

# Pre-Operations Report

**Operation Name:** Puma Punch  
**County:** Clatsop  
**Management Basin:** Sweethome

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Gross Acres	Net Acres
1	MC	81	73
2	PC-L	22	20
3	PC-M	48	43
Total	Modified Clearcut	82	73
Total	Partial Cut	70	63
Total		151	136

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

These sale areas are located within the northeastern portion of the Sweethome Basin, about four miles southeast of the community of Hamlet, west of the Nehalem river, and about five miles south of highway 26. This portion of the Sweethome Basin is in the North Fork Nehalem drainage, and drains in a westerly direction towards the North Fork Nehalem River to the Nehalem River. It is in the “hemlock zone” and is generally characterized by Douglas-fir and hemlock as the dominant tree species, with understory of salmonberry, huckleberry, and ferns.

The dominant soil types in all Areas are the Tillamook (Ty) and Fishhawk (Fh) series. Both soil types are deep to moderately deep, well-drained, and moderately fine textured, colluvial soils. The Tillamook type has an average site index of 140 (III+) for Douglas-fir and 110 (III+) for hemlock. The Fishhawk type has an average site index of 120 (II-) for Douglas-fir and 110 (III+) for hemlock. These soil types have average roadability, and rock for ballast is not available. Terrain is gentle to moderately steep. Slopes range, on average, from 5 to 45 percent. The landforms are gentle ridgelines and slopes.

## **II. CURRENT STAND CONDITION:**

Area 1 – The current stands are generally 66 to 107 years old, with an average age of 71 years. These stands are composed of Douglas-fir dominated mixed conifer stands with hemlock, Sitka spruce, western red cedar, and patches of alder. There is a higher component of western red cedar in the western portion of the sale area. The understory vegetation is variable, and is composed of sword

ferns and huckleberry. Salmonberry is the primary understory vegetation in the hardwood portions. During sale layout activities stand structure, and the volume of down wood and snags will be assessed.

Area 1 is currently typed as Closed Single Canopy (CSC) and Understory (UDS) with OSCUR Stand 2002. Field reconnaissance indicates that these areas have a current condition of UDS. Area 1 will be further evaluated (as defined by draft memo 3/23/2004 “Planned Sale Inventory Requirements – Alternative to Full Stand Level Inventory”).

Area 2 - The current stands range in age from 66 to 107 years old, with an average age of 82 years, and is composed of dense Douglas-fir dominated, mixed conifer stands, with moderate crown development. The understory vegetation is minimal, and is primarily vine maple, salmonberry, and ferns. During sale layout activities stand structure, and the volume of down wood and snags will be assessed. If deficiencies in down wood or snags are found additional down wood and snags will be prescribed.

Area 3 - The current stand is approximately 27 years old, and is a Douglas-fir plantation with some hemlock. The understory vegetation is minimal in the conifer stocked portions of the sale area, and is mostly ferns and some vinemaple. Salmonberry is the primary understory vegetation in the hardwood portions. SLI indicates that the current stand condition is “closed single canopy”. This sale area is a portion of a larger SLI type. Field reconnaissance reveals that this area has greater stocking and SDI than indicated by SLI, with an average basal area of 200 square feet per acre and an average DBH of 13 inches.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Acres <sup>2</sup>
1	MC	23280*	WH, DF	70	17	252	168	63	14
		23281*	DF	107	22	282	107	62	8
		23564*	DF, WH	66	16	258	182	65	51
		Target <sup>3</sup>	DF,WH,WRC		0	0	8	0	73
2	PC-L	24264	DF	107	22	282	107	62	8
		23564*	DF, WH	66	16	258	182	65	12
		Target <sup>3</sup>	DF,WH,WRC		0	0	8	0	20
3	PC-H	24242	DF, WH	27	12	110	156	30	43
		Target <sup>3</sup>	DF, WH		14	90	100	20-25	43

