Pre-Operations Report

Operation Name: Sgt. Rock
County: Clatsop County
Management Basin: MacGregor

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
I	Modified Clearcut	125	120
2	Modified Clearcut	16	15
Total	**Regeneration Harvest**	**141**	**135**

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a north aspect and range from 10% to 80%. Elevations range from 1200 to 2100 feet. The major soil type is Humbug. The sale is on the slopes above Rock Creek.

The landform is a gentle to moderate spur ridge which includes the headwaters of several tributary streams of Rock Creek. The underlying rocks are mostly igneous origin Tillamook Volcanics Formation. However, the north portion of the sale area is rock of sedimentary origin, sandstone of the Roy Member of the Astoria Formation.

II. CURRENT STAND CONDITION:

Approximately 130 acres (96%) of the sale area has been inventoried using the Stand Level Inventory (SLI) procedure and that stand has been classified as CSC. The remaining 5 acres (4%) are classified as UDS according to the Current Condition map that appears in the Forest Grove District Implementation Plan (*March 2003).*

Two distinct timber types make up sale area 1. The upper slopes (about 37 acres) were thinned in 1998 as part of the Northwest McGregor Thin. The rest of area 1, and area 2, are dense naturally regenerated Douglas-fir stands. The understory is comprised primarily of sword fern, with vine maple, Oregon grape, salal, and devil's club all present. No significant insect or disease problems have been identified. There are few snags in the sale area. Those that exist are decay class 4 and 5.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID [1]	Species	Age[2]	DBH	BA	TPA	SDI	Net Acres [2]
1	MC[4]	7158*	RA, DF	41 est.	14	170	160	46	5
		7161	DF	40-43, 48-65	20	212	103	50	90
		7167	DF	51-61	17	136	84	33	25
2	MC	7161	DF	40-43, 48-65	20	212	103	50	15

[1] The source of stand inventory information is from SLI inventory grown to 2005. Stand IDs shown with (*) is from expanded SLIP information based on similar stands as of 8/8/2005.
[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, and green tree retention areas.

III. DESIRED FUTURE CONDITION/VISION:

According to the Forest Grove District's landscape design for the McGregor Basin, the Desired Future Condition (DFC) for Area 1 and Area 2 is 100% General.

Areas 1 and 2 Vision: When the next final harvest occurs in these operation areas, the stands will be 60-70 years old and will be in the UDS condition. The areas will consist of Douglas-fir with lesser amounts of western hemlock, western red cedar and Grand fir. A few alder will also be present. Where there are gaps in the overstory, there will be an understory of hemlock, cedar, alder and brush (vinemaple, salmonberry, huckleberry, sword fern, Oregon grape). Legacy trees left from the first regeneration harvest will be located along the streams adjacent and between Areas 1 and 2 and a few will be left in small clumps. Both large and small snags and large and small down wood will be located throughout the unit

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest [1]	Desired Future	Net Acres
1	7158	UDS	REG	GEN	5
	7161	UDS	REG	GEN	90
	7167	CSC	REG	GEN	25
2	7161	CSC	REG	GEN	15

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

Areas 1 and 2 Anticipated Pathway: This harvest will be a modified clearcut prescription leaving behind about 10-12 green trees per acre. A variety of methods will be used to achieve green tree retention requirements, which include green tree retention areas and stream buffers. These methods will be used in combination to meet the green tree requirement in the Forest Management Plan (FMP) and to provide snags and DWD to the stand, which are expected to also develop through natural processes.

Rock Creek and the tributary on the northeast side have wide riparian areas with soft marshy ground. Green trees will be retained along these areas to buffer this unique RMA.

The buffer between area 1 and area 2 will be at least 300' wide. Much of this buffer will contribute towards the green tree retention target.

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. In addition, two large trees per acre will be reserved on the tractor ground and then felled at the completion of harvesting to contribute towards the DWD target.

Existing snags determined not to be a safety hazards will be retained and any felled snags will be left for down wood. Creation of two snags per acre is required during harvest activities. Additional snags will be created over time through natural processes.

