Pre-Operations Report

Operation Name: **Down Spout**
County: **Lincoln**
Management Basin: **Burnt Woods Ridge**

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Net Acres
	Modified Clearcut	48

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation consists of one modified clearcut unit. The unit lies in the western hemlock vegetation zone. Average rainfall is 78 to 100 inches per year.

Soils are predominantly Valino, covering about 84 percent of the operation area. Ork makes up the remaining 16 percent. Valino soils are composed of deep, well-drained, moderately coarse-textured soils that developed from Tyee sandstone. Ork soils are deep, well drained, fine textured, rock-free residuum derived from Tyee sandstone. The soil information is derived from a soil survey completed in 1980.

Aspect for the operation area is primarily south and southeast.

II. CURRENT STAND CONDITION:

The stand consists of mature 63 year old Douglas-fir and red alder with a few big leaf maple present.

Existing down wood averages about 200 cu. ft. per acre in decay class I and II. There is approximately 1 snag per acre that is 15 " DBH and larger. Snags 24" dbh and larger average about 1 snag for every 3 acres.

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

The stand type is UDS as determined by Stand Level Inventory (SLI).

Table 2. Stand Inventory Information

Prescription	Stand ID [1]	Species	Age	DBH	BA	TPA	RD	Acres [2]
Modified Clearcut	18768	DF/RA	63	14	205	180	54	17
	18778	DF/RA	63	15	158	126	42	31
Target	Target[3]			18	18	10	4	

1 The source of stand inventory information is SLI from 2003 and 2004.
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:

This stand is designated mostly as DFC Layered (LYR) with portions designated as DFC Older Forest Structure (OFS). The stand in composed of red alder trees with some concentrations of Douglas-fir. The stand lacks the natural tree species that could provide the layering component needed for a LYR stand, so these complex conditions will not be reached without first regeneration harvesting and starting over at the Regeneration (REG) stage. By retaining legacy trees, planting a diverse mix of species and utilizing various silvicultural treatments, the stand will gradually be put on a pathway towards the LYR and OFS conditions.

Vision: The LYR condition will be attained by the time the stand is about 60 years old. At that time the stand will consist of an overstory of Douglas-fir, western hemlock, western redcedar and red alder with a few bigleaf maple. Numerous gaps in the overstory will promote an understory of mixed conifer, hardwood and brush (vinemaple, hazel, sword fern). Legacy trees (averaging about 5 per acre) left from the regeneration harvest will be located in clumps and also scattered across the area. These Douglas-fir trees will average about 32 inches DBH. Snags and down wood will be located throughout the unit. In another 20-30 years, after increased diameter growth of the overstory trees and increased large snag and down wood recruitment, portions of the stand will reach the OFS condition.

Table 3. Stand Structure Information

Stand ID	Current	Post Harvest [1]	Desired Future	Acres
18768	UDS	REG	LYR, OFS	17
18778	UDS	REG	LYR, OFS	31

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:

Anticipated Pathway: This harvest will be a modified clearcut prescription leaving behind about 10 green trees per acre ranging from 16-24 inches DBH. About half of these reserve trees will be Douglas-fir. The rest will be alder and a few bigleaf maple. A higher proportion of reserve trees will be retained in the

northeast and southeast portions of the operation area which is designated as DFC OFS and also supports the greatest concentration of Douglas-fir. Throughout the operation area, existing snags that do not pose a safety hazard and all down wood will be retained. One snag per acre will be created and one tree per acre will be felled for down wood.

After harvest, portions of the stand with less than 35% slope will be slash piled and the piles will be burned. A site prep herbicide treatment will be applied. An attempt will be made to avoid treating brush and forb species located under leave tree clumps. Prior to planting, mountain beaver will be trapped from the area.

Following completion of site prep activities, the area will be replanted with approximately 50% Douglas-fir, 25% western hemlock and 25% western redcedar at a rate of 360 trees per acre. All cedar will be tubed to deter elk and deer browse. Once planting is complete, the operation area 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 stand 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, keeping roughly the same percent conifer mix as was planted, but allowing up to 20% of the stand to be comprised of naturally occurring hardwood. With PCT, there will be the opportunity to create gaps in the stand and to thin heavily around designated trees to create large limbs and deep crowns.

At approximately age 30 the unit will be commercially thinned to an RD of about 25. This will open the stand enough to allow growth of existing natural conifer and hardwood in the understory and will also allow additional natural seed-in of these species. It is possible that patchcuts may be included with the thinning, and replanted with a conifer mix.

