Pre-Operations Report

Operation Name: Summit Stone
County: Clatsop
Management Basin: North Fork

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	PC-M	26	24
2	PC-M	45	41
3	PC-M	68	61
4	MC	72	65
5	PC-M	101	91
6	PC-M	14	12
7	PC-M	19	17
8	PC-M	32	29
9	PC-M	20	18
Total	Modified Clearcut	72	65
Total	Partial Cut	325	293
Total		397	358

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

These sale areas are located in the North Fork Basin, about 15 miles southeast of the City of Seaside, east of State Highway 53, and about 10 miles inland from the Pacific Ocean. The sale areas are in the “hemlock zone” but are characterized by dominant planted Douglas-fir stands, combined with large patches of red alder and an understory of salmonberry, huckleberry, vinemaple, and ferns. These areas are located within the severe Swiss Needle Cast Zone of the district. Forest roads on State and private lands provide access to the tracts.

Soil types in these sale areas are Killam and Pittsburg types, deep, well drained, fine to medium moderately fine textured soils developing from Eocene basalts and siltstones, with site indexes ranging from 120 to 130 feet for Douglas-fir, and averaging 110 feet for hemlock. Elevations range from 400 to 800 feet. The sale areas are located on gentle to moderately steep slopes north of the North Fork of the Nehalem River. The landform is gentle to moderate sloping ridgeline and sideslopes above tributaries to the North Fork of the Nehalem River. The underlying rock units for most of the sale are sedimentary Smugglers Cove Formation siltstone, with some igneous origin "invasive intrusive” Columbia River Basalt Group, Grande Ronde basalt. In the north end of the sale, the underlying rock units are sedimentary origin Keasey Formation, Jewell Member, mudstone with some sandstone, with a small amount of igneous origin Cole Mountain Basalt.

II. CURRENT STAND CONDITION:

Most of areas originated from harvesting in the 1960's and 1970's. A significant portion of the sale area was recently acquired through a land exchange.

Areas 1, 2, 3, 6, 7, 8, and 9 – The current stands are approximately 36 to 53 year old, Douglas-fir plantations with a significant portion of naturally regenerated hemlock and Sitka spruce. Swiss Needle Cast and high stand densities have impacted the growth of the Douglas-fir in these stands, however the severity of infection is moderate. The diameter distribution and stand density within these stands is fairly uniform, with minimal vertical or horizontal diversity. The understory vegetation is limited to the occasional opening and is composed of vinemaple and sword ferns.

Areas 4 and 5 - The current stands are 35 year old, Douglas-fir plantations with some naturally regenerated hemlock and Sitka spruce. Swiss Needle Cast and high stand densities has significantly impacted the growth of these stands. These stands are fairly uniform, and have an SDI of 73. The Swiss Needle Cast infection in Area 4 is severe, with almost no diameter growth in the last few years. There is some minor species diversity within the stand as portions of the sale area has scattered pockets of hemlock, while others have a more uniform distribution of hemlock and spruce. Many portions of the sale areas are almost devoid of any other species except Douglas-fir. The understory vegetation is minimal, and is composed primarily of sword ferns, huckleberry, and some vinemaple.

Table 2. Stand Inventory Information.

Area	Prescription	Stand ID [1]	Species	Age	DBH	BA	TPA	SDI	Acres [2]
1	PC-M	2124*	WH, DF	37	12	204	557	67	24
1	PC-M	Target [3]	WH, DF		14	130	110	30-35	24
2	PC-M	2124*	WH, DF	37	12	204	557	67	12
2	PC-M	2170*	DF, WH	37	13	236	261	65	29
2	PC-M	Target [3]	WH, DF		15	130	110	30-35	41
3	PC-M	2170*	DF, WH	37	13	236	261	65	5
3	PC-M	2212*	DF	36	13	265	300	73	36
3	PC-M	2186*	DF, WH	38	14	280	272	75	20
3	PC-M	Target [3]	WH, DF		15	130	110	30-35	61
4	MC	2274*	DF	35	12	252	350	73	65
4	MC	Target [3]	DF				5-10		65
5	PC-M	2274*	DF	35	12	252	350	73	91
5	PC-M	Target [3]	DF		16	110	90	20-40	91
6	PC-M	2274*	DF	35	12	252	350	73	12
6	PC-M	Target [3]	DF		15	130	110	30-35	12
7	PC-M	2186*	DF, WH	38	14	280	272	75	17
7	PC-M	Target [3]	WH, DF		16	130	110	30-35	17
8	PC-M	24139	DF, WH	53	13	214	230	58	29
8	PC-M	Target [3]	WH, DF		15	130	110	30-35	29
9	PC-M	24139	DF, WH	53	13	214	230	58	18
9	PC-M	Target [3]	WH, DF		15	130	110	30-35	18

