

# Pre-Operations Report

**Operation Name: Runyon Ex**  
**County: Tillamook**  
**Management Basin: Wilson**

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

Area	Type of Operation	Gross Acres	Net Acres <sup>1</sup>
1	Retention cut	103	97
2	Retention cut	158	120
3	Retention cut	50	36
4	Modified Clearcut	50	49
5	Retention cut	53	41
Total		472	343

*1. The net acres are based on orthophotos and GIS and exclude roads, stream buffers, reserve areas and non-required thinning areas.*

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

Slopes have varied aspects and range from 10% to over 90%. Elevations range from 460 to 1,880 feet. The major soil types are Killam, Rye, and Enright.

The sale is located on the moderate to very steep slopes around Runyon Creek and other unnamed tributaries south of the Wilson River between Luebke Creek and Ben Smith Creek. There are steep to very steep side slopes throughout Area 3, 4, and 5 and in the northeast most portion of Area 1 of the sale. The sale is underlain by sedimentary and igneous origin rocks, siltstones of the Yamhill Formation and diabase intrusives. Refer to the Overview of Harvest Operations in the Summary document for information.

## II. CURRENT STAND CONDITION:

**Table 2. Stand Inventory Information<sup>4</sup>**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	RC	125	DF/RA	45	14	150	140	40	97
		Target <sup>3</sup>	DF		21	38	30	17	120
2	RC	126	DF/RA	49	16	183	135	48	120
		Target <sup>3</sup>	DF		21	68	35	18	120
3	RC	127	RA/DF	49	15	142	111	37	36
		Target <sup>3</sup>	DF		24	35	11	7	120
4	MC	128	DF/RA	49	13	172	188	48	49
5	RC	129	DF/RA	49	18	168	95	41	41
		Target <sup>3</sup>	DF		20	79	42	19	41

1. The source of stand inventory information is from field reconnaissance cruise plots taken in 2006 and SLI plots from 2002..

2 The net acres are based on orthophotos and GIS and exclude roads, and stream buffers, reserve areas and non-required thinning areas. Modified clear cut acres are not contiguous and do not exceed 120 acres.

3. The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

4. These numbers are based on plot data taken to this point and final numbers may differ significantly. The directive for minor and major modifications will be followed for further review.

The sale areas burned in the 1933 (Tillamook), 1939 (Saddle Mountain), and 1945 (Wilson River) fires. The majority of Area 1 was planted in 1961 with portions planted in 1953 and a portion to the northeast replanted in 1974. The east portion of Area 2 was planted in 1952 and the western portion in 1958. Areas 3, 4 and 5 were planted in the mid to late 1950's. None of the areas have had any prior stand management.

The sale areas have been inventoried using the Stand Level Inventory (SLI) procedure and the stands have been identified as Understory (UDS). See Table 2 for specific stand data.

Areas 1, 2, 3, and 5 are very similar stand types that are comprised of a mix of alder and Douglas-fir. These species are arranged at various densities throughout the sale areas. There is alder mixed in with the Douglas-fir pockets and Douglas-fir mixed in the alder pockets. There are many pockets of alder throughout these areas that are small in size (less than 5 acres). There are also a couple of alder areas in Area 1, Area 2, and Area 5 and that are larger than 5 acres. The actual size and location of these will be determined during sale prep and will be treated as modified clearcuts if they are larger than 5 acres.

Area 4 is primarily a Douglas-fir plantation that has alder dominated draws and some scattered alder.

In all of the sale areas the Douglas-fir is overstocked and has slowed diameter and height growth. The smaller Douglas-fir have poor live crown ratios (less than 30%). Due to stand age, the alder in this stand has poor height and diameter growth. The alder in the east portion of Area 4 was aerially sprayed in the 1970's to release the planted conifer resulting in alder trees with short boles and many tops. There are a few scattered hemlock and cedar. No other significant insect or disease problems have been identified at this time. Area 1 and Area 4 are separated by an area that was planted slightly earlier and commercially thinned in 1996. There are scattered "legacy" trees from before the fire in the Runyon Creek riparian area. The brush component in all the sale areas is comprised primarily of vine maple, sword fern, and huckleberry. Concentrations are greater in openings and in the riparian areas.

There are some large snags in various states of decay and/or some hard snags created from natural processes. Down wood consists of scattered large old logs (36"+) in Class 3 and 4 stages of decay and some windthrow in decay classes 1 and 2. Down wood inventory from SLI cruise plots show a total of 1,970 to 4,529 cubic feet per acre (28 to 118 cubic feet or this are in decay class 1 and 2.) The number of snags greater than 24 inches in diameter ranged from five to seven per acre. Hard snags greater than 15" diameter in decay class 1 and 2 were below FMP targets.

### III. DESIRED FUTURE CONDITION AND VISION:

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	125	UDS	UDS	GEN	9
1	125	UDS	UDS	OFS	88
2	126	UDS	UDS	LYR	120
3	127	UDS	UDS	GEN	18
3	127	UDS	REG	LYR	9
3	127	UDS	REG	OFS	9
4	128	UDS	REG	GEN	36
4	128	UDS	REG	OFS	13
5	129	UDS	UDS	GEN	41

*1. The stand is expected to develop into this condition in the five to ten years after this operation is completed except in REG stands which occur after harvest.*

See Section IV: Proposed Management Prescription for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition (DFC) goals.