1 The source of stand inventory information is (\*OSCUR Stand 2002 and SLI from and 2003). 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 stand condition for Area 2 is Older Forest Structure (OFS). Areas 1 and 3 are not planned to have a complex desired future condition on the landscape.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
1	23280	CSC	REG	General	14
1	23281	CSC	REG	General	8
1	23564	UDS	REG	General	51
2	23281	LYR	OFS	OFS	8
2	23564	LYR	OFS	OFS	12
3	24242	CSC	UDS	General	43

<sup>1</sup> 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:

Area 1 - is planned for modified clearcut and will be replanted with a mixture of conifer species. OSCUR 2002 inventory indicates a small portion of an older Douglas-fir type along the southern edge of Area 1. Based on the results of upcoming SLI efforts and further field reconnaissance, additional strategies for retaining “layered” characteristics in this type will be employed. These strategies will include a maximum diameter restriction, individually marking groups or individual trees, or posting some or all this type out of the sale area as a Green Tree Retention Area. It is anticipated that red alder will naturally seed in portions of the sale areas exposed to mineral soil.

Area 2 – is planned for a light partial cut and will be thinned to an approximate stand density range of 40-45. In order to preserve some of the existing species diversity, the “biggest and best” trees will be retained, regardless of species, including alder. Non-merchantable understory trees will be retained. A requirement for retaining a minimum number of smaller diameter conifer per acre may be utilized to ensure retention of different diameter ranges. It is anticipated that this prescription will develop tree diameter size and increase structural diversity within the stand, and reach an OFS condition shortly after harvesting, which will supplement the existing OFS stand immediately to the southwest.

Area 3 - is a “first entry” thinning unit and will be thinned to an approximate stand density range of 25-30, which will allow for increased individual tree growth versus 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 this sale area is classified as general stewardship, there is a high potential to grow large diameter trees rather quickly on this high site ground. This sale area will be a heavy partial cut taking advantage mixed conifer species. Non-merchantable understory trees will be retained. It is anticipated that this harvesting prescription will allow these stands to rapidly develop in diameter size and increase structural diversity.

*Snags:* In all areas, all existing snags will be retained unless deemed to be safety hazards. In MC areas, if pre-sale activities determine that fewer than two hard snags per acre exist, opportunities for snag creation or leaving additional live green trees will be implemented to supplement landscape snag levels as defined by the Forest Management Plan. In Area 2, additional snags will be created if pre-sale activities determine that fewer than two hard snags per acre exist. In Area 3, 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. Due to the small size of the trees within Area 3, additional snag recruitment will be deferred until the stands have increased in size.

*Green Trees:* In MC Area 1 an average of seven 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 alder may be left in operationally feasible areas to provide short term snag recruitment for cavity nesting birds. 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 Areas 1 and 2, 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. Obvious defect in conifer logs will be bucked out in the unit to enhance downed wood levels. In Area 3, to increase down wood levels, operations will be required to top trees prior to yarding and to yard only merchantable log segments to roadsides. Due to the small size of the trees within Area 3, additional large downed wood recruitment will be deferred until the stands have increased in size.

Site Preparation treatments for Area 1 will be further evaluated with the reforestation forester during sale layout. Site preparation for Area 1 will be accomplished through cable yarding operations, ground based harvesting, and mechanical manipulation of slash concentrations. These sale areas will be replanted with Douglas-fir, western hemlock, and western red cedar. 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, cedar will receive tubes at initial planting. Aerial

applied herbicides will be prescribed as a site preparation if competing vegetation poses a threat to stand establishment.

**V. ESTIMATED TIMBER AND REVENUE OUTPUTS:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
86%	14%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		Alternate	

	Conifer	Hardwood	Total
Net Volume (MBF)	2,900	800	3,700
Stumpage Value (\$/MBF)	\$300	\$350	
Estimated Gross Value	\$870,000	\$280,000	\$1,150,000
		Project Costs:	\$35,000
		Estimated Net Value:	\$1,115,000

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

There are currently good quality forest roads accessing the general vicinity of the sale areas. Areas 1 and 2 can be accessed from existing roads, by improving unnamed existing roads, and by constructing short working spurs. Area 3 can be accessed by improving an existing pit-run road. The short spurs into Area 1 may be dirt spurs, which would be waterbarred and blocked upon completion of use. Approximately ½ mile of road improvement is needed to access portions of Areas 1, 2, and 3.

