

# Pre-Operations Report

**Operation Name:** Chinquapin Ridge  
**County:** Lincoln  
**Management Basin:** Blodgett

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Net Acres
I	Modified Clearcut	12
II	Modified Clearcut	4
III	Modified Clearcut	13
IV	Modified Clearcut	27
V	Moderate Partial Cut	33
Total MC		56
Total PC		33

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

The operation consists of four modified clearcut units and one partial cut unit. The units lie in the western hemlock vegetation zone. Average rainfall is 78 – 100 inches per year.

The soils are all Valino. The soil information is derived from a soil survey completed in 1980.

The landforms are gentle Chinquapin ridge and the associated headwaters of Johnson Creek, Leverage Creek, Sugarbowl Creek and a small swale above Shotpouch Creek. The underlying rocks are sedimentary origin of the Tye Formation.

Aspect for the operation areas is as follows: Area I – southwest; Area II – north; Area III – west; and Areas IV, V – south.

## **II. CURRENT STAND CONDITION:**

Areas I, II, and IV support natural stands of 51-64 year old Douglas-fir trees with a few scattered red alder trees present. All of Area I and a portion of Area IV were commercially thinned in 1996. Area III is an intermixed, 50 year old Douglas-fir/red alder stand. Area V contains 41 year old Douglas-fir that was commercially thinned in 1996.

In all five operation areas some snags and down wood are present although in limited numbers.

Brush species include vine maple, sword fern, hazel, salal, and Oregon grape.

The Understory (UDS) stand structure is the predominant stand type for the operation areas. A portion of Area III is classified as Layered (LYR). The source of stand structure information is Stand Level Inventory (SLI).

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	RD	Acres <sup>2</sup>
I	Modified Clearcut	18516	Douglas-fir	56	19	248	125	57	12
II	Modified Clearcut	18514	Douglas-fir	62	21	253	102	54	4
III	Modified Clearcut	18515	Douglas-fir	54	20	220	97	49	9
		18518	Douglas-fir	40	14	227	231	62	4
IV	Modified Clearcut	18521	Douglas-fir	51	21	248	105	54	20
		18522	Douglas-fir	64	19	205	107	47	7
V	Partial cut	18523	Douglas-fir	41	17	210	133	51	33
		Target <sup>3</sup>			20	140	64	31	

1 The source of stand inventory information is SLI.

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

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

### **III. DESIRED STAND CONDITION:**

According to the district's landscape design, Areas I-V are designated as Desired Future Condition (DFC) General and are targeted to become (UDS) stands.

**Areas I-IV Vision:** When the next final harvest occurs in these operation areas, the stands will be 70-80 years old and will be in the UDS condition. At that time, these stands will consist of an overstory of well stocked Douglas-fir with smaller amounts of western hemlock, western redcedar and red alder. Where there are gaps in the overstory, there will be an understory of hemlock, cedar, alder and brush (vinemaple, hazel, Oregon grape and sword fern). Legacy trees (about 4 per acre) left from the first regeneration harvest will be located in small clumps and also scattered across the areas. These Douglas-fir trees will average about 40 inches DBH. Both large and small snags and down wood will be located throughout the areas.

**Area V Vision:** This stand is currently in the UDS stand type and will remain in that condition until final regeneration harvest at age 60-70 years. At the time of final harvest, this area will consist of well-stocked, large Douglas-fir in the overstory and brush (vinemaple, sword fern, hazel and Oregon grape) and forbs in the understory. A few alder and bigleaf maple will be scattered throughout the stands, both in the overstory and understory. Snags and downed wood will be present throughout the stand.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
I	18516	UDS	REG	UDS	12
II	18514	UDS	REG	UDS	4
III	18515	LYR	REG	UDS	9
	18518	UDS	REG	UDS	4
IV	18521	UDS	REG	UDS	20
	18522	UDS	REG	UDS	7
V	18523	UDS	UDS	UDS	33

<sup>1</sup> The stands are expected to develop into this condition in the five to ten years after this operation is completed.

**IV. PROPOSED MANAGEMENT PRESCRIPTION:**

**Areas I-IV Anticipated Pathway:** This harvest will be a modified clearcut prescription leaving behind about 8-10 green trees of which the majority will be greater than 20 inches DBH. The majority of these reserve trees will be Douglas-fir, but some alder may also be left. Existing snags that do not pose a safety hazard and all down wood will be retained. Snags and down wood will be created from some of the reserve trees.

