

Pre-Operations Report

Operation Name: Buzzard Ridge Combination
County: Clatsop
Management Basin: Sweethome

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	MC	66	56
2	PC-M	56	48
3A	PC-M	63	54
3B	PC-M	32	27
3C	PC-M	15	13
3D	PC-H	46	39
4	MC	117	99
Total	Modified Clearcut	183	155
Total	Partial Cut	212	181
Total		395	336

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

These sale areas are located within the northeastern portion of the Sweethome Basin, about five miles southeast of the community of Hamlet, west of the Nehalem river, and about six miles south of Highway 26. This portion of the Sweethome Basin is in the Nehalem River drainage, and drains directly into the Nehalem River. It is in the "hemlock zone" and is generally characterized by Douglas-fir and hemlock as the dominant tree species and patches of hardwoods, with understory of salmonberry, huckleberry, ferns, and vinemaple.

Soil types in these sale areas are Humbug, Tillamook, Grindstone, Killam, Rye, and Fishhawk soils. These soil types are deep to moderately deep, well drained soils, with moderate to fine textures. Site index range from 120 feet (Fishhawk) to 140 feet (Tillamook) for Douglas-fir. Slopes range from gentle to steep, with very few areas where slopes exceed 50%.

II. CURRENT STAND CONDITION:

These stands originated after ground based harvesting, wildfires, and subsequent "high grade" harvesting in the 1920's through the 1950's.

Area 1 - This stand is composed of fairly dense, hemlock dominated, mixed conifer stands with significant stringers and small clumps of hardwoods, and is approximately 61 years old. The alder is found along the wet areas and draws. The understory vegetation is sword fern, salmonberry, and vine maple. Recent SLI indicates there are approximately 2 snags 24 inches in DBH or greater and about 450 cubic feet per acre (Decay Classes 1 and 2) of down wood on site.

Area 2 - These stands are composed of moderately dense mixed conifer stands with large stringers and clumps of hardwoods, and are approximately 55 to 61 years old. Within the alder population, there are some older, larger diameter alders that provide additional structural diversity. The understory vegetation is sword fern, salmonberry, and vine maple. The understory in the hardwood portions is dominated by salmonberry. SLI indicates there are approximately 2 snags 24 inches in DBH or greater and about 690 cubic feet per acre (Decay Classes 1 and 2) of down wood on site.

Areas 3A - 3C - These stands are composed of patches of Douglas-fir and hemlock dominated conifer stands and large stringers and patches of hardwoods and are approximately 55 to 61 years old. Although the stands have an average of 47 to 53, the portions of the stand occupied by conifer are dense and have an SDI of approximately 55 to 60. The understory is primarily sword fern in the conifer patches and salmonberry in the hardwood areas. SLI indicates there are approximately 2 snags 24 inches in DBH or greater and about 600 cubic feet per acre (Decay Classes 1 and 2) of down wood on site.

Area 3D - This area is composed of predominately simplistic hardwood stands with scattered clumps and individual conifer, approximately 57 to 62 years old. There is a large component of bigleaf maple in portions of the stands. The understory is primarily salmonberry and ferns.

Area 4 - These stands are predominantly hardwoods with patches of conifer and are approximately 56 to 61 years old. The understory is primarily salmonberry, sword fern, cascara and vinemaple. Significant portions of this area are primarily brush and are considered understocked. SLI indicates there is approximately 1 snag 24 inches in DBH or greater per acre with negligible downed wood in Decay Classes 1 and 2 on the portions composed of hardwoods and brush. Conifer stocked portions in the northwestern part of the area have approximately 450 cubic feet per acre (Decay Classes 1 and 2) of down wood.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
1	MC	24229	WH, DF, RA, WRC, SS	61	18	221	126	53	51
		24259	RA, DF, BM, WH	61	17	215	138	53	5
		Target ³	WH, DF, WRC, RA				7-9		56
2	PC-M	24229	WH, DF, RA, WRC, SS	55	18	221	126	53	11
		24259	RA, DF, BM, WH	55	17	215	138	53	16
		24297	DF, RA, WH	61	17	191	115	47	21
		Target ³	DF, WH, WRC		20	150	103	30-40	48
3A	PC-M	24229	WH, DF, RA, WRC, SS	55	18	221	126	53	5
		24297	DF, RA, WH	61	17	191	115	47	49
		Target ³	WH, DF, RA		20	140	90	30 - 35	54
3B	PC-M	24297	DF, RA, WH	61	17	191	115	47	27
		Target ³	DF, WH, RA	65	20	140	60	25-30	27
3C	PC-M	24297	DF, RA, WH	61	17	191	115	47	13
		Target ³	DF, WH, RA		19	140	50	25-30	13
3D	PC-H	24297	DF, RA, WH	61	17	191	115	47	15
		25777*	RA, WH, DF	62	16	186	148	64	24
		Target ³	DF, WH, RA, WRC		25	90	31	20-25	39
4	MC	24229	WH, DF, RA, WRC, SS	61	18	221	126	53	13
		24280	BM, RA, DF	56	15	173	149	45	86
		Target ³	DF, WH, WRC				5-7		99

