

Pre-Operations Report

Operation Name: Grindstone Cowboy
County: Washington
Management Basin: Sunday Creek

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	195	186
4	Moderate Partial Cut	90	87
Total	Partial Cut Harvest	285	273
2	Modified Clearcut	90	80
3	Modified Clearcut	85	68
Total	Regeneration Harvest	175	148

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The sale is located on a gentle ridgetop and moderate to steep slopes in the headwaters of Sunday Creek.

Slopes have a varied aspect and range from 0 to 80% but are predominantly 10 to 50%. Elevations range from 1840 to 2960 feet. The major soil types with in the sale area are Jewell and Osweg.

II. CURRENT STAND CONDITION:

The sale areas burned in the 1933, 1939, and 1945 Tillamook Burns. Portions of the sale area were seeded in the early 1960's. There has not been any other stand management.

Approximately 98% of the sale area has been inventoried using the Stand Level Inventory (SLI) procedure and those stands have been classified as 72% UDS and 28% CSC (see Table 3). The current stand structure of the unmeasured stand (2% of the sale area) is estimated to be CSC, according to SLI expanded data; field recon confirms the current stand condition as CSC.

Area 1 is well stocked mixed conifer species of predominantly Douglas-fir, with Western Hemlock, Noble fir, and Grand fir throughout. Red alder is primarily confined to wet areas and draws. The current condition of the stand is calculated as a combination of understory (UDS) and closed single canopy (CSC). Dwarf Oregon-grape and sword fern are the main understory vegetation species with a

slight amount of vine maple, salal, Oregon oxalis, red huckleberry, and beargrass.

Area 2 is a mix of well stocked Douglas-fir with areas of scattered western hemlock and brushy openings. The brushy openings are dominated by vinemaple. Dwarf Oregon grape, Oregon oxalis, sword fern, and red huckleberry add diversity throughout the understory. The stand structure has been classified as UDS.

Area 3 has a stand structure of UDS and is dominated by Douglas-fir with a small percentage of noble and pacific silver fir. Understory vegetation is mostly vine maple, sword fern, salal, dwarf Oregon grape. Beargrass, vanilla leaf, and red huckleberry were also scattered throughout the stand.

Area 4 is a densely stocked Douglas-fir stand classified as UDS. The understory contains mainly vine maple, dwarf Oregon grape, and sword fern.

For area 1, 2, 3, and 4; expanded SLI data shows no current class 1 and 2 DWD or snag information. Forest Grove Districts Sunday Creek Basin DWD average is approximately 93 ft³ DWD and 1 snag per acre ≥15 inches within classes 1 and 2.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	PC-M ³	8050	DF	34	14	261	241	70	44
		8066	DF	38	14	262	259	71	132
		8068	DF	39	17	198	121	49	10
		<i>Target</i> ⁵			15	140	114	36	186
2	MC ³	8048	DF	45	18	277	162	67	34
		8049	DF	39	17	254	171	64	10
		8050	DF	34	14	261	241	70	12
		8068	DF	39	17	198	121	49	24
		<i>Target</i> ⁵							80
3	MC ³	8047	DF	32	12	227	285	64	6
		8049	DF	39	17	254	171	64	50
		8061	DF	36	18	218	128	53	12
		<i>Target</i> ⁵							68
4	PC-M ³	8044*	DF	44	17	215	136	53	9
		8047	DF	32	12	227	285	64	78
		<i>Target</i> ⁵			15	140	114	36	87

¹ The source of stand inventory information is from SLI inventory grown forward to 2007. Stand ID's shown with a (*) are unmeasured stands, and the source of inventory information for these stands is expanded SLI data.

² The acres are based on GIS and exclude existing and planned roads, stream buffers, non-thinnable areas, and green tree retention areas.

³ MC is Modified Clearcut, PC-M is Moderate Partial Cut.

⁴ The Target row for partial cut areas identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED FUTURE CONDITION/VISION:

According to the Forest Grove District’s landscape design, the desired future condition (DFC) for Area 1 is 12% OFS and 88% GEN. The DFC for Areas 2, 3, and 4 is 100% GEN.

The harvest operation in Area 1 and Area 4 will continue the development of UDS structure in the short term. All trees less than 8 inches and all species other than Douglas-fir shall be retained. All existing snags which do not present a safety hazard, and down woody debris of all decay classes shall be retained. As the understory develops, future operations will remove more of the overstory. This will provide more light and nutrients to promote the continued vigor of the understory. In time, a second and third layer of trees and other vegetation will develop, producing the desired complex structure.