Area 1: The DFC for this area is Older Forest Structure (OFS). The vision is for a mixed stand of Douglas-fir, western hemlock and alder. The stand will be  
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composed of a mixture of species, size classes, and densities. A new cohort of western hemlock, alder, spruce, and cedar in the alder clearcut areas and larger gaps will provide both horizontal and vertical diversity. After thinning in approximately 20-30 years the stand will have a mixture of sizes, species and densities and likely be in a Layered condition. Periodic thinnings will produce a multilayered stand with some of the larger tree trees approaching 32 inches in diameter. In about 60 years there is a high probability that this stand will meet the requirements of OFS.

Area 2: The DFC for this area is Layered (LYR). The vision for this stand is to have a mixed species stand, including Douglas-fir, western hemlock, spruce, cedar, and hardwoods. A new cohort of western hemlock, Douglas-fir, alder, spruce, and cedar in the alder clearcut areas and larger gaps will provide both horizontal and vertical diversity. After thinning in approximately 20-30 years the stand will have a mixture of sizes, species and densities and likely be in a Layered condition.

Area 3: The DFC for this area is General (GEN), LYR, and OFS. The vision is for a mixed stand of Douglas-fir, western hemlock and alder. The stand will be composed of a mixture of species, size classes, and densities. A new cohort of western hemlock, alder, spruce, and cedar in the alder clearcut areas and larger gaps will provide both horizontal and vertical diversity. After thinning in approximately 20-30 years the stand will have a mixture of sizes, species and densities and likely be in a Layered condition. Periodic thinnings will produce a multilayered stand with some of the larger tree trees approaching 32 inches in diameter. In about 60 years there is a high probability that this stand will meet the requirements of OFS.

Area 4: The DFC for this area is GEN and OFS. Because of small live crown ratios, poor growth, and Swiss needle cast; the present stand is not a good candidate for establishing a pathway that maintains productivity. After the regeneration harvest the stand will be composed of legacy structures retained from the present stand and a young cohort of Douglas-fir, western hemlock and cedar trees. The green trees retained on the site, including some hardwoods, provide a scattered overstory and also contribute to the down wood and snag recruitment as mortality occurs.

Area 5: The DFC for this area is GEN. This stand is on a pathway that maintains productivity. This stand will be managed for stand density by providing more growing space while capturing anticipated tree mortality in order to allow for individual tree growth as was as developing understory diversity.

#### **IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:**

The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

**See Table 2 for prescription targets.**

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In Area 1, 2, 3, and 5 a retention cut will remove the merchantable alder that is slow growing. A diameter limit will be used to remove the smaller Douglas-fir that has poor live crown ratios (approximately 16 inches DBH). The remaining overstocked Douglas-fir will be thinned to a diameter range of 120 to 140 square feet of average basal area. All other hardwood and conifer species will be reserved.

This retention cut prescription will remove the slow growing alder and reduce the Douglas-fir stocking which will maintain the crown ratios, stand vigor, and develop healthier and larger Douglas-fir in the residual stands. The harvest prescription is designed to achieve variable densities throughout the area. The resulting stand will have Douglas-fir thinning pockets of various sizes and large residual Douglas-fir scattered along the edges of the alder clearcuts. This is a first entry harvest that will begin to move the stand along the pathway to a more complex structure. The openings and gaps will allow for understory reinitiation of shrubs and tree species creating horizontal and vertical diversity. Another thinning will likely be needed in 15 to 20 years to keep this stand on a trajectory to complex stand structure. At this time managers will review density, stand health, and landscape goals to decide future management prescriptions.

In Area 4 the merchantable Douglas-fir and red alder will be harvested. A diameter limit will be used to retain at least 7 to 8 residual conifer trees per acre to provide for green tree retention and a source of future snags and down wood.

This will remove the overstocked Douglas-fir and slow growing alder. Due to difficult topography this prescription has been designed to facilitate logging. The residual trees will be distributed both in groups and scattered across the area. This area will be reforested with a mixture of conifer species. A precommercial thinning is anticipated at 12 to 17 years when the crowns begin to close. A commercial thinning will then be planned at age 35 to 40. At this time managers will review density, stand health, and landscape goals to decide future management prescriptions.

### **Green Tree, Down Wood and Snag Strategies**

A variety of methods will be used to achieve green tree retention requirements. These residual green trees will supplement the future stand by promoting growth of dominant/co-dominant leave trees. Small non-merchantable hardwood and conifer will also be retained where possible. These leave trees function as future source of snags and down wood recruitment across the landscape. Green trees will be left on precipitous slopes, headwalls, and those areas not reached by conventional logging methods. Stream buffers adjacent to small perennials and the outer Riparian Management Area (RMA) of Runyon Creek will also contribute

additional green trees. Many of these areas will be posted so they are outside of the timber sale boundary.

Existing down wood will be left in the sale areas. Down wood recruitment is expected through mortality and windthrow of residual or leave trees, felled snags and tops left during harvest. Obvious defect in conifer logs will be bucked out in all harvest areas to enhance down wood levels. Small non-merchantable hardwood and conifer will be retained where possible in harvest units with the expectation they will become short term snags and down wood. Tops resulting from ground yarding will also be left in the unit. Down wood in decay class 1 will be created in Areas 1, 2, 3 and 5. A prescription will be developed after the cruise has been completed.

