

Pre-Operations Report

Operation Name: Rhody Lake

County: Marion

Management Basin: Butte Creek

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
	PC-M	183	162
Total		183	162

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation is located within a temperate climate area. Typically the fall and winter seasons are wet. This area receives approximately 80 to 100 inches of rainfall per year. The operation is located within the *Tsuga heterophylla* Zone (*Natural Vegetation of Oregon and Washington, Franklin & Dyrness, 1973*).

The sale is located on the moderate to steep slopes above Butte Creek on the glacially carved divide between Fibre Creek and Rhody Creek. There are bands of steep slopes near the top, middle and bottom of the sale area. The sale is underlain by igneous rocks, flow and flow breccias, mapped as "Basaltic and andesitic rocks." There is a small area in the northeast portion of the sale area that is mapped as glacial deposit (glacial moraine).

The soils in this operation are made up of Henline and Henline-Rock Outcrop Complex soils. Henline soils are comprised of moderately deep, well-drained, medium textured skeletal soils. Rock content in Henline soils ranges from 50 to 90%. The average 50 year site index is 90 feet for Douglas-fir and 80 feet for western hemlock. Henline-Rock Outcrop Complex soils contain approximately 60% Henline soils and 40% rock outcroppings of andesite bedrock. The average 50 year site index is 70 feet for Douglas-fir and 60 feet for western hemlock. (*Soil Survey of the Cascade Unit, Miller & Steinbrenner, 1980*) The elevation within the operation ranges from 2,780 feet to 3,920 feet.

II. CURRENT STAND CONDITION:

There are three stands within this operation. The average age of the stands is 50 years old. The overstory is a mixture of Douglas-fir, western hemlock, noble

fir and pacific silver fir. The understory contains vine maple, rhododendron, huckleberry, and some red alder. There is more of an understory component in the southern portion of the operation than the northern portion. There is an average of 3 snags per acre; almost no sound down wood; and an average of 4,000 cubic feet per acre of down wood in all decay classes. (SLI, 2003)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
	PC-M	12016	WHCX	54	14	195	178	52	27
		12341	CXWH	48	12	233	299	66	45
		12342	DFWH	45	12	214	281	61	111
		Target ³			16	107	77	27	183

1 The source of stand inventory information is SLI from 2003 for trees 8 inches DBH or larger.

2 The acres are based on GIS and include roads, streams buffers, reserve areas, etc.

3 The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED STAND CONDITION:

This operation is located within the Butte Creek Basin. Approximately 57 percent of this basin is planned for Complex Structure stands. (*Cascade District Implementation Plan, 2003*) This basin contains mature, even aged Douglas-fir mixed with minor amounts of western hemlock, noble fir and tag alder stringers along streams. This basin also contains high elevation lakes and steep rock outcroppings.

The desired future condition for this operation is for both Layered and Older Forest Structure stands. These stands are in desperate need of a thinning to keep some of the larger trees healthy and growing. The thinning will create unique stands for the area consisting of large diameter trees both clumped and scattered across the landscape. The understory should see a response from the brush as well as the establishment of western hemlock seedlings. Prolific germination of western hemlock seed should add a layer to the stand in a few years.

The **Anticipated Pathway** begins with:

- A moderate density, first entry, commercial thinning in a 45-year old stand.
- Openings in the stand are expected to occur due to harvesting logistics. Diameter limit thinning will create variable spacing of trees, clumps and gaps within a stand.
- In 3-5 years following the thinning, the stand will be evaluated as a candidate for fertilization.
- In 10-15 years, the stand will be commercially thinned for the second time. This thinning will be moderate to heavy. The understory trees will be

“reserved” during this operation, but impacts from logging will result in non-uniform stocking. The opportunity to develop snags and down wood with this entry will be evaluated, and implemented if conditions are suitable.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
	12016	UDS	UDS	LYR	27
	12341	UDS	UDS	LYR	45
	12342	CSC	UDS	OFS	111

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

IV. PROPOSED MANAGEMENT PRESCRIPTION:

The stands within this operation will be treated with a diameter limit thinning. All Douglas-fir, noble fir and pacific silver fir trees 14 inches in diameter and larger will be reserved from harvest. All western hemlock trees 15 inches in diameter and larger will be reserved from harvest. All white pine, red alder or western red cedar will be reserved from harvest. The SDI target for the stand should be between 27 – 30%. Treatment of large amounts of slash will be needed. The results of this prescription will be a unique stand consisting of large diameter trees both clumped and scattered across the landscape as well as different size openings within the stand. Snags will be retained as safety permits. All down wood within the operation will be retained. Snags and down wood will not be added at this entry.

