



"STRENGTH THROUGH FORESTRY"

# Timber Sale Appraisal Big Lyr

## Sale WO-341-2016-24-

District: West Oregon

Date: May 27, 2015

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### Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$780,159.60	\$55,722.90	\$835,882.50
		Project Work:	(\$74,528.00)
		Advertised Value:	\$761,354.50



"STAND FOR AN INDUSTRY"

# Timber Sale Appraisal Big LYR

Sale WO-341-2016-24-

**District: West Oregon**

**Date: May 27, 2015**

## Timber Description

**Location:** Portions of Section 18, T10S, R7W, and portions of Sections 13 and 24, T10S, R8W, W.M., Benton and Lincoln Counties, Oregon.

**Stand Stocking:** 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	26	0	95
Alder (Red)	17	0	90

Volume by Grade	2S	3S	3S 12"+	4S	Camprun	Total
Douglas - Fir	1,958	304	131	27	0	2,420
Alder (Red)	0	0	0	0	178	178
<b>Total</b>	1,958	304	131	27	178	2,598

**Comments:** Pond Values Used: 1st Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$225.87/\text{MBF} = \$475/\text{MBF} - \$249.13/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:  
 $\$935.87/\text{MBF} = \$1,185/\text{MBF} - \$249.13/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

Log Haul:

Conifer costed to Eugene.

Hardwood costed to Eugene.

HAULING COST ALLOWANCE:

Hauling costs equivalent to \$780 daily truck cost.

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

Log Branding & Painting: 2,598 MBF @ \$1/MBF = \$2,598

Brow Logs: 25 corridors @ \$70/corridor = \$1,750

Intermediate Supports/Tail Trees: 15 trees @ \$100/tree = \$1,500

TOTAL Other Costs (with Profit & Risk to be added) = \$5,848

Other Costs (No Profit & Risk added):

Invasive Species Equipment Cleaning: \$2,000

Firewood Sorting: 8 Landings @ \$100/Landing = \$800

TOTAL Other Costs (No Profit & Risk added) = \$2,800

SLASH DISPOSAL

Move-in = \$750

Project Work: 24 hours @ \$150/hour = \$3,600

TOTAL Slash Disposal = \$4,350





Timber Sale Appraisal  
Big LYR

Sale WO-341-2016-24-

District: West Oregon

Date: May 27, 2015

**Logging Costs**

<b>Operating Seasons:</b> 2.00	<b>Profit Risk:</b> 12%
<b>Project Costs:</b> \$74,528.00	<b>Other Costs (P/R):</b> \$5,848.00
<b>Slash Disposal:</b> \$4,350.00	<b>Other Costs:</b> \$2,800.00

**Miles of Road**

**Road Maintenance:** \$4.42

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

**Hauling Costs**

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.6
Alder (Red)	\$0.00	2.0	3.5



"SUSTAINABLE FORESTRY"

# Timber Sale Appraisal Big Lyr

Sale WO-341-2016-24-

District: West Oregon

Date: May 27, 2015

## Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$116.23	\$4.64	\$3.38	\$89.02	\$2.25	\$25.86	\$1.67	\$5.00	\$1.08	\$249.13
<b>Alder (Red)</b>									
\$116.23	\$4.86	\$3.38	\$122.57	\$2.25	\$29.91	\$1.67	\$5.00	\$1.08	\$286.95

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$571.51	\$322.38	\$0.00
Alder (Red)	\$0.00	\$600.00	\$313.05	\$0.00



Timber Sale Appraisal  
Big Lyr

Sale WO-341-2016-24-

District: West Oregon

Date: May 27, 2015

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**Summary**

**Amortized**

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

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	2,420	\$322.38	\$780,159.60
Alder (Red)	178	\$313.05	\$55,722.90

**Gross Timber Sale Value**

Recovery: \$835,882.50

Prepared By: Joe Goldsby

Phone: 541-929-3266

## SUMMARY OF ALL PROJECT COSTS

Sale Name: Big LYR

Date: May 2015

Time: 14:57

### Project #1 - New Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>	
A7 to A8	3.1 sta	\$6,199	
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<b>TOTAL</b>	3.1 sta		\$6,199

### Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>	
A to A1	197.2 sta	\$14,470	
A1 to A2	20.7 sta	\$29,010	
A3 to A4	7.2 sta	\$9,173	
A5 to A6	4.7 sta	\$6,807	
A9 to A10	1.1 sta	\$1,754	
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<b>TOTAL</b>	230.9 sta		\$61,214

### Project #3 - Post Harvest Activities

Landing patch rock and turnaround rock \$4,572

### Move in

	<u>Cost</u>	<u>On-site move</u>	
Excavator	\$753		
Crawler tractor, D-7 or equiv.	\$547		
Grader, Cat 14-G or equiv.	\$340		
Water Truck	\$223		
Backhoe	\$340		
Vibratory roller	\$340		
<hr/>			
<b>TOTAL</b>			\$2,543

**GRAND TOTAL** **\$74,528**

Compiled by J. Goldsby

Date 05/15/2015



## SUMMARY OF CONSTRUCTION COST

SALE	Big LYR	Project #	2	LENGTH	improve	197.2 sta
ROAD	A to A1			surfaced, crowned		

### CLEARING AND GRUBBING

0.1 acres	@	\$1,010.24 /acre	=	\$101 landing
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TOTAL CLEARING AND GRUBBING = \$101

### IMPROVEMENT

Shape surface (with road grader)		197.2 sta	@	\$13.75 /sta	=	\$2,712
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TOTAL IMPROVEMENT = \$2,712

### EXCAVATION

With D7 dozer or equivalent

Construct landing (Sta. 169+90)		2 hr	@	\$135.80 /hr	=	\$272
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TOTAL EXCAVATION = \$272

### SURFACING

		Size	Cost/yd		
Landing rock (Sta. 169+90)	27 cy of	jaw-run	\$20.66	=	\$558
Spot rock (100 CY/mi)	378 cy of	1½-0"	\$23.36	=	\$8,830
Dissipater rock (x-drain @ Sta. 21+50)	9 cy of	pit run	\$19.99	=	\$180
Culvert backfill (x-drain @ Sta. 113+90)	18 cy of	3-0"	\$23.17	=	\$417

TOTAL ROCK COST = \$9,985

### SPECIAL PROJECTS

Clean out culverts (inlets and outlets)		29 culverts	@	\$25.67 ea	=	\$744
Additional backhoe time (Sta. 10+60 & 113+90)		4 hr	@	\$ 77.00 /hr	=	\$308
Slough endhaul		20 cy	@	\$ 2.51 /cy	=	\$50
Process waste area		20 cy	@	\$0.38 /cy	=	\$8
Extend x-drain (Sta. 113+90)		10 ft	@	\$ 20.00 /ft	=	\$200
Vibratory hand compactor		1 day	@	\$ 90.00 /day	=	\$90

TOTAL SPECIAL PROJECTS COST = \$1,400

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$14,470**

**SUMMARY OF CONSTRUCTION COST**

SALE Big LYR Project # 2 LENGTH improve 20.7 sta  
ROAD A1 to A2 surfaced, outsloped

**IMPROVEMENT**

Re-open road (with dozer)	4 hr	@	\$135.80 /hr	=	\$543
Re-open landings (with dozer, Sta. 16+50 & Point A2)	1 hr	@	\$135.80 /hr	=	\$136
Slough removal & cut slope lay back 60 CY (Sta. 9+10 to 11+20)	2 hr	@	\$110.60 /hr	=	\$221
Slough endhaul	1 hr	@	\$68.88 /hr	=	\$69
Process waste area	60 cy	@	\$0.38 /cy	=	\$23
Shape surface (with road grader)	20.7 sta	@	\$11.55 /sta	=	\$239
Compact subgrade (with vibratory roller)	20.7 sta	@	\$8.31 /sta	=	\$172