1 The source of stand inventory information is (*OSCUR Stand 2002 and SLI from 2002 and 2003).
2 The acres are based on (orthophotos, traverse, GIS, GPS, etc) and exclude roads, streams buffers, reserve areas, etc.
3 The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED STAND CONDITION:

The desired future stand condition for Areas 1 and 2 is LYR. Approximately 8% of Area 3 is targeted for LYR and approximately 56% of Area 9 is targeted for OFS. Areas 4, 5, 6, 7, 8, and 44% of Area 9 are not planned to have a complex desired future condition on the landscape.

Table 3. Desired Future Condition

Area	Stand ID	Current	Post Harvest [1]	Desired Future	Acres
1	2124	CSC	UDS	LYR	24
2	2124	CSC	UDS	LYR	12
2	2170	CSC	UDS	LYR	29
3	2170	CSC	UDS	LYR	5
3	2212	CSC	UDS	General	36
3	2186	CSC	UDS	LYR	20
4	2274	CSC	REG	General	65
5	2274	CSC	UDS	General	91
6	2274	CSC	UDS	General	12
7	2186	CSC	UDS	General	17
8	24139	UDS	UDS	General	29
9	24139	UDS	UDS	General	8
9	24139	UDS	UDS	OFS	10

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/VISION:

Areas 1, 2, 3, 6, 7, 8, and 9 – are "first entry" thinning units and will be thinned to an approximate stand density range of 30-35, which will balance individual tree growth and stand growth. There are stringers of hardwoods scattered through portions of these area. The impacts from pathogens to overall stand development is relatively moderate, as the Swiss Needle Cast infection appears to be light to moderate and that hemlock and spruce comprise a significant proportion of the stands. Although the Douglas-fir will be thinned, it is anticipated that other species will be favored for retention, including alder.

Although Areas 1 and 2, and portions of Areas 3 and 9 have complex DFC's and would generally have heavier thinning prescriptions to generate additional growing space for understory vegetation, the Swiss Needle Cast infection requires a moderate thinning to minimize the impacts to the Douglas-fir.

Area 4 – is planned for modified clearcut and will be replanted with a mixture of conifer species, including Douglas-fir, western hemlock, and some western red cedar. It is anticipated that red alder will naturally seed in portions of exposed mineral soil. An emphasis will be placed on retaining any existing hemlock, cedar, and spruce.

Area 5 - is "first entry" partial harvest unit and will have a range of prescriptions. As reviewed with ODF Silviculturist and Biologist, the existing stand is a Douglas-fir plantation with some naturally regenerated hemlock, Sitka spruce, and alder. The building blocks for the future stand development will be dependent upon the stocking and configuration of the existing alternate species. It is anticipated that several prescriptions will be utilized to increase stand growth and vigor, and may include:

- Harvest all Douglas-fir and thin all other species to an approximate stand density range of 30-35;
- Harvest the majority of Douglas-fir while retaining 20 to 40 square feet of basal area per acre of Douglas-fir, and thin all other species to an approximate stand density range of 30-35;
- Partial harvest to an approximate stand density range of 30-35 favoring other species over Douglas-fir within a specified diameter range.

These prescriptions will be located and oriented to take advantage of the existing alternate species, and will create a mosaic of structural diversity across this sale area.

Snags: In all areas, all existing snags will be retained unless deemed to be safety hazards. In Area 4, it is anticipated that snag creation and leaving additional live green trees will be necessary to supplement landscape snag levels as defined by the Forest Management Plan. In the PC areas, it is anticipated that additional snags will develop during yarding activities by leaving, topping, or girdling damaged rub trees, tail trees, lift trees, and/or intermediate support trees.

