



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Salander Between  
Sale 341-14-69

District: Coos

Date: September 10, 2013

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**cost summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$753,788.08	\$337.04	\$754,125.12
		Project Work:	\$(39,178.00)
		Advertised Value:	\$714,947.12



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## timber description

**Location:** Portions of Section 15, T23S, R10W, W.M., Douglas County, Oregon.

**Stand Stocking:** 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	26	0	95
Western Hemlock / Fir	17	0	95
Alder (Red)	11	0	90

Volume by Grade	2S	3P	3S	3S 12"+	6" - 7"	SM	Total
Douglas - Fir	1,548	59	235	78	0	40	1,960
Western Hemlock / Fir	0	0	8	0	0	0	8
Alder (Red)	0	0	0	0	2	0	2
Total	1,548	59	243	78	2	40	1,970



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**comments:** Pond Values Used: 2nd Quarter Calendar Year 2013.

Regeneration harvest of approximately 32 acres of medium to well stocked 124 - 132 year old mature second growth Douglas-fir sawtimber.

Western redcedar and Other Cedars Stumpage Price = Pond Value  
minus Logging Cost:  
 $\$635.82/\text{MBF} = \$850/\text{MBF} - \$214.18/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):

FELLING:

Directional Felling/Tree Jacking:  $\$2/\text{MBF} \times 500 \text{ MBF} = \$1,000$

YARDING AND LOADING:

Brand and Paint Logs:  $\$1/\text{MBF} \times 1,970 \text{ MBF} = \$1,970$

Slash Piling/Cull Sorting:  $\$125/\text{landing} \times 1 \text{ landing} = \$125$

Rig Tail Trees:  $\$150/\text{lift tree} \times 12 \text{ lift trees} = \$1,800$

Artificial Guy Anchor:  $\$500/\text{anchor} \times 1 \text{ anchor} = \$500$

MISCELLANEOUS COSTS:

Maintenance Rock (Section 2130):  $\$26/\text{yard} \times 40 \text{ yards} = \$1,040$

Tree Topping @ 60 feet+ :  $\$100/\text{tree} \times 8 \text{ trees} = \$800$

Tree Girdling @ 60 feet+ :  $\$125/\text{tree} \times 8 \text{ trees} = \$1,000$

TOTAL Other Costs (with Profit & Risk to be added)) = \$8,235

Other Costs (No Profit & Risk added):

None.



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## logging conditions

<b>combination#:</b> 1	Douglas - Fir	100.00%
	Western Hemlock / Fir	100.00%
	Alder (Red)	100.00%
<b>yarding distance:</b>	Long (1,500 ft)	<b>downhill yarding:</b> No
<b>logging system:</b>	Cable: Large Tower >=70	<b>Process:</b> Manual Delimbing
<b>tree size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
<b>loads / day:</b>	8.0	<b>bd. ft / load:</b> 4,800
<b>cost / mbf:</b>	\$96.18	
<b>machines:</b>	Log Loader (A) Tower Yarder (Large)	



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## logging costs

<b>Operating Seasons:</b>	1.00	<b>Profit Risk:</b>	20.00%
<b>Project Costs:</b>	\$39,178.00	<b>Other Costs (P/R):</b>	\$8,235.00
<b>Slash Disposal:</b>	\$0.00	<b>Other Costs:</b>	\$0.00

### Miles of Road

**Road Maintenance:** \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	0.0	0.0	0.0

### Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.8
Western Hemlock / Fir	\$0.00	2.0	4.0
Alder (Red)	\$0.00	2.0	3.5



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# Timber Sale Appraisal Salander Between Sale 341-14-69

**District: Coos**

**Date: September 10, 2013**

## logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$96.18	\$0.63	\$2.23	\$71.10	\$4.18	\$34.86	\$0.00	\$5.00	\$0.00	\$214.18
<b>Western Hemlock / Fir</b>									
\$96.18	\$0.63	\$2.23	\$85.31	\$4.18	\$37.71	\$0.00	\$5.00	\$0.00	\$231.24
<b>Alder (Red)</b>									
\$96.18	\$0.66	\$2.23	\$102.15	\$4.18	\$41.08	\$0.00	\$5.00	\$0.00	\$251.48