Whole tree yarding will be allowed on the cable ground. After harvest, the slash piles will be burned. At this time it is anticipated that a site prep herbicide treatment will be applied and, prior to planting, mountain beaver will be trapped from this unit.

Following completion of site prep activities, the areas will be replanted with approximately 85% Douglas-fir, 5% western hemlock, 5% grand fir and 5% western red cedar at a rate between 430 and 550 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. Alder is expected to seed-in naturally into the stand and may need to be treated, either manually or with herbicides if it threatening the desired conifer seedlings. By age 12, the stand will have moved from REG to CSC.

It is our anticipation that when the areas reach age 12-15, it is likely that PCT will be used to reduce total trees per acre to between 200 and 250 trees per acre. We would expect to leave the biggest and best trees, also keeping in mind the desire to leave roughly the same percent species mix as was planted.

At approximately age 35 the areas will be capable of supporting a commercial thin. Contingent on goals in the year 2040, this area could be thinned to an RD of 35, capturing volume that would be lost due to competition mortality. This thinning would also move the stands on the pathway from CSC to UDS by opening the stands enough to allow vegetation to grow in the understory. Approximately 5-10 years following this thinning, the UDS condition will be achieved.

Beyond this, the stand could be again thinned to further encourage development of complex structure or would be a candidate for another modified clearcut.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

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

	Conifer	Hardwood	Total
Net Volume (MBF)	5,300		
Stumpage Value ($/MBF)	450		
Estimated Gross Value	2,385,000		$2,385,000
		Project Costs:	$99,000
		Estimated Net Value:	$2,286,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale is accessed from two locations. The upper and east end of the sale is accessed off McGregor Road. Adequate roads and landings are in place at this location. It is possible some operators will need to get a little closer to the edge of the stand at this location. For those operators a 500 foot spur road may need to be constructed to a slightly lower landing location. Our preliminary plan is to make this a purchaser select option. This spur would be closed at the completion of operations. Also at the completion of operations, a helicopter pad will be constructed at the west landing.

The west edge of the sale is accessed off of the Rock Creek Mainline and Longview Fibre. An access easement must be obtained from Longview Fibre Company.

Approximately 0.9 miles of new roads will need to be constructed at this location. 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.

These roads will include one live stream crossing over a tributary of Rock Creek. The tributary is a perennial stream at the upper extent of fish use. Unless a fish survey determines that this is a non-fish bearing stream at this location, it is anticipated this will be a fish passable culvert.

Following harvest, roads and skid trails within the sale areas will be evaluated for closure, however it is anticipated that the new roads will remain in place until the stand is free to grow. At that time the roads will be reevaluated for closure.

Construct 0.9 mile new road starting at Longview Fibre Road	$35,000
Fish pipe installation	$ 5,000
Surfacing	$54,000
Heliport construction	$ 5,000
Total Project Costs	$99,000

The operation will be 75% cable yarding and 25% ground yarding.

Table 5. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	0.9	0
Improvement	0	0	0	0
Maintenance	2.5[1]	4.0[1]	0.9	0
Vacation	0	0	0	0

[1] Includes third party roads.

VII. AQUATIC RESOURCES AND WATER QUALITY:

83 acres of Area 1 (69%) and 15 acres of Area 2 (100%) are within the Upper Rock Creek Basin. This basin has been designated as a Salmon Anchor Habitat (SAH) Basin. Stream buffers within harvest unit boundaries will be managed according to FMP Riparian Strategies and according to the Salmon Anchor Habitats Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing these strategies.

Rock Creek, a large Type F stream, forms the northern boundary of this sale and a small Type F tributary of Rock Creek forms the northeast boundary. This tributary has some possible debris torrent fans at the confluence with the small N streams. There are also some unstable slopes along the edge of these stream channels. Most of the areas are within the buffer of the stream. Any that extend

beyond the RMA will be buffered with green tree retention areas. This will keep the harvest operation from disturbing these areas and allow natural processes to deliver wood to the RMA and aquatic area.