1 The source of stand inventory information is (SLI from 2005 and 2006, and OSCUR Stand02*). Stand ages shown are as of 2007.

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 FUTURE CONDITION/VISION:

The Desired Future Condition (DFC) for Area 2 is Older Forest Structure (OFS) and Areas 3A, 3B, 3C, and 3D are planned for Layered (LYR). Areas 1 and 4 are not planned to have a complex desired future condition on the landscape.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	24229	UDS	REG	General	51
1	24259	UDS	REG	General	5
2	24229	UDS	LYR	OFS	11
2	24259	UDS	LYR	OFS	16
2	24297	UDS	LYR	OFS	21
3A	24229	UDS	LYR	LYR	5
3A	24297	UDS	LYR	LYR	49
3B	24297	UDS	LYR	LYR	27
3C	24297	UDS	LYR	LYR	13
3D	24297	UDS	LYR	LYR	15
3D	25777	CSC	LYR	LYR	24
4	24229	UDS	REG	General	13
4	24280	UDS	REG	General	86

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:

Areas 1 and 4 – are planned for regeneration harvest (modified clearcut) and will be replanted with a mixture of conifer species. Natural hardwood regeneration of alder and some bigleaf maple is anticipated in these areas resulting in a diverse mixed species stand. Area 4 will need considerable site prep and vegetation control to establish a viable stand for the future.

Area 2 – is a partial cut, with the objective of developing a condition of “Older Forest Structure.” This partial cut entry will be a moderate thinning prescription, approximately SDI 30 to 40 and will retain the “biggest and best” conifer trees and a component of larger diameter hardwood trees. During field work the Northwest Oregon Area Wildlife Biologist will be consulted to develop the final prescription for the hardwoods in this Area. The primary objective with the hardwoods is to retain a significant portion the larger, open grown, older component of red alder for their habitat diversity contributions. Strategies to meet this objective may include individual tree marking or utilizing a diameter limit prescription. It is anticipated that thinning to this level will allow the development of another cohort of hemlock and cedar in the understory. Although this stand is fairly dense, the dominant trees within the stand have started to differentiate over the co-dominants and intermediate trees. It is anticipated that this prescription will remove the trees with poor crown ratios while retaining the emerging dominants with better crown ratios. It is expected that red alder and bigleaf maple will naturally seed in portions of exposed to mineral soil. An additional entry may be needed in the future to reach the DFC of OFS.

Area 3 – This sale area is composed of four different partial cut prescriptions, with the intent of creating a single “Layered” stand. Rather than applying a broad, uniform auto-mark partial cut prescription, more specific prescriptions for individual portions of the sale area were created to take advantage of the diversity within the current stand conditions where operationally feasible. These prescriptions were devised to complement each other and provide for a wide range of horizontal and vertical diversity. Upon completion of harvesting activities, this sale area will be tracked as a single Stand Level Inventory stand.

Area 3A will be thinned to a moderate level, approximately SDI 30 to 40. There are stringers and patches of hardwoods scattered through portions of these area. In order to preserve some of the existing species diversity, the “biggest and best” trees will be retained regardless of species, including alder.

Area 3B will have the conifer partial cut to retain the “biggest and best” conifer, while retaining 20 square feet of basal area per acre of hardwoods, where available, with an approximate leave tree SDI of 30 to 35.

Area 3C will leave all hardwoods and partial cut the conifer to an approximate conifer leave tree SDI of 25 to 30.