After harvest, a site prep herbicide treatment will be applied. Prior to planting, mountain beaver may need to be trapped from the areas.

Following completion of site prep activities, the areas will be replanted with approximately 70% Douglas-fir, 15% western hemlock and 15% western redcedar at a rate of 436 trees per acre. This planting mix will help leave the option open for changing the DFC to a more complex condition if so desired. All cedar will be tubed to deter elk and deer browse. Once planting is complete, the operation areas will fit the REG classification.

It is likely that at least one herbicide application will be needed within the first 3 years after planting in order to release planted conifer from competing brush. It is also likely that mountain beaver will be trapped again the first year after planting. By age 15 years the stands will have moved from REG to closed single canopy (CSC).

When the planted trees reach age 12-15, it is likely that pre-commercial thinning (PCT) will be used to reduce total trees per acre to around 222. The biggest and best trees will be selected to leave, also keeping roughly the same percent species mix as was planted, but allowing up to 10% of the mix to be comprised of naturally occurring hardwood.

At approximately age 30 the areas will be commercially thinned to an RD of 30-35. Thinning will capture harvest volume, maintain stand vigor, and will also move the stands on the pathway from CSC to UDS by opening them enough to allow vegetation to grow in their understories. Approximately 5-10 years following commercial thinning, the UDS condition will be achieved.

In 10-15 years, the areas will again be thinned to an RD of 30-35. This thinning will capture harvest volume and maintain stand vigor. The amount and condition of down wood and snags will be evaluated and more will be created at this time if needed.

In another 10-15 years, tree growth rates will be evaluated and a decision will be made to either conduct a third thinning or to wait until final harvest at 70-80 years old.

**Area V Anticipated Pathway:** During this commercial entry, this area will be thinned to an RD of about 31, leaving around 64 TPA. The average DBH of residual trees is expected to be 20 inches. Snags and downed wood will be left wherever possible and all trees other than Douglas-fir will be reserved from cutting.

In 15-20 years, when the stand RD has again reached about 50, tree growth rates will be evaluated and a decision will be made to either conduct a third thinning or to wait a few years and conduct a regeneration harvest. Final harvest will likely occur when the stand is 60-70 years old.

**V. ESTIMATED TIMBER AND REVENUE INFORMATION:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		X
Planned Quarter:	1		

	Conifer	Hardwood	Total
Net Volume (MBF)	1,900	100	2,000
Stumpage Value (\$/MBF)	\$450	\$450	
Estimated Gross Value	\$855,000	\$45,000	\$900,000
		Project Costs:	\$30,000
		Estimated Net Value:	\$870,000

**VI. TRANSPORTATION PLANNING AND HARVESTING:**

Access to Areas I and II is from South Goat Ridge Road which is in adequate condition for dry weather hauling. Maintenance grading will be required to maintain this condition. Two existing unsurfaced spurs will be re-opened. The north spur is ridge top but the southern spur is midslope to a bench.

Access to Area III is over the same rocked road as used for Areas I and II. An existing unsurfaced spur will be re-opened with an extension of new construction into the harvest area. All are ridge top roads.

Access to Area IV is from three existing rocked roads which are suitable for wet weather haul, requiring only maintenance grading to maintain their current condition.

Access to Area V is also from South Goat Ridge Road. Two outsloped unsurfaced spurs will be constructed and used for summer haul. Both road locations are on gentle ground. No full bench construction will be required.

There will be 0.9 miles of road improvement consisting of re-opening 3 older dirt spurs.

All access is from State or County roads. No access agreements are needed.

Existing roads provide timber harvest access to 60% of the operation acreage. Other haul routes were considered, but due to the expense of improving these roads over private timberland, the existing transportation system was deemed adequate. All roads are on STATE land. Therefore, no access agreements are needed.

Approximately 60% of the operation area will require cable logging with the remaining 40% ground skiddable.

All unsurfaced roads will be waterbarred and blocked to vehicular traffic, after harvesting operations are completed and/or at the beginning of the wet season.

