

Pre-Operations Report

Operation Name: Air Abiqua
County: Marion
Management Basin: Cedar Creek

Table 1. Operation Areas, Types and Acres

Area	Harvest Type	Gross Acres	Net Acres
I	PC-L	60	55

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 90 inches of rainfall per year. The operation is located within the *Tsuga heterophylla* Zone (Natural Vegetation of Oregon and Washington, Franklin. The soils are classed in the Pechuck series. This soil is a deep, well-drained, moderately fine-textured colluvial soil that developed from Miocene age andesite. In general, these soils are a gravelly loam to gravelly clay loam with varying amounts of rock from the A horizon to the C Horizon. It lies over Andesite bedrock which is at a depth generally greater than 50 inches. The elevations range from 1760 to 2340 feet, the aspect is north and the slopes are moderate at 40 to 55 percent.

II. CURRENT STAND CONDITION:

The proposed operational area is comprised of 3 stand types. Two which comprise 60% of the operational area are classified as layered (LYR). The other stand comprising the remaining 40% is Closed Single Canopy (CSC). The overstory consists mainly of very large diameter emergent Douglas-fir. There are smaller diameter Douglas fir, western hemlock, big leaf maple and red alder in the midstory. The understory consists of vine maple, ocean spray, huckleberry, Oregon grape sword fern, devil's club, and salal. The conifer trees occupying the upper and mid-story layers are at a density that severely limits the amount of light reaching the vegetation in the lower layers.

In decay classes 1 and 2, there are 3 snags per acre in the 15-23 inch category and 2 snags that are at least 24 inches. In decay classes 3 through 5 there are 8 snags per acre in the 15-23 inch category and 8 that are 24 inches and larger. There are 370 cubic feet per acre of sound down wood all less than 24 inches. In decay classes 3 through 5 there are 3 pieces totaling 490 cubic feet larger than 24 inches and 2,170 cubic feet per acre of down wood 24 inches and smaller. (SLI, 2002,2003,2007)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	PC-L	12236	DF	106	39	224	78	59	10
		12237	DF, WH	76	18	223	131	59	26
		12238	DF	92	29	308	68	62	24
	Target³				33	182	30	34	60

¹The source of stand inventory information is SLI from 2002,2003,2007.

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

³The Target identifies expected characteristics (DBH, BA, TPA and SDI) of 8" and larger DF after harvesting has been completed. **Overall Stand Target** (all conifer and hardwood) will be: **DBH = 28; BA = 222; TPA = 45; SDI = 45**

III. DESIRED FUTURE CONDITION/VISION:

The desired future condition for this stand is older forest structure (OFS). The vision for this future condition includes multiple layers with an overstory dominated by very large scattered emergent Douglas fir. Younger cohorts of codominant mixed conifer comprise the next layer. This is followed by a layer of hardwoods and shade tolerant conifer. The lower level layers are made up of brush, smaller shade tolerant conifer and hardwood trees. The forest floor is littered with down wood in various decay classes and there are snags of various sizes and condition scattered throughout the stand.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	12236	LYR	OFS	OFS	10
1	12237	CSC	OFS	OFS	26
1	12238	LYR	OFS	OFS	24

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 objectives for the proposed operation are to maintain and enhance the current level of layering and to move the stand to an old forest condition. There may be some short-term degradation in habitat function immediately after thinning; however, the stand should recover fairly quickly after a carefully implemented light thinning. A portion of the midstory trees will be removed. Exposing understory vegetation to increased levels of sunlight will stimulate its growth and vigor. The disturbance caused by the logging operation will facilitate the introduction of an additional cohort of naturally seeded understory conifer. The following actions are designed to accomplish operation objectives:

- Carry out a light thinning of the midstory Douglas-fir. The trees chosen for removal will be from the 14 to 30 inch diameter classes. After thinning, the upper and mid story Douglas fir trees will have a basal area of 182 square feet, stocking level of approximately 30 trees per acre, and an SDI of 34%.

