

Pre-Operations Report

Operation Name: Tums Up
County: Benton
Management Basin: Blodgett

Table 1. Operation Areas, Types and Acres

| Area | Type of Operation | Net Acres |
|----------|-------------------|-----------|
| I | Partial Cut | 87 |
| II | Partial Cut | 50 |
| III | Partial Cut | 43 |
| Total PC | | 180 |

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation consists of three partial cut units. The units lie in the western hemlock vegetation zone. Average rainfall is 78 to 100 inches per year. The soils consist of Valino in all three areas with some Killam in Area I. The soil information is derived from a soil survey completed in 1980.

The landforms are moderate to steep side-slopes of the headwaters of Lasky Creek and Bark Creek (above Thompson Lake) both tributaries of the Tumtum River. There are steep slopes scattered in all three areas of the sale. There are several bands of steep slopes in Area I. The underlying rocks are sedimentary origin of the Tye Formation.

Aspect for Area I is north, Area II is east and Area III is northwest.

II. CURRENT STAND CONDITION:

Area I supports a 43 year old Douglas-fir plantation that was commercially thinned in 1997.

Areas II and III contain 32 year old Douglas-fir plantations. Area II was pre-commercially thinned in 1991. Area III received a very light pre-commercial thinning in 2000.

In all three areas big leaf maple and red alder are present mostly in riparian areas. There are some western hemlock trees intermixed with Douglas-fir in the eastern portion of Area III. There are few snags and little down wood in the operation areas.

Brush species consist of salmonberry, vine maple, sword fern, salal, and elderberry.

The stand type for all three areas is classified as Understory (UDS). The stand type was determined by SLI.

Table 2. Stand Inventory Information

| Area | Prescription | Stand ID ₁ | Species | Age | DBH | BA | TPA | RD | Acres ² |
|------|--------------|-----------------------|-------------|-----|-----|-----|-----|----|--------------------|
| I | PC | 18533 | Douglas-fir | 43 | 16 | 200 | 143 | 50 | 87 |
| | | Target ³ | | | 19 | 140 | 71 | 32 | |
| II | PC | 18529 | Douglas-fir | 32 | 12 | 180 | 230 | 52 | 50 |
| | | Target ³ | | | 15 | 120 | 98 | 31 | |
| III | PC | 18505 | Douglas-fir | 32 | 12 | 170 | 216 | 50 | 43 |
| | | Target ³ | | | 16 | 120 | 86 | 31 | |

1 The source of stand inventory information is SLI from 2003, 2004, 2005.

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, Area I is designated as Desired Future Condition Complex (DFCC) and is targeted to become a Layered (LYR) stand. Areas II and III are designated as Desired Future Condition General and are targeted to remain UDS stands.

Area I Vision: The LYR condition will be attained by the time the stand is approximately age 65. At that time, the stand will consist of an overstory of Douglas-fir with a few scattered alder and bigleaf maple. Overstory trees will be both scattered and grouped in small clumps. A second layer consisting of patches of western hemlock, western redcedar, grand fir, Douglas-fir and red alder will be present. An understory of natural Douglas-fir, alder, bigleaf maple and brush species (vinemapple, elderberry and salal) will be present in small gaps and low density areas. Hemlock and cedar will be starting to seed-in naturally. Snags and downed wood will be present throughout the stand.

Areas II and III Vision: At the time of final harvest, sometime between age 65-80, the areas will consist of well-stocked Douglas-fir in the overstory and brush (sword fern, hazel, vinemapple) and forbs in the understory. A few hemlock and hardwoods will be scattered throughout the stand, both in the overstory and understory. Snags and down wood will be present throughout the stands.

Table 3. Stand Structure Information

| Area | Stand ID | Current | Post Harvest ² | Desired Future | Acres |
|------|----------|---------|---------------------------|----------------|-------|
| I | 18533 | UDS | UDS | LYR | 87 |
| II | 18529 | UDS | UDS | UDS | 50 |
| III | 18505 | UDS | UDS | UDS | 43 |

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:

Area I Anticipated Pathway: During this commercial entry, the area will be thinned to an RD of about 32, leaving about 71TPA. The average DBH of residual trees will be 19 inches.