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)	1,500	0	1,500
Stumpage Value (\$/MBF)	\$175	0	
Estimated Gross Value	\$262,500	0	\$262,500
		Project Costs:	\$34,000
		Estimated Net Value:	\$228,500

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to the sale area will be via the Crooked Finger paved road, to the Crooked Finger Mainline, CF 400 to Butte Creek 500 road and then to spurs within the sale unit. One old road (25+00 stations) will be re-opened and extended another 33+00 stations. This will provide access to the ridge top for cable yarding of this sale and future harvesting to the east. The sale will be 95% cable logging with a medium to small yarder required.

- Construct 33+00 stations of new rd, surface with pit-run rock
- Re-open 25+00 stations of old rd, 14' subgrade w/3' ditch, pit run surface
- Review culverts on the BC 500 for upgrading

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	.63	0
Improve	0	0	.26	0
Maintain	0	0	0	0
Close/Block	0	0	0	0
Vacate	0	0	0	0

*For determination of road class either use results of the Harvest and Habitat roads classifications, or if this information is not available then low use roads are spurs, medium use roads are collectors and high use roads are mainlines. Use these same criteria when comparing the total for all AOP sales to the IP plans.

VII. AQUATIC RESOURCES AND WATER QUALITY:

There are five small streams within the operation which flow into Butte Creek, a large fish-bearing stream. Three of the small streams are classified as non-fish bearing. The beneficial use has not been classified for the other two streams. These streams will be classified prior to or during field work for the sale contract preparation.

Management activities within riparian areas of streams will focus on achieving properly functioning aquatic and riparian habitat conditions over time. Riparian Management Areas (RMAs) will be established immediately adjacent to streams for the purpose of protecting aquatic and riparian resources and maintaining the functions and ecological processes of the streams. The Management Standards for Aquatic and Riparian Areas found in the *NWO State Forests Management Plan* (pg. J-1 – J-16) will be followed within these RMAs.

The following measures will be used to minimize impacts to streams: 1. No ground based equipment will be allowed within 50 feet of any fish stream and 25

feet of any non-fish bearing stream, 2. There will be seasonal restrictions as to when ground yarding and road construction will be allowed (i.e. during dry seasons), 3. Erosion control measures will be used on areas of soils exposed during road construction or improvement, 4. In the cable portions of the operation, one end suspension of logs during yarding will be required, 5. Road ditches will be disconnected from streams, 6. Road maintenance will be required during log hauling.

VIII. T&E SPECIES CONSIDERATIONS:

The operation was surveyed for Northern Spotted Owls during the 2006 survey season with two responses from an owl whose status is unknown. The operation will be surveyed again in 2007. If an owl site becomes established in 2007, the ODF policies for the Northern Spotted Owl will be followed prior to sale layout.

The operation area was checked against District knowledge for any listed plant location. The operation area was also checked against the Oregon Natural Heritage Program's database of known listed plant locations. No listed plant records were identified within the operation area. A little over a mile past the sale there is some Cold Water Corydalis located within and above the ditch line of the BC 500 road. No road work or maintenance is planned for this area, so the plant will not be affected by this operation.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The smaller steep slope areas near the bottom and the top of the sale area appear to have a risk to waters of the State. The initial risk assessment for slope stability concerns by the geotechnical specialist for the sale is moderate. If these steep sloped areas remain within the sale area as the sale layout proceeds, the geotechnical specialist will be consulted to determine if a field visit is needed.

X. RECREATION RESOURCES:

There are no known developed recreational resources within the operation. The BC 500 road passes through the middle of this operation. This is also the access road to Rhody Lake, a high elevation lake that is a popular recreation site. This operation may have some effects on access to the lake. During the week, travel to Rhody Lake may be delayed, but not blocked due to the harvesting operation. There will be frequent log truck traffic at times as well. The access to Rhody Lake should be clear during the weekends. Potential hauling restrictions on the BC 500 road may be placed within the timber sale contract to prevent log hauling and equipment move-in from Friday afternoon to Sunday evening.

XI. CULTURAL RESOURCES:

Pre-operation reconnaissance revealed no visible cultural resource features or artifacts. If discovery is made, the cultural resource will be protected and field staff will consult with the Cultural Resource Specialist in Salem.