The stream between Area 1 and Area 2 starts as a medium F stream at its confluence with Rock Creek. It is a small type F stream where the new road will cross it, and is a perennial non-fish bearing stream at the upper extent of the sale area. In addition to the streams along the unit boundary there are several small perennial and annual Type N streams are also within the sale area. Riparian area stand types along these streams are a conifer and hardwood mix.

The small type F streams have not had fish use verified. 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.

ODFW fish biologists will work with ODF to identify possible stream enhancement project areas in the tributaries of Rock Creek on ODF ownership. Projects may incorporate wood placement into streams concurrent with harvest activities.

New road construction in SAH is restricted to the minimum necessary to conduct operations. This sale has steep slopes and relatively poor access. To harvest the area it is necessary to construct new roads onto a ridge that bisects Area 1. This new road requires one crossing of a perennial stream. Preliminary road location indicates this stream can be crossed on stable ground where there are minimal risks of sedimentation and fish blockage. The remainder of the road is ridge-top and/or is far enough from streams for adequate filtering of road run-off water.

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 15. Operations outside of this period will be reviewed with ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The sale area has been reviewed with the ODF Northwest Oregon Area Biologist (Area Biologist).

Surveys for northern spotted owls were conducted in 2005 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. Sgt. Rock was surveyed for spotted owls three times in 2005 with no

responses, and the second year of survey will be completed in 2006. 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 ODF wildlife biologist for the NW Oregon Area made the determination that the sale area is non-suitable habitat for marbled murrelets.

This operation involves an activity that is listed in the National Marine Fisheries Service adopted rules under Section 4(d) of the Endangered Species Act. The sale area is in proximity to streams in which listed salmon and/or steelhead are present. For a discussion of protection measures for listed fish, see sections VI and VII.

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:

There are only a few scattered steep slopes within the sale area. The initial hazard and risk assessment from the geotechnical specialist is low to moderate. The geotechnical specialist will be consulted if high landslide locations are observed during field preparation of the timber sale. The geotechnical specialist will determine if a field visit is necessary.

X. RECREATION RESOURCES:

This sale is in the area of the forest designated as Non-Motorized by the Tillamook State Forest Comprehensive Recreation Plan (1993). There are no designated recreation facilities in or adjacent to the sale area. Some dispersed camping and hunting does occur in the area, however this sale is not expected to greatly impact these activities.

The new roads and lower portion of the sale have restricted access through Longview Fibre's gate and road system.

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. No scenic impact is expected.

