



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Elkhorn Ranch  
Sale 341-10-28

District: Coos

Date: September 08, 2009

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$1,117,947.60	\$59,483.20	\$1,177,430.80
		<b>Project Work:</b>	\$(77,789.00)
		<b>Advertised Value:</b>	\$1,099,641.80



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**timber description**

Location: Portions of Sections 26 and 35, T23S, R11W, W.M., Coos County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	26	0	95
Western Hemlock / Fir	23	0	90
Alder (Red)	16	0	85

Volume by Grade	10" - 11"	12"+	2S	3P and B	3S	3S 12"+	6" - 7"	8" - 9"	SM	Total
Douglas - Fir	0	0	3,417	46	323	646	0	0	185	4,617
Western Hemlock / Fir	0	0	155	0	182	0	0	0	0	337
Alder (Red)	87	73	0	0	0	0	33	42	0	235
Total	87	73	3,572	46	505	646	33	42	185	5,189



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comments: Pond Values Used: 2nd Quarter Calendar Year 2009.

Section 2335 - 188 snags shall be created in the timber sale area following timber sale contract specifications. For each snag fewer than 188 not required to be created, \$75 shall be paid to STATE.

Regeneration harvest of approximately 94 acres of predominately 88-125 year-old mature second growth Douglas-fir sawtimber and a small component of red alder and western hemlock.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost  
 $\$512/\text{MBF} = \$710/\text{MBF} - \$198/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

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

FELLING

Directional Felling: 700 trees @ \$2/each = \$1,400

YARDING & LOADING

Brand and Paint Logs: 1\$/MBF x 5,189 MBF = \$5,189

Loader Time for Firewood Stacking: 1 hours @ \$75/hour = \$75

Cull Sorting/Slash Piling on Landings: 1 landing @ \$125/landing = \$125

SNAG CREATION

Tree Topping: 94 trees @ \$100/each = \$9,400

Tree Girdling (DBH): 47 trees @ \$50/each = \$2,350

Tree Girdling (Topping Height): 47 trees @ \$100/each = \$4,700

TOTAL Other Costs (with Profit & Risk to be added) = \$23,239

Other Costs (No Profit & Risk to be 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 Delimiting
<b>tree size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
<b>loads / day:</b>	12.0	<b>bd. ft / load:</b> 5,000
<b>cost / mbf:</b>	\$61.56	
<b>machines:</b>	Log Loader (A) Tower Yarder (Large)	



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**logging costs**

Operating Seasons:	1.00	Profit Risk:	12.00%
Project Costs:	\$77,789.00	Other Costs (P/R):	\$23,239.00
Slash Disposal:	\$0.00	Other Costs:	\$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	5.0
Western Hemlock / Fir	\$0.00	2.0	4.8
Alder (Red)	\$0.00	2.0	3.5

**Local Pond Values**

Date	Specie	Grade	Value
7/1/09	Douglas - Fir	2S	\$445.00
7/1/09	Red Cedar	2S	\$710.00
7/1/09	Red Cedar	3S	\$710.00



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**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$61.56	\$0.63	\$0.85	\$65.62	\$4.48	\$15.98	\$0.00	\$5.00	\$0.00	\$154.12
<b>Western Hemlock / Fir</b>									
\$61.56	\$0.66	\$0.85	\$71.61	\$4.48	\$16.70	\$0.00	\$5.00	\$0.00	\$160.86
<b>Alder (Red)</b>									
\$61.56	\$0.69	\$0.85	\$102.68	\$4.48	\$20.43	\$0.00	\$5.00	\$0.00	\$195.69

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$389.78	\$235.66	\$0.00
Western Hemlock / Fir	\$0.00	\$249.60	\$88.74	\$0.00
Alder (Red)	\$0.00	\$448.81	\$253.12	\$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	4,617	\$235.66	\$1,088,042.22
Western Hemlock / Fir	337	\$88.74	\$29,905.38
Alder (Red)	235	\$253.12	\$59,483.20

**Gross Timber Sale Value**

Recovery: \$1,177,430.80

Prepared by: Ryan Greco

Phone: 541-267-1755

**SUMMARY OF CONSTRUCTION COST  
Elkhorn Ranch**

**Project 1A: Road Improvement**

Points: A to B      Length: 1070'      Type: 14' w/ditch

Excavator	5	hrs at	\$125.00	per hour	\$625.00
Cat time	5	hrs at	\$120.00	per hour	\$600.00
Dump Truck	5	hrs at	\$95.00	per hour	\$475.00
Grader time	1	hrs at	\$75.00	per hour	\$75.00
Laborer	5	hrs at	\$35.00	per hour	\$175.00