Existing snags not determined to be a safety hazard will be retained and any felled snags will be left for down wood. Creation of snags is expected during harvest activities (rub trees, lift trees, or tail trees) and over time by natural processes. Snags will be created in Areas 1, 2, 3 and 5. A prescription will be developed after the cruise has been completed.

Due to the size of the trees in Area 4, it is unrealistic to expect that the snag and down wood targets in the FMP will be met with this operation. During sale layout an assessment will be done to help determine the best green tree retention prescription to help meet these goals in the future.

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

**Table 4. Timber and Revenue**

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

	Conifer	Hardwood	Total
Net Volume (MBF)	3580	1803	5383
Stumpage Value (\$/MBF) *	\$247	\$145	
Estimated Gross Value	\$884,260	\$261,435	\$1,145,695
		Project Costs:	\$230,140
		Estimated Net Value:	\$915,555

*\*Combined Douglas-fir stumpage values based on harvest type.*

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

The sale areas are accessed via Highway 6 and Runyon Creek Road. An easement will be needed to use the portion of Runyon Creek Road across private timberland. This road is currently gated at the Highway 6 junction.

Runyon Creek Road incurred damage during winter storm events and will require extensive reconstruction for the first 0.5 miles across private ownership. ODF will cost share with landowner to repair road for timber access. See maps for specific road locations and conditions.

Approximately 2.0 miles of existing surfaced road will be improved, which includes grading, rocking, widening, culvert replacement, spot rocking, sidecast pullback, and/or adding new culverts. This work will bring all roads up to standards described in *the Forest Roads Manual*. Storm damage repair to the private road access due to the November 2006 event may require a fish culvert at the bottom of Runyon Creek. Cost-share for this improvement or alternative temporary passage over the creek will be evaluated.

Approximately 3.3 miles of rocked road and 0.12 miles of dirt road will be constructed in order to provide access to harvest areas.

Following harvest these roads will be blocked with a gate across private land at the bottom which will limit public access. After reforestation the roads within the sale areas will be reviewed for closure. Ground yarding roads will be closed and water-barred following harvest. See summary document for more information on road closure. No other project work is currently planned with this sale.

Area 1, 3, 4, and 5 will be predominantly cable yarding areas. Area 2 is approximately 40% ground yarding and 60% cable yarding.

**Table 5. Transportation Planning Summary (Miles)<sup>4</sup>**

Activity	Mainline	Collector	Rocked Spur <sup>1</sup>	Dirt Spur <sup>1</sup>
Construct			3.3	0.12
Improve			2.0	
Maintain <sup>2</sup>				
Close/Block <sup>3</sup>			3.3	0.12
Vacate <sup>3</sup>				

1. *Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest*
2. *All roads accessing the sale area will be maintained during the life of the timber sale contract. Maintenance miles in the table are those roads not being constructed or improved.*
3. *Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.*
4. *The numbers in this table reflect planned Project Work associated with the sale.*

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

A watershed analysis is being conducted for the Wilson River basin at this time. Recommendations from this assessment will be incorporated into the sale where feasible.

Runyon Creek is a medium Type F stream adjacent to Areas 2 and 3. A medium Type F tributary to Ben Smith Creek is adjacent to Area 1 and 4. An unnamed assumed small Type F tributary to the Wilson River is adjacent to Area 2. There are additional unnamed small perennial and seasonal Type N streams within the sale areas. These streams will be reviewed and protected appropriately during sale layout based on flow, topography, and terrain.

The Oregon Department of Fish and Wildlife (ODFW) will be requested to complete stream surveys prior to sale layout. Streams of unknown status and assumed Type F status will be treated as Type F until surveys are completed to verify fish use.

Stream buffers within or adjacent to harvest unit boundaries will be managed according to *Forest Management Plan* Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

The ODFW fish biologist will work with ODF to identify stream enhancement projects in Ben Smith Creek.

The entire sale area is within the Ben Smith sub-basin. This sub-basin has been identified as a Salmon Anchor Habitat (SAH) Basin. The SAH Basin Strategies will be used in addition to the FMP Riparian Strategies at the time of sale layout and contract development. See the Salmon Anchor Summary Table for tracking of acres managed in each basin.

Refer to Aquatic Resource Protection Strategies in the Summary document for information on in the "in stream work period" road work and stream improvement projects.

## **VIII. T&E SPECIES CONSIDERATIONS:**

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist. Surveys for marbled murrelets are not required due to the absence of potentially suitable habitat. Spotted owl surveys are not required as the sale is within the Tillamook Burn (see November 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*). Potential bald eagle nesting habitat adjacent to the sale areas has been buffered and is not included in the harvest area. The Area Biologist is developing a site plan for a bald eagle nesting territory along Runyon Creek adjacent to Areas 1 and 2 of the sale. The plan protects and buffers potential nest trees in the area. Seasonal restrictions

will be required on operations within ¼ mile of the active nest tree or perch trees during the critical period of use (January 1 through August 31). The plan will also address any habitat enhancement activities which can be accomplished through stand management activities within the identified nesting territory. The Area Biologist will be consulted throughout the sale preparation and administration processes.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants were identified within or adjacent to the sale areas.