At about age 45 years, the unit will again be thinned to an RD of about 15, leaving about 40 tpa in the overstory. The amount and condition of down wood and snags will be evaluated and more will be created if needed. The remaining overstory trees will be left as legacy trees. Over time, some will become snags and down wood. By age 60, the stand will have moved into the LYR condition. The understory will gradually become the overstory component. Continued seed-in of conifer and hardwood will keep the stand in the LYR condition. Density regulation in the form of commercial thinning of the overstory and PCT of the understory will likely occur. At around age 80-90, through tree growth and

down wood and snag recruitment, portions of the stand will have moved into the OFS condition.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		X
Planned Quarter: 4			

	Conifer	Hardwood	Total
Net Volume (MBF)	400	600	1,000
Stumpage Value ($/MBF)	$250	$350	
Estimated Gross Value	$100,000	$210,000	$310,000
		Project Costs:	$69,000
		Estimated Net Value:	$241,000

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to this sale is via Burnt Woods Ridge Road, and Harlan Pass Road. Burnt Woods Ridge Road is an all weather road and is in good condition. Harlan Pass Road will require a maintenance lift of rock, restoring it to the original design standards. Three spur roads will be constructed. One spur, off Burntwoods Ridge road, will be about half midslope full bench construction, and half ridgetop construction. The other two spurs, off Harlan Pass road, will be ridge top construction. All three spurs will be surfaced with crushed rock for all weather access.

There are no stream crossings in this unit.

There were no other roading options explored. The topography of the ground, and existing surfaced roads makes this the best alternative.

Logging operations consist of 90% cable and 10% ground based.

All roads accessing this sale are on lands managed by ODF. No access permits are required.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct			0.3	
Improve				
Maintain		2.3		
Close/Block				
Vacate				

VII. AQUATIC RESOURCES AND WATER QUALITY:

Water flowing from streams in the operation area is part of the Yaquina River System. Some tributaries of Spout creek originate within the operation area.

Short segments of type F streams exist within the operation area and on the east side of it. A posted buffer will be established about 100' horizontal distance from these streams. Sufficient trees will be retained in the outer Riparian Management Area (RMA) zone to comply with current FMP standards. The ODFW fish biologist will be consulted regarding the potential for large wood placement in these streams.

Type N streams exist in the operation area. For these streams, a 50'-75' horizontal distance buffer will be posted on either side. In the remaining portion of the RMA zones sufficient trees will be retained to comply with current FMP standards.

For both type F or N streams, no harvesting will be allowed within the buffer except to facilitate cable yarding.

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

There are no registered domestic water intakes in the vicinity of the operation areas.

The following mitigation measures will be employed to minimize impacts to streams from timber felling and yarding activities: 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.

VIII. T&E SPECIES CONSIDERATIONS:

According to the area wildlife biologist, the operation area contains suitable habitat for northern spotted owls and marbled murrelets. Surveys for both species will be conducted in 2009. Surveys will continue in 2010.

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

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based off of USGS 1:24,000 topographic maps and available geologic maps. There are a few high landslide hazard locations in the operation area. The operation area drains to Spout Creek. The risk of landslides delivering to Spout Creek from the operation area is low to moderate.

X. RECREATION RESOURCES:

The operation areas support 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:

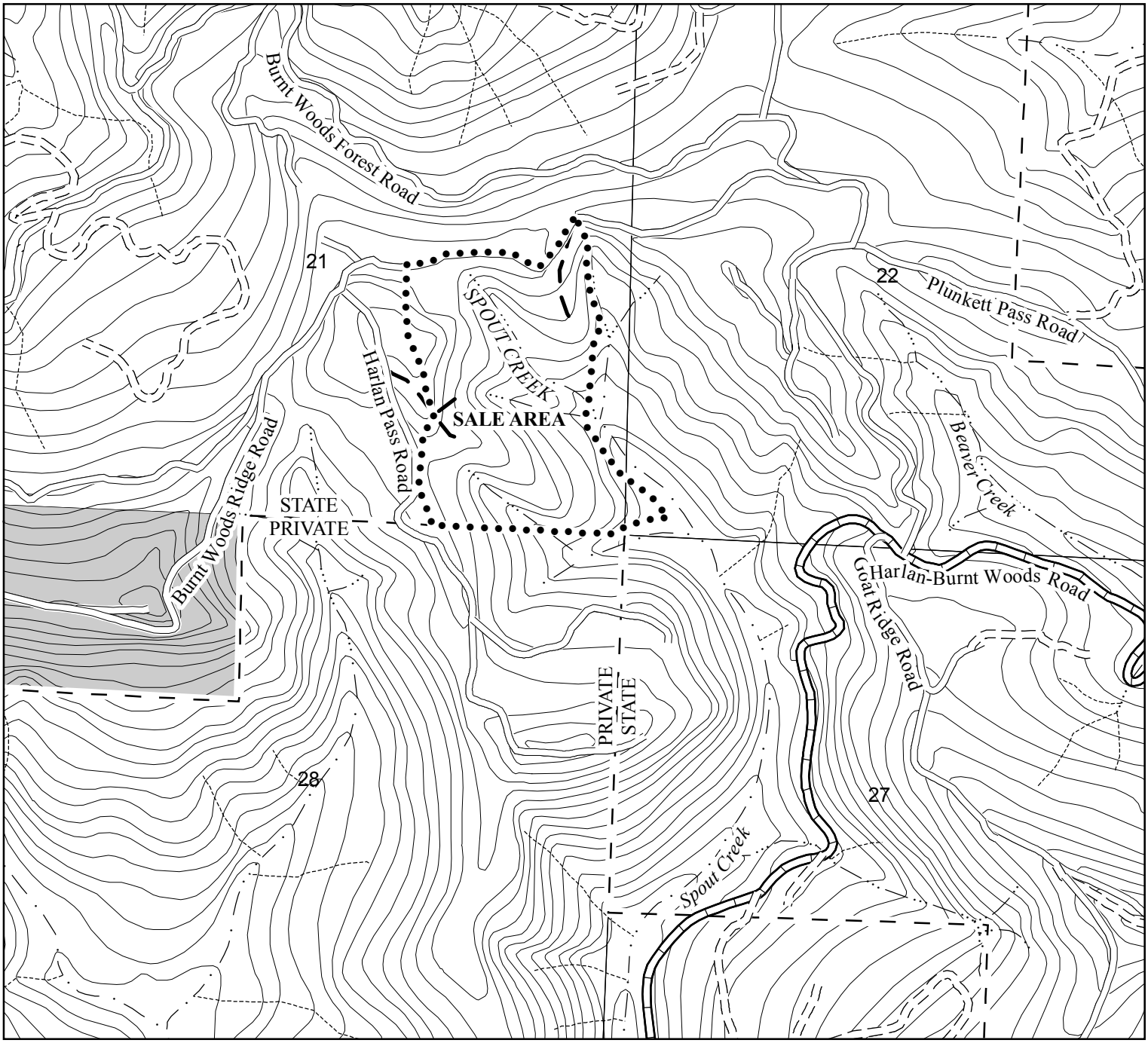
There are no scenic resources associated with this sale.

XIII. OTHER RESOURCE CONSIDERATIONS:

No other resource considerations have been identified.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

About 16 acres are in Focused – Aquatic and Riparian Habitat that are adjacent to the Type N streams within the unit. There is approximately one acre of Special – Aquatic and Riparian Habitat next to the Type F stream.



DOWN SPOUT

FY 2010 AOP
WEST OREGON DISTRICT
ATTACHMENT A : TOPOGRAPHY
PORTIONS OF SECTION 21 & 22, T11S, R8W, W.M.
LINCOLN COUNTY, OREGON

Topography Legend

- Timber Sale Boundary
- Highway
- County Road
- Surfaced Road
- Unsurfaced Road
- New Construction
- Type F Stream
- Type N Stream
- Unknown Stream
- State Forest Property Boundary
- 40 Foot Contour
- Common School Land

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or surveying purposes. users of theis information should review or consult the primary data and information sourcesd to ascertain the usability of the information.