- All western hemlock and all hardwoods will be reserved from cutting.
- All Douglas fir trees greater than 40 inches and all old growth trees, regardless of their location, will also be reserved from cutting.
- All existing snags will be retained.
- All existing down wood will be retained. There will be no additional down wood created because the operation area currently meets the OFS Forest Management Plan goal of 3,000 cubic feet of down wood per acre.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

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

	Conifer	Hardwood	Total
Net Volume (MBF)	1,100		
Stumpage Value (\$/MBF)	\$350		
Estimated Gross Value	\$385,000		\$385,000
		Project Costs:	\$8,700
		Estimated Net Value:	\$376,300

V. HARVESTING AND ACCESS CONSIDERATIONS:

Access to this sale will be via Highway 214 and Grade Roads A100 and A122. These are currently all weather roads. Approximately 1.21 miles of existing surfaced road will be improved. The improvements will include mechanically brushing, grading, shaping, and minor road surface repairs. This work will bring all roads up to the standards found in the Forest Roads Manual. A spur road (approximately 0.40 miles in length) will be constructed to facilitate cable yarding. It will be unsurfaced and outslowed. Approximately 620 feet of this spur will be built across and will require an easement from Longview Timberlands LLC. New road construction is limited to ridgetops and gentle to moderate side slopes. There will be no stream crossings associated with the new road construction.

With the exception of the new construction, all haul roads will have high quality crushed rock or pit run surfacing. Following harvest, roads and skid trails within the sale area will be evaluated for closure.

Project work and their estimated costs are \$8,700.

This sale is 90% cable yarding and 10% ground yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct				
Improve			1.21	
Maintain	2.3		1.21	.40
Close/Block				.40
Vacate				

VII. AQUATIC RESOURCES AND WATER QUALITY:

A medium fish bearing stream, Homestead Creek, flows along the west boundary of the proposed sale area. A non-fish bearing tributary of Abiqua Creek flows along a portion of the east boundary. A second non fish bearing tributary of Abiqua creek also flows through the middle of the proposed sale area. The riparian vegetation for these streams includes red alder, thimbleberry, salmonberry, oxalis, and sword fern. Riparian management area buffers 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. Timber sale boundaries will be posted no closer than 150 feet horizontal distance from Homestead Creek and 25 feet from the Abiqua creek tributary on the east side.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

While the sale is not located within any Northern Spotted Owl circles, the sale area was determined to be suitable habitat for this species. Surveys were completed to protocol in the 2007 survey year with one response attributed to a female from the Abiqua Creek activity site. An additional year of surveys will be completed in 2008.

There are no listed species in any of the streams in or near the proposed sale area. The sale area was checked against the Oregon Natural Heritage Program database of known listed plant locations. It was also checked against district knowledge for any listed plant location. No listed plant records were identified within the sale area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

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

There are high landslide hazard locations scattered throughout the sale. The sale drains into Homestead Creek and Abiqua Creek. The risk of landslides delivering directly from the sale to Homestead Creek is low to moderate and to Abiqua Creek is low.

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

X. RECREATION RESOURCES:

There are no developed recreation areas in the vicinity of the timber sale. Known recreation activities are dispersed in nature such as hunting, site seeing and primitive camping. Homestead falls is located to the north, outside of the sale boundary. It is currently designated as a cultural/recreation site on the district. While this waterfall is not within a designated recreation area there may be local use via hiking trails. It will be important for both the operators and visiting public to use caution on roadways. To deter illegal motorized off-road use, illegal fires and garbage dumping in this area, skid roads will be closed.

XI. CULTURAL RESOURCES:

The District cultural resource inventory and pre-operation reconnaissance revealed no visible cultural resource features or artifacts. If discovery of an artifact is made, the cultural resource will be protected and field personnel will consult with the Cultural Resource Specialist in Salem.

