



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Elk Ridge Split
Sale 341-13-84

District: Coos

Date: April 16, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$554,623.94	\$16,773.94	\$571,397.88
		Project Work:	\$(27,280.00)
		Advertised Value:	\$544,117.88



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timber description

Location: Portions of Sections 11 and 12, T24S, R11W, W.M., Coos County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	17	0	95
Western Hemlock / Fir	20	0	95
Alder (Red)	14	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	617	442	132	0	0	1,191
Western Hemlock / Fir	0	0	298	229	32	0	0	559
Alder (Red)	15	22	0	0	0	27	9	73
Total	15	22	915	671	164	27	9	1,823



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District: Coos

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comments: Pond Values Used: 1st Quarter Calendar Year 2013.

Regeneration harvest of one unit containing 93 net acres of timber. Timber is predominately 45 to 50 year old Douglas-fir with a significant component of western hemlock and a minor amount of red alder.

Douglas-fir 2S, 3S, & 4S Pond Values = Local Pond Values

Western hemlock 2S, 3S, & 4S Pond Values = Local Pond Values

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost
 $\$629.96/\text{MBF} = \$900/\text{MBF} - \$270.04/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$4.00/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

FELLING:

Felling of Unmerchantable Material: $5 \text{ MBF} \times \$1/\text{MBF} = \5

YARDING & LOADING:

Ground Based Equipment Wash: $6 \text{ Hours} \times \$65/\text{hour} = \390

Locate Corridors & Skid Roads: $18 \text{ MBF} \times \$5/\text{MBF} = \90

Brand & Paint Logs: $1,823 \text{ MBF} \times \$1/\text{MBF} = \$1,823$

Loader Time for Firewood Stacking & Slash Piling: $20 \text{ Hours} \times \$75/\text{hour} = \$1,500$

Cover Landing & Slash Piles w/Sheeting: $10 \text{ piles} \times \$50/\text{pile} = \$500$

TOTAL Other Costs (with Profit & Risk to be added) = $\$4,308$

Other Costs (No Profit & Risk added):

None.



"STEWARDSHIP IN FORESTRY"

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logging conditions

combination#: 1

	Douglas - Fir	75.00%
	Western Hemlock / Fir	75.00%
	Alder (Red)	75.00%
yarding distance:	Medium (800 ft)	downhill yarding: No
logging system:	Cable: Medium Tower >40 - <70	Process: Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
loads / day:	6.0	bd. ft / load: 3,800
cost / mbf:	\$146.67	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Medium)	

combination#: 2

	Douglas - Fir	25.00%
	Western Hemlock / Fir	25.00%
	Alder (Red)	25.00%
yarding distance:	Short (400 ft)	downhill yarding: No
logging system:	Shovel	Process: Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
loads / day:	7.0	bd. ft / load: 3,800
cost / mbf:	\$54.07	
machines:	Stroke Delimber (B)	



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Elk Ridge Split Sale 341-13-84

District: Coos

Date: April 16, 2013

logging costs

Operating Seasons:	1.00	Profit Risk:	20.00%
Project Costs:	\$27,280.00	Other Costs (P/R):	\$4,308.00
Slash Disposal:	\$0.00	Other Costs:	\$0.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	2.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	3.8
Western Hemlock / Fir	\$0.00	2.0	3.8
Alder (Red)	\$0.00	2.0	3.5

Local Pond Values

Date	Specie	Grade	Value
4/16/13	Douglas - Fir	2S	\$630.00
4/16/13	Douglas - Fir	3S	\$610.00
4/16/13	Douglas - Fir	4S	\$595.00
4/16/13	Western Hemlock / Fir	2S	\$545.00
4/16/13	Western Hemlock / Fir	3S	\$495.00
4/16/13	Western Hemlock / Fir	4S	\$455.00



"STEWARDSHIP IN FORESTRY"

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Elk Ridge Split
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District: Coos