- Most snags and downed wood will be left.
- All trees other than Douglas-fir will be reserved from cutting.
- Approximately 30% of the acreage will be patchcut. (The NW Forest Management Plan describes a LYR stand as having 30% of the stand in layered patches) Patches will range from 1/2 to 3 acres in size. In patchcuts that are greater than one acre in size, a few trees will be marked for retention. ODF and ODFW personnel will work together to create a patchcut configuration that will maintain or enhance big game habitat.
- Patchcut areas will be treated with site preparation herbicides in order to deter brush competition.
- The patches will be planted with western hemlock, western redcedar and grand fir in approximately equal amounts and at a rate of approximately 360 tpa. Some Douglas-fir will be planted in the larger patchcuts.
- Animal damage mitigation will consist of tubing all cedar to protect against deer and elk browse.

At least one herbicide application will likely be needed within the first 3 years after planting in order to release planted seedlings from competing vegetation.

Ten to fifteen years after this thinning, the RD is expected to be 50-55 and the stand will be thinned a third time, to an RD of about 20, leaving approximately 30 TPA. Hardwood and conifer will have seeded naturally into the understory. Thinning the stand will capture harvest volume and will allow natural trees to persist in the understory. The amount of natural snags and downed wood will be evaluated. If it is determined that additional amounts are needed, then snags and downed wood will be created. The remaining overstory trees will be left as legacy trees.

A few years following this thinning, trees planted in the patchcuts will be pre-commercially thinned (PCT) if needed.

Within 10 years after the third thinning, the LYR condition will be attained. Over time, some legacy trees will become snags and downed wood. The understory trees will gradually become the overstory component. Continued seed-in of conifer and hardwood will keep the stands in the LYR condition. Density regulation (PCT of understory and commercial thinning of the overstory) will likely occur.

Areas II and III Anticipated Pathway: During this commercial entry, these areas will be thinned to an RD of about 31, leaving between 86 and 98 TPA. The average DBH of residual trees is expected to be 15-16 inches. Snags and downed wood will be left wherever possible and all trees other than Douglas-fir will be reserved from cutting.

A second thinning will be conducted in 10 to 15 years, when stand RDs have reached about 50. The aim of this thinning is to capture volume and maintain stand vigor. 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 a few years and conduct a regeneration harvest. If a third thinning is chosen, then final harvest will likely occur when the stands are 75-80 years old.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

| Ownership | | Sale Type | |
|-----------------|-----|-----------|----------|
| BOF | CSL | Cash | Recovery |
| 19% | 81% | | X |
| Planned Quarter | 2 | | |

| | Conifer | Hardwood | Total |
|-------------------------|-----------|----------------------|-----------|
| Net Volume (MBF) | 1,000 | 0 | 1,000 |
| Stumpage Value (\$/MBF) | \$180 | | |
| Estimated Gross Value | \$180,000 | | \$180,000 |
| | | Project Costs: | \$50,000 |
| | | Estimated Net Value: | \$130,000 |

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to Areas I & II will be from the Lasky Creek Road. This road passes over an industrial forestland owner along the bottom and then climbs onto state forest land. This road recently received a maintenance lift of rock so it should be sufficient for wet weather haul. A permanent easement over the industrial land owner is in place. In order to access the southern portion of Area I, which is on the south side of the haul route, two new spurs, which total about 1,000 feet in length, will need to be constructed. Both are ridge top spurs and will remain unsurfaced. Also, an unsurfaced existing road in Area I will be reopened. This road will be surfaced with crushed rock. An existing road into Area II will be reopened. This road will remain unsurfaced.

Access into Area III will be provided by an unnamed road over two industrial forestland owners from whom the STATE has permanent easements. This road recently received a maintenance lift of rock. Therefore, the road should be sufficient for wet weather haul. A ridge top spur accessing the western portion of the unit will be reopened and rocked.

Wet weather access is available for most of Area I and 100% of Area III.

Existing roads provide timber harvest access to 95% of the operation acreage. Because existing roads already access the sale area, no other transportation alternatives were considered.

Harvesting timber in the operation areas would require a combination of 80% cable yarding and 20% ground skidding.

About 0.6 miles of road improvement will be necessary.

