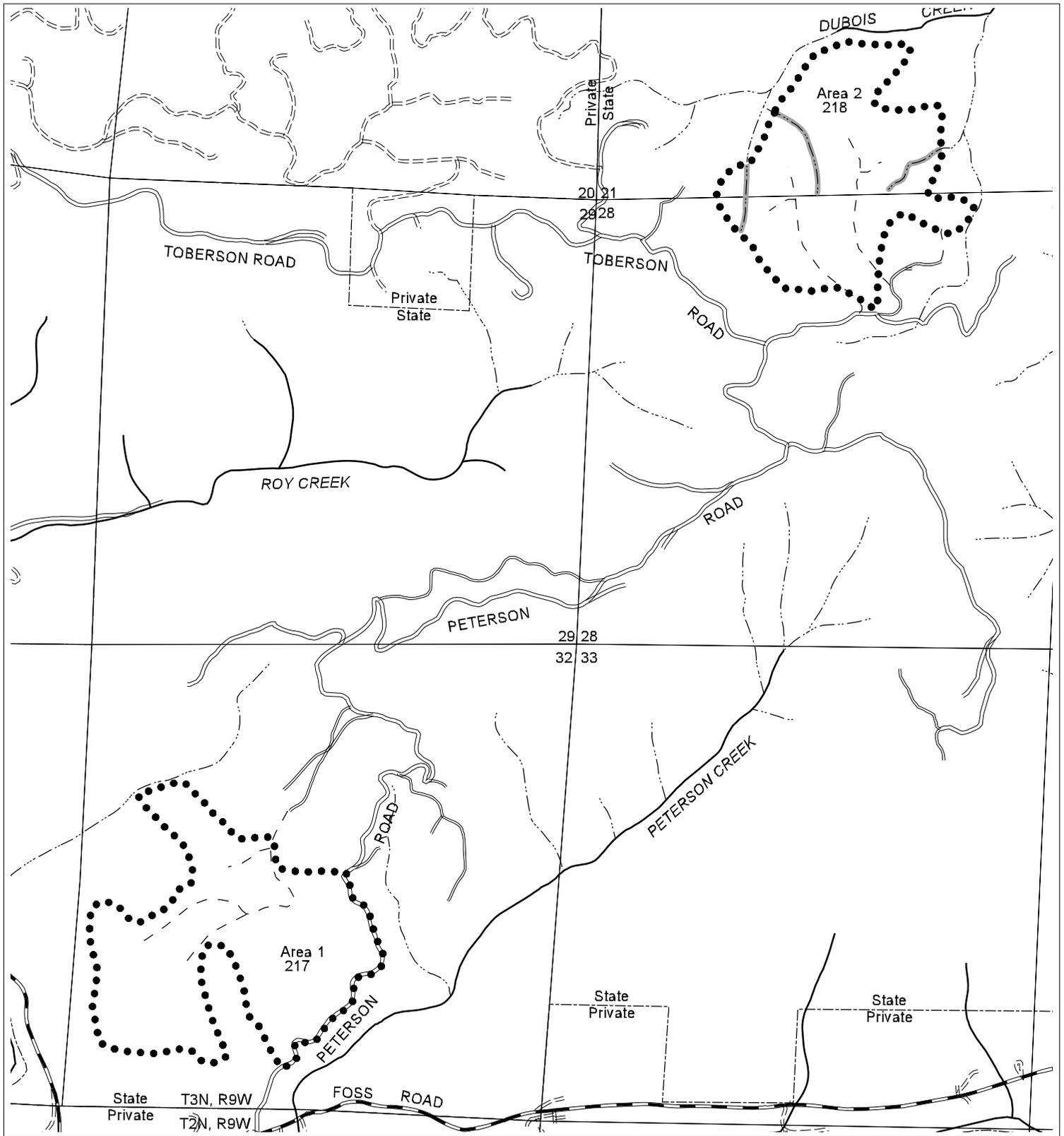
Rock N Roy
-- Current and Future Condition --
2008 SALE PLAN
TILLAMOOK DISTRICT
 Portions of Sections 21, 28, and 32
 T3N, R9W, W. M.
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Area	Type of Operation
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Rock N Roy
-- Key Resources --
2008 SALE PLAN
TILLAMOOK DISTRICT

Portions of Sections 21, 28, and 32
 T3N, R9W, W. M.
 Tillamook County, Oregon

Area	Type of Operation
1	RC
2	PC



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