

Pre-Operations Report

Operation Name: Joe Cockeran

County: Tillamook County

Management Basin: Upper Salmonberry, Wheeler

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Modified Clearcut	71	67
3	Modified Clearcut	110	101
Total	Regeneration Harvest	181	168
2	Moderate Partial Cut	37	36
4	Moderate Partial Cut	65	53
Total	Partial Cut Harvest	102	89

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

There are east and west aspect slopes within the sale area that range from 0% to 70%. Elevations range from 1840 to 2480 feet. Grindstone, Killam, and Jewell are the major soil types of the sale area.

Areas 1, 2, & 3 are located on the moderate slopes on the east flank of the headwaters of the Salmonberry River just west and below Giveout Mountain. Area 4 is on the West flank of the Salmonberry River in the loop of the Wheeler Pond Road. There are several bands of steep slopes in the sale. The sale is underlain by igneous origin rocks of the Tillamook Volcanics Formation. The south portion of Area 4 is mapped by Wells et al as the lower third of a landslide deposit (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

II. CURRENT STAND CONDITION:

The western edge of Area 1 burned in the 1945 Wilson River/Salmonberry fire. It was then seeded in the mid 1950's. There has not been any other stand management.

Areas 1, 2, and 3 have been inventoried using the Stand Level Inventory (SLI) procedure, and those stands have been classified as UDS. One stand has not been inventoried and is estimated as CSC by SLI expanded data.

The stands are almost entirely Douglas-fir with minor amounts of hemlock, noble fir, cedar, and alder scattered throughout the sale areas.

The portion of Area 3 between Giveout Grade Road and the ridgetop spur to the northeast is a little unique in that there is a second cohort of trees underneath a few

scattered large DF and noble fir. The second cohort is very tightly spaced and small. Tree growth is minimal and tree form is very poor.

The understory in all the sale areas is comprised primarily of salal, vine maple, sword fern, dwarf Oregon grape, and huckleberry. Based on SLI data and aerial photo recon, average ground cover throughout all areas is estimated to be 55-65%.

According to SLI data an average of approximately 5-6 snags per acre total (greater than 12 inches DBH) and very few hard snags per acre. There is an estimated 5 snags per acre of large (24"+) remnant old growth snags and 2500 ft³ of DWD in decay classes 3 and 4 throughout the sale area.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age ²	DBH	BA	TPA	SDI	Net Acres ³	
1	MC ⁴	7356	DF	36, 41, 53-60	19	232	113	55	67	
		<i>Target⁵</i>	<i>REG</i>							67
2	PC-M ⁴	7385	DF	30, 48-59	21	299	124	68	36	
		<i>Target⁵</i>	<i>DF</i>		26	160	45	34	36	
3	MC	7377	DF	30, 48-59	23	179	63	39	19	
		7385	DF	30, 48-59	21	299	124	68	82	
		<i>Target⁵</i>	<i>REG</i>							101
4	PC-M	7349*	DF	57 est	17	212	136	53	53	
		<i>Target⁵</i>	<i>DF</i>		21	140	60	32	53	

¹ The source of stand inventory information is from SLI grown forward to 2006. Stand ID shown with (*) is from SLI expanded data 10/2/2006.

² Actual measured breast height ages are shown unless labeled "est."

³ The acres are based on GIS and exclude existing and planned roads, stream buffers, green tree retention areas, and non-thinnable areas.

⁴ MC is Modified Clearcut, PC-M is Moderate Partial Cut.

⁵ 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 for the Upper Salmonberry and Wheeler basins, the desired future condition (DFC) for Area 1 and 2 is General. The DFC for Area 3 is 87% General and 13% LYR. The DFC for Area 4 is 100% OFS. The 13% (13 acres) of LYR were included within the clearcut harvest of Area 3 based on stand conditions. This stand is extremely dense and has essentially stagnated in terms of growth. The trees are small and have poor live crown ratios. Due to these

characteristics, this stand is not a good candidate for a partial cut prescription or for developing complex structure if left in its current condition.

Area 1 and 3: After harvest the area will be planted and managed to develop into a vigorously growing stand that will move quickly through the early seral stages.