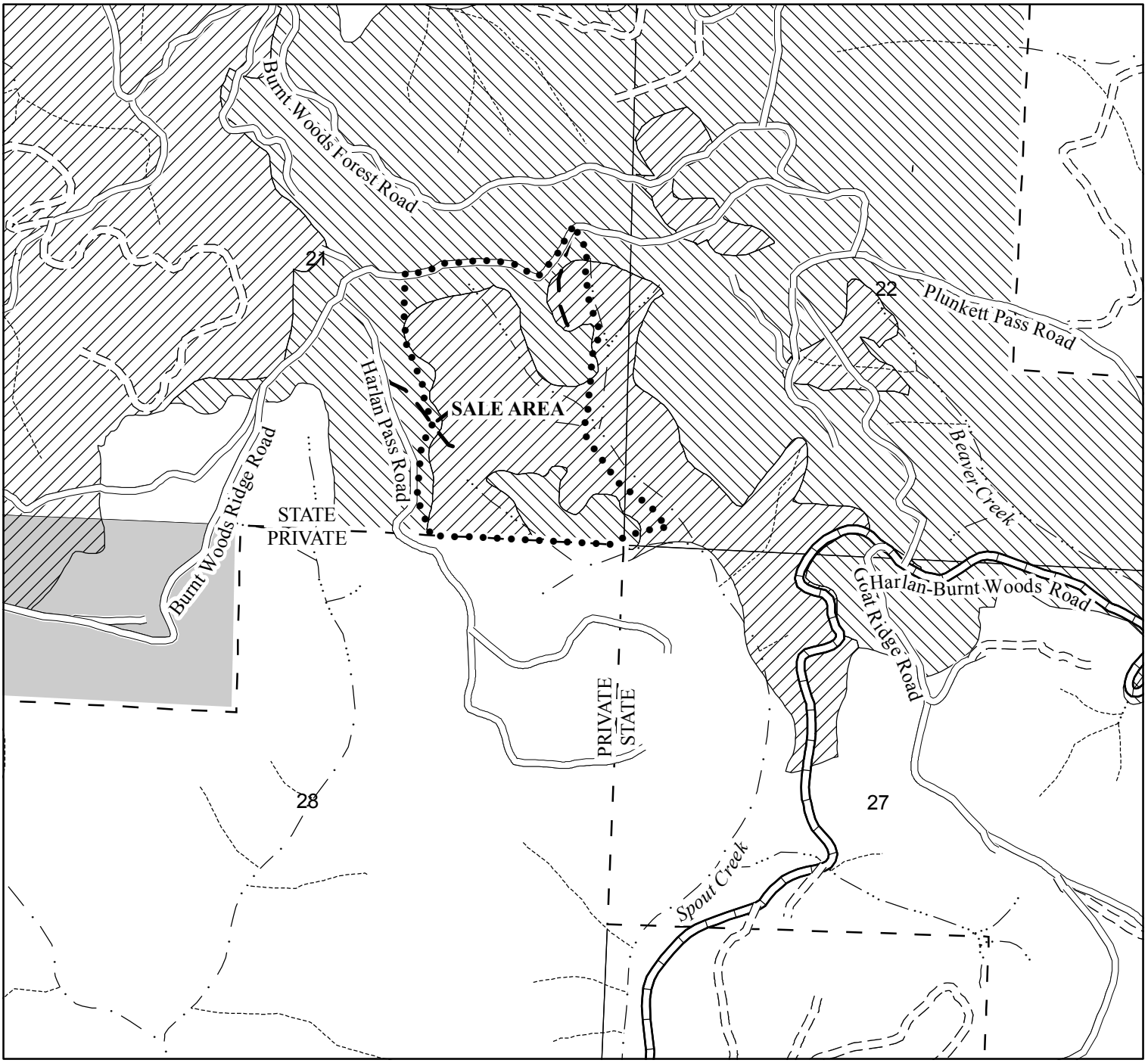
1 inch equals 1,000 feet

0 250 500 1,000 1,500 2,000 Feet

N

APPROXIMATE NET ACRES

48 ACRES (MC)



DOWN SPOUT

FY 2010 AOP
WEST OREGON DISTRICT
ATTACHMENT B : DESIRED FUTURE CONDITION
PORTIONS OF SECTION 21 & 22, T11S, R8W, W.M.
LINCOLN COUNTY, OREGON

DFCC Legend

- Timber Sale Boundaries
- Highway
- County Road
- Surfaced Road
- Unsurfaced Road
- New Construction
- Type F Stream
- Type N Stream
- Unknown Stream
- State Forest Property Boundary
- Future Condition LYR
- Future Condition OFS
- Common School Land