Date: April 16, 2013

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$123.52	\$2.77	\$2.41	\$89.81	\$2.36	\$44.17	\$0.00	\$5.00	\$0.00	\$270.04
Western Hemlock / Fir									
\$123.52	\$2.77	\$2.41	\$89.81	\$2.36	\$44.17	\$0.00	\$5.00	\$0.00	\$270.04
Alder (Red)									
\$123.52	\$2.90	\$2.41	\$102.15	\$2.36	\$46.67	\$0.00	\$5.00	\$0.00	\$285.01

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$618.70	\$348.66	\$0.00
Western Hemlock / Fir	\$0.00	\$519.36	\$249.32	\$0.00
Alder (Red)	\$0.00	\$514.79	\$229.78	\$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	1,191	\$348.66	\$415,254.06
Western Hemlock / Fir	559	\$249.32	\$139,369.88
Alder (Red)	73	\$229.78	\$16,773.94

Gross Timber Sale Value

Recovery: \$571,397.88

Prepared by: Joe Goldsby

Phone: 541-267-1754

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Elk Ridge Split

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>
Felling				
Felling of unmerch material	MBF	5	\$ 1.00	\$ 5.00
Directional Felling	MBF	0	\$ 2.00	\$ -
Yarding and Loading				
Ground Based Equipment Wash	Hours	6	\$ 65.00	\$ 390.00
Locate Corridors and Skid Roads	MBF	18	\$ 5.00	\$ 90.00
Artificial guyline support (Dozer/Skidder)	anchor	0	\$ 500.00	\$ -
Brand and paint logs	MBF	1823	\$ 1.00	\$ 1,823.00
Loader time for firewood stacking & slash piling	Hours	20	\$ 75.00	\$ 1,500.00
Cover landing slash pile w/sheeting	pile	10	\$ 50.00	\$ 500.00
Snag Creation				
Tree Topping @ 60 feet +	Trees	0	\$ 100.00	\$ -
Tree Girdling @ 60 feet +	Trees	0	\$ 125.00	\$ -
Tree Girdling @ DBH	Trees	0	\$ 75.00	\$ -
Miscellaneous Costs				
Log Placement in Stream	Crossings	0	\$ -	\$ -
Additional Fire Equipment	Seasons	0	\$ 1,500.00	\$ -
Maintenance rock per section 5	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	0	\$ 110.00	\$ -

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

\$ 4,308.00

TIMBER SALE SUMMARY

Elk Ridge Split

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

2. Boundary Lines: The timber sale boundary is 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% Coos County.

4. Sale Acreage: The sale is comprised of one unit totaling approximately 93 acres. Sale acreage was determined from electronic digitizing using the Arc Map 10 GIS program and 2008 Lidar (Light Detection and Ranging) layers. Existing roads, landings, and non-stocked areas were removed from the cruised acreage.

5. Volume by Species:

Species	Total Volume (MBF)	Volume (MBF) per Acre
Douglas-fir	1191	12.81
Hemlock	559	6.01
Hardwoods	73	0.78
Total	1823	19.6

6. Grade: (by Percent, all areas)

Species	3 Peeler %	Spec. Mill %	2 Saw %	3 Saw %	Big 3 Saw %	4 Saw %
Douglas-fir			52%	37%		11%
Hemlock			53%	41%		6%
			12"+	10-11"	8-9"	6-7"
Hardwoods			30%	21%	12%	37%

7. Grading System: All trees were graded according to the Southern Oregon Log Scaling and Grading Rules. Trees were graded to maximize grade (i.e. 20 foot 2 Saw), where possible. Timber sale volume was calculated by converting all logs to 40 foot lengths.

