

Pre-Operations Report

Operation Name: Taylor Butte

County: Marion

Management Basin: Butte Creek

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	MC	76	69
II	PC-H	7	7
Total		83	76

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 70 to 95 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 just south of the Clackamas - Marion County line. There are bands of steep slopes in the headwalls of the two draws and scattered throughout, especially in the western portion of the sale area. The sale is underlain by igneous rocks, flows and flow breccias mapped as "Basaltic and andesitic rocks."

The soils within the operation are in the Nasty series. These soils are defined as moderately deep, well-drained, moderately fine-textured skeletal soil. The 50 year site index averages for both Douglas-fir and western hemlock is 100 feet. (*Soil Survey of the Cascade Unit, Miller & Steinbrenner, 1980*) The elevation within the operation ranges from 2,100 feet to 2,940 feet. The slopes within the unit are 50 to 60%.

II. CURRENT STAND CONDITION:

Areas I and II are made up of a 70 year old Understory stand. The majority of the overstory trees are Douglas-fir. There are also small amounts of western hemlock, noble fir and red alder trees. The understory consists of vine maple, dwarf Oregon grape, sword fern and red huckleberry. There are approximately 10 snags per acre greater than 12 inches in diameter; 280 cubic feet per acre of

sound down wood; and 4,400 cubic feet per acre of down wood in all decay classes. (SLI, 2004)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
I	MC	12260	DFWH	70	16	182	135	46	76
II	PC-H	12260	DFWH	70	16	182	135	46	7
II		Target ³			20	109	48	25	

1 The source of stand inventory information is SLI from 2004.

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 Area I is for regeneration, closed single canopy or understory stands. The last treatment for the stand was a thinning about 20 years ago. Many of the residual trees were damaged and were not the most vigorous trees. The stand did not respond to the thinning and needs to be clearcut to start it over. Young vigorous trees would occupy the site well. Area II is the riparian management area for Butte Creek. The desired future condition for this area is for mature forest condition consisting of a stand dominated by large conifer trees.

The **Anticipated Pathway** for Area I begins with a:

- Modified clearcut.
- The slash and brush will be treated to get the site ready for reforestation.
- The area will be promptly reforested and reclassified as a Regeneration stand.
- The area will be periodically checked to determine if inter-planting or vegetation management needs to occur.
- When this stand reaches approximately 10 years of age, it will be evaluated for possible pre-commercial thinning opportunities.
- The stand will be evaluated around age forty for an initial commercial thinning.

The **anticipated pathway** for Area II is as follows:

- Area II will receive a partial harvest.
- No further management activities are anticipated within this riparian management area.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
I	12260	UDS	REG	GEN	76
II	12260	UDS	UDS	MFC ²	7

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

2 MFC stands for mature forest condition consisting of a stand dominated by large conifer trees.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

Area I

- The stand will receive a Modified Clearcut.
- Approximately 5 to 7 green trees per acre will remain in clumps and along the small streams within the unit following the harvest.
- All downwood and all snags which do not pose a safety hazard will be retained. An additional 300 cubic feet per acre of down wood will be added to the area. At least 2 snags per acre will remain within the area following completion of the harvest.
- A broadcast burn will be done to prepare the area for planting.
- The area may also receive an aerial chemical treatment to manage the growth of vegetation that would compete with newly planted seedlings.
- Area I will be replanted with a mixture of noble fir and Douglas-fir seedlings.

Area II (25 feet to 100 feet Inner RMA of Butte Creek)

- Thin to a residual SDI 25%, retaining at least 48 trees per acre.
- This will leave the most vigorous trees within the area to move the stand towards a mature forest condition.