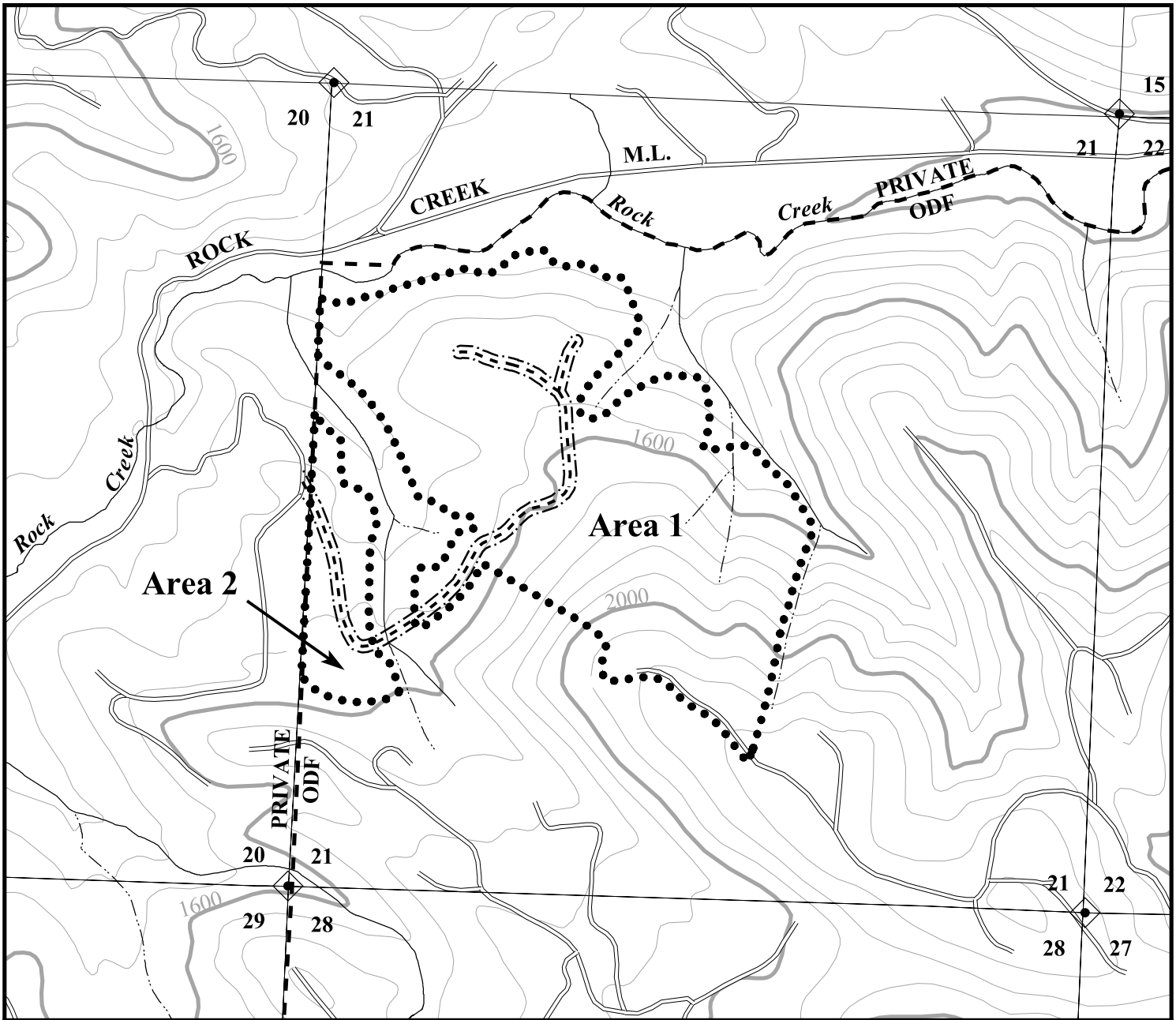
XIII. OTHER RESOURCE CONSIDERATIONS:

Property lines have been true blazed and posted.

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

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Area 1 and 2 contain Focused Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of perennial streams within the sale areas. The sale areas contain Focused Stewardship, Wildlife Subclass, because portions are within the Upper Rock Creek Salmon Anchor Habitat (SAH). See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



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FY 2007
Sgt. Rock
Sec. 21, T04N, R06W, W.M.
Clatsop County

Attachment A: Topography

Approximate Net Acreage:
Area 1: 120 Acres (MC)
Area 2: 15 Acres (MC)
TOTAL: 135 Acres

- Timber Sale Boundary
- Right-of-Way Boundary
- Highway
- Existing Roads
- Construction, Surfaced
- Improvement, Surfaced
- Perennial - Type F Streams
- Perennial - Type N Streams
- 400' Contour Intervals
- 80' Contour Intervals
- ODF Ownership

Forest Grove District GIS
10/24/05
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