8. Cruise: The timber sale area was cruised using a variable plot cruise with a nested Big Basal Area Factor (BAF) plot. The Big BAF method is a combination of count plots and individually measured trees. 20 BAF full plots at BH were used to determine tree counts and to measure minor species. The 20 BAF plots were spaced 150 feet apart on cruise lines spaced 330 feet apart. A total of 84 count plots were measured. Nested, 160 BAF full plots at BH were used to determine which Douglas-fir and western hemlock trees would be fully measured. 58 measure plots were taken, and a total of 43 Douglas-fir and 23 western hemlock trees were measured for DBH, height, grade and defect. Cruising was completed in January 2013 by ODF foresters.

A. Summary data:

Diam	Ht. Stand	Form Pt.	Form Factor	CV %	SE %
BH	Total Height	Conifer: 4.5' Hardwood: 4.5'	Recorded for all cruised trees by estimate and measure	59.1%	6.45%

B. Stand Data:

SPECIES	DBH	TREES/ACRE	BASAL AREA/AC	NET MBF/ACRE
Douglas-fir	17	72	106.4	12.81
Hemlock	20	25	48.8	6.01
Hardwoods	14	10	10.5	0.78

C. Green Tree Retention: Reserve areas consist of stream buffers and individually marked trees left along seasonal and perennial drainages. Individually marked green trees are painted with red "W" and have been removed from the cruised volume. The table below summarizes the reserve trees whose volumes have been removed from the cruise. Stream buffers and GTR areas are mapped in Exhibit "A."

Sale Area	Douglas-fir MBF	Hemlock MBF
1	29	7

9. Timber Description: Timber in the sale area is 45 to 50 year-old Douglas-fir with a significant component of western hemlock and minor amounts of red alder. The average cruised Douglas-fir is 17 inches with a total height of 91 feet. The average western hemlock is 20 inches with a total height of 95 feet.

10. Topography: The sale area ranges from 0 to 100 percent slope. A majority of the gentler terrain lies to the east of Elk Ridge, which runs north and south through the middle of the sale. The main ridges and drainages in the western half of the sale run east and west, while ridges and drainages in the eastern half run north and south. Two main streams located within the sale: Eleven Creek in the western portion and West Fork Silver Creek in the eastern portion. Locations of stream buffers and green tree retention areas are indicated on Exhibit "A."

11. Logging Method: Approximately 75% of the sale area is designed to be uphill cable logged with a medium size yarder (40 to 70 feet in height) from several existing and new landings located throughout the sale. Yarding distances range from 400 to 1,200 feet. Some settings may require tailholds on adjacent, privately owned property. A sample permit form will be provided for these tailholds.

The remaining 25% of the sale area is designed to be ground based yarded. Several existing landings located throughout the ground based areas will support these activities. Yarding distances are short at less than 400 feet. Ground based logging on slopes over 35 percent will require written approval prior to operation in these areas.

Final determination of landing locations and logging method must give priority to protection of stream buffers and green tree retention areas. Full suspension will be required when yarding over drainages and stream buffers, and single end suspension will be required over the remainder of the sale areas. This timber sale is intended for dry season operation. Roads and landings are indicated on Exhibit "A" and Logging Plan maps.

12. Access: From Coos Bay travel east on Coos River Highway approximately 15 miles to Marlow (1000) Road. Proceed 8.25 miles up the 1000 Road to project Point A, at the junction of the 1000 and 1400 Roads.

13. Projects:

Project 1: Road and Landing Construction

Project 2: Road and Landing Improvement

SUMMARY OF CONSTRUCTION COST

Elk Ridge Split

Project 1A: Road and Landing Construction

Points: L to M Length: 630' Type: 14' no ditch

Excavator	<u>20</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$2,800.00</u>
Cat time	<u>20</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$2,800.00</u>
Grader	<u>1</u>	hrs at	<u>\$85.00</u>	per hour	<u>\$85.00</u>
Laborer	<u>20</u>	hrs at	<u>\$38.00</u>	per hour	<u>\$760.00</u>

Total Project 1A: \$6,445.00

Project 1B: Landing Construction

Points: D Length: n/a Type: n/a

Excavator	<u>10</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$1,400.00</u>
Cat time	<u>15</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$2,100.00</u>
Laborer	<u>15</u>	hrs at	<u>\$38.00</u>	per hour	<u>\$570.00</u>