**Table 5. Transportation Planning Summary (Miles).**

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct				0.7
Improve				0.9
Maintain		1.7	1.0	
Close/Block				1.6
Vacate				

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

Water flowing from streams in the operation areas is part of the Yaquina River system.

There are no type F streams within or adjacent to the operation areas.

There are no streams in Areas I, II, and V.

There are seasonal type N streams in Areas III and IV. Buffers averaging 50-75 feet horizontal distance will be posted on either side of these streams. No trees will be felled within the buffers except to facilitate cable yarding. In the remaining portion of the Riparian Management Area (RMA) zones sufficient trees will be retained to comply with current standards.

Vegetation along the streams consists of conifer and hardwood trees and brush species such as salmonberry, elderberry, vine maple, and sword fern.

There is an unregistered domestic water source in Area IV. A no harvest buffer will be posted sufficient distance from the water intake that no degradation of water quality will be experienced. The land owner will be informed of the operation and measures taken to protect water quality. The landowner will be asked to register the water source with the State Water Board.

Activities that will take place in proximity to the streams, listed above, include timber felling and yarding. The following measures will be employed to minimize impacts to the stream: 1) no equipment shall be operated within the buffer, 2) timber above the buffer will be felled away from or parallel to the stream, 3)

timber will be yarded away from the stream, where possible, 4) if it is necessary to yard logs across the stream, logs will be fully suspended above the buffer vegetation, and 5) single end suspension of logs will be required elsewhere in the units.

Other requirements designed to minimize impacts to streams include seasonal restrictions for road construction and log hauling.

### **VIII. T&E SPECIES CONSIDERATIONS:**

According to the area wildlife biologist, the operation areas contain suitable habitat for northern spotted owls and marbled murrelets. Surveys for both species were conducted in 2007 with no detections. Surveys will continue in 2008.

The operation areas were checked against district knowledge for any listed plant locations. The operation areas were also checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations. No listed plant records were identified within the operation areas.

### **IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:**

This assessment is based on analysis of USGS 1:24,000 topographic maps.

There are no high landslide hazard locations in the operation areas. Areas I, II, and III primarily drain to Leverage Creek. Areas IV and V drain to Sugarbowl Creek. The risk of landslides delivering directly to Leverage Creek or Sugarbowl Creek from the sale is low. Area II may be located on a large, deep-seated landslide landform.

The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

### **X. RECREATION RESOURCES:**

Recreation in the vicinity of the operation areas consists mainly of hunting.

### **XI. CULTURAL RESOURCES:**

The operation area was checked for cultural resources with the district's GIS inventory. No cultural resources are located in the vicinity of the operation area.