Green Trees: Non-merchantable understory trees will be retained. In all sale areas cedar and any existing larger remnant trees will be reserved from cutting.

In MC Area 4, an average of 5 to 10 green trees per acre will be scattered and/or clumped throughout the areas, and not solely located in riparian areas. In addition, individual and small clumps of non-merchantable trees may be left in operationally feasible areas to provide short term snag recruitment for cavity nesting birds. In all sale areas minor species such as red cedar and cherry may be reserved from cutting, and any existing larger remnant trees will be reserved from cutting.

Downed Wood: For all harvesting activities, all existing downed woody debris will be retained. Obvious defect in conifer logs will be bucked out in the unit to enhance downed wood levels. Due to the small diameter size of the existing stand, it is not feasible to obtain that 600 cubic feet of conifer in decay classes 1 and 2. To meet the landscape target of down wood, additional material will be retained on another sale in the North Fork Basin, Progeny Split (Areas 1, 2, and 5).

Site Preparation treatments for Area 4 will be further evaluated with the reforestation forester during sale layout. Site preparation for Area 4 will be accomplished through cable yarding operations, ground based harvesting, and mechanical manipulation of slash concentrations. Animal damage through big game browse is anticipated to be high. Mountain beaver trapping will focus on draw areas and sword fern and alder type within the stand. Tree protection will be prescribed for newly planted conifer species, Douglas-fir will receive paper bud caps, Western Red Cedar will receive tubes at initial planting.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
91%	9%	☐	✓
Planned Quarter:		1st	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,000	0	4,000
Stumpage Value ($/MBF)	$300	$0	
Estimated Gross Value	$1,200,000	$0	$1,200,000
		Project Costs:	$230,000
		Estimated Net Value:	$970,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

There are currently good quality forest roads accessing the general vicinity of the sale areas. All of the sale areas can be accessed by extending road systems from the East Summit network. This area was acquired through a recent land exchange. An extensive transportation plan was developed, which resulted in a multi-phase approach to vacating many existing roads across draws and establishing new roads along ridge tops. The third and final phase of this transportation plan will be completed with this sale. The proposed new roads are composed of collector spurs and relatively short “working” spurs from existing rocked roads. The roads are designed to reach ridge-tops to facilitate cable yarding.

It is anticipated that some portion of the spurs needed to access Area 4 will be vacated upon completion of harvesting activities. These plans will be further explored and evaluated during the field layout process. The new rocked roads into the partial cut areas will be needed for future harvesting entries, and will remain open upon completion of harvesting activities.

Approximately five miles of road improvement is needed on a portion of the Cole Mountain Ridge Road and access spurs into Areas 1, 2, 6, 8, and 9.

The anticipated rock sources for new road construction are the Hamlet and Cole Mountain Stockpile Sites.

The project work for this sale is estimated to cost approximately $230,000.

Approximately 50% of the sale area will be cable logged, as the slopes are moderate to steep. Ground based harvesting systems will be utilized on the more gentle slopes. Cable yarding can be done with medium size yarders. Tractor logging can be done with shovel loggers, track or wheel skidders.

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	1.5	1.0	0.5
Improve	0.0	2.0	3.0	0.0
Maintain	9.0	5.0	3.0	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	0.0	0.5

VII. AQUATIC RESOURCES AND WATER QUALITY:

Type F Streams: Joe Creek (medium, Type F stream) flows in between Areas 1 and 2.
The upper reaches of the North Fork of the Nehalem River (large, Type F stream) flows between Areas 2 and 3, and along the northern boundary of Area 5.
The East Fork of Soapstone Creek (large, Type F stream) flows along the eastern boundary of Area 8.
The West Fork of Soapstone Creek (large, Type F stream) flows along the western boundary of Area 9.
There are no Type F streams within or adjacent to Areas 6 and 7.

Type N Streams: There are small perennial Type N streams in all sale areas. NW Oregon Forest Plan stream riparian strategies will be employed along these streams. The current riparian vegetation is composed of a patchwork of conifer and hardwood overstories. The understory in the conifer dominated reaches is similar to the headlands, with mostly ferns, salal, and some wild rose. The understory within the alder reaches is mostly salmonberry.