#### **IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:**

There are steep and very steep side slopes in Areas 1 and 3. The initial risk assessment by the geotechnical specialist for Area 1 is moderate, for Area 2 is low, and for Area 3, 4, and 5 is high. The geotechnical specialist will be consulted during sale layout field work.

The sale areas have been identified as being within the Ben Smith SAH Basin and the most current slope stability SAH Strategies will be used at the time of contract development. See the Summary Document for more information.

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

The sale areas are designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the District Recreation Coordinator.

Coordination with the Tillamook Recreation Coordinator, Tillamook Forest Center (TFC), and interpretive staff will be utilized to develop a public safety plan to be implemented during the harvest operations. Seasonal and daily operating restrictions may be utilized to minimize disturbance to the public. Opportunities for harvest and reforestation prescriptions which would enhance interpretive education opportunities will be evaluated during sale preparation. The District Recreation Coordinator will be consulted throughout the sale preparation and administration processes.

Recreational use common to this area includes hunting, camping, and OHV use.

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

The *Tillamook State Cultural Assessment* does not list any cultural sites within or adjacent to the proposed sale boundary. The district will consult the Public Use Coordinator for appropriate protection and tracking if any potential sites are found.

## **XII. SCENIC RESOURCES:**

The sale areas have a visual classification of Level 1, high sensitivity for portions visible from Highway 6. Highway 6 is a Designated Scenic State Highway. The timber sale boundary will be posted outside the 150 foot visually sensitive corridor.

These areas will be reviewed by the Public Use Coordinator to determine methods to minimize visual impact. The remainder of the sale acreage has a visual classification of Level 3, low sensitivity.

## **XIII. OTHER RESOURCE CONSIDERATIONS:**

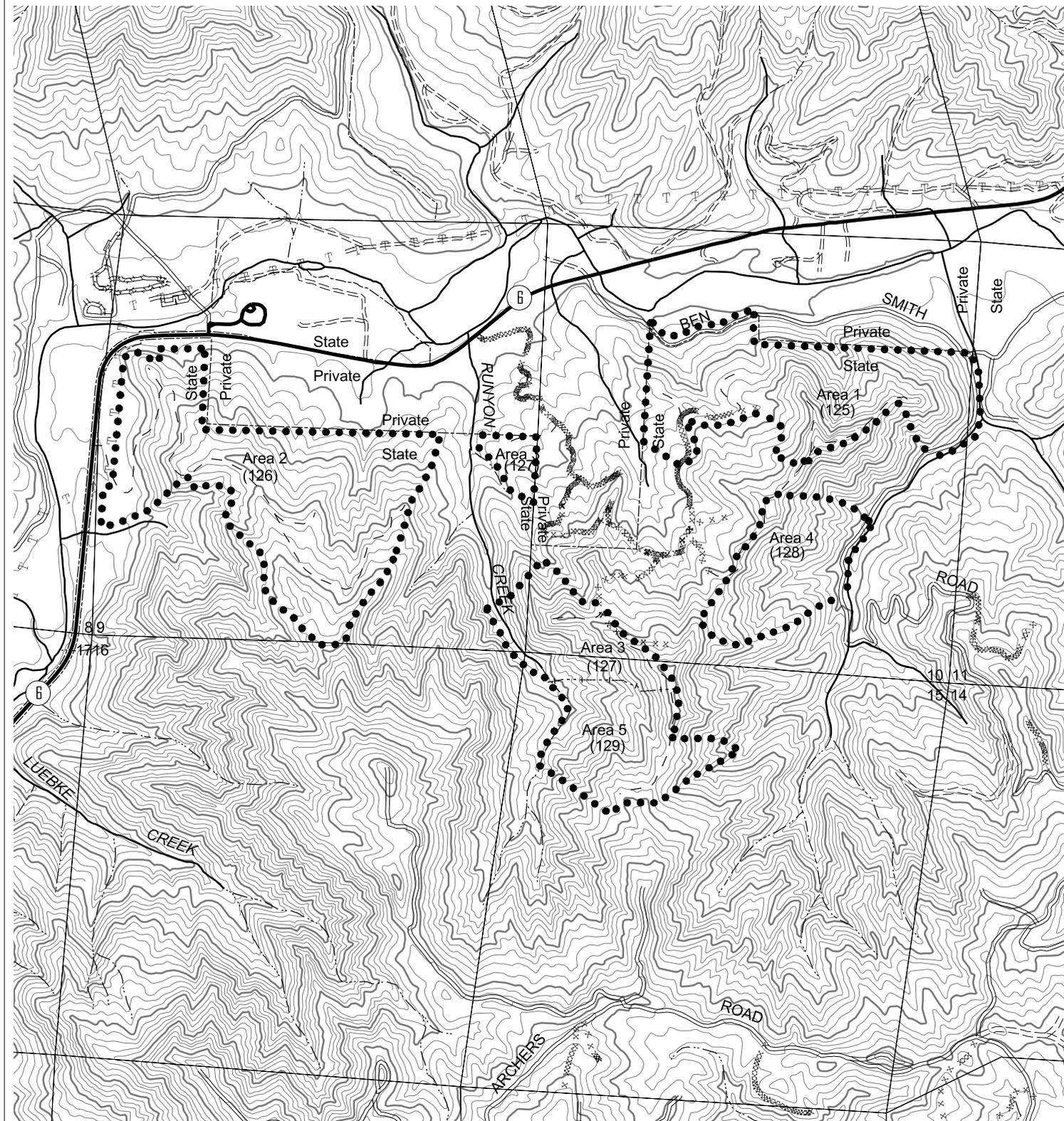
The Bonneville Power Administration (BPA) has transmission lines adjacent to Area 2. The spur road to access the sale will go under these lines. The BPA should be contacted during sale prep to review logging safety and access issues when working in proximity to transmission lines.