XII. SCENIC RESOURCES:

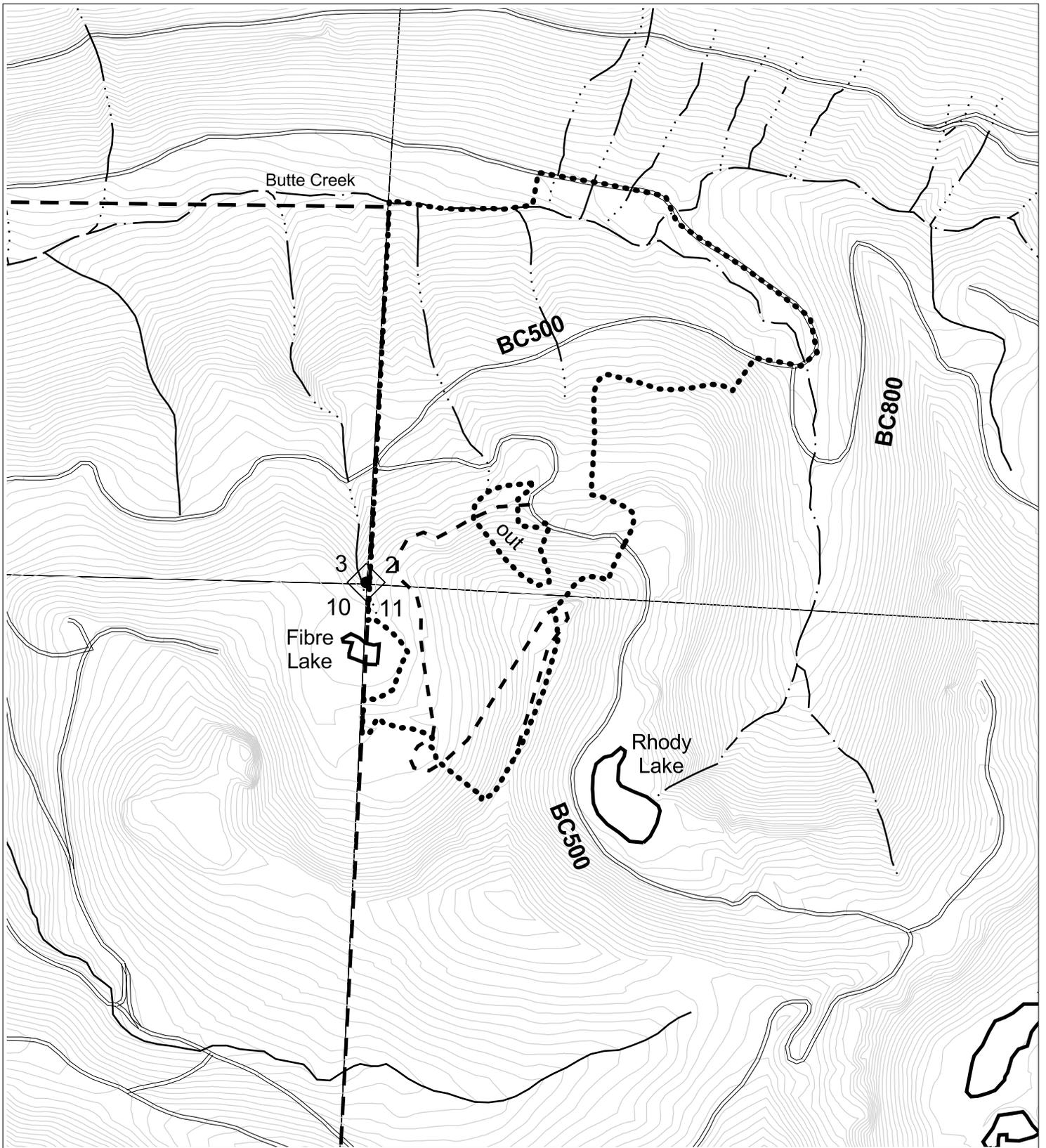
See recreational resources.