TOTAL IMPROVEMENT = \$1,403

**SURFACING**

			Size	Cost/yd		
Surface rock (10" lift) (Pt. A1 to Sta. 10+50 & 12+30 to 20+20)	1017 cy of		3-0"	\$23.17	=	\$23,564
Base rock (8" lift) (Sta. 10+50 to 12+30)	81 cy of		3-0"	\$23.17	=	\$1,877
Surface rock (2" lift) (Sta. 10+50 to 12+30)	18 cy of		1½-0"	\$24.86	=	\$447
Turnout rock (2) (Sta. 6+30 & 13+50)	18 cy of		3-0"	\$23.17	=	\$417
Landing rock (Sta. 16+50 & Point A2)	63 cy of		jaw-run	\$20.66	=	\$1,302

TOTAL ROCK COST = \$27,607

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$29,010**

**SUMMARY OF CONSTRUCTION COST**

SALE	Big LYR	Project #	2	LENGTH	improve	7.2 sta
ROAD	A3 to A4				surfaced, outslope	

**CLEARING AND GRUBBING**

0.1 acres	@	\$1,010.24 /acre	=	\$101 road
0.1 acres	@	\$1,010.24 /acre	=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$202

**IMPROVEMENT**

Re-open road (with road grader, Sta. 0+00 to 2+50)	2.5 sta	@	\$9.90 /sta	=	\$25
Re-open road (with dozer, Sta. 2+50 to 7+20)	4.7 sta	@	\$37.14 /sta	=	\$175
Re-open landing (Sta. 6+10)	1 hr	@	\$ 135.80 /hr	=	\$136
Re-open/enlarge landing (Point A4)	2 hr	@	\$ 135.80 /hr	=	\$272
Shape subgrade (with road grader)	4.7 sta	@	\$11.55 /sta	=	\$54
Compact subgrade (with vibratory roller, Sta. 2+50 to 7+20)	4.7 sta	@	\$8.31 /sta	=	\$39

TOTAL IMPROVEMENT = \$701

**SURFACING**

		Size	Cost/yd		
Surface rock (6" lift) (Sta. 0+00 to 2+50)	81 cy of	3-0"	\$23.17	=	\$1,877
Surface rock (10" lift) (Sta. 2+50 to 5+60)	171 cy of	3-0"	\$23.17	=	\$3,962
Landing rock (Sta. 5+60 to 6+10)	36 cy of	jaw-run	\$20.66	=	\$744
Surface rock (12" lift) (Sta. 6+10 to 6+70)	45 cy of	pit run	\$21.49	=	\$967
Landing rock (Point A4)	36 cy of	pit run	\$19.99	=	\$720

TOTAL ROCK COST = \$8,270

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$9,173**

**SUMMARY OF CONSTRUCTION COST**

SALE	Big LYR	Project #	2	LENGTH	improve	4.7 sta
ROAD	A5 to A6			surfaced,	outslope	

**CLEARING AND GRUBBING**

0.10 acres	@	\$1,010.24 /acre	=	\$101 landing
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TOTAL CLEARING AND GRUBBING = \$101

**IMPROVEMENT**

Re-open road (with dozer)	4.7 sta	@	\$37.14 /sta	=	\$175
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Re-open/enlarge landing (Point A6) (with dozer)	2 hrs	@	\$ 135.80 /hr	=	\$272
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Shape surface (with road grader)	4.7 sta.	@	\$11.55 /sta	=	\$54
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Compact subgrade (with vibratory roller)	4.7 sta.	@	\$8.31 /sta	=	\$39
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TOTAL IMPROVEMENT = \$540

**SURFACING**

Surface rock (10"lift)	234 cy of	Size	3-0"	Cost/yd	\$23.17	=	\$5,422
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Landing rock (Point A6)	36 cy of	jaw-run		\$20.66	=	\$744
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TOTAL ROCK COST = \$6,166

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$6,807**

## SUMMARY OF CONSTRUCTION COST

SALE	Big LYR	Project #	1	LENGTH const		3.1 sta
ROAD	A7 to A8			surfaced, crowned		

### CLEARING AND GRUBBING

0.17 acres	@	\$1,010.24 /acre		=	\$172 road
0.10 acres	@	\$1,010.24 /acre		=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$273