All streams will be examined during sale layout to determine stream type and classification. Then, the specific RMA strategies required in the FMP will be implemented. These strategies are found in Appendix J, pages J-1 through J-16.

Portions of Areas 2, 3, 4, and 5 are located within the Upper North Fork Nehalem Salmon Anchor Habitat area (SAH). The sale shall receive all resource protection measures necessary to mitigate any slope stability hazards in accordance with the standards contained in the SAH strategies.

Stream Enhancement Opportunities: There may be opportunities for stream enhancement on the upper reaches of the North Fork River and Soapstone Creek. Further assessment and collaboration will be done with ODFW biologists and the Sunset Unit Forester.

Aquatic Resource Protection: For all areas, full log suspension is required when cable yarding over streams. Adequate RMA buffers will be left where required on all streams per the FMP standards. To protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods range from use of hay bales in road ditches, to "ditch-outs" away from streams, to complete shutdown of logging and hauling operations during times of heavy rainfall. There are no known high risk sites within the sale area. Any high-risk sites found will require at least one-end log suspension and cable logging. If any in-stream work is required with the sale, then the in-stream work will be conducted during in-stream periods established by ODFW.

VIII. T&E SPECIES CONSIDERATIONS:

The ODF Northwest Area Biologist determined that Areas 1 through 6 did not contain suitable habitat for Northern Spotted Owls (NSO). Areas 7 and 8 were determined to have potential suitable habitat for the NSO and were surveyed in 2005 and 2006, with no responses.

The ODF Northwest Area Biologist determined that Areas 1 through 6 did not contain suitable habitat for marbled murrelets. It was determined that Areas 7 and 8 did have potential suitable habitat and these areas were surveyed for marbled murrelets in 2005 and 2006. One unknown detection was documented in 2006. An unknown detection is documented when a murrelet is heard and not seen. This does not provide an indication as to where the nest may be located, so the status and occupancy of the bird remains undetermined.

The sale area was checked against the Oregon Natural Heritage Program database of known listed plant locations. The sale area 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:

Very few High Landslide Hazard Locations appear on the topography as mapped in the operation. The initial assessment from the geotechnical specialist is low. If High Landslide Hazard Locations are located during field work the geotechnical consultant will be consulted.

X. RECREATION RESOURCES:

This area is located near Soapstone Lake. There is a developed hiking trail from Hwy. 53 to the lake. The sale directly borders the trail in several areas. Joint efforts to improve the area may be possible. Measures will be taken to minimize conflicts with recreation use and harvesting operations, and will be coordinated between the Sunset Unit Forester and the District Recreation Coordinator.

XI. CULTURAL RESOURCES:

None.