**Total Project 1A:      \$1,950.00**

**Project 1B: Road and Landing Improvement**

Points: B to C      Length: 1735'      Type: 14' no ditch

Excavator - remove slough and pullback	10	hrs at	\$125.00	per hour	\$1,250.00
Cat time	10	hrs at	\$120.00	per hour	\$1,200.00
Dump Truck	5	hrs at	\$95.00	per hour	\$475.00
Grader time	2	hrs at	\$75.00	per hour	\$150.00
Laborer	10	hrs at	\$35.00	per hour	\$350.00

**Total Project 1B:      \$3,425.00**

**Move-in**

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	35	5	\$95.00	\$475.00
Cat	35	5	\$95.00	\$475.00
Grader	35	4	\$95.00	\$380.00
Dump Truck	35	4	\$95.00	\$380.00

**Total Move-in:      \$1,710.00**

**Project 1 Total      \$7,085.00**

**Project 2A: Rock Stockpile**

Location: Elk Creek (8000/9000 jct)  
 Measured amount: 1200 cu yds  
 Size: 1 1/2" - 0"

Cost per cu yd at crusher:	\$15.96	per yd
Haul cost per cu yd (2.5 hr RT):	\$11.11	per yd
Piling and shaping cost per cu yd:	\$1.50	per yd
<b>Total cost per cu yd:</b>	<b>\$28.57</b>	per yd
<b>Total cu yds:</b>	<b>1200</b>	yards

**Total Cost for Stockpile rock:      \$34,284.00**

**Total Project 2A:      \$34,284.00**



**SUMMARY OF CONSTRUCTION COST**  
**Elkhorn Ranch**

**Project 2B: Rock Stockpile**

Location: Skunk Creek (9000/9300 jct)  
Measured amount: 1200 cu yds  
Size: 1 1/2" - 0"

Cost per cu yd at crusher:	\$15.96	per yd
Haul cost per cu yd (2.9 hr RT):	\$12.89	per yd
Piling and shaping cost per cu yd:	\$1.50	per yd

Total cost per cu yd:	\$30.35	per yd
Total cu yds:	1200	yards

**Total Cost for Stockpile rock: \$36,420.00**

**Total Project 2B: \$36,420.00**

**Project 2 Total: \$70,704.00**

**Total Project Costs \$77,789.00**

# TIMBER SALE SUMMARY

## Elkhorn Ranch

**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% Coos County.

**4. Sale Acreage:** The sale is comprised of one unit totaling 94 acres. Sale acreage was determined from electronic digitizing using the ArcMap 9 GIS program. Interior road acres were accounted for by including in the cruise.

**5. Volume by Species, Fund and County.** See Attached table titled Net Volumes and Acreages

**6. Grade:** (by Percent, all areas)

Species	3 Peeler %	Spec. Mill %	2 Saw %	3 Saw %	Big 3 Saw %	4 Saw %
Douglas-fir	1%	4%	68%	13%	14%	
Hemlock			46%	54%		
		12"+	10-11"	8-9"	6-7"	
Hardwoods		31%	37%	18%	14%	

**7. Cruise:** The northern part of this timber sale is of a different age than the rest of the unit. Approximately 17 acres are 52 years old with scattered large, open grown Douglas Fir and Western Hemlock that have been marked for retention. This area was removed from the cruise and a volume assigned based on inventory data minus individually marked retention trees. This volume is 20 MBF/acre. The remaining 78 acres of the unit was cruised using a variable plot cruise with a nested Big BAF plot. The Big BAF method is a combination of count plots and individually measured trees. The plots were spaced 110 feet apart on cruise lines spaced 455 feet apart. A 360 BAF full plot at 16 feet was taken to determine which Douglas-fir trees would be fully measured.

A total of 52 Douglas-fir trees were fully measured for DBH, height, grade and defect. A 40 BAF full plot at 16 feet was used to determine tree counts and to measure minor species. A total of 67 count plots were measured. Cruising was done in October 2008 by ODF foresters.