XIII. OTHER RESOURCE CONSIDERATIONS:

There are no other resource considerations.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The operation contains Special Stewardship, Aquatic and Riparian Habitat for a large Type F stream and Focused Stewardship, Aquatic and Riparian Habitat for five small streams. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



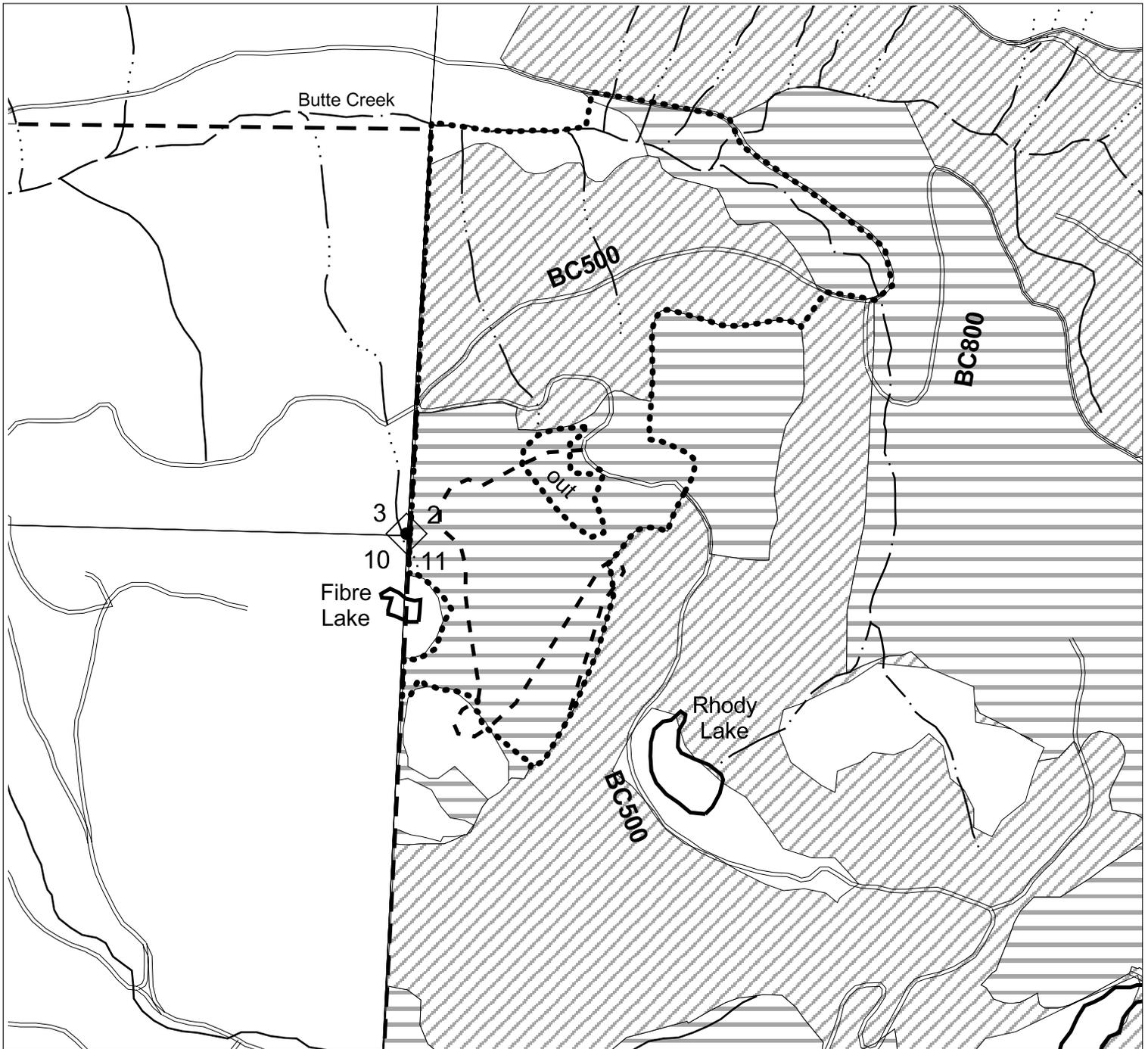
- New Road Construction
- Lakes
- Roads
- State Forest Boundary
- Streams**
- FISH
- NONFISH
- UNKNOWN
- Rhody Lake
- 20 foot contours

RHODY LAKE
--TOPOGRAPHY--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT
 Portions of Sections 2 and 11
 T8S, R3E W. M.
 Marion County, OR

Approximate Net Acreage:
PC-M 167



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RHODY LAKE
--DESIRED FUTURE CONDITION--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT

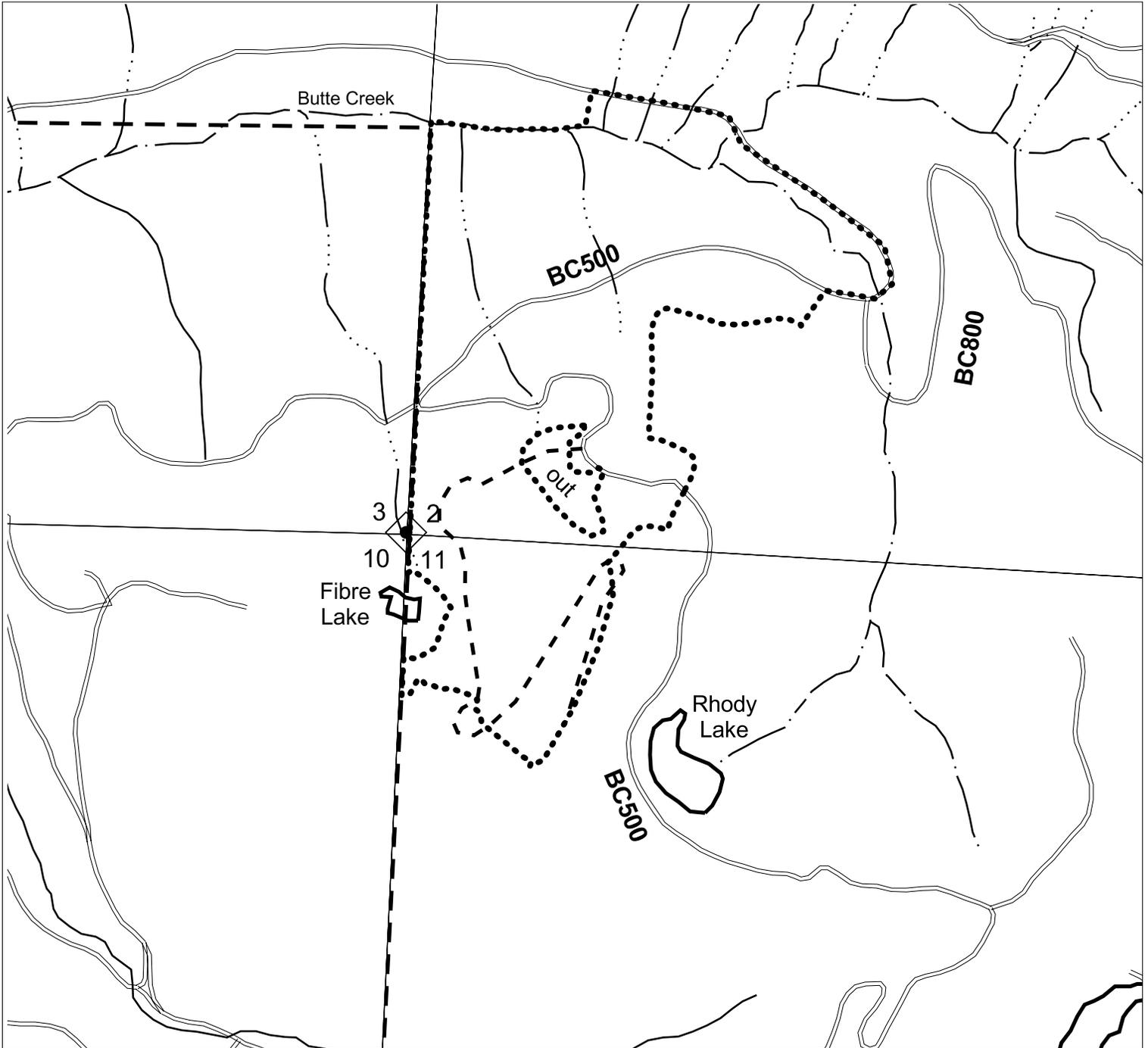
Approximate Net Acreage:
PC-M 167

Portions of Sections 2 and 11
T8S, R3E W. M.
Marion County, OR

- New Road Construction
- Lakes
- Roads
- State Forest Boundary
- Streams**
- FISH
- NONFISH
- UNKNOWN
- Rhody Lake
- Desired Future Condition**
- LYR
- OFS



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RHODY LAKE
--KEY RESOURCES--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT
 Portions of Sections 2 and 11
 T8S, R3E W. M.
 Marion County, OR

Approximate Net Acreage:
PC-M 167

-  New Road Construction
-  Lakes
-  Roads
-  State Forest Boundary
-  Streams
-  FISH
-  NONFISH
-  UNKNOWN
-  Rhody Lake



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