The road rock needed for road construction and improvement will be obtained from the Cougar Mountain Quarry or the Cougar Mountain Stockpile Site. The project work for this sale is estimated to cost approximately \$35,000.

Approximately 100% of the sale area will be tractor logged with some line pulling required, as the slopes are gentle to moderate. 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	0.0	0.5	0.0
Improve	0	0.5	0.5	0.0
Maintain	2.0	4.0	1.0	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	0.0	0.0

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

*Type F Streams:* Punchbowl Creek (medium, Type F stream) flows along the north boundary of Area 3.

All of the streams flow in a northwesterly direction into the Punchbowl Creek drainage towards the North Fork 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 and salmonberry. 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.

Streams associated with the sale have a LMCS Aquatic and Riparian classification of focused. Areas 1, 2, and 3 are located within the 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 unnamed tributary to Punchbowl Creek near the western boundary of Area 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 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. 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 detections. Further assessment of these detections to the southwest of Area 2 by the NWOA wildlife biologist is pending. The sale area is scheduled to be resurveyed in 2008.

Area 3 is adjacent to the Punchbowl Marbled Murrelet Management Area (MMMA). Seasonal restrictions will apply to all portions within 330 feet of the MMMA.

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:**

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, 2, and 3. All three areas drain to an unnamed tributary of the North Fork of the Nehalem River. The risk of landslides delivering directly to this unnamed tributary from the sale area is low. The sale area appears to be located on a large, deep-seated landslide landform. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

#### **X. RECREATION RESOURCES:**

This area receives little use, most likely hunting and dispersed camping. The Clatsop State Forest Recreation Plan does not list any specific activities for this portion of the basin.

#### **XI. CULTURAL RESOURCES:**

No known cultural resources exist.

**XII. SCENIC RESOURCES:**

The sale areas are not visible from any county or state highway. All forest roads accessing the sale areas are Level 3 classification.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

Property Lines and Corners (See Survey Plan)

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

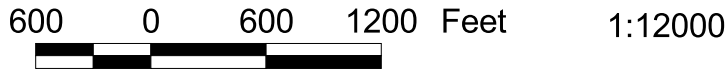
Areas 1, 2, and 3 are classified as Focused – Wildlife for the Upper North Fork Nehalem Salmon Anchor Habitat area. The remaining lands in this timber sale are all classified “general” management.

FY2009  
 Puma Punch  
 Portions of Sections 10, 11, 14, and 15,  
 T4N, R8W, W.M., Clatsop County, Oregon.