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APPROXIMATE NET ACRES

48 ACRES (MC)

1 inch equals 1,000 feet

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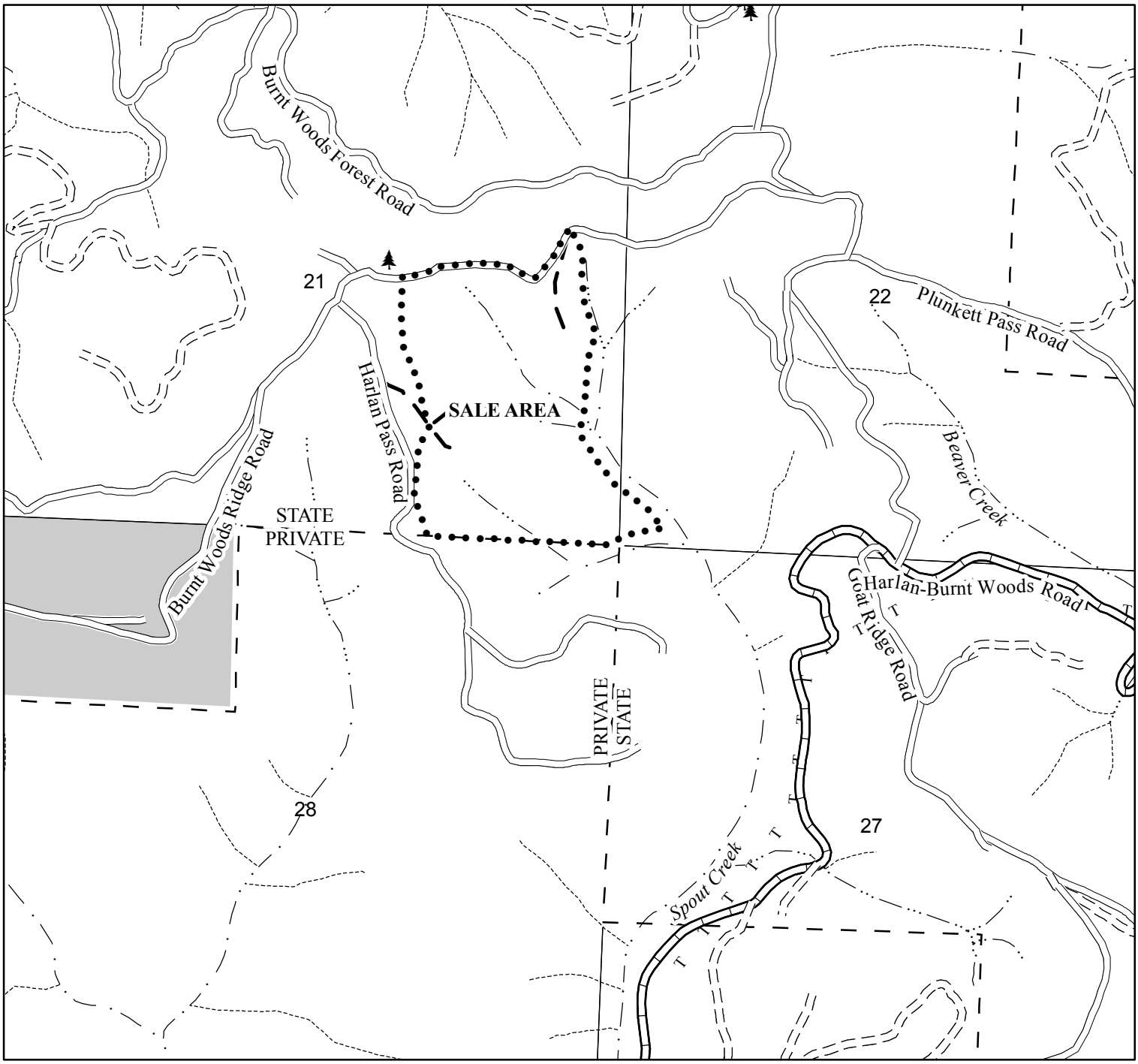
Feet



Key Resources Legend

- Timber Sale Boundary
- Parent Trees
- Highway
- County Road
- Surfaced Road
- Unsurfaced Road
- New Construction
- Type F Stream
- Type N Stream
- Unknown Stream
- Buried Transmission Line
- Overhead Transmission Line
- State Forest Property Boundary
- Common School Land

DOWN SPOUT

FY 2010 AOP
WEST OREGON DISTRICT
ATTACHMENT C : KEY RESOURCES
PORTIONS OF SECTION 21 & 22, T11S, R8W, W.M.
LINCOLN COUNTY, OREGON

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1 inch equals 1,000 feet

0 250 500 1,000 1,500 2,000 Feet

N

APPROXIMATE NET ACRES

48 ACRES (MC)