Area 3D will remove all merchantable hardwoods and partial cut the conifers to retain the “biggest and best” trees with an approximate conifer leave tree SDI of 30 to 40. Open grown, decadent hardwoods will be retained, where operationally feasible. Some reforestation will be necessary to restock the gaps created by the hardwood removal.

Snags: In all areas, all existing snags will be retained unless deemed to be safety hazards. In MC areas, several strategies will be employed to obtain the landscape goal of two hard snags per acre, including: tree topping and/or girdling, and retaining additional green trees. Due to the absence of many quality candidates for snag recruitment in Area 4, additional snags may be created in Area 1 to make up for any deficiencies Area 4, for a landscape target of 2 snags per acre in total between the two sale areas. In 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: In MC Areas 1 and 4, approximately five to eight 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 conifer and alder 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 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. In all Areas, additional conifer trees and/or conifer logs will be retained to meet the landscape targets for down wood as prescribed in the FMP and Implementation Plan. In areas which are dominated by hardwoods, down wood levels of 600 cubic feet per acre may not be achieved. Therefore, additional down wood will be retained on portions stocked with conifer. Obvious defect in conifer logs will be bucked out in the unit to enhance downed wood levels. In partial cut areas, to increase down wood levels, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides.

Site preparation treatments for Areas 1, 3D, and 4 will be accomplished through cable yarding operations, ground based harvesting, and mechanical manipulation of slash concentrations. Ground and aerial applied herbicides may be prescribed to sale areas if competing vegetation poses a threat to stand establishment. These sale areas will be replanted with Douglas-fir, western hemlock, and western red cedar. Mountain beaver trapping is anticipated in most portions of the entire sale area. Animal damage through big game browse is expected to be heavy. Timing of planting will be critical to minimize big game browse to hemlock. Tree protection will be prescribed to newly planted conifer species, Douglas-fir will receive paper bud caps, cedar will receive tubes at initial planting.

V. ESTIMATED TIMBER AND REVENUE OUTPUTS:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	X
Planned Quarter:		3 rd	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,800	3,000	7,800
Stumpage Value (\$/MBF)	\$275	\$400	
Estimated Gross Value	\$1,320,000	\$1,200,000	\$2,520,000
		Project Costs:	\$335,000
		Estimated Net Value:	\$2,185,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

There are currently good quality forest roads accessing the general vicinity of the sale areas

The majority of the proposed new roads into Areas 1 and 4 are relatively short spurs from existing rocky roads and are generally located along ridge tops. There are no stream crossings associated with the new road construction. The

new rocked roads will be needed for future harvesting entries, and will remain open upon completion of harvesting activities. The existing road infrastructure on ODF and private lands reduced the number of viable options for operational consideration.

A general transportation plan was developed for the entire Buzzard Ridge area prior to determining access routes to Areas 2, 3A, 3B, 3C, and 3D. This planning was conducted to minimize road density, environmental impact, and construction costs.

The proposed new roads are composed of collectors and relatively short “working” spurs from existing rocked roads and are generally located along ridge tops. There no known stream crossings along the planned routes.

Approximately 4.0 miles of road improvement is needed on sale access spurs and the Hoppinhome Road.

The road rock needed for road construction and improvement will be obtained from several sources, including: recycling rock (reclaiming, screening, and reapplying) from existing rocked roads (approximately 1,600 cubic yards), developing pit-run rock at the Cougar Mountain Quarry for the base course on new road construction, and crushed rock from the Cougar Mountain and Sweethome Stockpile Sites for traction rock and road improvement activities.

The 1 mile of existing roads associated with the rock reclamation effort will be vacated.

The project work for this sale is estimated to cost approximately \$335,000.

Approximately 75% 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 and large size yarders. Tractor logging can be done with shovel loggers, track or wheel skidders.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	1.0	2.0	0.0
Improve	1.0	2.0	1.0	0.0
Maintain	5.5	1.5	0.0	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	1.0	0.0

VII. AQUATIC RESOURCES AND WATER QUALITY:

Type F Streams: Nehalem River (large, Type F stream) flows along the eastern and southern boundary of Area 4 and along the eastern boundary of Areas 3B and 3D. The sale areas are located more than 200 feet from the Nehalem River as part of a scenic resource strategy (refer to Section XII. Scenic Resources). An unnamed tributary of the Nehalem River (small, type F stream) flows along the western boundaries of Areas 1 and 2. There are no Type F streams within any of the sale areas.