### **XII. SCENIC RESOURCES:**

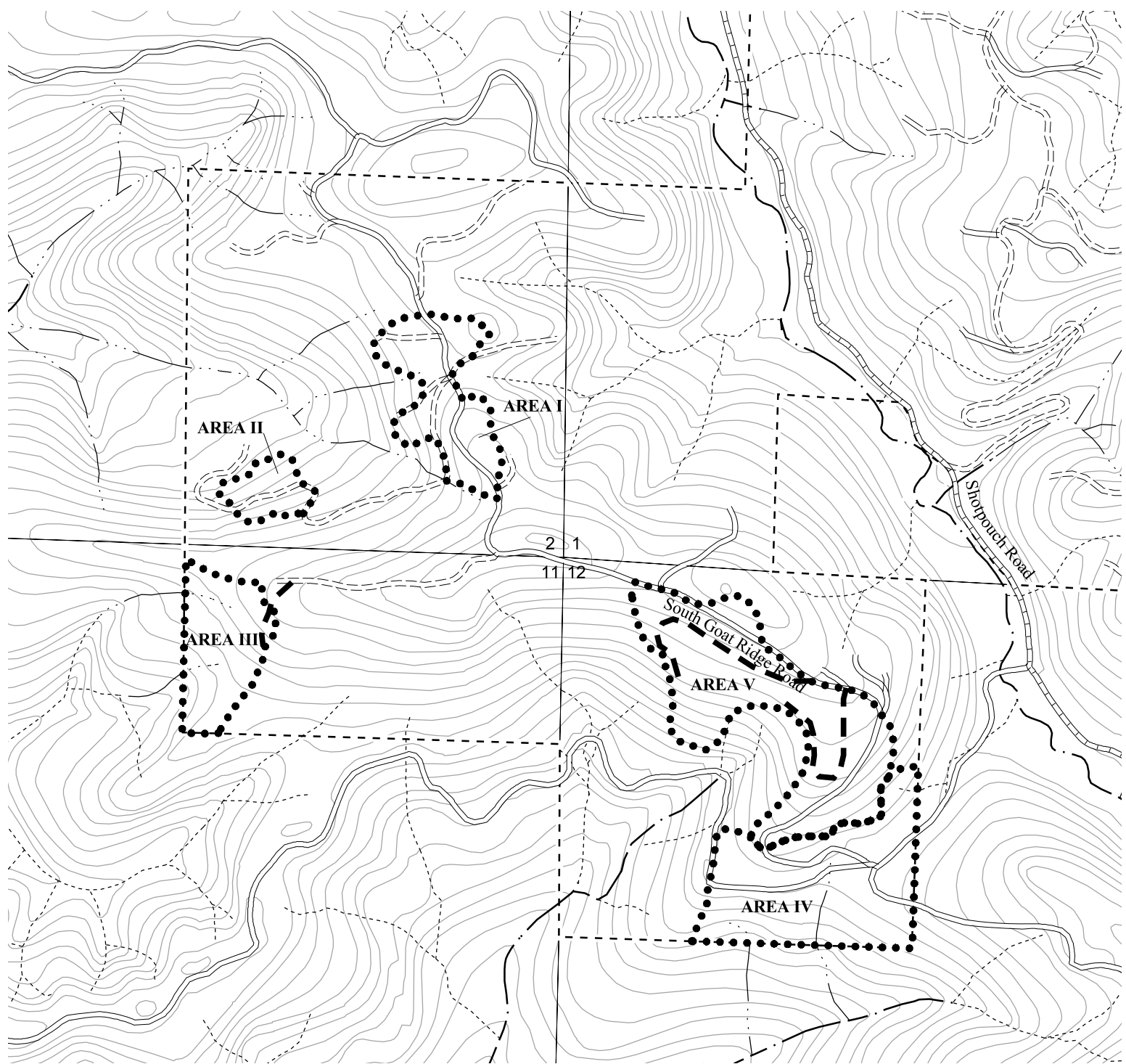
The operation areas are not visible from paved highways.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

No other resource considerations have been identified.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The operation areas contain 5 acres Focused Stewardship, Aquatic and Riparian Habitat along the Type N stream riparian areas. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



**CHINQUAPIN RIDGE  
FY 09 AOP  
WEST OREGON DISTRICT  
ATTACHMENT A : TOPOGRAPHY**

**Legend**

- Sale Area
- Roads**
- ▭▭▭ County Road
- ▬▬▬ Surfaced Road
- ▬▬▬ Unsurfaced Road
- ▬▬▬ New Construction
- Streams**
- · · · Fish
- · · · Nonfish
- · · · Unknown
- - - State Forest Property Boundary
- Forty Foot Contour Lines