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1 Inch = 1000 Feet

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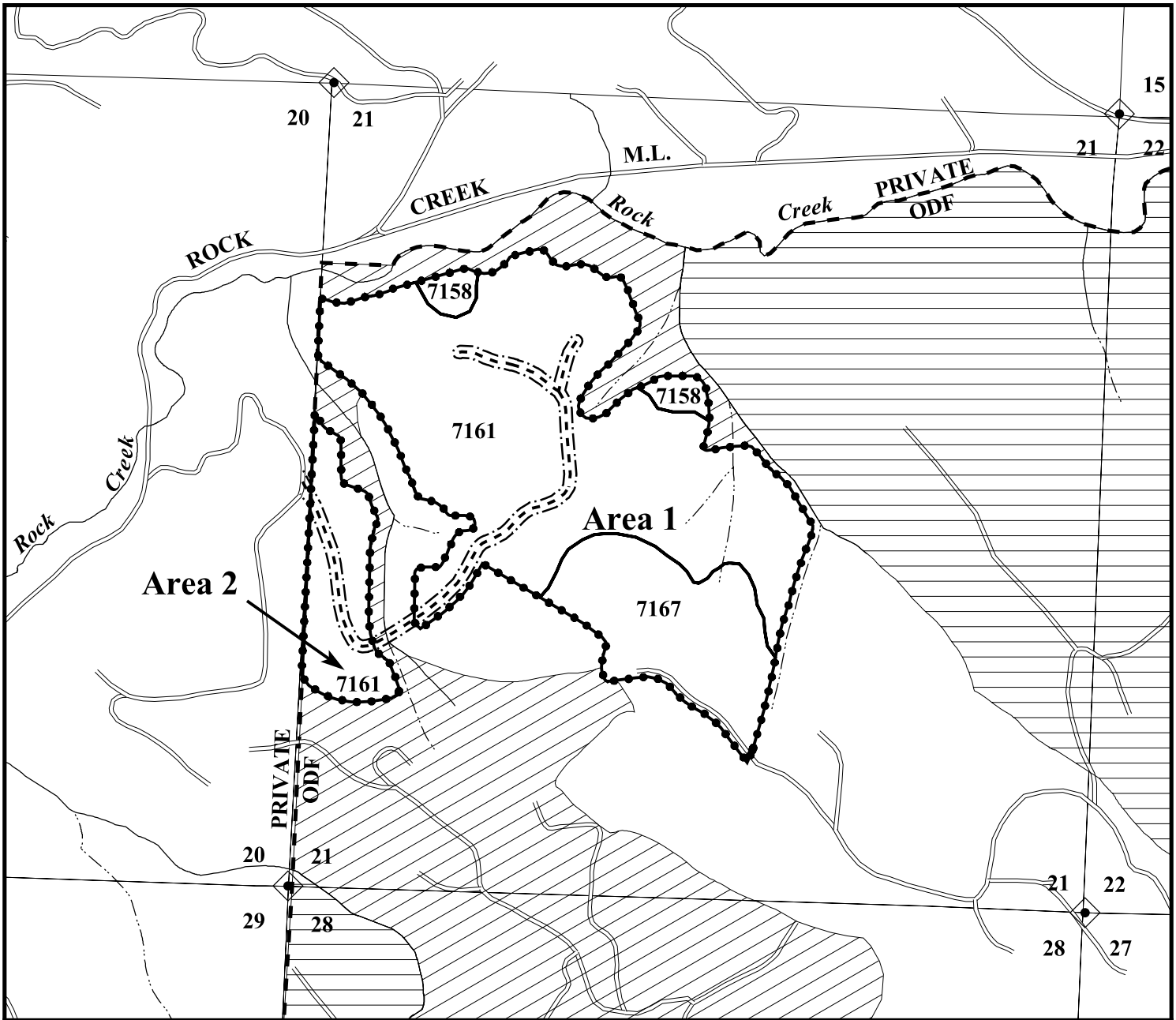

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Attachment B:
Desired Future Condition

Approximate Net Acreage:
Area 1: 120 Acres (MC)
Area 2: 15 Acres (MC)
TOTAL: 135 Acres

- Timber Sale Boundary
- Right-of-Way Boundary
- Highway
- Existing Roads
- Construction, Surfaced
- Improvement, Surfaced
- Perennial - Type F Streams
- Perennial - Type N Streams
- SLI Polygons (Stand ID#)
- Layered
- Older Forest Structure
- ODF Ownership