Area 2 and Area 3 are modified clearcuts. The vision for this area is to establish a vigorous growing regeneration stand of predominantly Douglas fir with a diverse mix of other conifer tree species. This area will be clearcut again in approximately 50 to 60 years. At the time of the second modified clearcut, it is anticipated the stand will be in the UDS condition.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	8050	UDS	UDS	GEN	44
	8066	CSC	UDS	GEN	109
				OFS	23
	8068	UDS	UDS	GEN	10
2	8048	UDS	REG	GEN	34
	8049	UDS	REG	GEN	10
	8050	UDS	REG	GEN	12
	8068	UDS	REG	GEN	24
3	8047	UDS	REG	GEN	6
	8049	UDS	REG	GEN	50
	8061	UDS	REG	GEN	12
4	8044	CSC ²	UDS	GEN	9
	8047	UDS	UDS	GEN	78

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed, except in REG stands which occur after harvest.

² Current stand condition is based on expanded data; see discussion above.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

Partial Cut - Moderate:

Area 1 and Area 4 are PC- M. The target SDI is approximately 33.

Douglas-fir will be selected for harvest. All other species will be reserved. Both areas will be thinned to a target basal area of 120 to 140 square feet. The average DBH of the residual stand will be approximately 15 inches. Residual trees will be the largest DBH and height, and have the best form and vigor. All trees less than 8 inches shall be reserved and shall not count toward the target basal area.

All existing snags which do not present a safety hazard, and down woody debris of all decay classes shall be retained. To recruit Class 1 and 2 DWD to meet the FMP standards, additional DWD will be accumulated through logging slash, cull sections, bucked ends of log segments, felled snags, tree topping, windthrow, and mortality. Due to the small tree diameter and young age of this stand, snag creation will be delayed until the second entry partial cut approximately 20 years after this first entry partial cut.

Modified Clearcut:

Area 2 and Area 3 are Modified Clearcut.

Hemlock and noble fir will be reserved from harvest to add towards the GTR requirements.

Two trees per acre shall be topped in these areas to create hard snags. Snags shall be evenly distributed throughout Area 2, Area 3, and the green tree retention areas. They shall have a DBH of at least 18 inches, and be at least 60 feet in height.

In addition to tree topping and logging slash, approximately 150 large trees will be dropped to add class 1 DWD on the gentle slopes within the area. All existing DWD of all classes will be reserved. These methods will ensure DWD recruitment meets the specifications within the FMP.

A variety of methods will be used to achieve green tree retention requirements. This includes two green tree retention areas of approximately 6 and 13 acres respectively, stream buffers, and scattered trees across Areas 2 and 3. These methods will be used in combination to meet the green tree requirement as the Forest Management Plan requires, and provide hard snags and additional DWD to the stand as is expected to develop through natural processes.

Following harvest, the sale areas will have some slash manipulation on the tractor ground with the possibility of some aerial chemical application for site preparation and conifer release. The new stand will be precommercially thinned around age 15 and then clearcut at approximately age 50.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

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

	Conifer	Hardwood	Total
Net Volume (MBF)	8,700		
Stumpage Value (\$/MBF)*	\$300		
Estimated Gross Value			\$2,610,000
		Project Costs:	\$210,000
		Estimated Net Value:	\$2,400,000

*Combined Douglas-fir and hemlock stumpage values

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Stimson Mainline, Williams Road, Goback Road, and unnamed spur roads. Most are currently crushed rock roads although some of the unnamed spurs are dirt. An access easement will need to be obtained from Stimson Lumber Company. Road use fees will apply.

Approximately 2.0 miles of existing surfaced road and 1.1 miles of existing unsurfaced road will be improved which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and adding new culverts. This work will bring all roads up to standards described in the Forest Roads Manual.

Approximately 1.2 miles of road will be constructed to provide access to cable landing locations. New construction is limited to ridgetops. New roads will not cross streams.

The rock source will be the Seven Cedars Pit.

All haul roads will have high quality crushed rock or pit run surfacing. Roads will provide access to all timber within the sale area and allow for logging methods and hauling which will minimize impacts to soils, residual timber, streams, and riparian areas.

Estimated cost of project work is \$210,000.

The harvest operation areas are approximately 55% cable and 45% ground yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	1.2	0
Improvement	0	2.0	1.1	0
Maintenance	0	2.0	2.3	0
Vacation	0	0	0	0

¹ Third party roads.