PORTIONS OF SECTION 2, 11, & 12  
T12S, R8W, W.M.  
LINCOLN COUNTY, OREGON

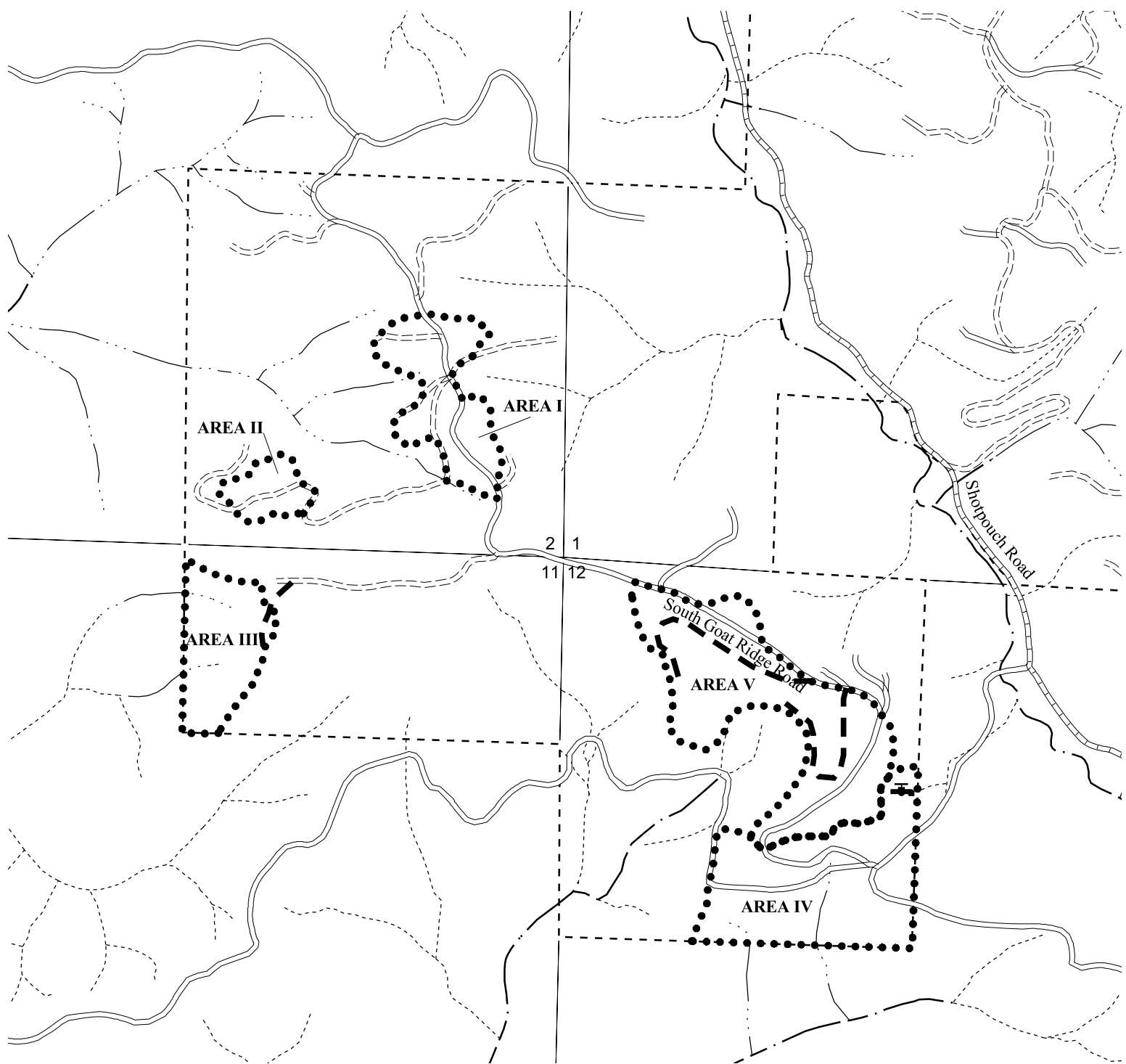
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Scale  
1 : 12,000  
1 inch = 1,000 feet



**APPROXIMATE NET ACRES**

AREA I	12	ACRES (MC)
AREA II	4	ACRES (MC)
AREA III	13	ACRES (MC)
AREA IV	27	ACRES (MC)
AREA V	33	ACRES (PC)
<b>TOTAL</b>	<b>56</b>	<b>ACRES (MC)</b>
	<b>33</b>	<b>ACRES (PC)</b>