XII. SCENIC RESOURCES:

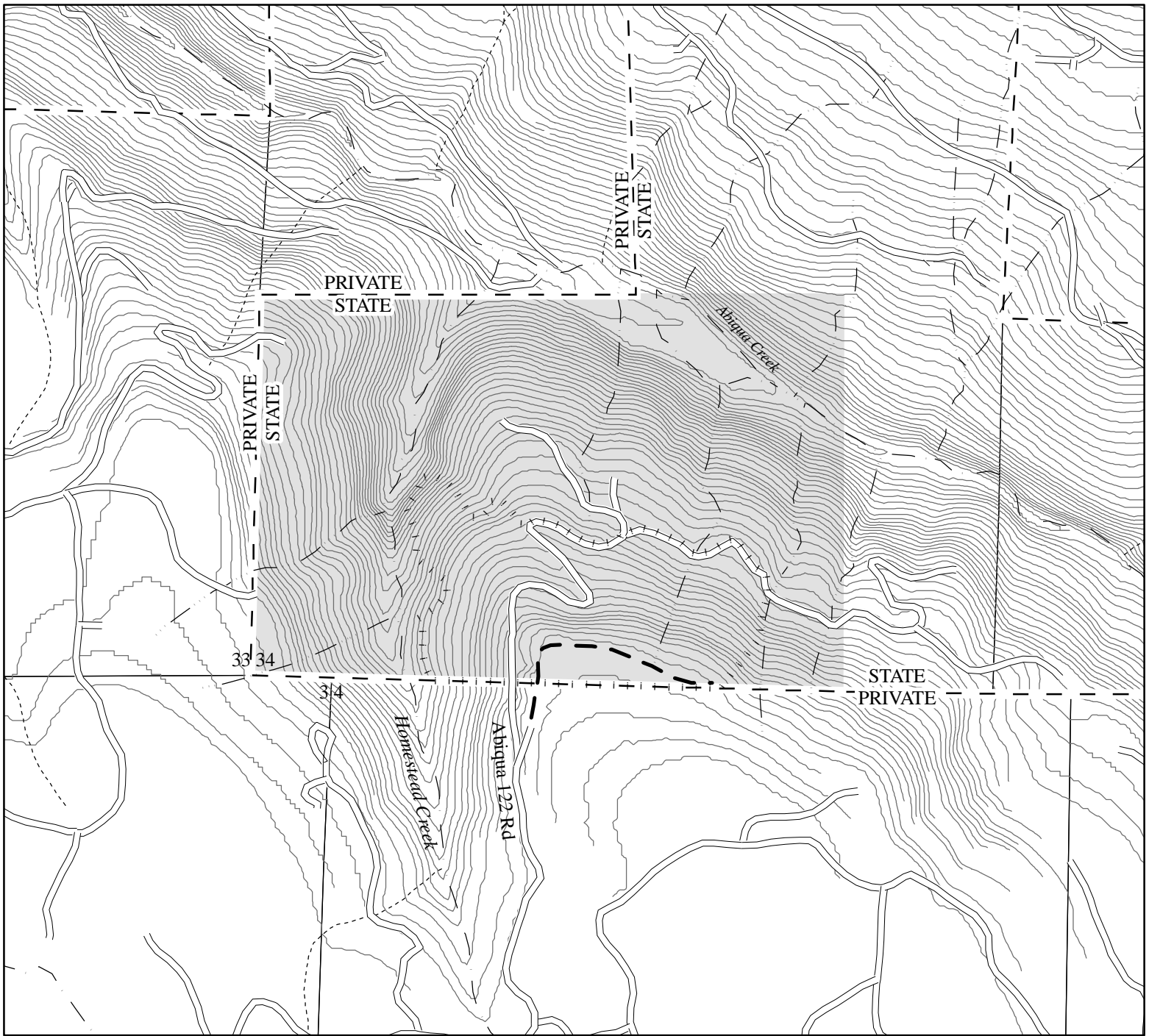
There are no scenic considerations associated with this operation

XIII. OTHER RESOURCE CONSIDERATIONS:

There are no other resource considerations associated with this operation.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Of the 60 gross acres in the operational area, 56 are classified as General, and four are classified as Focused in the Aquatic and Riparian Habitat subclass.



Legend

- ▬▬▬▬ Sale Boundaries
- ▬▬▬▬ Surfaced Road
- ▬▬▬▬ Unsurfaced Road
- ▬•▬•▬ New Road Construction
- ▬ Type F Stream
- ▬ Type N Stream
- ▬▬▬▬ Unknown Stream
- ▬-▬-▬ State Forest Property Boundary
- ▬▬▬▬ 40 Foot Contours
- ▬ Common School Land

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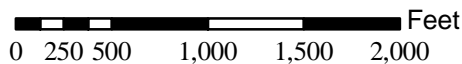
FY 09 AOP
 NORTH CASCADE DISTRICT
 ATTACHMENT A : TOPOGRAPHY
 PORTIONS OF SECTION 34
 T7S, R2E, W.M.
 MARION COUNTY, OR