XII. SCENIC RESOURCES:

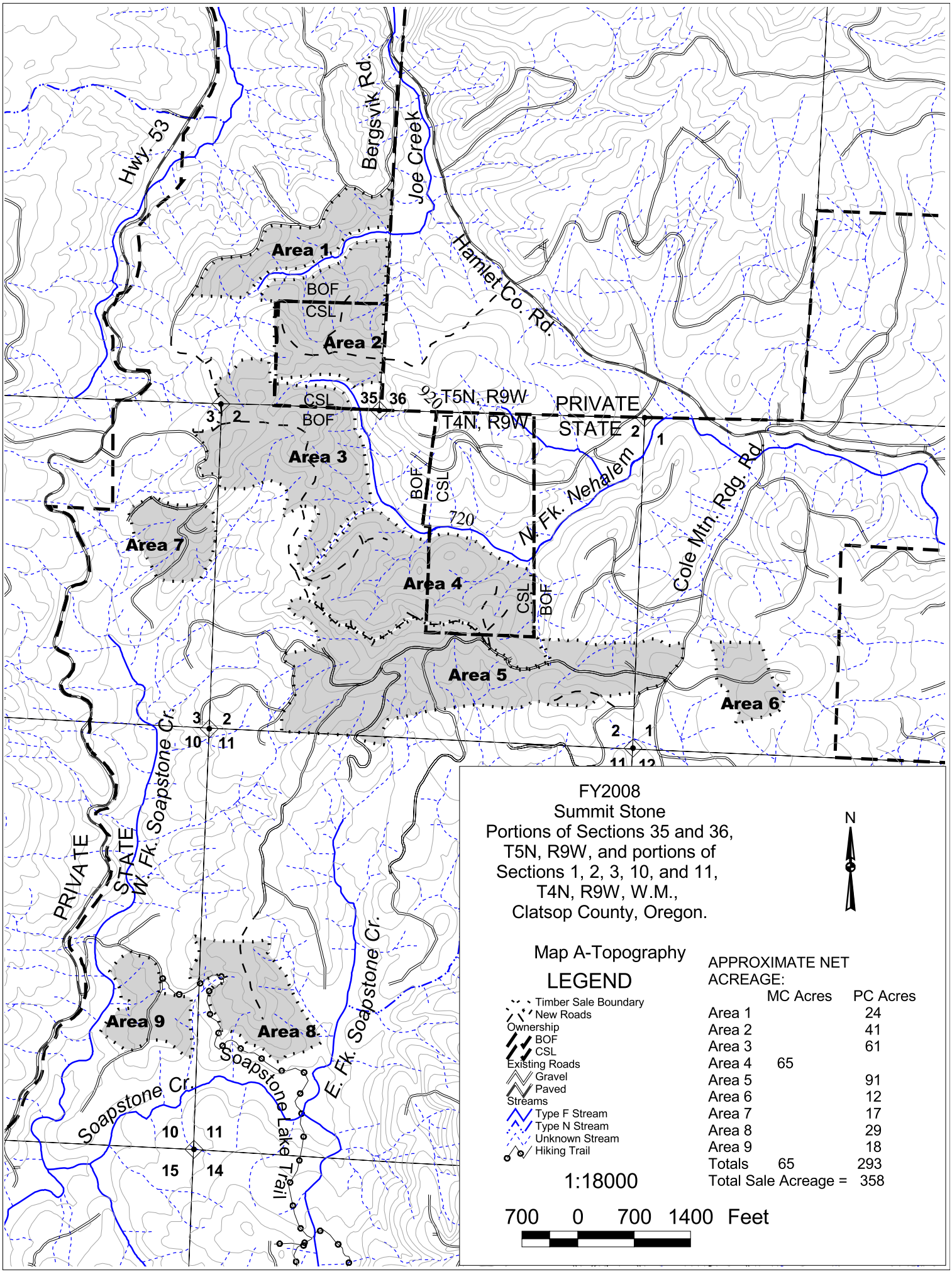
Portions of Area 9 may be visible from Highway 53, and has a “focused” visual classification, but since this is a partial cut, no visual impact is anticipated.

XIII. OTHER RESOURCE CONSIDERATIONS:

Property Lines and Corners.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

Portions of Areas 2, 3, 4, and 5 are classified as Focused – Wildlife for the Upper North Fork Nehalem Salmon Anchor Habitat area. The western portion of Area 9 is classified as Focused – Visual. A small portion of Area 9 along the Soapstone Lake Hiking Trail is classified as Focused – Recreation. The remaining lands in this timber sale are all classified “general” management.



FY2008
Summit Stone
Portions of Sections 35 and 36,
T5N, R9W, and portions of
Sections 1, 2, 3, 10, and 11,
T4N, R9W, W.M.,
Clatsop County, Oregon.