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 | | | | 0.2 |
| Improve | | | 0.3 | 0.3 |
| Maintain | | 5.5 | 1.1 | 0.4 |
| Close/Block | | | | |
| Vacate | | | | |

VII. AQUATIC RESOURCES AND WATER QUALITY:

Water flowing from streams in the operation area is part of the Marys River System.

A type F stream is present along the north side of Area I. ODF and ODFW personnel will meet on-site to establish the stream buffer width. No trees will be felled within the buffer except to facilitate cable yarding corridors. The partial cut thinning prescription will retain sufficient trees in the inner and outer riparian management area (RMA) zones to comply with current standards.

Fish distribution surveys need to be conducted in all three operation areas. For type F or N streams, a 25' horizontal distance buffer will be established on either side of these streams. No harvesting will be allowed within the buffer except to facilitate cable yarding. The partial cut thinning prescription will retain sufficient trees in the RMA to comply with current standards.

Vegetation along type F and N streams consists of Douglas-fir and red alder trees and brush species such as salmonberry, elderberry, sword fern, and vine maple.

There are no sources of domestic water intakes in close proximity to the operation areas.

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 timber will be felled within the buffer except to facilitate cable yarding, 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.

The Land Management Classification System for Aquatic and Riparian category determined 56 acres in Focused Stewardship. Focused Stewardship acres are distributed along type N stream RMA's and the outer zone of type F streams. There are an additional 7 acres of Special Stewardship along the inner zone of the type F stream riparian area.

VIII. T&E SPECIES CONSIDERATIONS:

The operation area contains suitable habitat for northern spotted owls and marbled murrelets. Surveys were conducted in 2006 with no detections. Surveys will be continued in 2007.

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:

There are steep slopes scattered in all three areas of the sale. The initial hazard and risk assessment from the geotechnical specialist is moderate to high. The geotechnical specialist will be consulted during sale layout to determine if a field visit is needed.

X. RECREATION RESOURCES:

This area supports dispersed recreation opportunities such as 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 any paved highways.

XIII. OTHER RESOURCE CONSIDERATIONS:

No other resource considerations have been identified.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The operation area contains 56 acres Focused Stewardship, Aquatic and Riparian Habitat along the Type N stream riparian areas. There are an additional 7 acres of Special Stewardship along the Type F stream riparian areas. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