In order to harvest this sale area a special use permit will need to be obtained for tailholds that may be needed on private land.

There are permanent inventory plots within the sale area. Permanent plot markings will be protected according to guidelines.

## **XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The sale area contains Focused and Special Stewardship, Aquatic and Riparian Habitat. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale area contains Focused, Wildlife Habitat because it is within the Ben Smith SAH. The sale areas all contain Focused, Visual (See Section XI, Scenic Resources) and Focused, Recreation (See Section IX, Recreation Resources). Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process.



**Runyon Ex**  
**-- Topography --**  
**2008 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Sections 9, 10,  
 and 15, T1N, R7W, W. M.  
 Tillamook County, Oregon

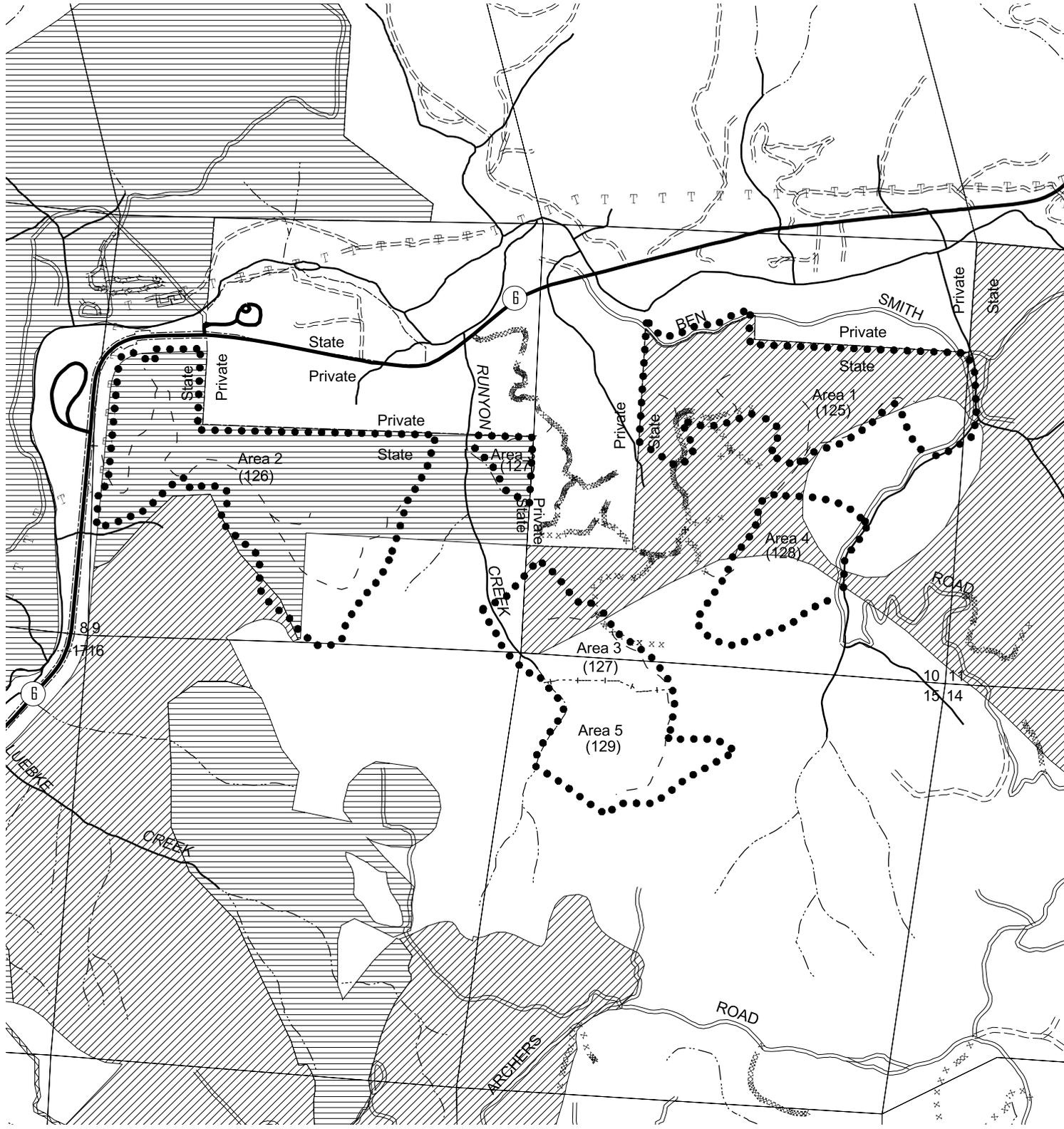
- Contour Interval 40'
- +--- Area boundary
  - Sale boundary
  - Ownership boundary
  - Perennial Type-F stream \*
  - Perennial Type-N stream \*
  - ==== Unsurfaced road
  - ===== Surfaced road
  - State/Federal highway
  - Legacy road
  - xxxxxx Blocked road
  - Road construction
  - ==== County road
  - T T Transmission line