The streams in Areas 1 and 2 flow in a westerly direction into an unnamed tributary of the Nehalem River. The streams in Areas 3A, 3B, 3C, 3D, and 4 flow in an easterly direction towards the Nehalem River.

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.

None of the sale areas are within proximity of streams in which listed fish are present.

Stream Enhancement Opportunities: There may be opportunities for stream enhancement along a reach of the unnamed tributary to the Nehalem adjacent to Area 1 and 2. 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. No ground-based logging equipment operation is allowed within the stream bank zone. 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 may be 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. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

The sale area was surveyed for Northern Spotted Owls in 2007, with no responses, and is scheduled to be resurveyed in 2008.

The sale area was surveyed for Marbled Murrelets in 2007, with no detections and is scheduled to be resurveyed in 2008.

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:

Some High Landslide Hazard Locations appear on the topography as mapped in the operation. An initial assessment has been done by the geotechnical specialist and is documented below.

This assessment is based off of USGS 1:24,000 topographic maps and available geologic maps. There are a few isolated high landslide hazard locations in Areas 1 and 2 and there are high landslide hazard locations scattered throughout Areas 3 and 4. Areas 1 and 2 drain to an unnamed tributary of the Nehalem River. The risk of landslides delivering directly to this unnamed tributary from Areas 1 and 2 is low. Areas 3 and 4 drain to the Nehalem River. The risk of landslides delivering directly to the Nehalem River from Areas 3 and 4 is moderate. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

X. RECREATION RESOURCES:

Most of this area receives dispersed recreation, which includes hunting, camping, target shooting, and driving forest roads.

Portions of Areas 3B and 3D are potentially in the viewshed of the Henry Rierson Spruce Run Campground. The visual impacts to the viewshed of the campground will be minimized by maintaining a large scenic buffer along the Nehalem River and potentially establishing strategically located pockets of unthinned areas within these portions of the sale areas. Further assessment and collaboration will be done with the district's recreation coordinator and Sunset Unit Forester during sale layout.

XI. CULTURAL RESOURCES:

None.

XII. SCENIC RESOURCES:

Area 4 is visible from Lower Nehalem County Road and has a “focused” visual classification. The visual impacts to Lower Nehalem County Road will be minimized by establishing a large scenic buffer along the Nehalem River, locating GTRA’s in strategic locations and individual wildlife trees within these portions of the sale areas.

The downslope portions of Areas 3A, 3B, and 3C may be visible from Lower Nehalem County Road and have a “focused” visual classification. There is no anticipated visual impact from planned partial cut operations in Areas 3A and 3B.

The visual impacts to the viewshed of the campground in Area 3D will be minimized by maintaining a large scenic buffer along the Nehalem River and potentially establishing strategically located pockets of unthinned areas within these portions of the sale areas. Further assessment and collaboration will be done with the district’s recreation coordinator and Sunset Unit Forester during sale layout.

XIII. OTHER RESOURCE CONSIDERATIONS:

Property Lines and Corners (Survey Plan available at District)

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

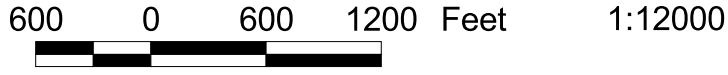
The eastern portion of Areas 3A and 3B and most of Areas 3D and 4 are classified “focused visual” stewardship.

FY2009
 Buzzard Ridge Combination
 Portions of Section 18, T4N, R7W and
 Portions of Sections 13, 14, 23, and 24
 T4N, R8W, W.M., Clatsop County, Oregon.