TUMS UP

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**WEST OREGON DISTRICT
ATTACHMENT A : TOPOGRAPHY**

PORTIONS OF SECTIONS 29 & 32, T11S, R7W
& SECTION 5, T12S, R7W, W.M.
BENTON COUNTY, OREGON

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LEGEND

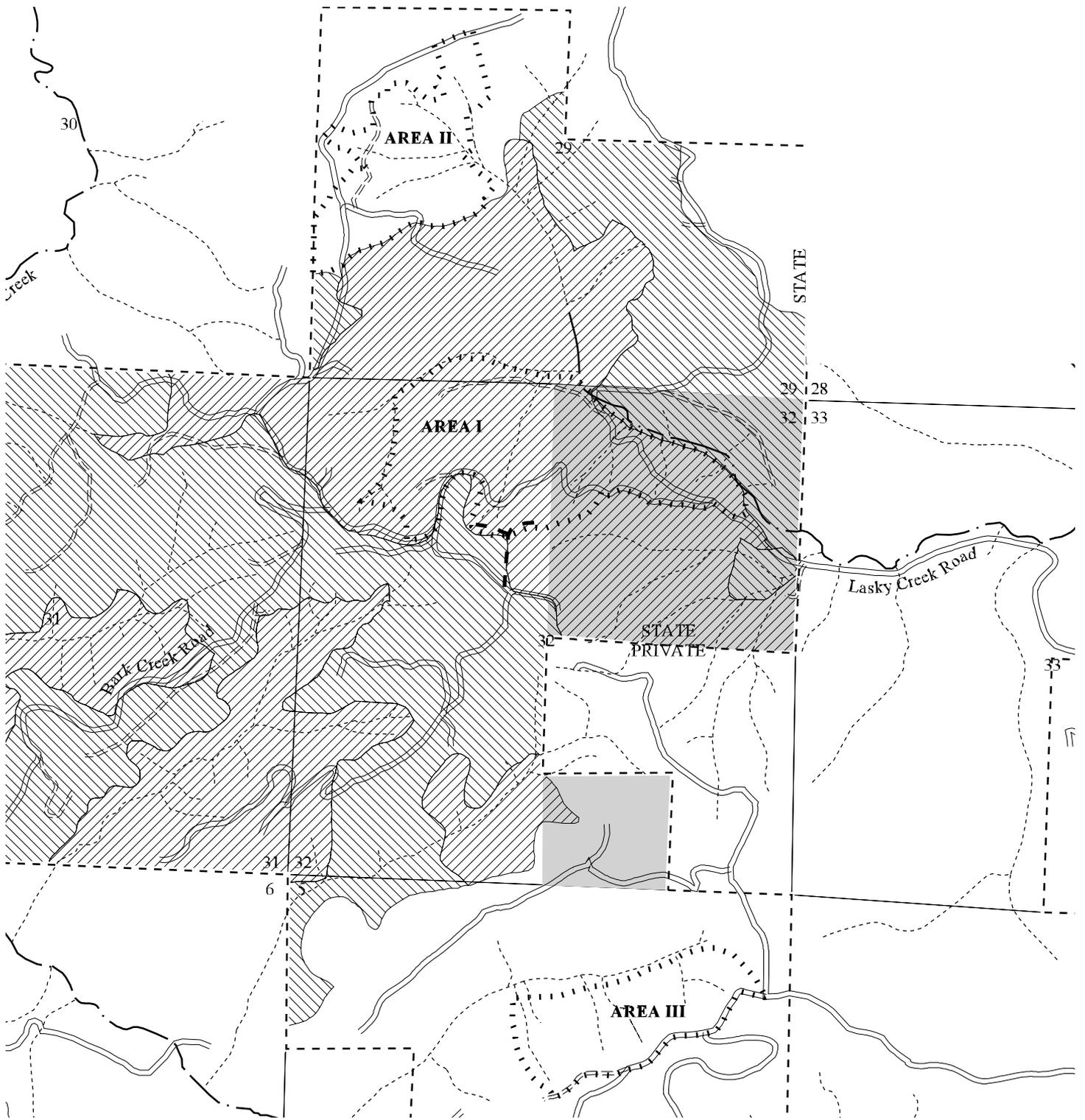
- Timber Sale Boundary
- Roads
- ▬▬▬ County Road
- ▬▬▬ Surfaced Road
- ▬▬▬ Unsurfaced Road
- ▬▬▬ New Construction
- Streams
- — Fish
- · · Nonfish
- · · · Unknown
- - - State Forest Property Boundary
- ▬▬▬ Forty Foot Contour Lines
- Common School Land

APPROXIMATE NET ACRES

| | |
|--------------|------------------|
| AREA I | 87 ACRES (PC) |
| AREA II | 50 ACRES (PC) |
| AREA III | 43 ACRES (PC) |
| TOTAL | 180 ACRES |

Scale
1 : 18,000
1 inch = 1,500 feet





LEGEND

- Timber Sale Boundary
- Roads
- ==== County Road
- ==== Surfaced Road
- === Unsurfaced Road
- New Construction
- Streams
- Fish
- ... Nonfish
- Unknown
- State Forest Property Boundary
- Desired Future Condition
- [Hatched] OFS
- [Hatched] LYR
- [Solid Grey] Common School Land

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 WEST OREGON DISTRICT
 ATTACHMENT B : DESIRED FUTURE CONDITION
 PORTIONS OF SECTIONS 29 & 32, T11S, R7W
 & SECTION 5, T12S, R7W, W.M.
 BENTON COUNTY, OREGON