Total Project 1B: \$4,070.00

Project 1C: Landing Construction

Points: I Length: n/a Type: n/a

Excavator	<u>5</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$700.00</u>
Cat time	<u>5</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$700.00</u>

Total Project 1C: \$1,400.00

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 \$13,315.00

Project 2A: Road Improvement

Points: A to B Length: 4006' Type: 14' w/ditch

Grader time - clean ditches, blade road	<u>3</u>	hrs at	<u>\$85.00</u>	per hour	<u>\$255.00</u>
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Total Project 2A: \$255.00

SUMMARY OF CONSTRUCTION COST

Elk Ridge Split

Project 2B: Road Improvement

Points:	B to C	Length:	2470'	Type:	14' no ditch
Excavator - clean culvert inlets, fix drainage open road for haul to Point D (900 feet)	5	hrs at	\$140.00	per hour	\$700.00
Cat time	5	hrs at	\$140.00	per hour	\$700.00
Grader time - blade road to Point D	1	hrs at	\$85.00	per hour	\$85.00

Total Project 2B: \$1,485.00

Project 2C: Landing Improvement

Points:	E & F	Length:	n/a	Type:	14' no ditch
Excavator - remove small trees, move material	10	hrs at	\$140.00	per hour	\$1,400.00
Cat time - move material to open landings	10	hrs at	\$140.00	per hour	\$1,400.00

Total Project 2C: \$2,800.00

Project 2D: Road and Landing Improvement

Points:	G to H & H to I	Length:	1180'	Type:	14' no ditch
Grader time - blade road	2	hrs at	\$85.00	per hour	\$170.00
18"x40' Culvert replacement at Pt H (includes installation)	40	feet at	\$17.00	per foot	\$680.00
Culvert Band	1	band at	\$19.00	per band	\$19.00
Rock Type:	2 1/2" - 0" Hard Crushed Quarry				
Volume:	23 tons				
Location:	Point H, culvert replacement area				
2 1/2"-0" Rock	23	tons at	\$10.00	per ton	\$230.00
haul cost for rock (2.3 hr RT)	23	tons at	\$8.70	per ton	\$200.10

Total Project 2D: \$1,300.00

Project 2E: Road and Landing Improvement

Points:	H to N, N to O & N to P	Length:	2855'	Type:	14' no ditch
Excavator - remove brush, open roads and landing at Point P	10	hrs at	\$140.00	per hour	\$1,400.00
Grader time - blade roads	3	hrs at	\$85.00	per hour	\$255.00

Total Project 2E: \$1,655.00

Project 2F: Road and Landing Improvement

Points:	J to K	Length:	545'	Type:	14' no ditch
Excavator - remove brush, open road and improve landing area at Pt K	10	hrs at	\$140.00	per hour	\$1,400.00
Cat time - open road, improve landing area	15	hrs at	\$140.00	per hour	\$2,100.00
Grader time - blade road	1	hrs at	\$85.00	per hour	\$85.00

Total Project 2F: \$3,585.00

SUMMARY OF CONSTRUCTION COST
Elk Ridge Split

Project 2G: Road and Landing Improvement

Points: Q to R Length: 935' Type: 14' no ditch

Excavator - remove brush, open road and landings	<u>10</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$1,400.00</u>
Cat time - open road	<u>10</u>	hrs at	<u>\$140.00</u>	per hour	<u>\$1,400.00</u>
Grader time - blade road	<u>1</u>	hrs at	<u>\$85.00</u>	per hour	<u>\$85.00</u>