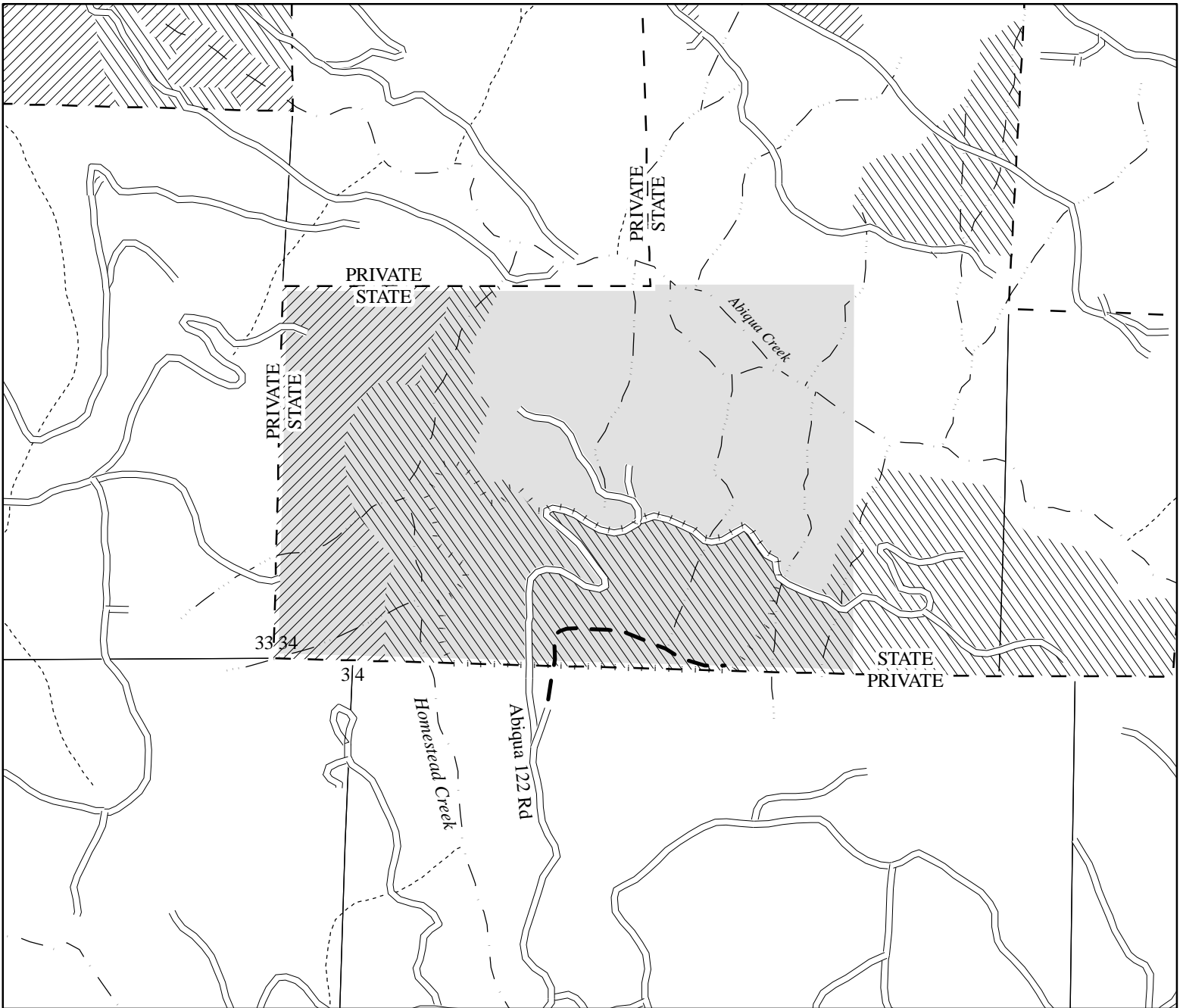
3

APPROXIMATE NET ACRES: 55 (PC)

Scale
 1:12,000
 1 inch = 1000 feet

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 ATTACHMENT B : DESIRED FUTURE CONDITION