N

Map A-Topography

LEGEND

- Timber Sale Boundary
- New Roads

Ownership
- BOF
- CSL

Existing Roads
- Gravel
- Paved

Streams
- Type F Stream
- Type N Stream
- Unknown Stream
- Hiking Trail

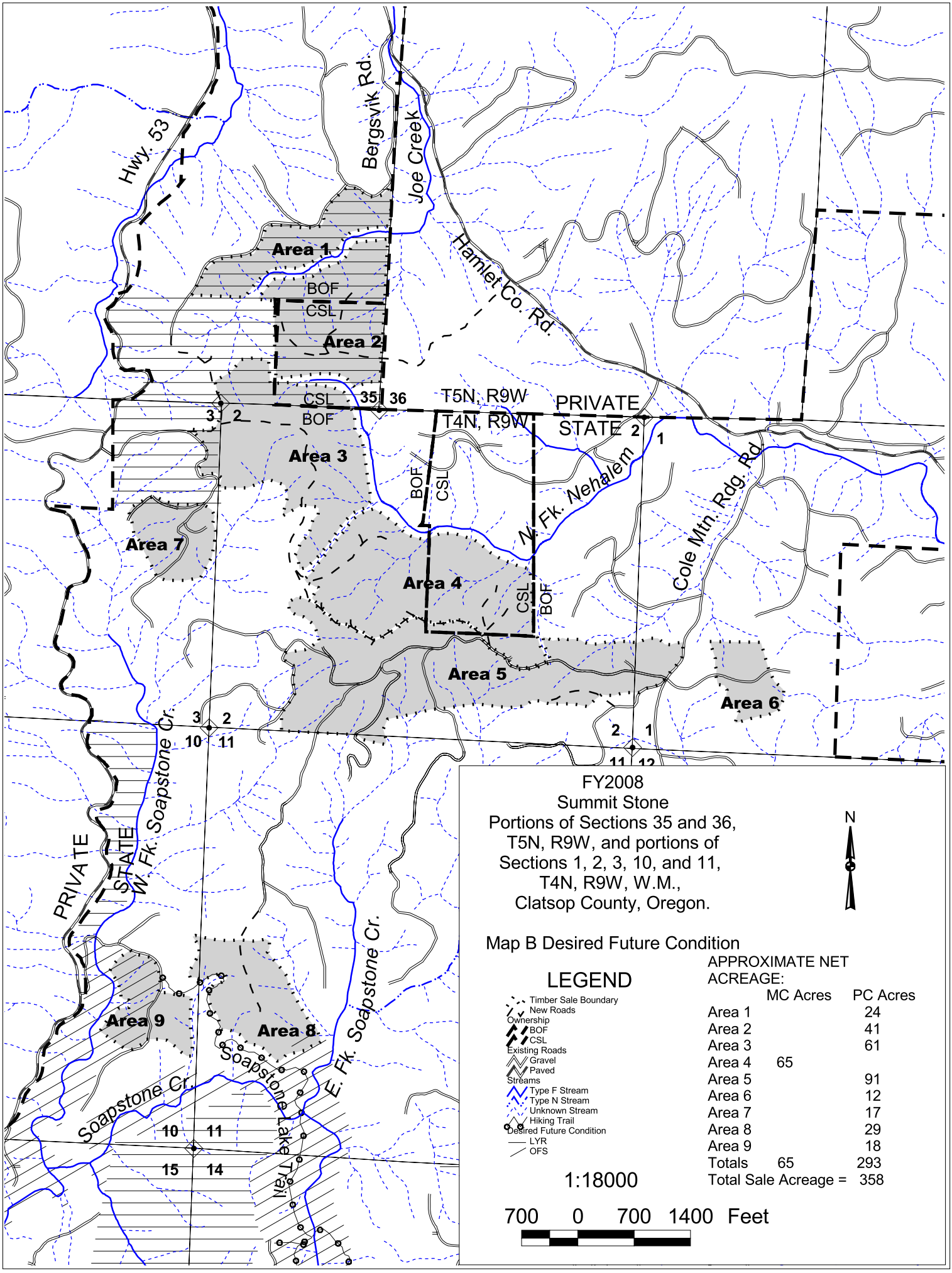
1:18000

700 0 700 1400 Feet

APPROXIMATE NET ACREAGE:

	MC Acres	PC Acres
Area 1		24
Area 2		41
Area 3		61
Area 4	65	
Area 5		91
Area 6		12
Area 7		17
Area 8		29
Area 9		18
Totals	65	293

Total Sale Acreage = 358



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Portions of Sections 35 and 36, T5N, R9W, and portions of Sections 1, 2, 3, 10, and 11, T4N, R9W, W.M.,
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N