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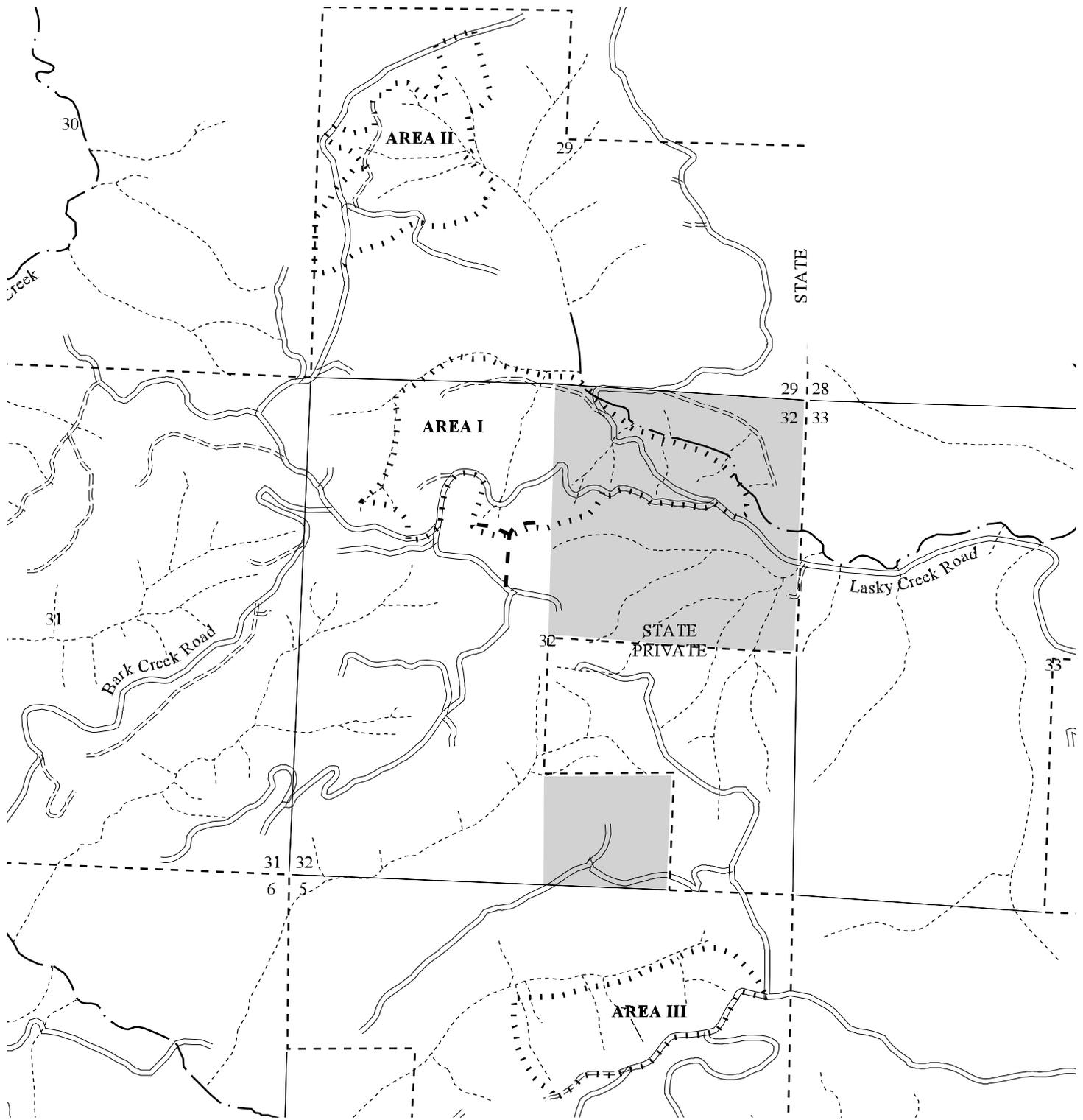
Scale
 1 : 18,000
 1 inch = 1,500 feet

1000 0 1000 2000 Feet



APPROXIMATE NET ACRES

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|--------------|------------------|
| AREA I | 87 ACRES (PC) |
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| AREA III | 43 ACRES (PC) |
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**WEST OREGON DISTRICT
ATTACHMENT C : KEY RESOURCES**

PORTIONS OF SECTIONS 29 & 32, T11S, R7W
& SECTION 5, T12S, R7W, W.M.
BENTON COUNTY, OREGON

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Scale
1 : 18,000

1 inch = 1,500 feet

1000 0 1000 2000 Feet



LEGEND

- Timber Sale Boundary
- Roads**
- ==== County Road
- ===== Surfaced Road
- ==== Unsurfaced Road
- New Construction
- Streams**
- Fish
- ... Nonfish
- Unknown
- State Forest Property Boundary
- Common School Land



APPROXIMATE NET ACRES

| | |
|--------------|------------------|
| AREA I | 87 ACRES (PC) |
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