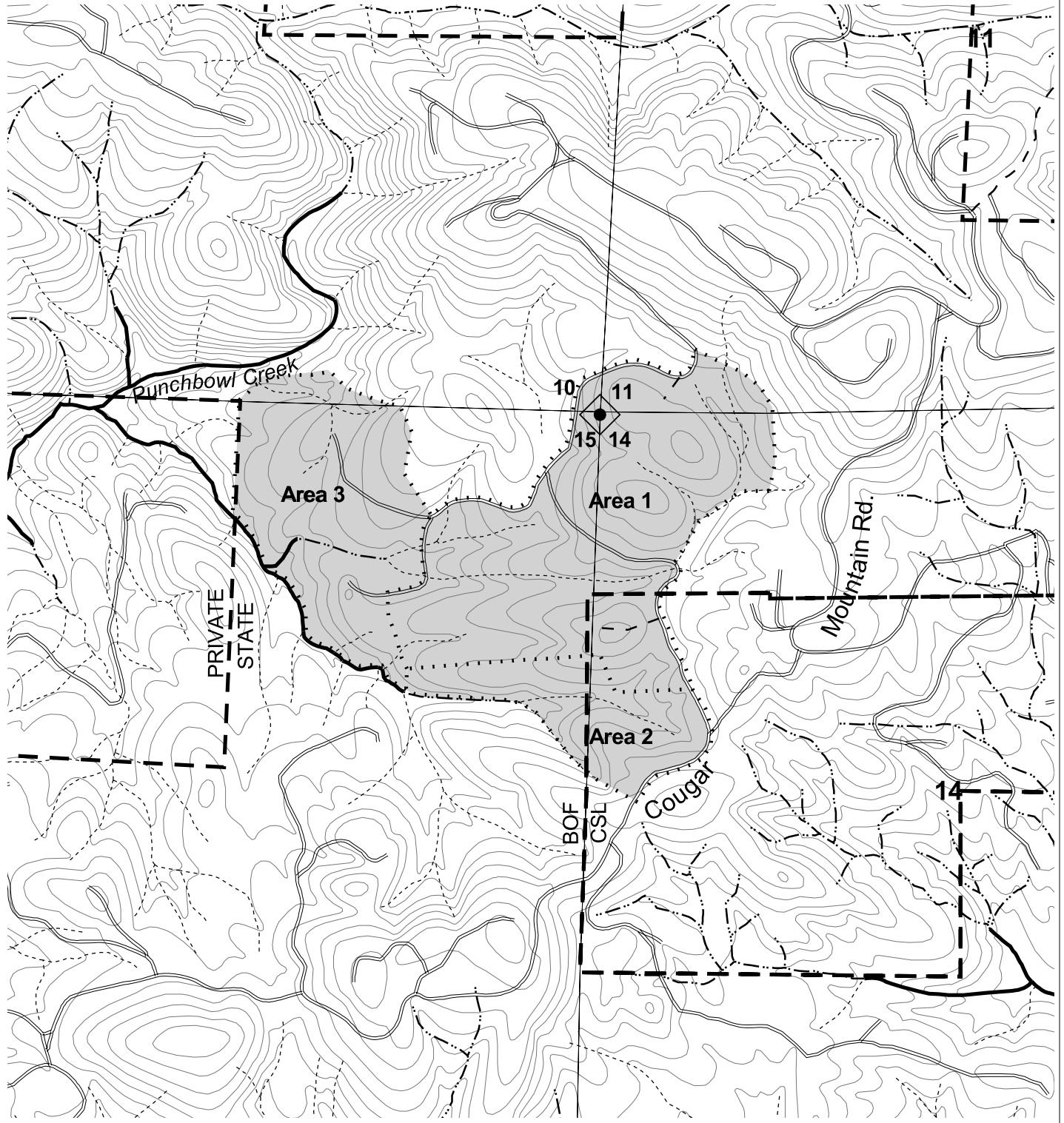
APPROXIMATE NET ACREAGE:

	MC Acres	PC Acres
Area 1	73	
Area 2		20
Area 3		43
Totals	73	63
Total Sale Acreage = 136		

Map A - Topography



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



**LEGEND**

- Timber Sale Boundary
- Road Construction
- Roads**
- Dirt
- Paved
- Rocked
- Streams**
- Fish
- Nonfish
- Unknown
- Desired Future Condition**
- LYR
- OFS