Total Project 2G: \$2,885.00

Project 2 Total \$13,965.00

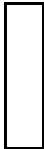
Total Project Costs \$27,280.00

**Operating Periods Restrictions Matrix for
Elk Ridge Split
341-13-84**

Harvesting	January		February		March		April		May		June		July		August		September		October		November		December	
						1st		1st	15th	16th			7th	8th	5th	6th	15th	16th	14th	15th				
Ground-based Yarding																								
Cable Yarding on Unsurfaced Roads																								
Felling, Ground-based Yarding, Cable Yarding, and Loading																								

Hauling	January		February		March		April		May		June		July		August		September		October		November		December	
						1st		1st	15th	16th					5th	6th	15th	16th	15th					
Log Hauling on Unsurfaced Roads																								
Marlow Creek (1000) Rd (mile 0.0 to 5.0)																								

Project Work	January		February		March		April		May		June		July		August		September		October		November		December	
						1st		1st	15th	16th					5th	6th	15th	16th	15th					
Projects 1 & 2																								
Non-project Roads and Landings																								
Projects 1 & 2 and Non-project Roads and Landings																								



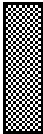
Operations Allowed



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 the body of the timber sale contract. See the contract for further information on seasonal restrictions.

CRUISE VOLUME COMPUTATION REPORT

SALE NAME: Elk Ridge Split
 LEGAL LOCATION: T24S, R11W Sec. 11 & 12

DATE: 04/10/2013
 BY: Joe Goldsby

GROSS VOLUME MBF

SPECIES>>	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds	TOTAL
AREA						
1	1353	635	0	0	81	2,069
Less GTR Vol.	29	7	0	0	0	36
Less DWD Vol.	0	0	0	0	0	0
TOTAL	1324	628	0	0	81	2033

DEFECT AND BREAKAGE

Species	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds
Hidden cull	0.05	0.05	0	0	0.04
Field cull	0.02	0.03	0	0	0.03
Breakage	0.03	0.03	0	0	0.03
Total	0.10	0.11	0.00	0.00	0.10

NET VOLUME BY MBF

SPECIES	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds	TOTALS
AREA						
1	1191	559	0	0	73	1823
TOTALS	1191	559	0	0	73	1823