**CHINQUAPIN RIDGE  
 FY 09 AOP  
 WEST OREGON DISTRICT  
 ATTACHMENT B : DESIRED FUTURE CONDITION**

PORTIONS OF SECTION 2, 11, & 12  
 T12S, R8W, W.M.  
 LINCOLN COUNTY, OREGON

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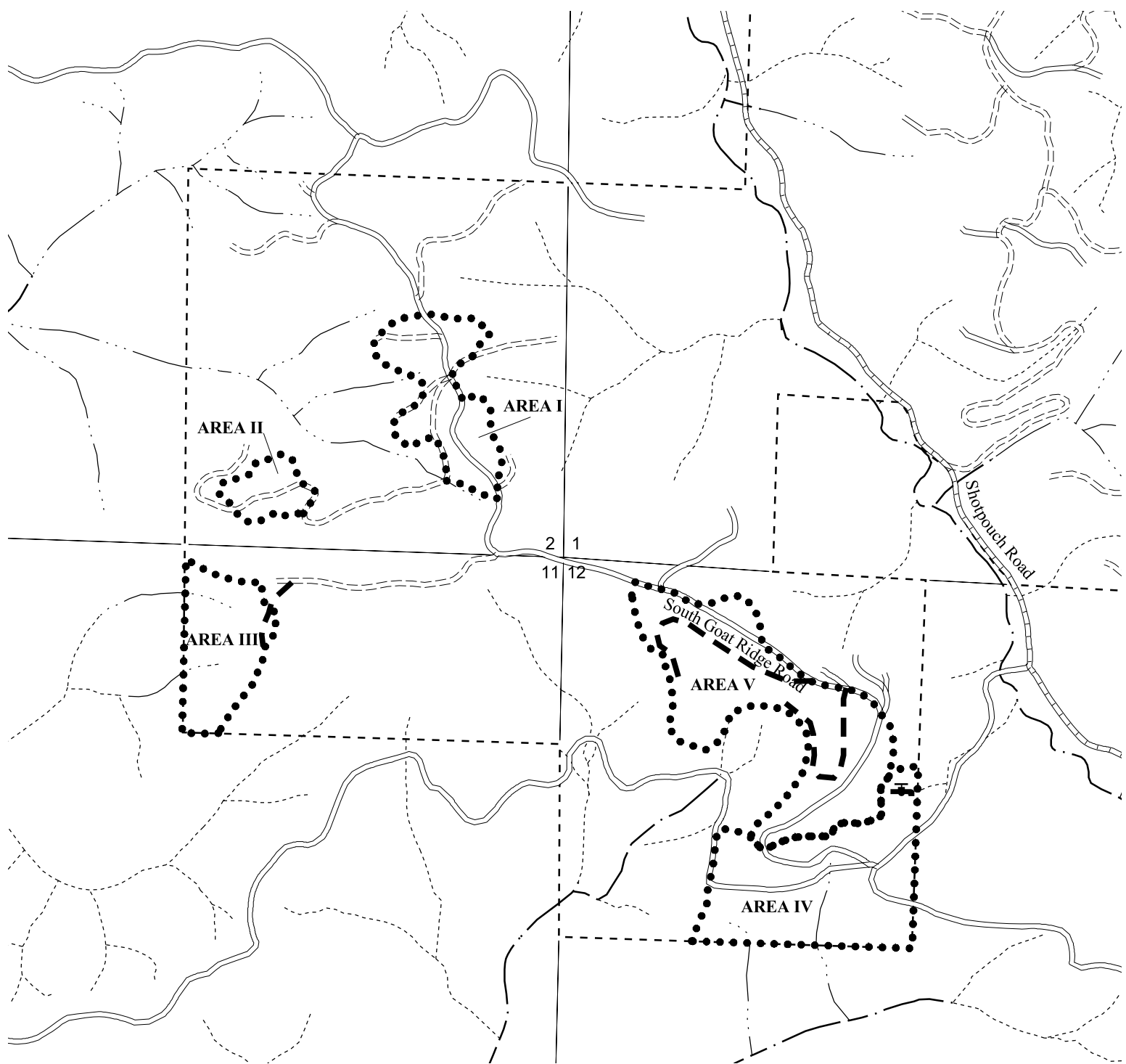


- Legend**
- Sale Area
  - Roads**
  - ▭▭▭ County Road
  - ▬▬▬ Surfaced Road
  - ▬▬▬ Unsurfaced Road
  - ▬▬▬ New Construction
  - Streams**
  - Fish
  - ⋯ Nonfish
  - ⋯ Unknown
  - - - State Forest Property Boundary
  - ⊠ Domestic Intake

**APPROXIMATE NET ACRES**

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**CHINQUAPIN RIDGE**  
**FY 09 AOP**  
**WEST OREGON DISTRICT**  
**ATTACHMENT C : KEY RESOURCES**

PORTIONS OF SECTION 2, 11, & 12  
 T12S, R8W, W.M.  
 LINCOLN COUNTY, OREGON

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- Legend**
- Sale Area
  - Roads**
  - ▭ County Road
  - ▬ Surfaced Road
  - ▬▬ Unsurfaced Road
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