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$597.73	\$383.55	\$0.00
Western Hemlock / Fir	\$0.00	\$485.00	\$253.76	\$0.00
Alder (Red)	\$0.00	\$420.00	\$168.52	\$0.00



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**summary**

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	1,960	\$383.55	\$751,758.00
Western Hemlock / Fir	8	\$253.76	\$2,030.08
Alder (Red)	2	\$168.52	\$337.04

**Gross Timber Sale Value**

Recovery: \$754,125.12

Prepared by: Jon Haynes

Phone: 541-267-1758

## Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Salander Between

### Additional "Other Cost" with additional profit and risk to be added:

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
<b>Felling</b>				
Locate Corridors and Skid Roads	MBF		\$ 5.00	\$ -
Select Trees and Fall to Lead	MBF		\$ 5.00	\$ -
Small Tree Volume Cost addition	MBF		\$ 10.00	\$ -
Directional Felling/Tree Jacking	MBF	500	\$ 2.00	\$ 1,000.00
Felling of unmerch material	acre		\$ 80.00	\$ -
<b>Yarding and Loading</b>				
Clear chute at cable settings	MBF		\$ 3.00	\$ -
Brand and paint logs	MBF	1970	\$ 1.00	\$ 1,970.00
Cull sorting/slash piling on landings	landing	1	\$ 125.00	\$ 125.00
Rig tail trees	lift tree	12	\$ 150.00	\$ 1,800.00
Artificial guy anchors(dozer, skidder)	anchor	1	\$ 500.00	\$ 500.00
Log placement into streams (Exhibit I)	crossing		\$ 845.00	\$ -
Cover landing slash pile w/sheeting	pile		\$ 50.00	\$ -
Skid Road Layout	MBF		\$ 5.00	\$ -
Non required Road Construction	Stations			\$ -
<b>Miscellaneous Costs</b>				
Additional fire equipment	Seasons		\$ 2,000.00	\$ -
Maintenance rock (Section 2130)	yards	40	\$ 26.00	\$ 1,040.00
Safety Flaggers	per day		\$ 150.00	\$ -
Tree topping @ 60 feet +	per tree	8	\$ 100.00	\$ 800.00
Tree girdling @ 60 feet +	per tree	8	\$ 125.00	\$ 1,000.00
Tree girdling @ DBH	per tree		\$ 75.00	\$ -
Equipment move between areas	per hr	0	\$ 125.00	\$ -
Equipment time for pullback & cleanup	per hr		\$ 100.00	\$ -

**Total additional "Other Cost" with additional profit and risk to be added**

**\$ 8,235.00**

### Additional "Other Cost" with no additional profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Non-required road construction	Stations			\$ -
Non-required road rocking	Cubic Yards			\$ -
Stream clearance	Feet			\$ -
Scaling (high piece count)	MBF		\$ 2.00	\$ -
				\$ -

**Total additional "Other Cost" with no additional profit and Risk**

**\$ -**

# SUMMARY OF CONSTRUCTION COST

## Salander Between

### Project 1: Road and Landing Improvement

Points: A to B Length: 1440' Type: 14' w/ditch

Excavator - remove mound near Pt B	8	hrs at	\$140.00	per hour	\$1,120.00
Cat time - spread and compact waste	8	hrs at	\$140.00	per hour	\$1,120.00
Grader - between Pts A to B	2	hrs at	\$85.00	per hour	\$170.00

### Move-in

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	30	5	\$100.00	\$500.00
Cat	30	5	\$100.00	\$500.00
Grader	30	4	\$100.00	\$400.00

Total Move-in: \$1,400.00

Project 1 Total \$3,810.00

### Project 2: Rock Stockpile

Location: Big Saddle (10 mi on 1000 rd)  
 Measured amount: 1500 tons  
 Size: 1 1/2" - 0"

Cost per ton at crusher: \$13.00 per ton  
 Haul cost per ton: \$9.08 per ton

Truck Rate	\$87.00 \$/hr
Round Trip time	2.4 hr
Truck Capacity	23 tons/load

Piling and shaping cost per ton: \$1.50 per ton

Total cost per ton: \$23.58 per ton  
 Total tons: 1500 tons

Total Cost for Stockpile rock: \$35,367.39

Project 2 Total \$35,368.00

Total Project Costs \$39,178.00

## **TIMBER SALE SUMMARY**

### **Salander Between 341-14-69**

**1. Type of Sale:** Final Harvest, Recovery, Sealed Bid.

**2. Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red flagging, and red paint at locations shown on the Exhibit "A."