VII. AQUATIC RESOURCES AND WATER QUALITY:

According to Forest Grove’s GIS stream layer, a small unnamed type F tributary of Scoggins Creek flows to the south of Area 1. Another small type F tributary is located adjacent to all sale areas. There are a few unnamed small perennial and seasonal Type N streams within Areas 1, 3, and 4. All streams will be managed in accordance with the Forest Management Plan.

During sale layout, all streams will be field verified as to size, type, locations, and/or source.

Riparian area stand types along these streams are a mix of conifer and hardwood.

Oregon Department of Fish and Wildlife (ODFW) will be requested to complete stream surveys before sale layout begins. Streams of unknown status will be treated as Type F until surveys are completed to verify fish use.

Stream buffers within harvest unit boundaries will be managed according to FMP Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

In order to protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging and hauling operations. Restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or having an alternate haul route. Culvert installment and replacement in live streams will be conducted between July 1 and September 15. Operations outside of this period will be reviewed with ODFW.

A portion of the sale area is within the Trask watershed. The Trask Watershed Analysis was checked for recommendations that could be applied to this sale. There were no aquatic and riparian recommendations applicable to this sale.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist.

Spotted owl surveys are not required for Grindstone Cowboy, as the sale area is within the Tillamook Burn (see November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*).

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The ODF wildlife biologist for the NW Oregon Area made the determination that the sale area is non-suitable habitat for marbled murrelets.

The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations, as well as against local records in the Land Management Classification System (LMCS). No listed plant records were identified within or adjacent to the sale areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

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

There are isolated high landslide hazard locations in Areas 1 and 4. There are no high landslide hazard locations in Areas II and III. The sale drains into the headwaters of Sunday Creek. The risk of landslides delivering directly to Sunday Creek from Areas I and IV is low to moderate and from Areas II and III is low (*per Northwest Oregon Area Geotechnical Specialist*).

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

X. RECREATION RESOURCES:

The sale is designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator reviewed this sale and had no comments on the planned operation.

Restricted access through Stimson Lumber Company land prevents recreational use in this area.

XI. CULTURAL RESOURCES:

The sale area and proposed road construction right-of-way were checked against the Tillamook State Forest Cultural Resource Inventory Database (GIS format). No cultural resource records were identified within or adjacent* to the operation areas. If any significant cultural resources are located during sale preparation,

the Public Use Coordinator (ODF Salem Staff) will be consulted regarding potential protection measures.

**Adjacent refers to approximately one tree length from an operation area. For the purpose of this screen, a 200 foot buffer around the sale boundary and proposed road construction right-of-way was assessed for cultural resource locations.*