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:		2	

	Conifer	Hardwood	Total
Net Volume (MBF)	1,714	0	1,714
Stumpage Value (\$/MBF)	\$300	0	
Estimated Gross Value	\$514,200	0	\$514,200
		Project Costs:	\$80,400
		Estimated Net Value:	\$433,800

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 BC 510,514 & 513 roads. No new road will be needed for the sale. Rock crushing will be done with this sale to resurface parts of the BC 500 and BC 800. This re-surface project will improve two roads that do not have enough gradable surface for a grader to shape the road for drainage. The harvest plan for this unit is to have 100% up hill cable logging to landings on the BC 514 and 513 roads. Tail hold trees will be utilized across Butte creek to obtain good cable yarding line deflection.

Project work summary

- Possible addition of the Rhody Lake rock crushing project
- Culvert upgrades as needed on the BC 500
- Road brushing on the CF 400, BC 513 & 514, and BC 510 (7.4 mi)
- Resurface BC 800, BC 500 from jct. BC 800 to trail head past Rhody Lake this would be about 5,000 cy of rock (on .6 miles).

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	0
Improve	0	0	0	0
Maintain	0	8.3	8.29	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 two non-fish bearing streams within the operation. Butte Creek, a large fish-bearing stream, is located at the bottom of the operation. The overstory along the stream consists of Douglas-fir and red alder. The understory consists of ferns, salmonberry and Oregon grape. These streams will be evaluated during sale layout to determine if there are any high energy reaches so that the proper RMA can be applied to the streams.

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 can be found in the *NWO State Forests Management Plan* (pg. J-1 – J-16).

- The RMA along Butte Creek will consist of a no harvest buffer at least 25 feet from the stream. Between 25 feet and 100 feet away from the stream, the trees will be thinned to a SDI of 25%. Approximately 10 trees per acre will be retained between 100 feet and 170 feet from the stream.
- The RMA along the two small non-fish streams will consist of a no harvest buffer at least 25 feet from the streams. At least 15 to 25 trees per acre will be retained within the 25 to 100 foot RMA.

The following measures will be used to minimize impacts to streams: 1. In the cable portions of the operation, one end suspension of logs during yarding will be required, 2. Road ditches will be disconnected from streams, 3. 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 no responses. The operation will be surveyed again in 2007.

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.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The initial risk assessment by the geotechnical specialist for the sale is high. The geotechnical specialist will be consulted during sale layout to determine if a field visit is needed.

X. RECREATION RESOURCES:

There are no known developed recreational resources within the operation.

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:

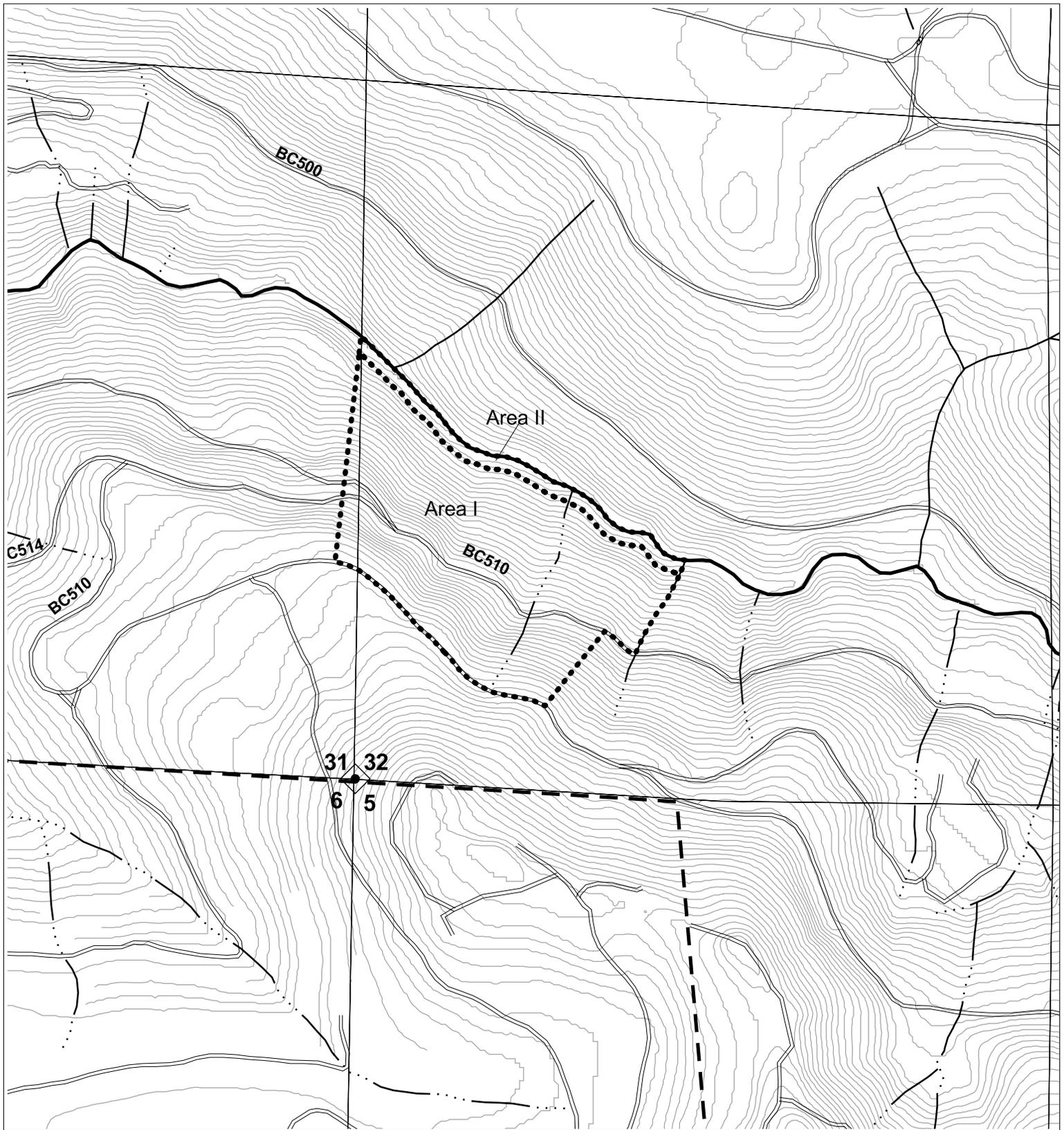
There are no scenic resources within the operation.

XIII. OTHER RESOURCE CONSIDERATIONS:

To protect air quality, the planned burn will comply with the Oregon Smoke Management Plan. The Smoke Management Plan is designed to reduce emissions from prescribed burning in western Oregon and to minimize smoke intrusions into designated population areas.

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 two small type N streams. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