600 0 600 1200 Feet



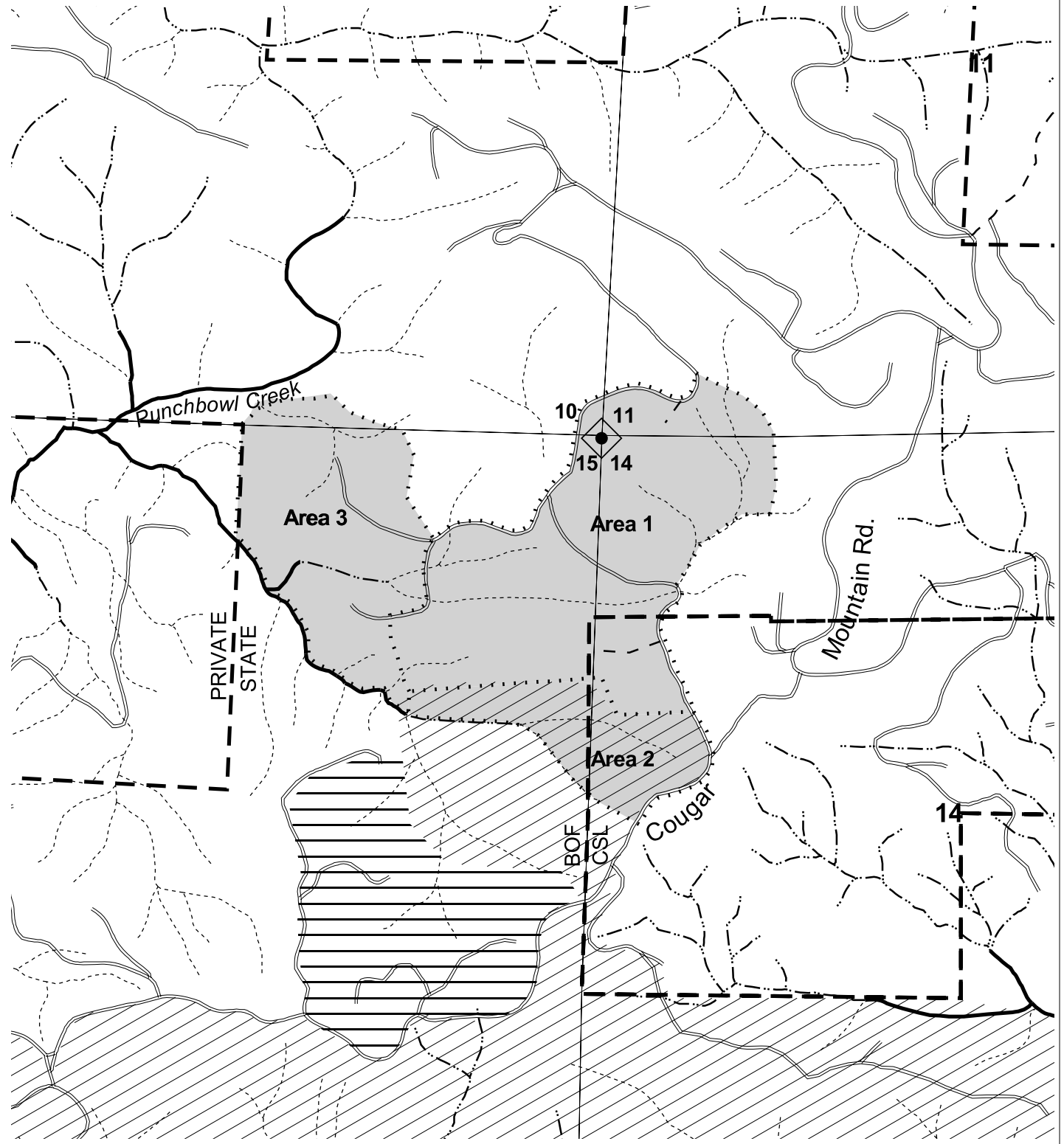
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 Portions of Sections 10, 11, 14, and 15,  
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Map B - Desired Future Condition

APPROXIMATE NET ACREAGE:

	MC Acres	PC Acres
Area 1	73	
Area 2		20
Area 3		43
Totals	73	63
Total Sale Acreage = 136		



**LEGEND**

- Timber Sale Boundary
- - - Road Construction
- Roads
  - ▬ Dirt
  - ▬ Paved
  - ▬ Rocked
- Streams
  - ▬ Fish
  - ▬ Nonfish
  - ▬ Unknown
- ▬ Marbled Murrelet Management Area
- FLMC
- ▬ SAH



**FY2009**  
**Puma Punch**  
 Portions of Sections 10, 11, 14, and 15,  
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**Map C - Key Resources**

**APPROXIMATE NET ACREAGE:**

	MC Acres	PC Acres
Area 1	73	
Area 2		20
Area 3		43
Totals	73	63
Total Sale Acreage = 136		