A. Summary data:

Diam	Ht. Stand	Form Pt.	Form Factor	CV %	SE %
D4H	6" DIB	Conifer: 16' Hardwood: 16'	Recorded for all cruised trees by estimate and measure	62%	8.02%

B. Stand Data:

SPECIES	DBH	TREES/ACRE	BASAL AREA/AC	NET MBF/ACRE
Douglas Fir	26	54	207	49
Hemlock	23	8	21	4
Hardwoods	16	24	34	2.5

C. Green Tree Retention: Reserve areas consist of stream buffer extensions and trees left along seasonal and perennial drainages. Open grown GTR are scattered in the northern part of the unit. The volume of these individually marked trees is not included in the net volume as the volume of the remaining young timber in the north has been added during sale preparation. The table below summarizes reserve trees whose volume has been removed from the cruise. Reserve trees are marked with Red or Blue paint. Stream buffers and GTR areas are mapped in Exhibit "A."

Sale Area	Douglas fir - MBF	Hemlock MBF	Hardwood MBF
1	52.4	5.8	1.1

**8. Timber Description:** The majority of timber in the sale area is mature 90 to 127 year-old Douglas-fir sawtimber with minor amounts of western hemlock and red alder. 17 acres of the timber sale is 54 years old with an older standing overstory. Timber quality is good.

**9. Topography:** The majority of this timber sale has a westerly aspect with minor areas having northern or southern aspects. Terrain is typically steep with a large bench to the north. The timber sale is bordered by tributaries to the West Fork Millicoma to the north and southeast, reproduction to the east, and the West Fork Millicoma River to the west. Locations of stream buffers and green tree retention areas are indicated on the Exhibit "A".

**10. Logging Method:** This timber sale is designed for cable logging. 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 while yarding over drainages and stream buffers and single end suspension over the remainder of the sale area. All areas are intended for dry season operation. Purchaser must comply with winter and wet weather option if operations are conducted during the wet season. The sale has been designed to be logged from one landing situated on the 9342 road. Roads and landings are indicated on the Exhibit "A".

**11. Access:** From Coos Bay, proceed east on Coos River Highway past Allegany to the 1000 line (Marlow Creek Road). Proceed 10 ½ miles up the 1000 line until the 9000 and head north. Turn up the 9300 road for approximately 2 miles and turn left onto the 9340 road. Proceed ½ mile until an unmarked spur road (9342) to the right. Proceed on the unmarked spur road and stay to the left to the end.

**12. Projects:**

Project 1: Road and Landing Improvement

Project 2: Elk Creek and Skunk Creek Rock Stockpile Replenishment

## NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							Total Vols.	Vol. per Acre
			By County and Fund								
Area	Spec		Coos			Douglas					
			CSL	BOF	Total	CSL	BOF	Total			
1	D-fir		4617		4617			0	4617	49	
	Hdwd		235		235			0	235	3	
	WH		337		337			0	337	4	

**TOTAL SALE VOLUME BY SPECIES**

Douglas-fir    4617 MBF  
 Hemlock        337 MBF  
 Hardwoods     235 MBF  
 Total            5189 MBF