Map B Desired Future Condition

LEGEND

- Timber Sale Boundary
- New Roads
- Ownership
  - BOF
  - CSL
- Existing Roads
  - Gravel
  - Paved
- Streams
  - Type F Stream
  - Type N Stream
  - Unknown Stream
- Hiking Trail
- Desired Future Condition
  - LYR
  - OFS

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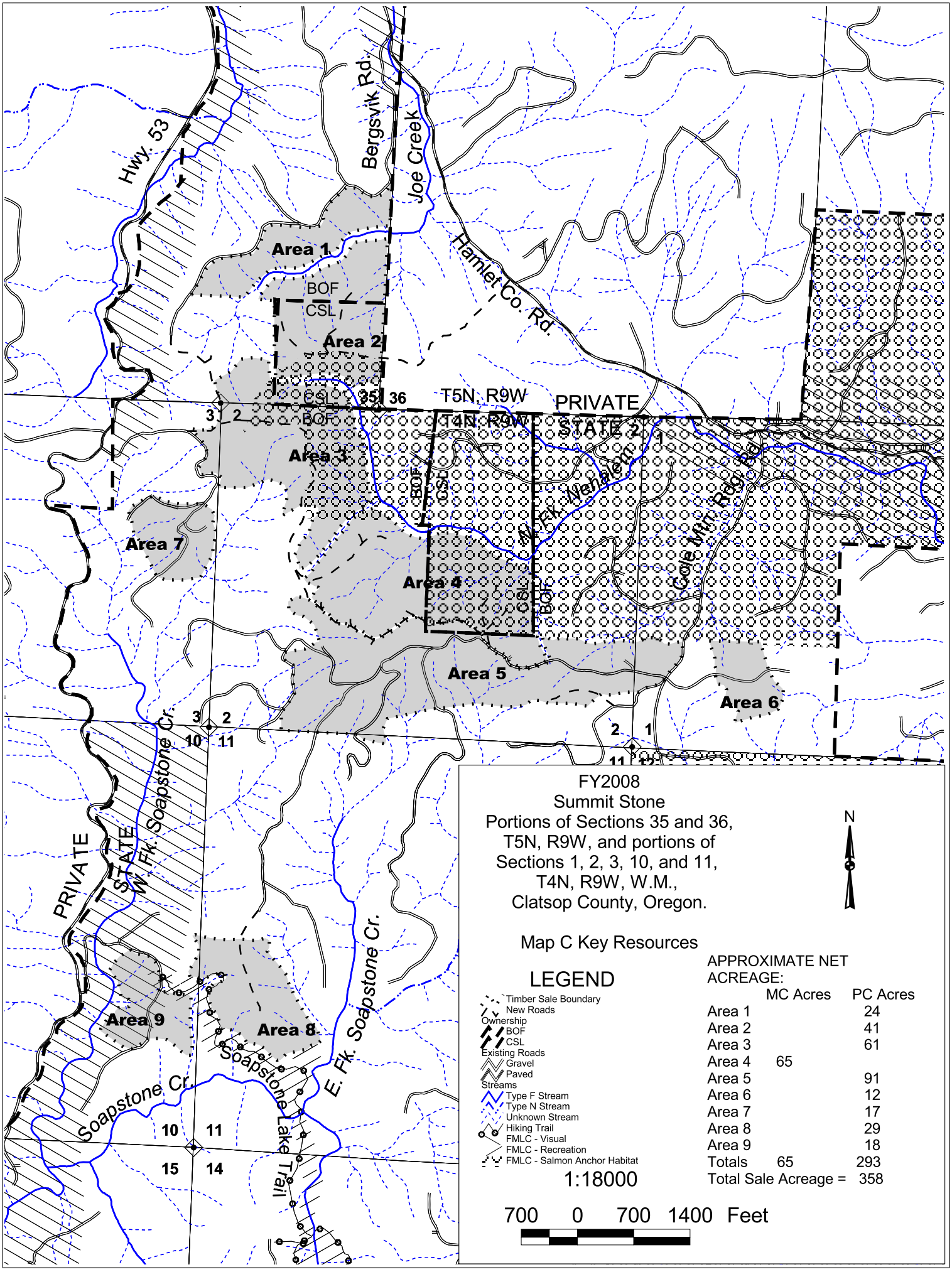

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