PORTIONS OF SECTION 34
 T7S, R2E, W.M.
 MARION COUNTY, OR

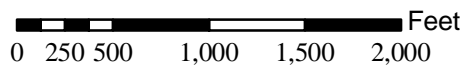
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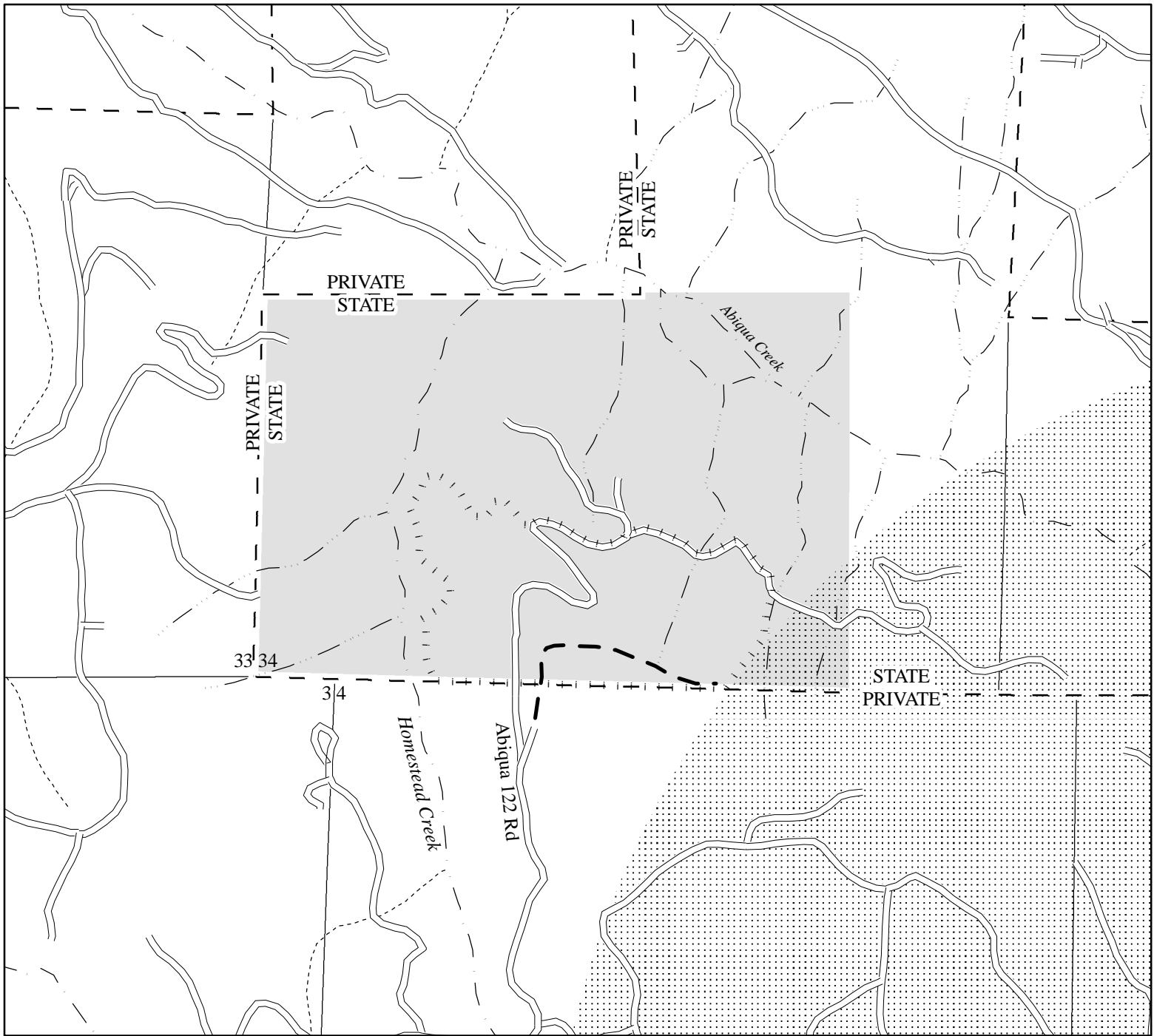
- ⋯⋯⋯ Sale Boundaries
- ==== Surfaced Road
- Unsurfaced Road
- New Road Construction
- Type F Stream
- Type N Stream
- Unknown Stream
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- - - State Forest Property Boundary
- Common School Land

APPROXIMATE NET ACRES: 55 (PC)

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 1:12,000
 1 inch = 1000 feet



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 ATTACHMENT C : KEY RESOURCES

PORTIONS OF SECTION 34
 T7S, R2E, W.M.
 MARION COUNTY, OR

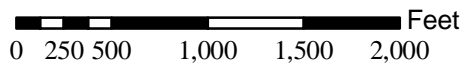
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Legend

- Sale Boundaries
- Surfaced Road
- == Unsurfaced Road
- • New Road Construction
- Type F Stream
- Type N Stream
- Unknown Stream
- 1.2 Mile NSO Circle
- - - State Forest Property Boundary
- Common School Land

APPROXIMATE NET ACRES: 55 (PC)

Scale
 1:12,000
 1 inch = 1000 feet



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