**3. Revenue Distribution:** 100% CSL; 100% Douglas County.

**4. Sale Acreage:** The total sale area is approximately 32 acres divided into two separate sale areas. Sale acreage was determined from LIDAR imagery using electronic digitizing with the ArcMap 10.1 GIS program. The cruise expansion acres include only the timbered acres and not existing interior roads, or rocky and non-stocked areas.

	<b>Posted Acres</b>	<b>Interior Road Acres</b>	<b>Non-Stocked Acres</b>	<b>Net Cruise Acres</b>	<b>Net Harvest Acres</b>
<b>Area 1</b>	29.2	.5	1.5	27.3	28.7
<b>Area 2</b>	3.8	.7	0	3.0	3.1
<b>Total</b>	33.0	1.2	1.5	30.3	31.8

### **5. Volume by Species**

	<b>Total Volume (MBF)</b>	<b>Volume per Acre (MBF)</b>
<b>Douglas Fir</b>	1960	61.3
<b>Hemlock</b>	8	.3
<b>Alder</b>	2	.1
<b>Total</b>	1970	61.7

### **6. Grade:** (by Percent,)

<b>Species</b>	<b>3 Peeler %</b>	<b>Special Mill %</b>	<b>2 Saw (12"+) %</b>	<b>3 Saw % (10" – 11") %</b>	<b>Big 3 Saw %</b>	<b>4 Saw % (8" – 9") %</b>	<b>6" – 7" % Hardwood</b>
Douglas-fir	3 %	2 %	79 %	12 %	4 %		
Hemlock				100 %			
Red Alder							100 %

**7. Cruise:** The sale areas were variable plot cruised using a nested Big BAF plot method. The Big BAF method is a combination of count plots and individually measured trees. Plots were spaced 60 feet apart on cruise lines spaced 250 feet apart. A 40 BAF full plot at 16 feet was used to determine tree counts for all species. A total of 92 count plots were installed. A 360 BAF full plot at 16 feet was taken on every other plot to determine which Douglas-fir trees would be fully measured. A total of 43 Douglas-fir trees were fully measured for DBH, height, grade and defect. Minor species

were measured on every third plot. A total of 4 minor species trees were fully measured. Cruising was done by ODF Coos District staff Erb, Goldsby, Haynes, and Stack in November 2012.

A. Summary data (Areas 1 - 2):

Diam	Ht. Stand	Form Pt.	Form Factor	CV %	SE %
D4H	6" DIB	All species: 16'	Recorded for all cruised trees by estimate and measure	44 %	6.7 %

B. Defect and Breakage Summary (Areas 1- 2):

BY PERCENT

SPECIES	CRUISED	HIDDEN DEFECT	BREAKAGE	TOTAL %
DOUGLAS FIR	1	6	7	14
HEMLOCK	0	5	5	10
ALDER	0	7	7	14

C. Stand Data (Areas 1 - 2):

SPECIES	DBH	TREES/ACRE	BASAL AREA/AC	NET MBF/ACRE
DOUGLAS FIR	26"	74	277	61.3
HEMLOCK	17"	<2	2	< 1
ALDER	11"	1	<1	< 1

D. Green Tree Retention: There are seven (7) green tree reserve areas associated with this sale that are reserved from cutting. These areas consist of Type F and Type N perennial stream buffer extensions and Type N intermittent stream buffers posted out of the sale boundary. These areas were not included in the cruise. There are some additional individual leave trees in Area 2 just above the Type F buffer and some scattered trees in Area 1. These trees were painted with blue or red markings and have been removed from the cruise. The table below summarizes the green tree retention areas and the volume that has been removed from the cruise.

GTR Area	D-fir Count	D-fir MBF removed from cruise	Hemlock Cedar Spruce Count	Hemlock/ Cedar MBF removed from cruise	Alder Maple Myrtle Count	Hdwd MBF removed from cruise
Type F and Type N Perennial Stream Buffer Extensions	135	22	4	0	50	0
Seasonal Drainages / Scattered Upland	48	<1	6	0	11	0
TOTALS	183	22	10	0	61	0

E. Down Wood: The down woody debris requirement of this sale is to leave 300 – 600 cubic feet per acre across the sale areas. This will be achieved by retaining existing down wood and utilizing defect and breakage to total approximately 416 cubic feet per acre. Additional volume may also come from leaving tops in the unit and from snag creation, not to exceed 600 cubic feet per acre.