**TAYLOR BUTTE
--TOPOGRAPHY--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT**

Portions of Sections 31 and 32
T7S, R3E W. M.
Marion County, OR

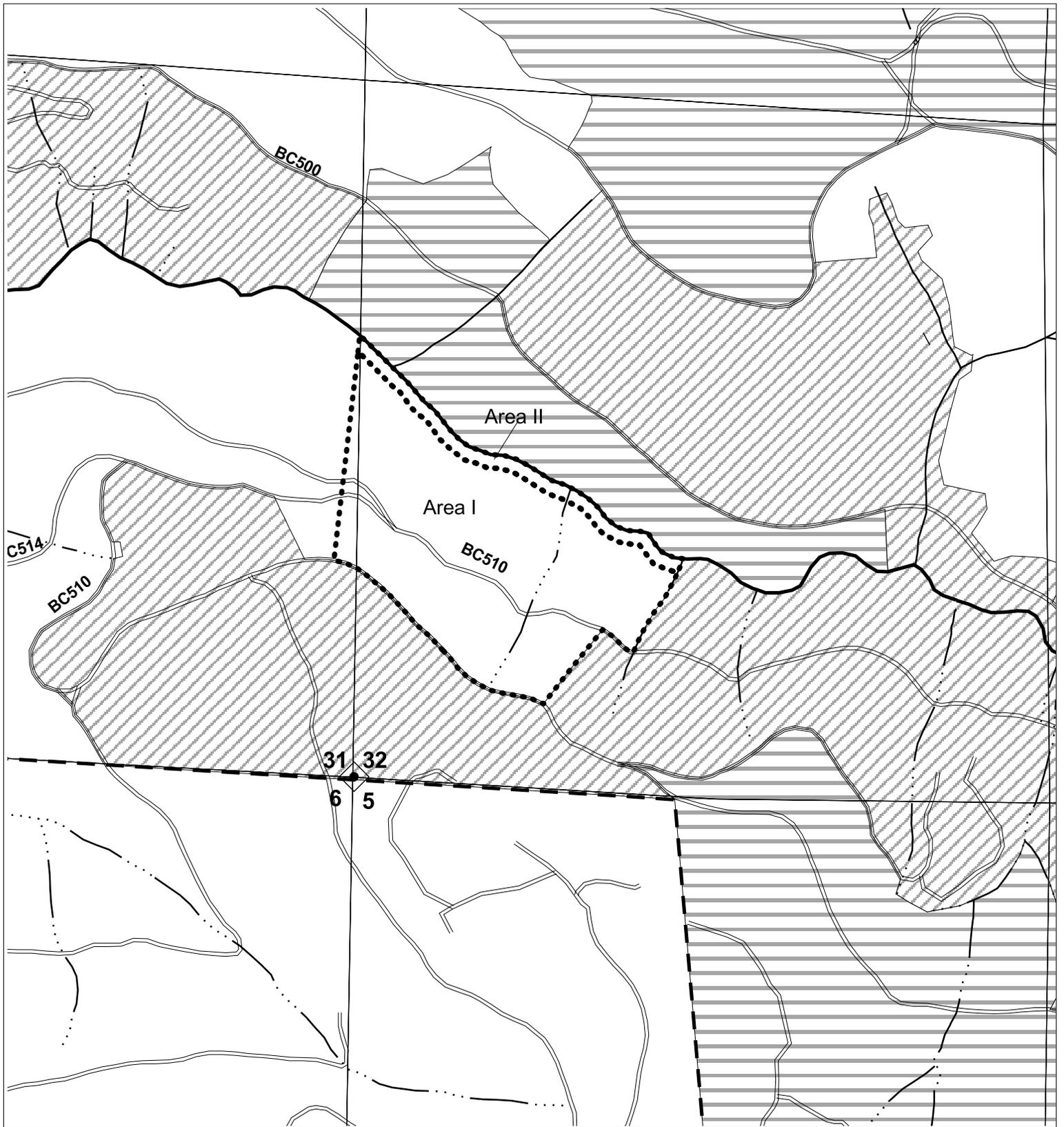


Approximate Net Acreage:
MC 69
PC-H 7



-  Taylor Butte
-  State Forest Boundary
-  Roads
-  Streams
-  FISH
-  NONFISH
-  UNKNOWN
-  40 foot Contours

This product is for informational use and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

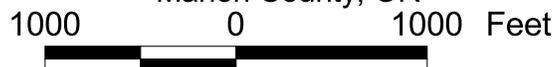


TAYLOR BUTTE
--DESIRED FUTURE CONDITION--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT

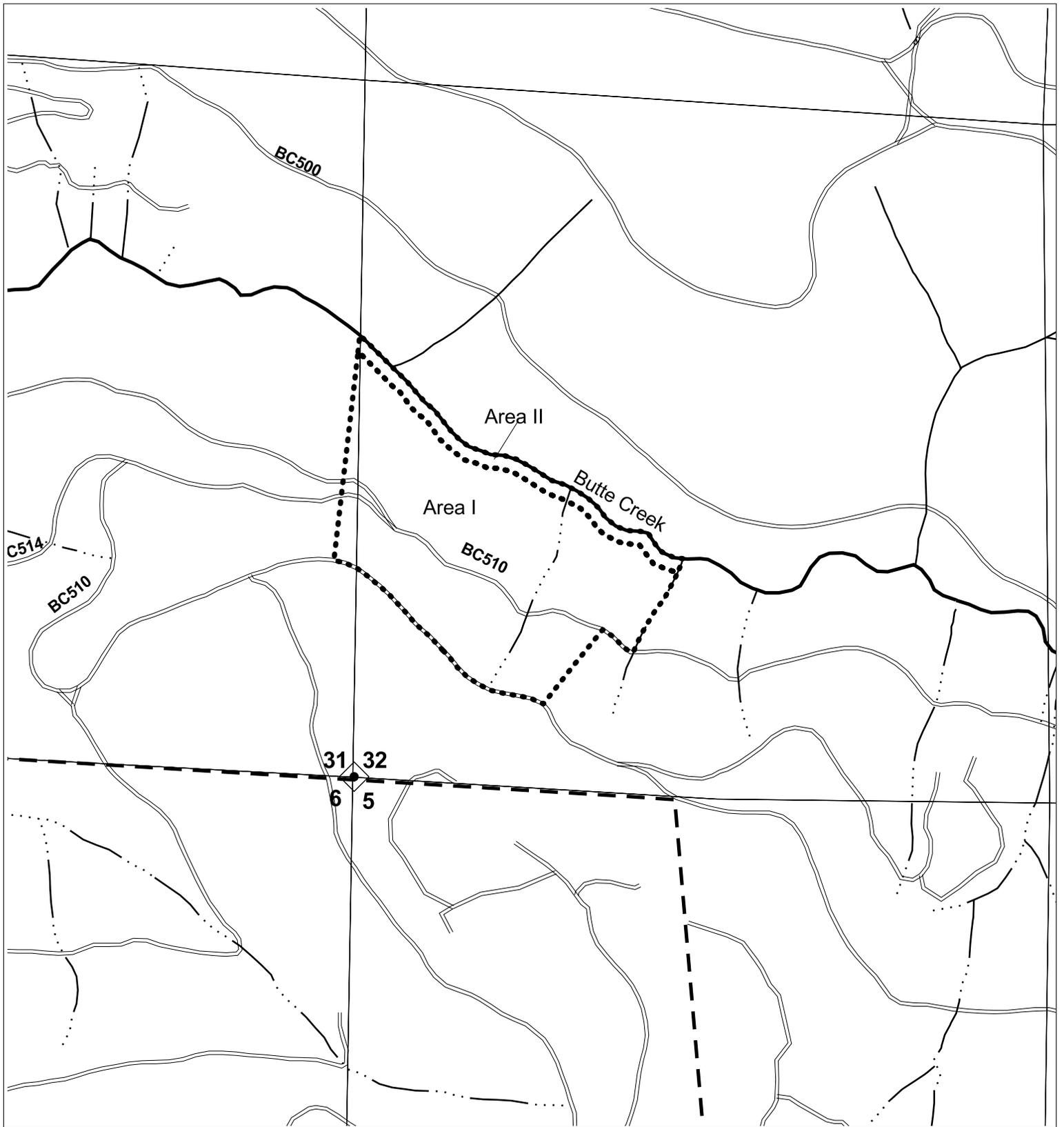
Portions of Sections 31 and 32
 T7S, R3E W. M.
 Marion County, OR

Approximate Net Acreage:
 MC 69
 PC-H 7

-  Taylor Butte State Forest Boundary
-  Roads
-  Streams
-  FISH
-  NONFISH
-  UNKNOWN
- Desired Future Condition
-  LYS
-  OFS



This product is for informational use and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.



**TAYLOR BUTTE
--KEY RESOURCES--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT**

Portions of Sections 31 and 32
T7S, R3E W. M.
Marion County, OR



Approximate Net Acreage:
MC 69
PC-H 7



-  Taylor Butte
-  State Forest Boundary
-  Roads
-  Streams
-  FISH
-  NONFISH
-  UNKNOWN

This product is for informational use and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.