When the next modified clearcut harvest occurs in this area, the stand will be 60-70 years old and will be in the UDS condition. The area will consist of Douglas-fir with a few scattered noble fir, hemlock, cedar and alder. Where there are gaps in the overstory, there may be an understory of hemlock, cedar and brush (vinemapple, huckleberry, sword fern, Oregon grape, others).

Area 3: The portion of the area between Giveout Grade Road and the ridgetop spur to the northeast contains approximately 13 acres of DFC-LYR and 7 acres of DFC-GEN. The vision for this 20 acre area is a variable density, layered, stand with multiple species. Retention of approximately 10 dominant Douglas fir per acre and 4 Dominant noble fir per acre will provide a significant overstory component in the short and long- term. Average DBH post-harvest will be roughly 30". Large snag and DWD recruitment potential will be retained and continually develop throughout the life of the stand. Several large and rough trees with multiple defects exist in this portion of the area. These trees will be retained for wildlife habitat potential. Several 1-3 acre openings will allow the initiation of a vigorous second cohort of western hemlock, cedar, and noble fir. Douglas-fir will be planted in the larger openings.

Area 2: The vision for this area is to reduce the overstory competition but maintain the DF component and vigorous growth. Post harvest conditions will allow the development of a healthy understory and brush component. The next entry will be a modified clearcut in 15-20 years. This stand will have a few very large scattered and clumped legacy trees. There will be a few scattered hemlock, noble fir, cedar and alder which will provide diversity to the new stand. The new generation stand will be at least 90% DF.

Area 4: By removing some of the DF dominated overstory, the goal is to allow for the initiation and further development of a healthy understory layer. Post harvest conditions should allow any existing shade tolerant species such as cedar and hemlock to develop for the next 15-20 years and become a more significant component of the stand. More snags will further increase stand complexity and enhance wildlife habitat. Another entry 15-20 years will keep this stand on its pathway toward layered structure.

Table 3. Stand Structure Information

Area	Prescription	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	MC	7356	UDS	REG	GEN	67
2	PC-M	7385	UDS	UDS	GEN	36
3	MC	7377	UDS	REG	GEN	6
		7385	UDS	REG	LYR	13
4	PC-M	7349	CSC	UDS	GEN	82
					OFS	53

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 AND PATHWAY:

Areas 1 and 3: These areas will be modified clearcuts. The portion of area 3 between Giveout Grade Road and the ridgetop spur to the northeast will have a concentration of green tree retention. Trees will be selected and painted in a manner which will achieve the desired vision.

A variety of methods will be used to achieve green tree retention requirements, which include green tree retention areas, seasonal and perennial stream buffers and scattered green tree retention. Scattered GTR will generally be to preserve any minor conifer species in the sale and to retain any unique trees with good habitat potential. These methods will be used in combination to meet the green tree requirements in the Forest Management Plan (FMP).

Felling of all non-merchantable stems (stems less than 8 inches DBH) will be required. Reducing the quantity of stems in some portions of the sale will allow reproduction timber to prosper. However, slash loading and planting may become an issue. There is also concern of brush competition in other areas. Further evaluation by the reforestation forester after harvest will be necessary.

Areas 2 and 4: These will be moderate partial cut. The target basal areas are 160 ft² in Area 2 and 140 ft² in Area 4. Only DF will be selected for harvest. Residual trees will be the largest trees and of the best form and vigor. All trees less than 8 inches, cedar, noble fir and hardwoods shall be reserved and shall not count toward the target basal area.

Topping of 2 trees per acre in Areas 1 and 3 will be required. Topping of 1 tree per acre in Areas 2 and 4 will be required. Created snags shall be DF, at least 18 inches DBH and 50 feet tall.

All existing DWD will be reserved in the sale areas. DWD recruitment is expected through mortality, windthrow of residual trees, felled snags, and logging slash.

Existing snags determined not to be a safety hazard will be retained and any felled snags will be left for down wood. Additional snags will be created during harvest activities and will also develop over time through natural processes.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%		X
Planned Quarter:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	7,300		7,300
Stumpage Value (\$/MBF)	\$375		
Estimated Gross Value	\$2,738,000		\$2,738,000
		Project Costs:	\$94,000
		Estimated Net Value:	\$2,644,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

Areas 1, 2 and 3 are accessed via Fire Road No.2 and Cochran Road. Area 4 is access from the Salmonberry Road. Most of the access is through ODF ownership or county roads. There is approximately 1.5 miles of road along Cochran Road in Section 34, T3N, R6W, W.M. which goes through private ownership. There is an easement for this portion of road. No road fees will apply.