Area	Type of Operation
1	Modified clearcut
2	Retention cut
3	Modified clearcut
4	Modified clearcut
5	Retention cut



Tillamook District GIS  
 02062007  
 This product is for informational use and  
 may not have been prepared for, or suitable  
 for legal, engineering, or surveying purposes.

\* Streams of unknown fish presence are not shown but will be surveyed prior to the sale



**Runyon Ex**  
**-- Current and Future Condition --**  
**2008 SALE PLAN**  
**TILLAMOOK DISTRICT**

Portions of Sections 9, 10,  
 and 15, T1N, R7W, W. M.  
 Tillamook County, Oregon



Tillamook District GIS  
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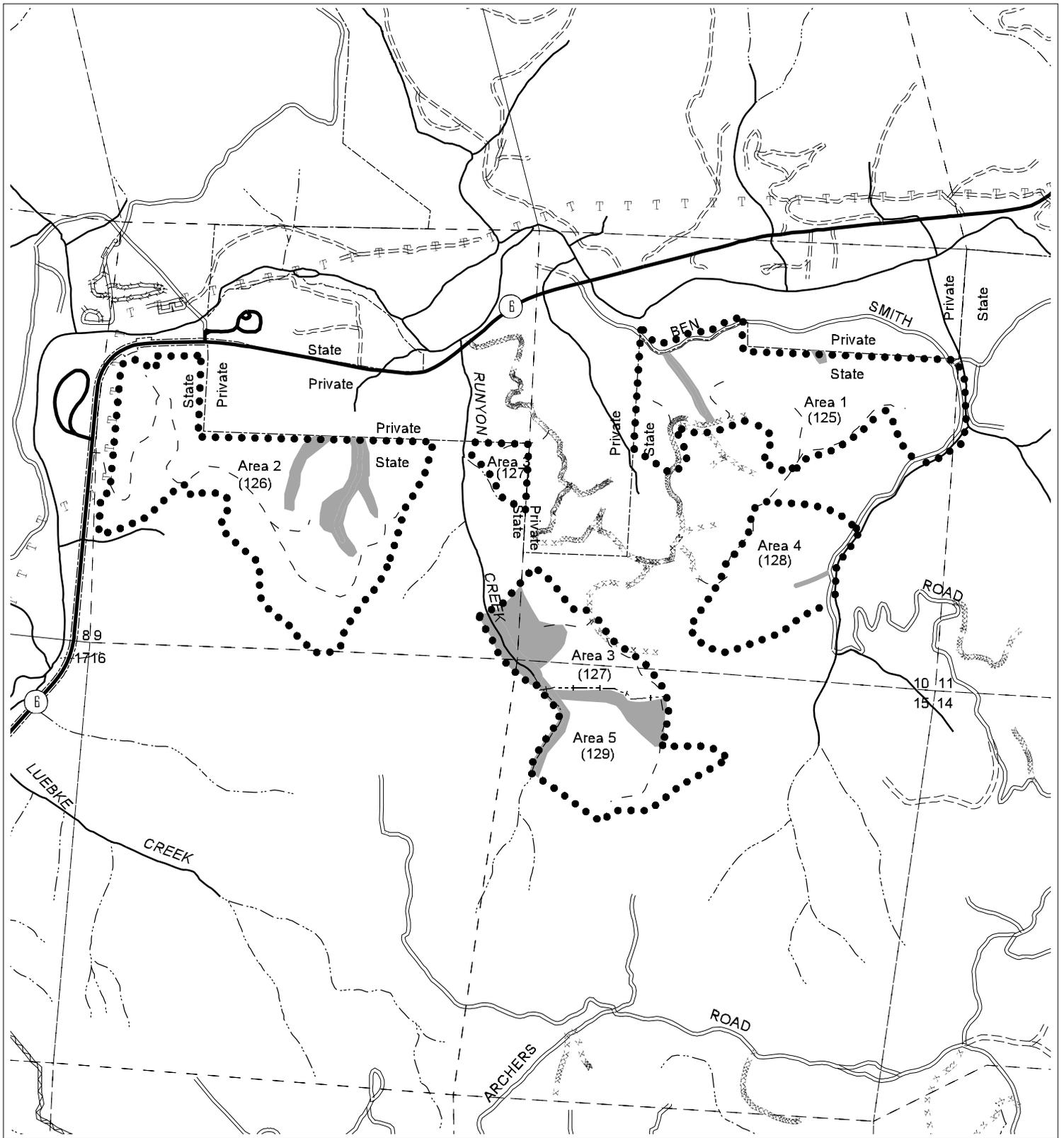
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Area	Type of Operation
1	Modified clearcut
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4	Modified clearcut
5	Retention cut