1 : 12000
1 Inch = 1000 Feet

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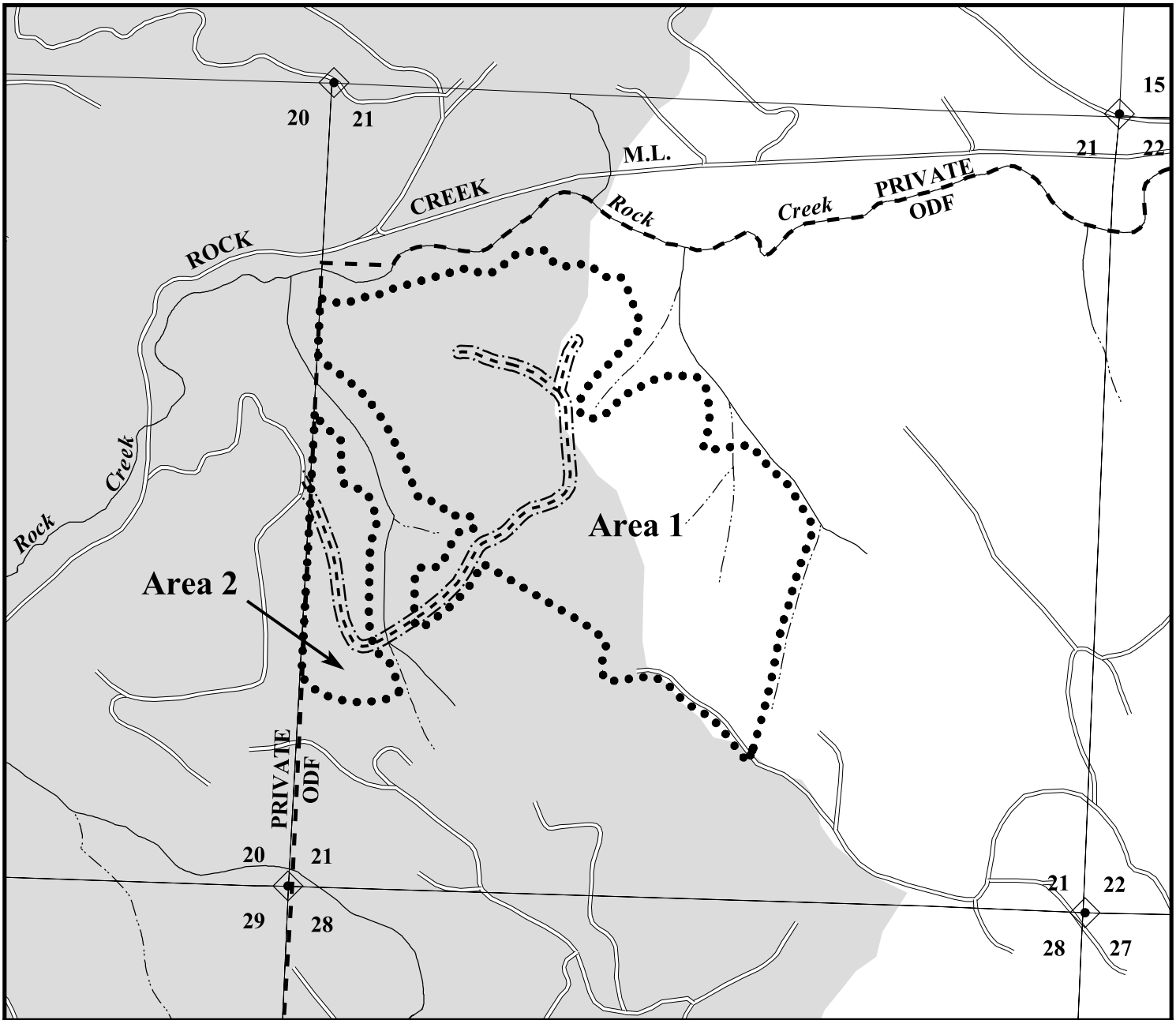

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Attachment C: Key Resources (SAH)

Approximate Net Acreage:
Area 1: 120 Acres (MC)
Area 2: 15 Acres (MC)
TOTAL: 135 Acres

- Timber Sale Boundary
- Right-of-Way Boundary
- Highway
- Existing Roads
- Construction, Surfaced
- Improvement, Surfaced
- Perennial - Type F Streams
- Perennial - Type N Streams
- Salmon Anchor Habitat (SAH)
- ODF Ownership

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