Approximately 1.5 miles of road will be constructed in order to provide access to landing locations. See maps for specific road locations and conditions.

New construction is limited to mostly ridgetops and gentle to moderate sideslopes. Proposed roads will cross one small perennial, Type N, stream.

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.

In addition, approximately four miles of existing spur roads will be closed or vacated at an estimated cost of \$4,000.

Project work: 1.5 miles of construction at \$60,000 per mile. Total estimated project costs are \$94,000.

The operation will be 85% cable yarding and 15% ground based yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction			1.5	
Improvement				
Maintenance		15.0	1.5	
Closure/Vacation				

VII. AQUATIC RESOURCES AND WATER QUALITY:

All streams in or adjacent to the sale area are tributary to the Salmonberry River (Large, Type F).

Areas 1, 2 and 3 have approximately four small perennial, Type N, streams within or adjacent them.

Portions of Area 4 are directly adjacent to the Salmonberry River. Two other perennial Type F streams are adjacent to or go through this area also.

The small, Type F streams in Area 4 are not verified for fish presence. 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 usage or upon further analysis by a forester during sale layout.

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

FMP riparian protection standards will apply to the sale.

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. Culvert installment and replacement in live streams will be conducted between July 1 and September 30. Operations outside of this period will be reviewed with ODFW.

VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

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

Surveys for northern spotted owls were conducted in 2006 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Joe Cockeran was surveyed for spotted owls three times in 2006 with no responses, and the

second year of survey will be completed in 2007. All surveys were/will be conducted in accordance with USFWS protocol.

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The District T&E Coordinator made the determination that the sale area is non-suitable habitat for marbled murrelets. The ODF wildlife biologist for the NW Oregon Area reviewed and approved this determination.

This operation does not involve an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. Neither the sale area nor the haul route is in close proximity to a stream with listed fish.

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:

The few steep slopes associated with the draws appear to have moderate down slope risk to water and fish habitat. The initial risk assessment by the geotechnical specialist for the sale is moderate. If these steep sloped areas remain within the sale area as the sale layout proceeds, the geotechnical specialist will be consulted to determine if a field visit is needed. The large scale landslide deposit in Area 4 is not expected to present slope stability concerns to the forest operation however, if indications of active slope movement are observed during timber sale layout the geotechnical specialist will be consulted (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

X. RECREATION RESOURCES:

The sale area is designated as Non-Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator has reviewed this sale, and suggests:

Recreational use common to this area includes, hiking, hunting, horseback riding, mountain biking, and camping.

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 Level 3, low sensitivity.