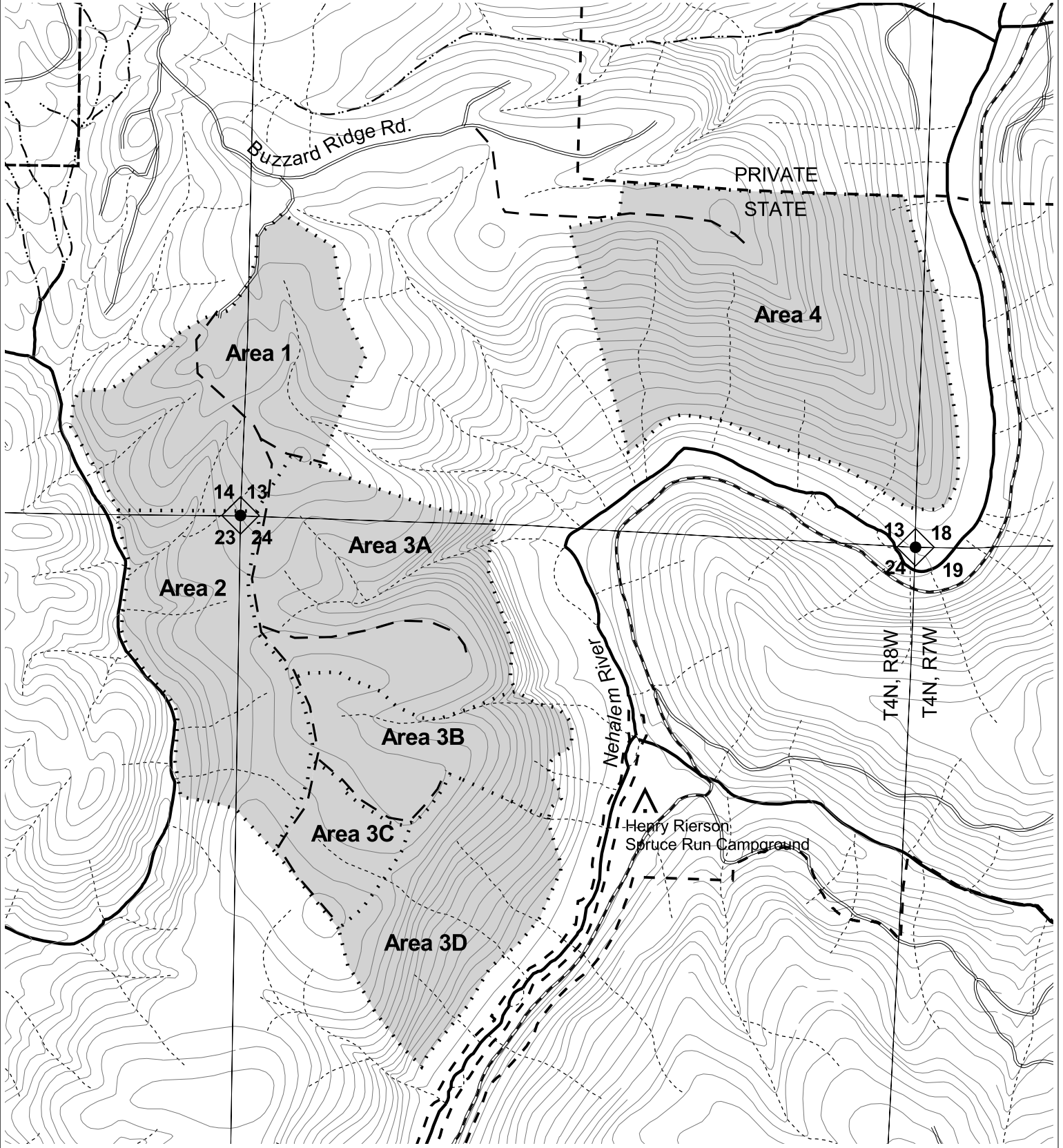
APPROXIMATE NET ACREAGE:

	MC Acres	PC Acres
Area 1	56	
Area 2		48
Area 3A		54
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Area 3D		39
Area 4	99	
Totals	155	181
Total Sale Acreage = 336		

Map A - Topography



- LEGEND**
- Timber Sale Boundary
 - Ownership Boundary
 - New Road Construction
 - Roads**
 - Paved
 - Rocked
 - Streams**
 - Fish
 - Nonfish
 - Unknown



FY2009

Buzzard Ridge Combination
Portions of Section 18, T4N, R7W and
Portions of Sections 13, 14, 23, and 24
T4N, R8W, W.M., Clatsop County, Oregon.