XII. SCENIC RESOURCES:

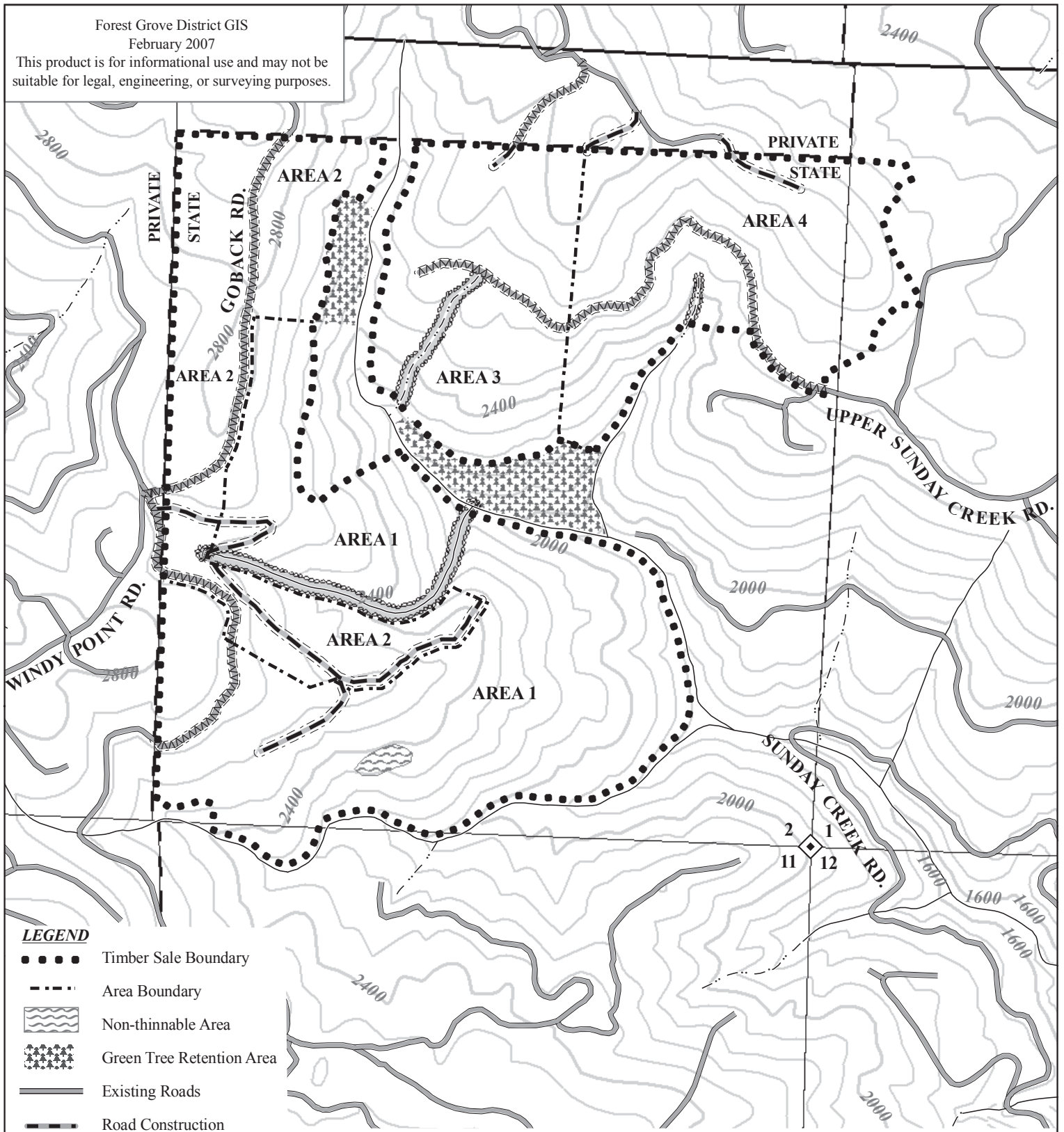
The sale has a visual classification of low sensitivity. No scenic impact is expected.

XIII. OTHER RESOURCE CONSIDERATIONS:

All known survey corners and witness trees shall be protected from damage during any operations.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Areas 1, 2, 3, and 4 contain Focused and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



LEGEND

- Timber Sale Boundary
- - - - - Area Boundary
- ~~~~~ Non-thinnable Area
- ■ ■ ■ ■ Green Tree Retention Area
- Existing Roads
- Road Construction
- ~~~~~ Road Improvement
- Road Construction Right-of-Way
- Perennial Type F Stream
- - - - - Perennial Type N Stream
- ■ ■ ■ ■ Stream Buffer
- ODF Ownership
- 400' Contour Intervals
- 80' Contour Lines

FY 2009
GRINDSTONE COWBOY
PORTIONS OF SECTION 1, 2, & 11, T01S, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment A: Topography