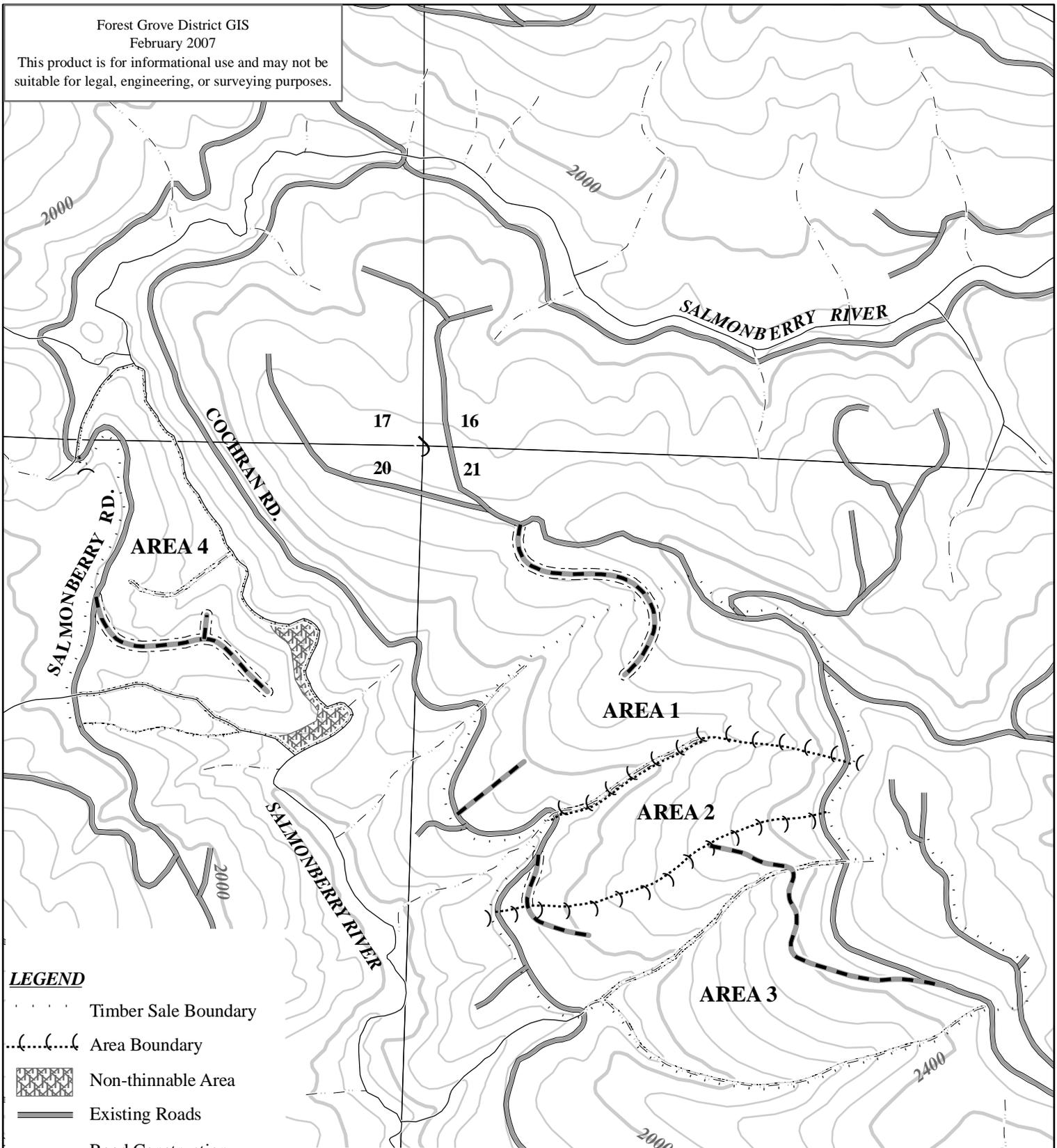
XIII. OTHER RESOURCE CONSIDERATIONS:

No property survey is needed. No other resources of significance are involved. Any survey corners and witness trees shall be protected from damage during any operations.

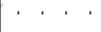
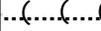
XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Areas 1, 2, 3, and 4 contain Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of Type F and Type N perennial streams within the sale areas. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.

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
-  Existing Roads
-  Road Construction
-  Road Construction Right-of-Way
-  Perennial Type F Stream
-  Perennial Type N Stream
-  Stream Buffer
-  400' Contour Intervals
-  80' Contour Lines