\* Streams of unknown fish presence are not shown but will be surveyed prior to the sale

- |                          |                           |
|--------------------------|---------------------------|
| Desired future condition | + - - - + Area boundary   |
| Layered                  | Sale boundary             |
| Older forest             | Ownership boundary        |
|                          | Perennial Type-F stream * |
|                          | Perennial Type-N stream * |
|                          | Unsurfaced road           |
|                          | Surfaced road             |
|                          | State/Federal highway     |
|                          | Legacy road               |
|                          | Blocked road              |
|                          | Road construction         |
|                          | County road               |
|                          | Transmission line         |





- Buffer
- Non-required thinning
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream \*
- Perennial Type-N stream \*
- Unsurfaced road
- Surfaced road
- State/Federal highway
- Legacy road
- Blocked road
- Road construction
- County road
- Transmission line

**Runyon Ex**  
**-- Key Resources --**  
**2008 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Sections 9, 10,  
 and 15, T1N, R7W, W. M.  
 Tillamook County, Oregon

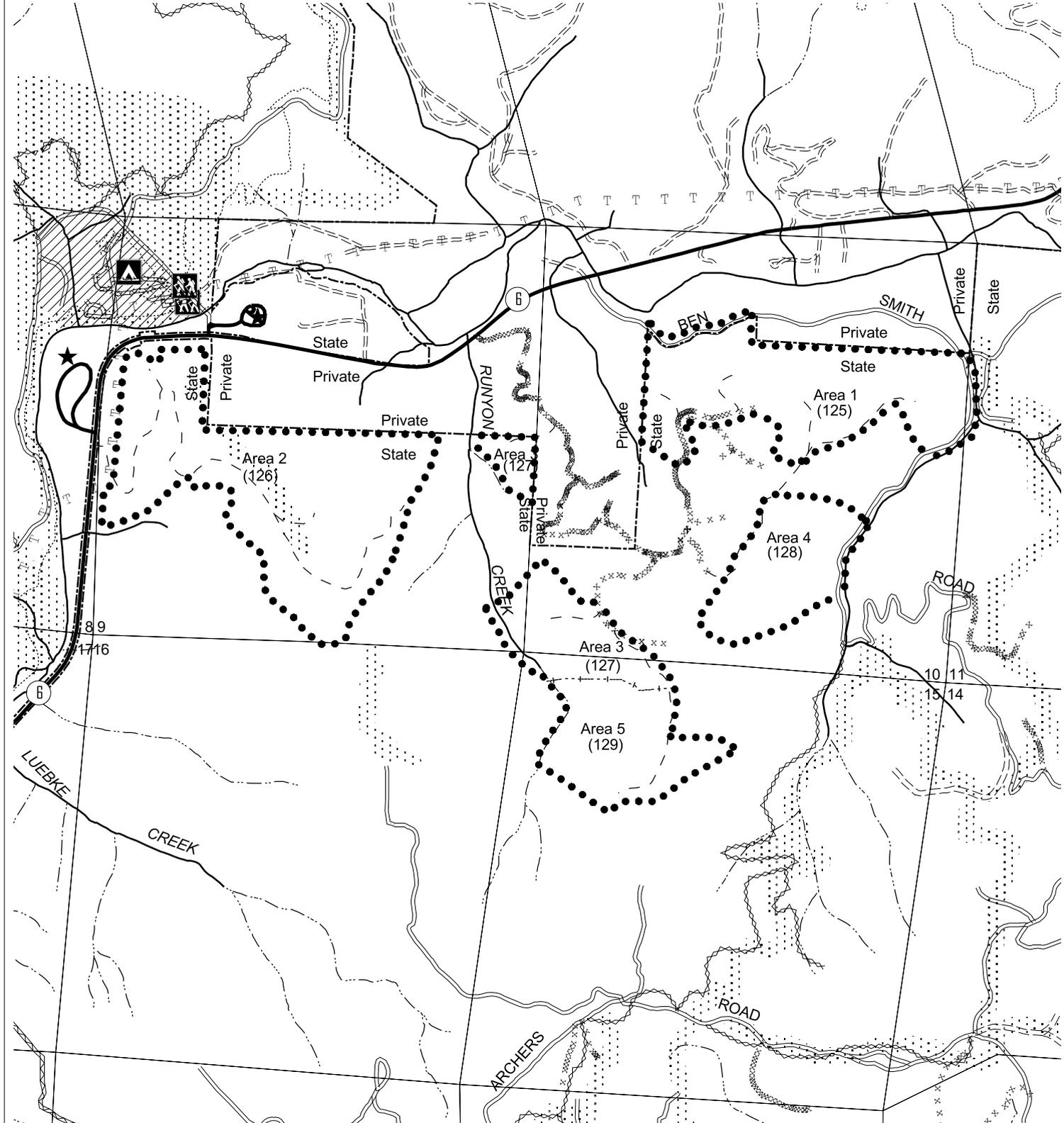
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Area	Type of Operation
1	Modified clearcut
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5	Retention cut

\* Streams of unknown fish presence are not shown but will be surveyed prior to the sale