Scale

1:12000

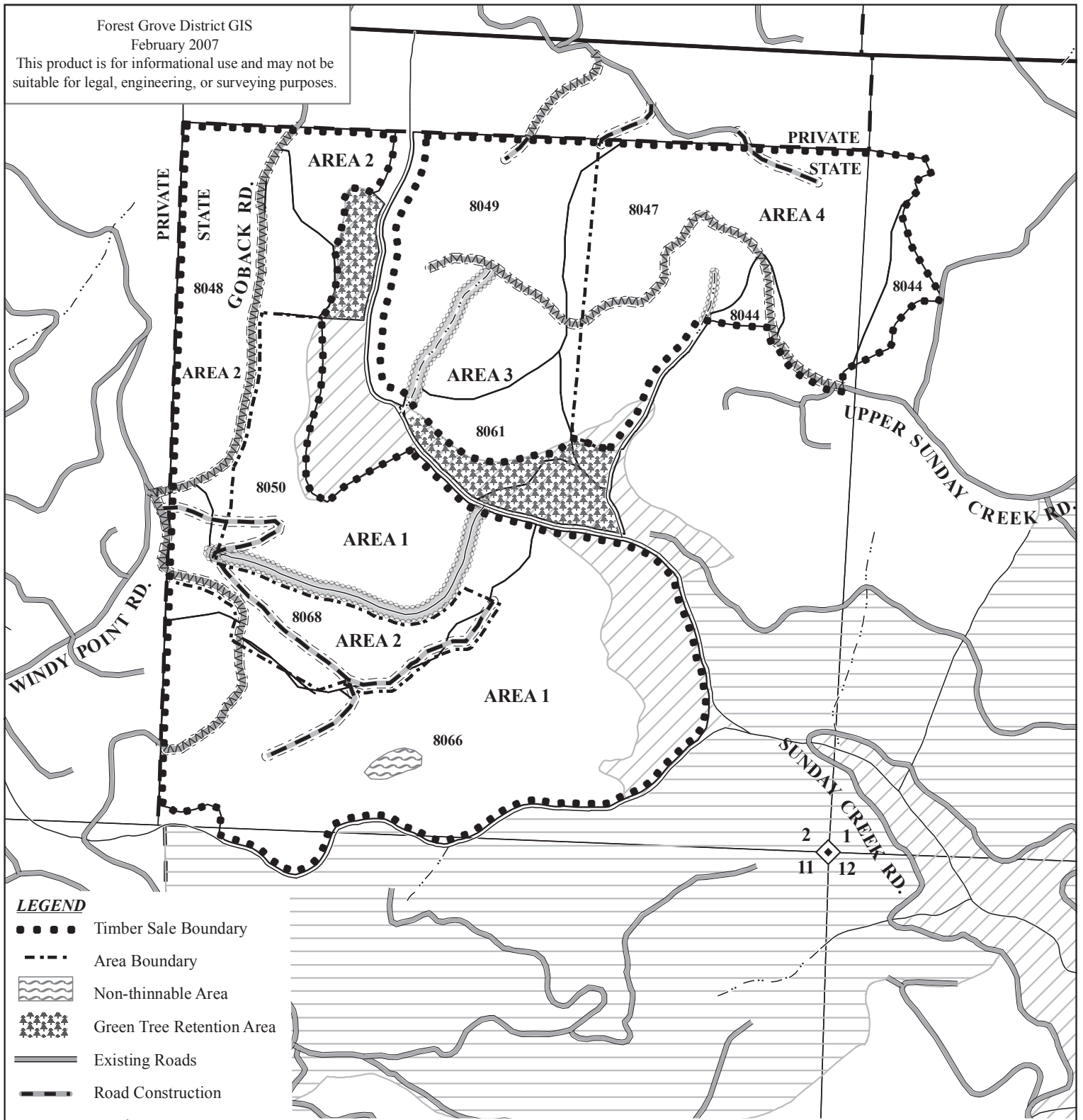
1 inch = 1000 feet

1,000 500 0 1,000



APPROXIMATE NET ACREAGE

AREA 1	186 ACRES (PC-M)
AREA 2	80 ACRES (MC)
AREA 3	68 ACRES (MC)
AREA 4	87 ACRES (PC-M)
TOTAL	421 ACRES



LEGEND

- Timber Sale Boundary
- - - Area Boundary
- ~~~~~ Non-thinnable Area
- ✱✱✱ Green Tree Retention Area
- Existing Roads
- - - Road Construction
- ~~~~~ Road Improvement
- - - Road Construction Right-of-Way
- Perennial Type F Stream
- - - Perennial Type N Stream
- ▨ Stream Buffer
- SLI Polygons (Stand ID#)
- ▬ ODF Ownership
- DFC Stand Type
- ▨ Layered
- ▨ Older Forest Structure