**8. Timber Description:** The total sale area is 32 acres and consists of two primary timber types. Area 1 is 29 acres and is comprised of medium to well stocked 132 year old Douglas-fir mature second growth sawtimber. Stocking is sparser along the southern boundary and there are areas of windfall timber along this boundary. Area 2 is 3 acres and is comprised of well stocked 124 year old Douglas-fir mature second growth sawtimber. Both Area 1 and 2 contain small

amounts of red alder, hemlock, and big leaf maple. The majority of the hardwood is situated in or next to the stream buffers. The bigleaf maple is not included in the timber removal estimate. Timber quality across the sale area is generally good; tree heights in Area 2 tend to be taller than in Area 1.

**9. Topography:** Area 1 is extremely steep with slopes over 90 percent with exposed rock outcroppings. The elevation drop from the landing on the 1930 road to Salander Creek is just over 1,000 feet. Area 1 is primarily northwest facing. Two seasonal drainages originate within Area 1 and a Type N perennial stream flows along the western boundary and a Type F stream (Salander Creek) flows along the northern boundary. Area 2 is situated on the other side of Salander Creek. Area 2 has gentler slopes up to 60 percent and is primarily southeast facing.

**10. Logging Method:** Areas 1 and 2 are designed to be cable logged uphill from a new landing at Point B on the 1930 road. Cable yarding distance will approach 2,500 feet in order to yard Area 2. Access to Area 2 via the 7835 road is not anticipated as multiple stream crossings are washed out. Location of tailholds will not be allowed within the South Umpcoos Marbled Management Area or adjacent Unsurveyed Mature Habitat Area. Tailholds will need to be located in secure anchorage west of the sale areas or from utilizing lift trees. Seven year-old reproduction is situated immediately adjacent to Area 1 to the west and east. Some impacts to this reproduction along the eastern boundary of Area 1 are likely from cable logging activities. Full suspension will be required while yarding over Salander Creek and other posted stream buffers and drainages. Single end suspension will be maintained over the remainder of the sale areas. Areas 1 and 2 are designed for dry season operation; the sale areas are greater than .25 miles from the South Umpcoos Marbled Murrelet Management Area. The 1930 road delivers haul traffic southbound on the 1000 road. A suitable truck turnaround is located approximately .6 miles from Point A at the 1000/7000 road junction to enable northbound haul traffic.

**11. Access:** (All miles approximate) To access the timber sale area take Highway 38 from Reedsport 13.5 miles to the Douglas County Route #3 (Loon Lake Road). Follow DCR #3 for 10.3 miles past the upper end of Loon Lake to the 1000 road (Elk Ridge Road). Follow the 1000 road 3.0 miles to the 1930 road. To access Area 2 continue on the 1000 road .6 miles to the 7000 road. Follow the 7000 road 2.7 miles to the 7800 road. Follow the 7800 road 3.4 miles to a locked gate. Walk .6 miles on the 7800 and 7835 roads into Area 2.

**12. Projects:** See attached "Project Cost Summary Sheet."

Project No. 1: Road and Landing Improvement

Project No. 2: Rock Stockpile Delivery

## CRUISE VOLUME COMPUTATION REPORT

SALE NAME:	Salander Between	DATE:	12/13/2012
LEGAL LOCATION:	Section 15, T23S, R10W	BY:	J. Haynes
	WM. Douglas County, OR		

### FIELD CULL PERCENTAGE

#### Areas 1-2

Species	Doug-fir	Spruce	Cedar	Hemlock	Red Alder	Bigleaf Maple
Field cull	1%	0	0	0	0%	0

### NET FIELD VOLUME MBF (Gross vol. less field cull)

SPECIES>>>>>	Doug-fir	Spruce	Cedar	Hemlock	Red Alder	Bigleaf Maple	TOTAL
<b>Areas 1-2</b>	2276	0	0	9	2	0	2287
less GTR vol	23	0	0	0	0	0	23
<b>TOTAL</b>	<b>2253</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>2264</b>