- Campground
- Day Use Site
- OHV Staging Area
- Trail Head
- Boat Launch
- Interpretive or Administrative Site
- Stewardship
- Focused
- Special
- OHV trail
- Non-motorized trail
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream \*
- Perennial Type-N stream \*
- Unsurfaced road
- Surfaced road
- State/Federal highway
- Legacy road
- Blocked road
- Road construction
- County road
- Transmission line

**Runyon Ex**  
**--Key Resources/Recreation--**  
**2008 SALE PLAN**  
**TILLAMOOK DISTRICT**  
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 Tillamook County, Oregon

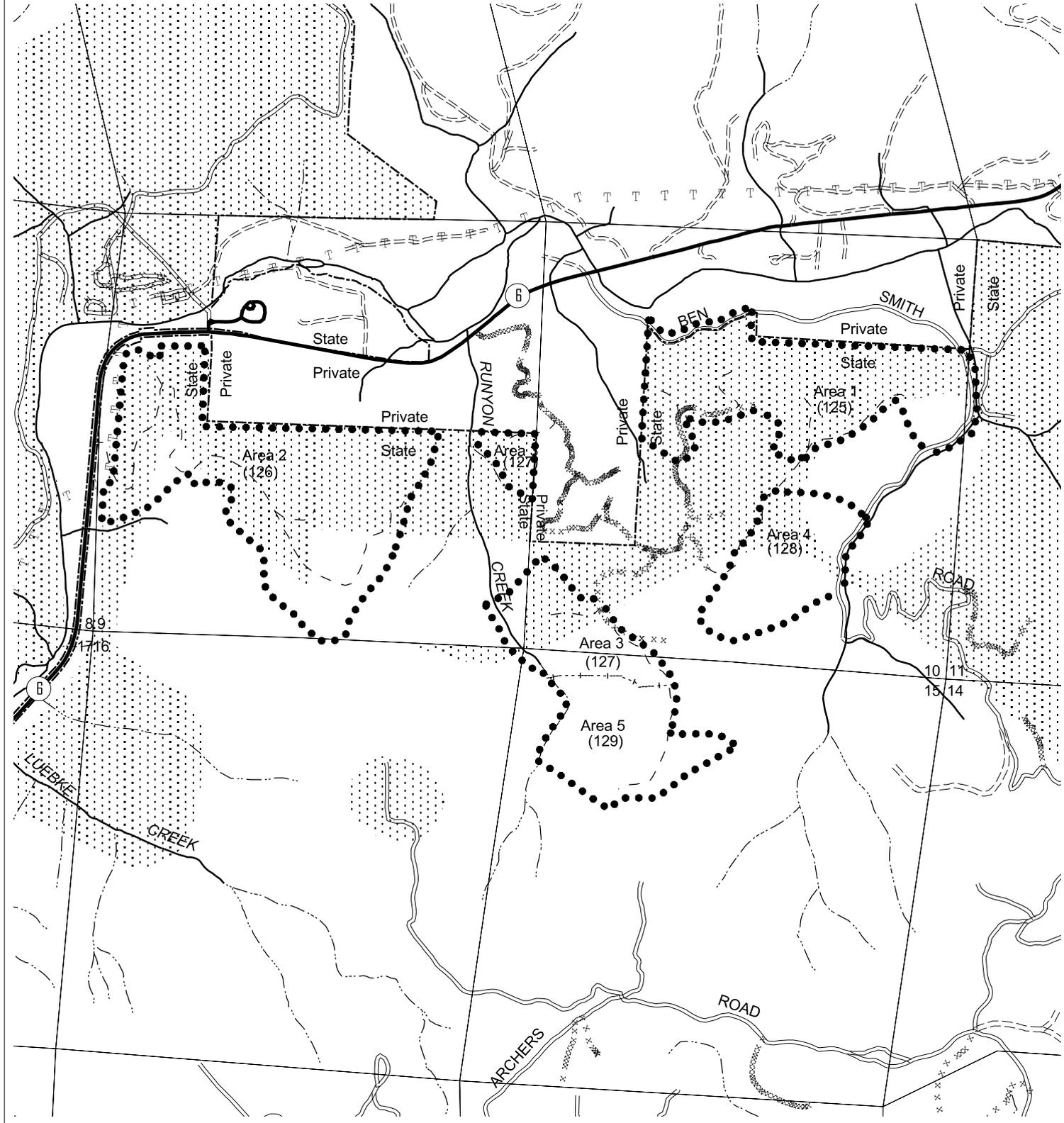


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Area	Type of Operation
1	Modified clearcut
2	Retention cut
3	Modified clearcut
4	Modified clearcut
5	Retention cut

\* Streams of unknown fish presence are not shown but will be surveyed prior to the sale



**Runyon Ex**  
**-- Key Resources/Visual --**  
**2008 SALE PLAN**  
**TILLAMOOK DISTRICT**  
 Portions of Sections 9, 10,  
 and 15, T1N, R7W, W. M.  
 Tillamook County, Oregon

Area	Type of Operation
1	Modified clearcut
2	Retention cut
3	Modified clearcut
4	Modified clearcut
5	Retention cut

- Stewardship
- Focused
  - Special
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream \*
- Perennial Type-N stream \*
- Unsurfaced road
- Surfaced road
- State/Federal highway
- Legacy road
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