NET VOLUME BY GRADE AND MBF *

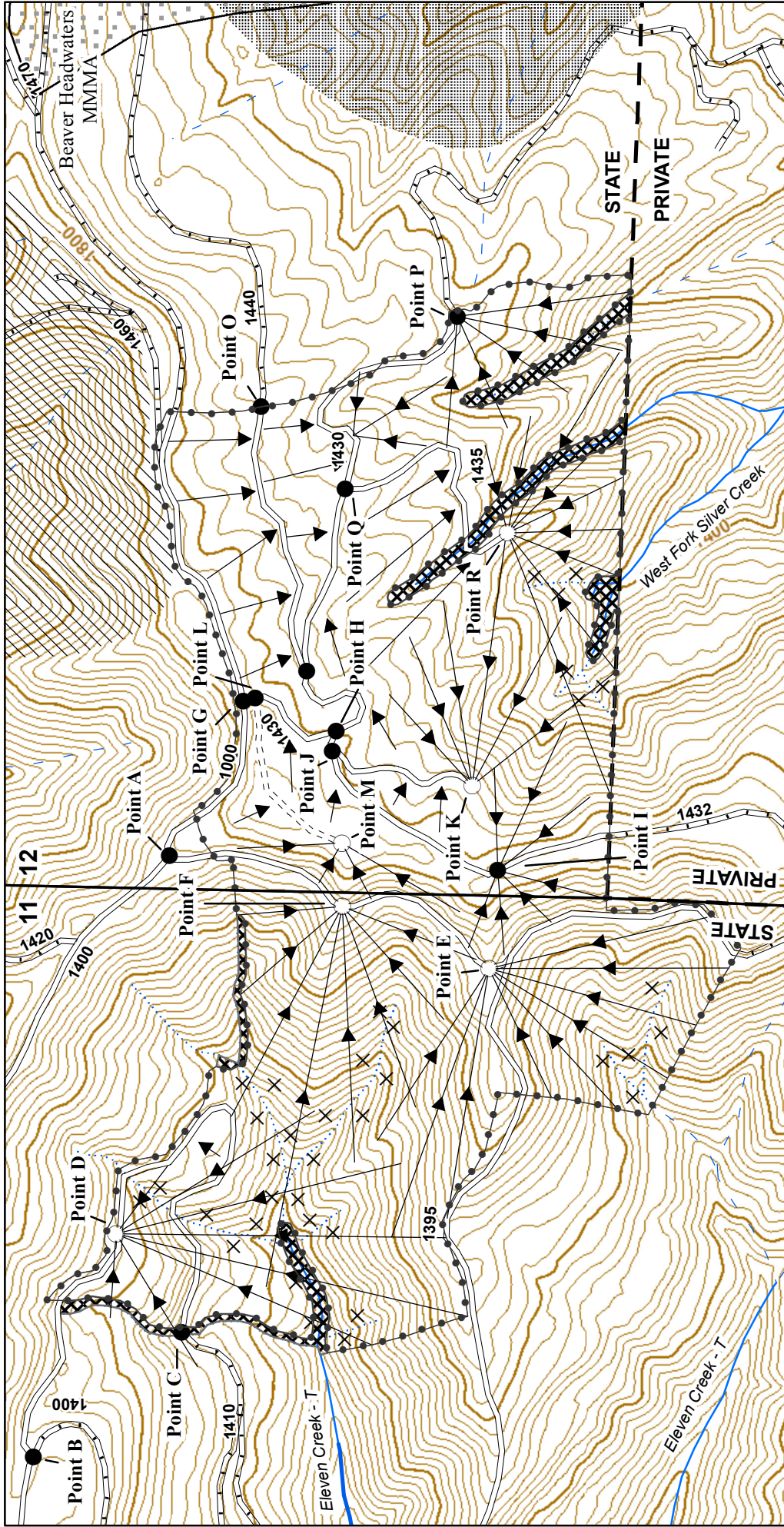
Grade >>>>>>>>>>	2 PEE	3 PEE	SM	2SAW(12"+)	3SAW(12"+)	(RA) 3SAW(10-11")	(RA) 4SAW(8-9")	(RA) (6-7")
Species								
Doug-Fir	0	0	0	617	0	442	132	0
Hdwds	0	0	0	0	22	15	9	27
Red Cedar	0	0	0	0	0	0	0	0
Hemlock	0	0	0	298	0	229	32	0
Sitka Spruce	0	0	0	0	0	0	0	0

GRADE DISTRIBUTION BY PERCENT

Grade >>>>>>>>>>	2 PEE	3 PEE	SM	2SAW(12"+)	3SAW(12"+)	3SAW(10-11")	4SAW(8-9")	(6-7")
Doug-fir	0%	0%	0%	52%	0%	37%	11%	0%
Hardwood	0%	0%	0%	0%	30%	21%	12%	37%
Red Cedar	0%	0%	0%	0%	0%	0%	0%	0%
Hemlock	0%	0%	0%	53%	0%	41%	6%	0%
Sitka Spruce	0%	0%	0%	0%	0%	0%	0%	0%

Elk Ridge Split Acreage Calculation

	Gross Posted Acres			Interior road acreage		Net cruise acres	
				Non Stocked			
Area 1	101.90			8.90	0	93.00	
Total	101.90			8.90	0.00	93.00	
*Interior Acreage for Existing Roads							
	Road	Length (ft)		Width (ft)	Sq. Ft		Acres
Area 1	Roads & Landings				0		8.90
					Total road acres		8.90



Acreage	
Gross	102 Acres
Net	93 Acres



1:6,000 1 inch = 500 feet

LOGGING PLAN

Sale No. 341-13-84

Elk Ridge Split

Portions of Sections 11 & 12
T24S, R11W, W.M.
Coos County, Oregon
Regulated Use Area CS-2
100% CSL

The information shown on this map is approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.