### HIDDEN DEFECT AND BREAKAGE

Species	Doug-fir	Spruce	Cedar	Hemlock	Red Alder	Bigleaf Maple
Hidden cull	0.06	0	0	0.05	0.07	0
Breakage	0.07	0	0	0.05	0.07	0
<b>TOTAL</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.10</b>	<b>0.14</b>	<b>0.00</b>

### NET VOLUME BY MBF BY AREA

SPECIES>>>>>	Doug-fir	Spruce	Cedar	Hemlock	Red Alder	Bigleaf Maple	TOTALS
<b>Areas 1 - 2</b>	1960	0	0	8	2	0	1970
<b>TOTALS</b>	<b>1960</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>1970</b>

### NET VOLUME BY GRADE AND MBF

Grade >>>>>>>>>>>	2PEE	3PEE	S.M.	2SAW (12"+)	3SAW (10"-11")	Big 3 SAW	4SAW (8"-9")	(6"-7")
<b>Areas 1 - 2</b>								
Doug-Fir	0	59	40	1548	235	78	0	0
Hemlock	0	0	0	0	8	0	0	0
Red Alder	0	0	0	0	0	0	0	2

### GRADE DISTRIBUTION BY PERCENT

Grade >>>>>>>>>>>	2PEE	3PEE	S.M.	2SAW (12"+)	3SAW (10"-11")	Big 3 SAW	4SAW (8"-9")	(6"-7")
<b>Areas 1 - 2</b>								
Doug-fir	0%	3%	2%	79%	12%	4%	0%	0%
Hemlock	0%	0%	0%	0%	100%	0%	0%	0%
Red Alder	0%	0%	0%	0%	0%	0%	0%	100%

**Operating Periods Restrictions Matrix for  
Salandar Between  
341-14-69**

Harvesting	January	February	March	April	May	June	July		August		September		October		November		December	
							7th	8th	5th	6th	15th	16th	14th	15th				
Ground-based Yarding (Sec. 2355)				1st	15th													
Chainsaw Use for Tailholds in seasonally restricted areas (Sec. 2350).																		
Cable Yarding Operations within Marbled Murrelet Management Area and Unsurveyed Mature Habitat Area (Sec. 2350).																		

Hauling	January	February	March	April	May	June	July		August		September		October		November		December	
									5th	6th	15th	16th	15th					
Log Hauling on 1930 road & other Unsurfaced Roads (Sec. 2130)				1st	15th													
Log or Rock Hauling on portions of 1000 and 7500 roads (Sec. 2130)																		

Project Work	January	February	March	April	May	June	July		August		September		October		November		December	
									5th	6th	15th	16th	15th					
Project 1: Road & Landing Improvement (Sec. 2610)				1st	15th													
Project 2: Rock Hauling on portions of 1000 and 7500 roads (Sec. 2610)																		
Non-Project Road & Landing Construction (Sec. 2360)																		