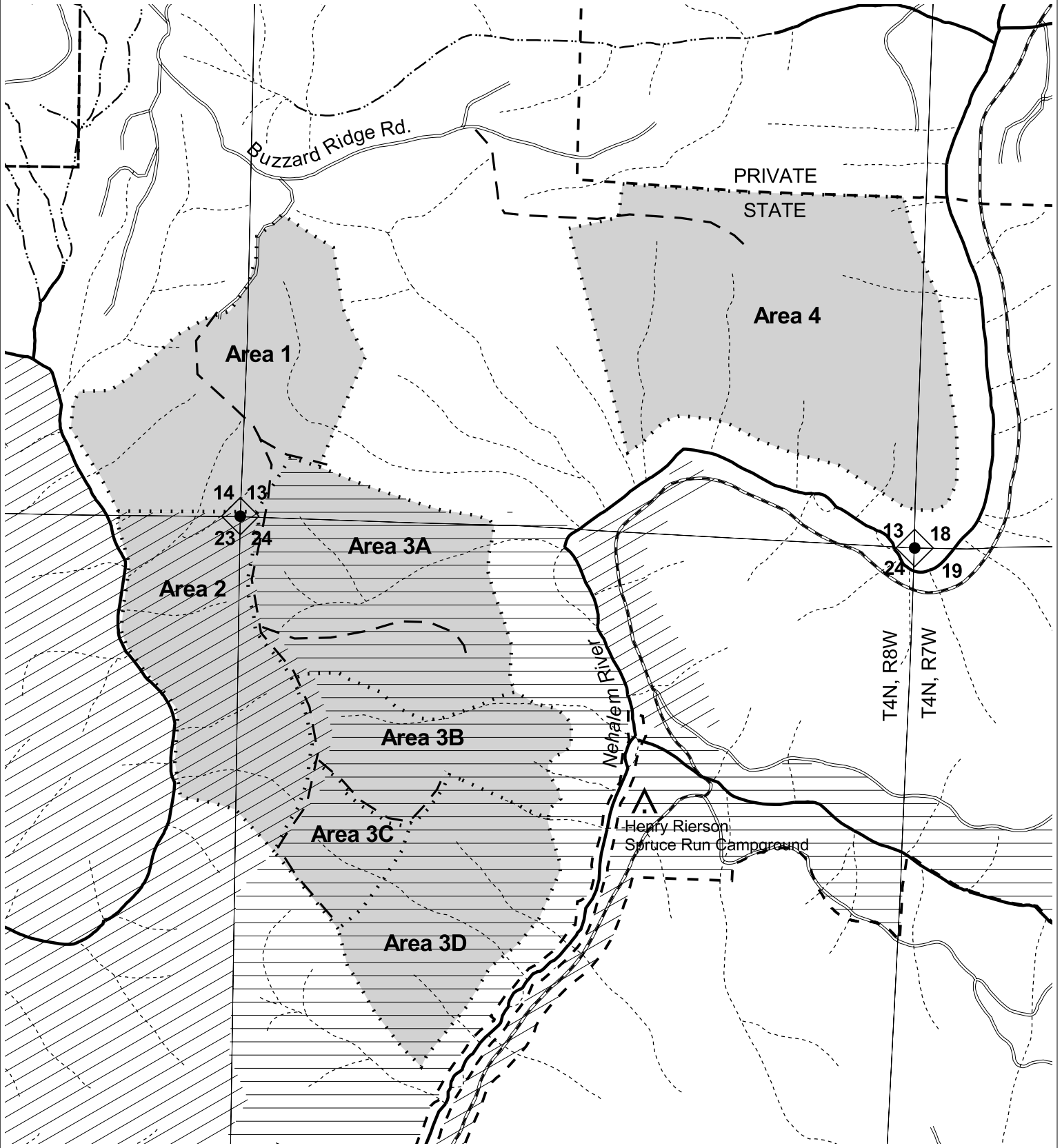
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 - - - Ownership Boundary
 - - - New Road Construction
 - Roads
 - ▨ Paved
 - ▧ Rocked
 - DFC
 - LVR
 - OFS
 - Streams
 - ▧ Fish
 - ▧ Nonfish
 - ▧ Unknown



600 0 600 1200 Feet 1:12000

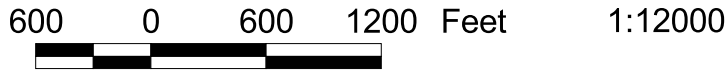


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Map C - Key Resources



- LEGEND**
- Timber Sale Boundary
 - - - Ownership Boundary
 - - - New Road Construction
 - Roads
 - ▬ Paved
 - ▬ Rocked
 - FLMC
 - ▬ Recreation
 - ▬ Visual
 - Streams
 - ▬ Fish
 - ▬ Nonfish
 - ▬ Unknown