Report by: Ryan Greco

Date: 06/15/2009

Unit For: *[Signature]*  
 Date

*6/22/09*

Asst. Dist. For: *[Signature]* 6.24.2009  
 Date

**UTILITY VOLUME NOT SHOWN TO PROVIDE FOR RETENTION OF DOWN LOGS  
 NO INGROWTH INCLUDED**

**ACREAGE BY COUNTY (to nearest acre)**

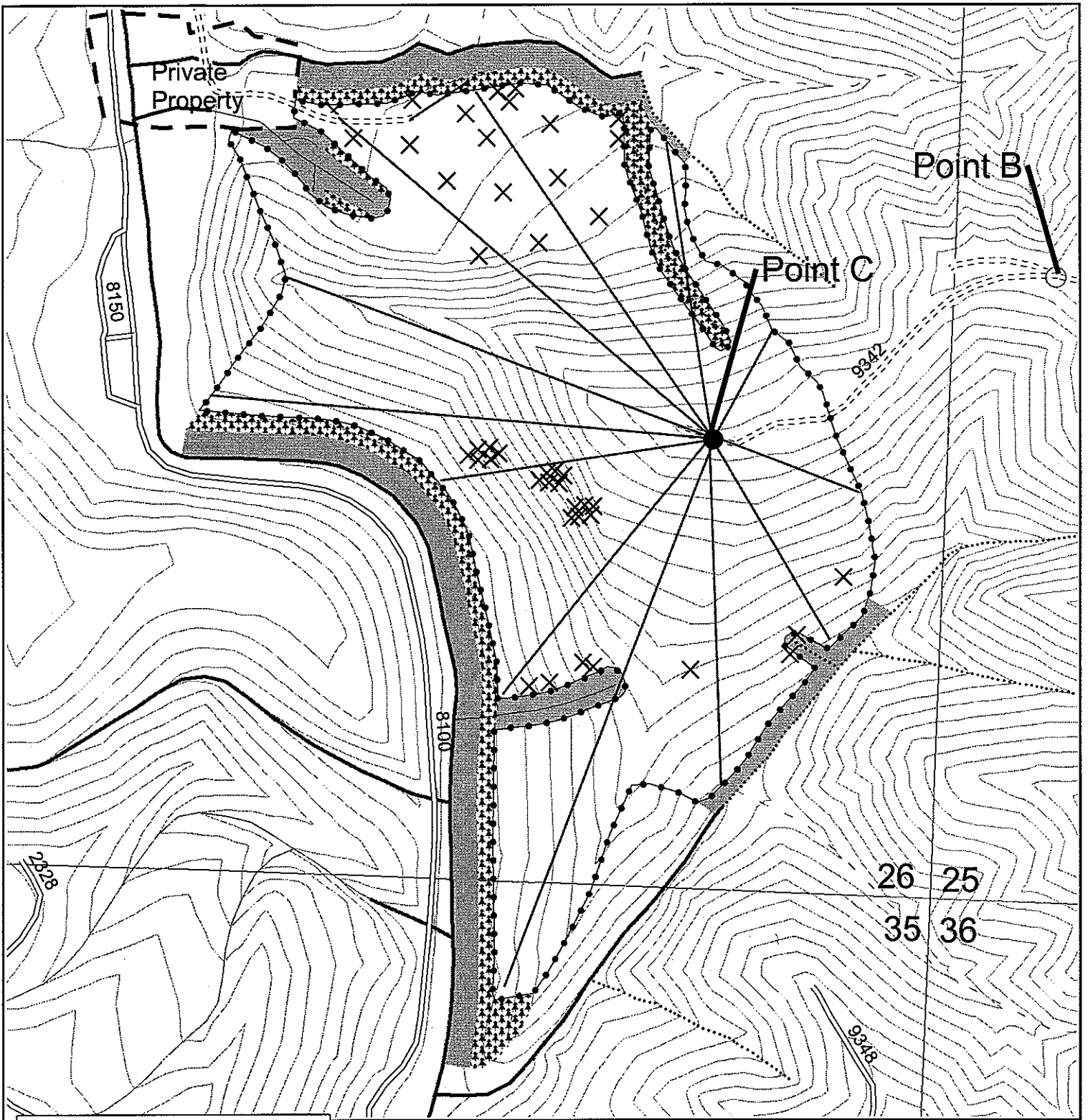
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
1	94												94
SUM	94.0	0	0	0	0	0	0	0	0	0	0	0	94.0

cc- clearcut

pc- partial cut

BOF - Board of Forestry

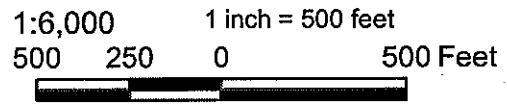
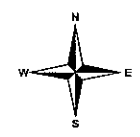
CSL - Common School Land



- |                             |                  |
|-----------------------------|------------------|
| Timber Sale Boundary        | Grouped GTR      |
| Landing                     | Type F           |
| Road Point                  | Type N Perennial |
| State Maintained            | Type N Seasonal  |
| Purchaser Maintained        | Unclassified     |
| State Forest Boundary       | Stream Buffer    |
| Single Green Tree Retention | 40' Contours     |

**LOGGING PLAN**  
**OF TIMBER SALE NO.**  
**341-10-28**  
**ELKHORN RANCH**  
**PORTIONS OF SECTIONS**  
**26, and 35**  
**T23S, R11W, W.M.**  
**COOS COUNTY, OREGON**

Approx. 94 net acres



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