FY 2008
JOE COCKERAN
PORTIONS OF SECTIONS 17, 20 & 21, T03N, R06W, W.M.
TILLAMOOK COUNTY, OREGON

Attachment A: Topography

Scale
1:12000
1 inch = 1000 feet

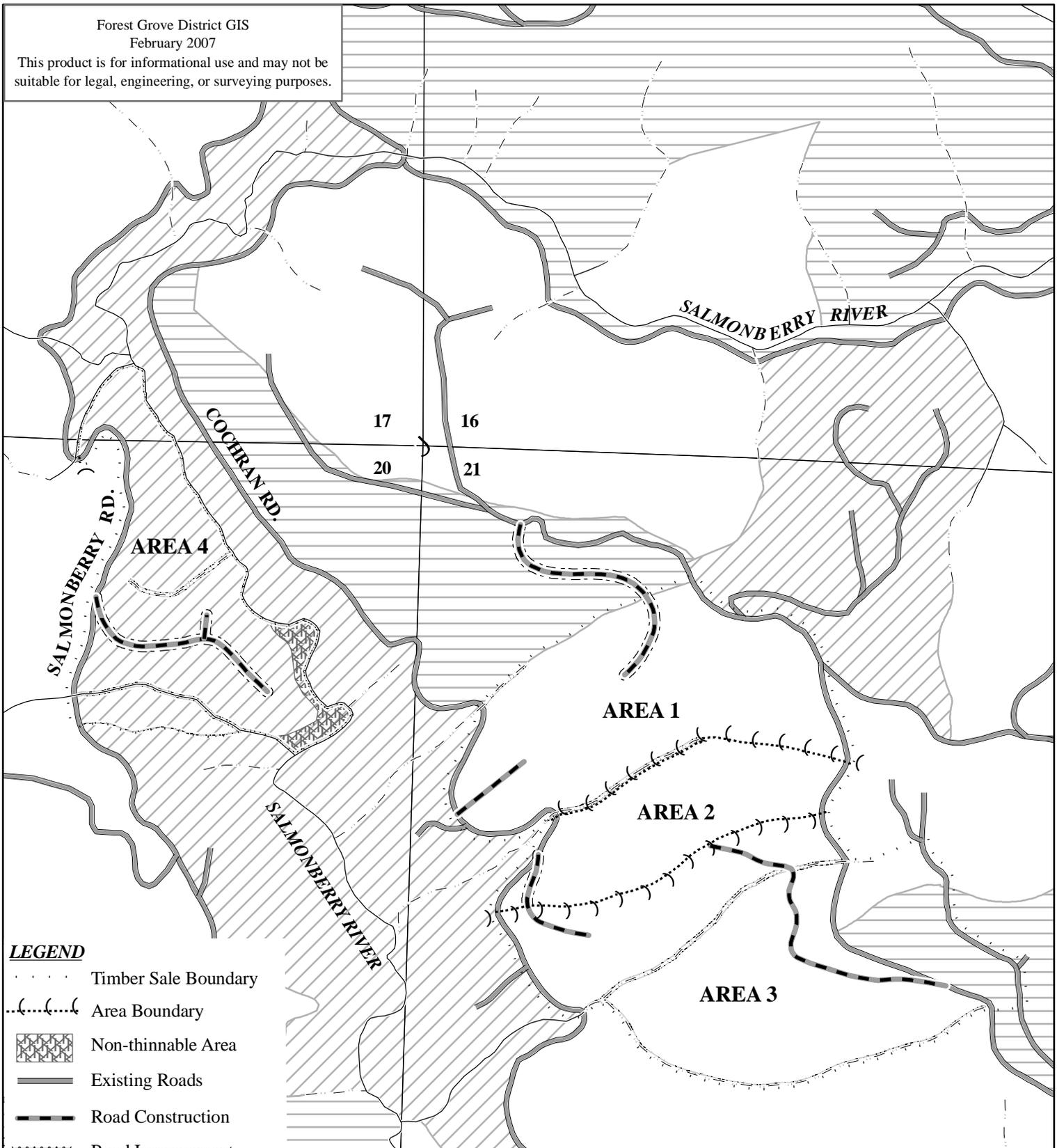


APPROXIMATE NET ACREAGE

AREA 1	67 ACRES (MC)
AREA 2	36 ACRES (PC-M)
AREA 3	101 ACRES (MC)
AREA 4	53 ACRES (PC-M)

3

TOTAL 257 ACRES



LEGEND

- Timber Sale Boundary
- Area Boundary
- Non-thinnable Area
- Existing Roads
- Road Construction
- Road Improvement
- Road Construction Right-of-Way
- Perennial Type F Stream
- Perennial Type N Stream
- Stream Buffer
- DFC Stand Type**
- Layered
- Older Forest Structure

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 PORTIONS OF SECTIONS 17, 20 & 21, T03N, R06W, W.M.
 TILLAMOOK COUNTY, OREGON
 Attachment B: Desired Future Condition