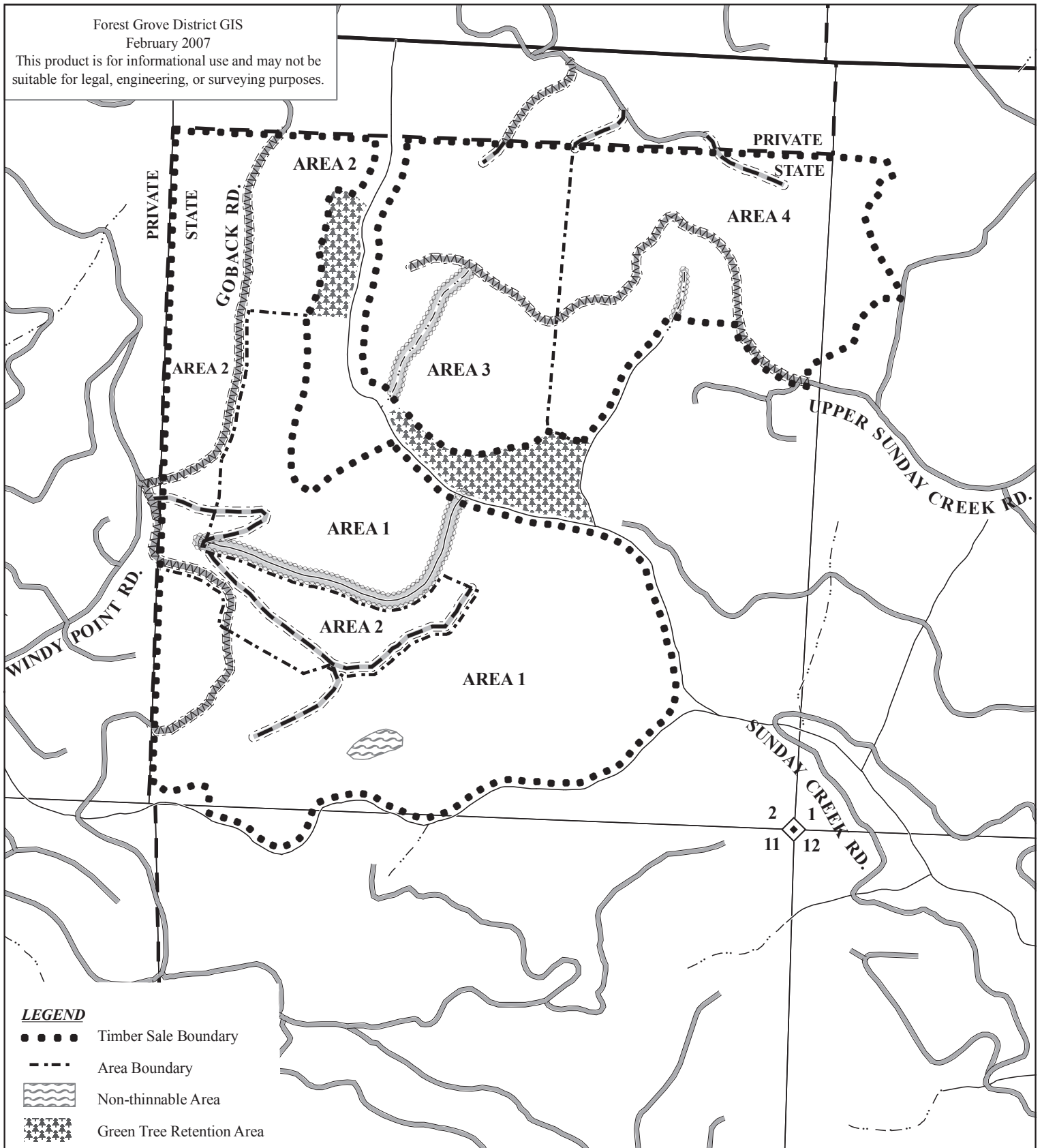
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PORTIONS OF SECTION 1, 2, & 11, T01S, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment B: Desired Future Condition
Scale
1:12000
1 inch = 1000 feet
1,000 500 0 1,000
Feet



APPROXIMATE NET ACREAGE		
AREA 1	186	ACRES (PC-M)
AREA 2	80	ACRES (MC)
AREA 3	68	ACRES (MC)
AREA 4	87	ACRES (PC-M)
TOTAL	421	ACRES

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



LEGEND

- ● ● ● Timber Sale Boundary
- - - Area Boundary
- ~~~~~ Non-thinnable Area
- ■ ■ ■ Green Tree Retention Area
- Existing Roads
- Road Construction
- ~~~~~ Road Improvement
- - - Road Construction Right-of-Way
- Perennial Type F Stream
- - - Perennial Type N Stream
- ~~~~~ Stream Buffer

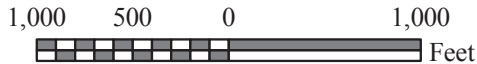
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GRINDSTONE COWBOY
PORTIONS OF SECTION 1, 2, & 11, T01S, R06W, W.M.
WASHINGTON COUNTY, OREGON

Attachment C: Key Resources

Scale

1:12000

1 inch = 1000 feet



APPROXIMATE NET ACREAGE

AREA 1	186	ACRES (PC-M)
AREA 2	80	ACRES (MC)
AREA 3	68	ACRES (MC)
AREA 4	87	ACRES (PC-M)
TOTAL	421	ACRES