Operations Allowed



Activity Restricted 2 hours before  
sunset through 2 hours after sunrise

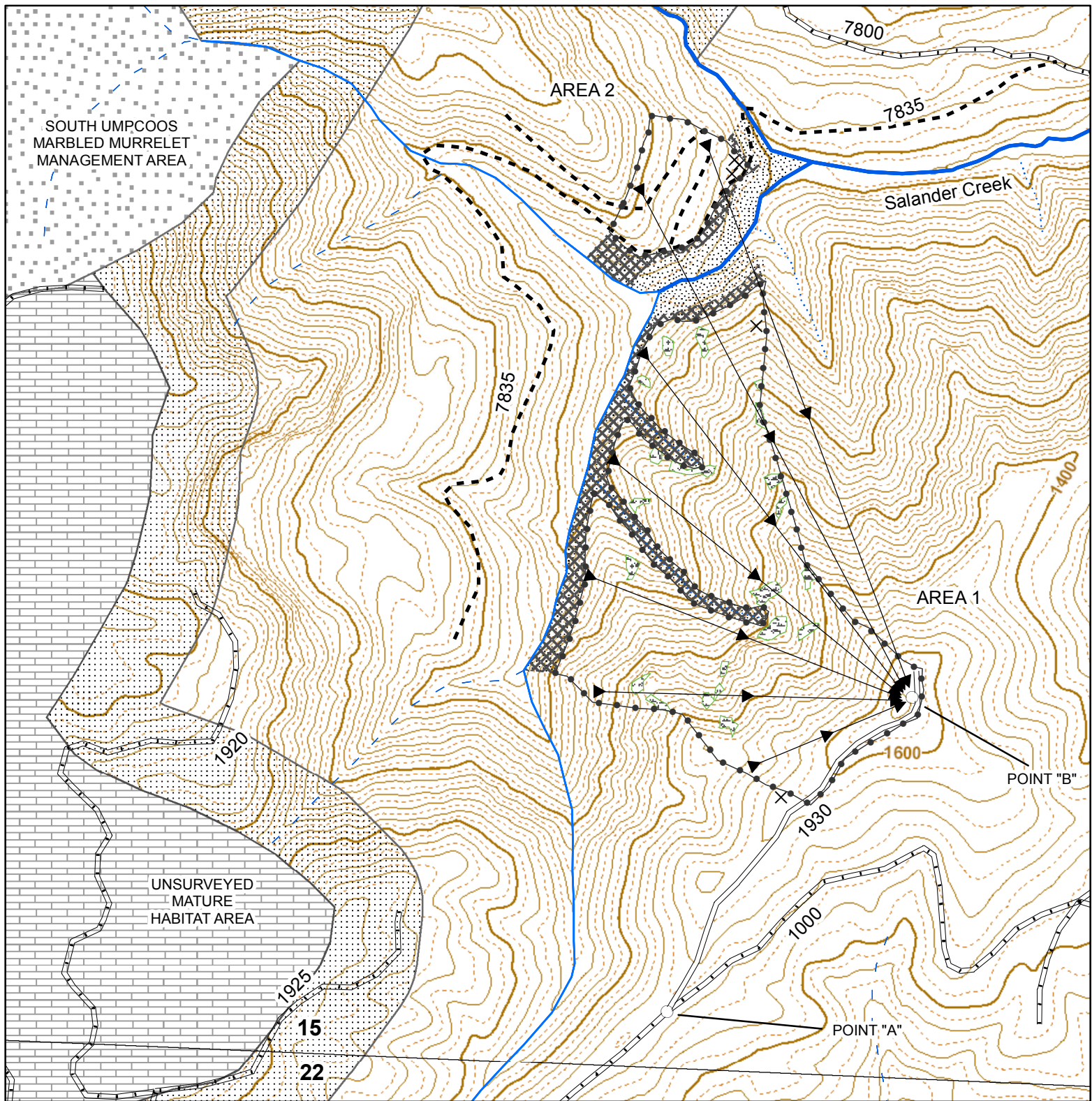


Operations Prohibited - T & E



Operations Prohibited for weather conditions; unless otherwise  
approved in writing by STATE

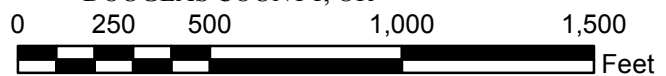
Operating Matrix represents the seasonal restrictions contained within Section 2455 of the Salander Between timber sale contract.



- Timber Sale Boundary
- Forest Boundary
- Point for Project Work
- Cable Yarding Roads
- Streambuffers
- GTR Areas
- Individual GTR
- Rocky Areas
- Existing Roads - STATE Maintained
- Existing Roads - Purchaser Maintained
- Vacated Road Grade
- Seasonally Restricted Area
- Marbled Murrelet Management Area
- Unserved Mature Habitat Area
- Type F Perennial Streams
- Type N Perennial Streams
- Type N Seasonal Streams
- Unclassified Streams

**LOGGING PLAN**  
 OF TIMBER SALE CONTRACT NO.  
 341-14-69  
 SALANDER BETWEEN  
 PORTIONS OF SECTION 15  
 T23S, R10W, WM.  
 DOUGLAS COUNTY, OR

APPROX. SCALE:  
 1" = 500 FEET  
 CONTOUR INTERVAL: 20 FOOT



SALE AREA	NET ACRES
1	29
2	3
<b>TOTAL</b>	<b>32</b>

This product is for informational use and may not have been prepared for, or suitable for legal or surveying purposes.