Scale
 1:12000
 1 inch = 1000 feet

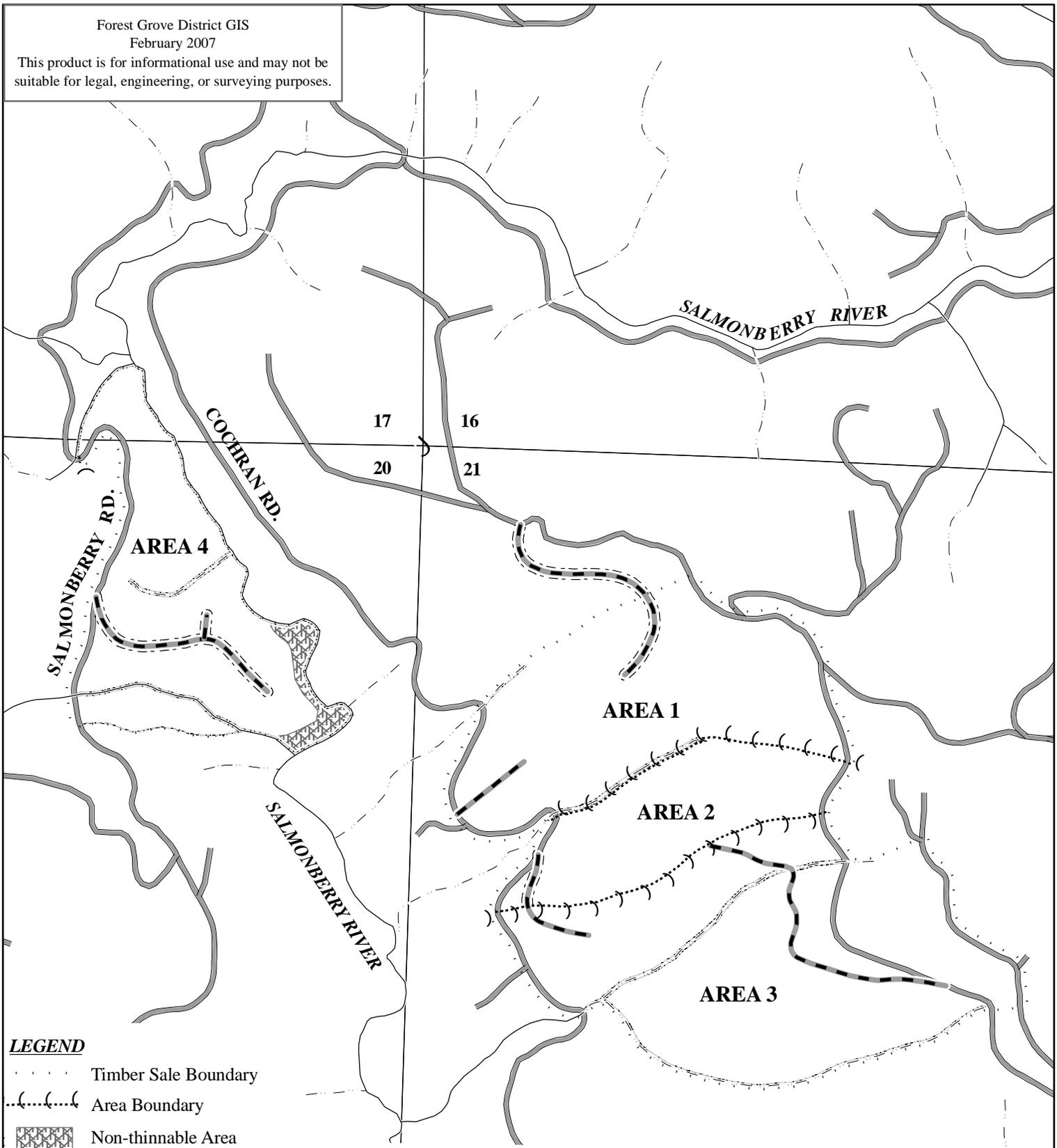


APPROXIMATE NET ACREAGE

AREA 1	67 ACRES (MC)
AREA 2	36 ACRES (PC-M)
AREA 3	101 ACRES (MC)
AREA 4	53 ACRES (PC-M)
TOTAL	257 ACRES

3

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LEGEND

- Timber Sale Boundary
- Area Boundary
- Non-thinnable Area
- Existing Roads
- Road Construction
- Road Improvement
- Road Construction Right-of-Way
- Perennial Type F Stream
- Perennial Type N Stream
- Stream Buffer

FY 2008
JOE COCKERAN
PORTIONS OF SECTIONS 17, 20 & 21, T03N, R06W, W.M.
TILLAMOOK COUNTY, OREGON

Attachment C: Key Resources

Scale
1:12000
1 inch = 1000 feet



APPROXIMATE NET ACREAGE

AREA 1	67 ACRES (MC)
AREA 2	36 ACRES (PC-M)
AREA 3	101 ACRES (MC)
AREA 4	53 ACRES (PC-M)

3

TOTAL 257 ACRES