### EXCAVATION

With D7 dozer or equivalent

Construct road (with dozer)	3.1 sta	@	\$74.28 /sta	=	\$230
Construct road (with excavator)	6 hr	@	\$110.60 /hr	=	\$664
Extra drift (with dozer)	2 hr	@	\$135.80 /hr	=	\$272
Construct landing (Point A8)	2 hr	@	\$135.80 /hr	=	\$272
Shape subgrade (with road grader)	3.1 sta	@	\$18.17 /sta	=	\$56
Compact subgrade (with vibratory roller)	3.1 sta	@	\$8.31 /sta	=	\$26
Enhaul (A to A1 Sta. 169+90)	80 cy	@	\$1.07 /cy	=	\$86
Process waste area	80 cy	@	\$0.38 /cy	=	\$30

TOTAL EXCAVATION = \$1,636

### SURFACING

			Size	Cost/yd		
Surface rock (10"lift)	144 cy of		3-0"	\$23.17	=	\$3,336
Landing rock (Point A8)	36 cy of		jaw-run	\$20.66	=	\$744
Junction patch rock (Point A7)	9 cy of		1½-0"	\$23.36	=	\$210

TOTAL ROCK COST = \$4,290

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$6,199**

## SUMMARY OF CONSTRUCTION COST

SALE	Big LYR	Project #	2	LENGTH	improve	
ROAD	A9 to A10			surfaced,	outslope	1.1 sta

### IMPROVEMENT

Re-open road/ landing (with dozer)	1 hr	@	\$135.80	/sta	=	\$136
Shape subgrade (with road grader)	1.1 sta	@	\$11.55	/sta	=	\$13
Compact subgrade (with vibratory roller)	1.1 sta	@	\$8.31	/sta	=	\$9

TOTAL IMPROVEMENT = \$158

### SURFACING

			Size	Cost/yd		
Surface rock (10"lift)	36	cy of	jaw-run	\$22.16	=	\$798
Landing rock	36	cy of	jaw-run	\$22.16	=	\$798

TOTAL ROCK COST = \$1,596

Compiled by: J. Goldsby  
Date: May 15, 2015

**GRAND TOTAL =====> \$1,754**

## SUMMARY OF CONSTRUCTION COST

SALE      Big LYR                      - Project #3 Post Harvest

### SURFACING

		Size	Cost/CY		
Landing patch rock					
A to A1 (Sta. 169+90)	18 cy of	1½-0"	\$23.36	=	\$420
A1 to A2 (Sta. 16+50)	9 cy of	3-0"	\$21.67	=	\$195
A5 to A6 (Sta. 1+10)	9 cy of	3-0"	\$21.67	=	\$195
Turnaround rock					
Point A2	9 cy of	3-0"	\$21.67	=	\$195
A3 to A4 (Sta. 6+10)	9 cy of	3-0"	\$21.67	=	\$195
Point A6	9 cy of	3-0"	\$21.67	=	\$195
Point A8	9 cy of	3-0"	\$21.67	=	\$195
Road Repair					
A to A1 (Sta. 157+30 to 159+50)	45 cy of	1½-0"	\$23.36	=	\$1,051
(Sta. 174+70 to 176+20)	27 cy of	1½-0"	\$23.36	=	\$631
(Sta. 178+90 to 181+30)	54 cy of	1½-0"	\$23.36	=	\$1,261
TOTAL SURFACING COST =					\$4,533

### MISCELLANEOUS PROJECTS

Tank traps					
A1 to A2 (Sta. 17+80)	0.5 hr	@	\$77.00 /hr	=	\$39
TOTAL MISCELLANEOUS PROJECTS =					\$39

Compiled by:	J. Goldsby		
Date:	May 15, 2015	<b>GRAND TOTAL =====&gt;</b>	<b>\$4,572</b>

## SUMMARY OF MAINTENANCE COST

SALE                                      Big LYR                                      - Final Maintenance Cost Estimate  
*(Costed in appraisal, not in project costs)*

**Grading**                                      Move-in                                      \$            681

Road Segment	Length	Cost/Sta	Cost	Mileage
A to A1	197.2	\$13.75	\$2,711.50	3.73
A1 to A2	20.7	\$9.90	\$204.93	0.39
A3 to Sta. 6+10	6.1	\$9.90	\$60.39	0.12
A5 to A6	4.7	\$9.90	\$46.53	0.09
A7 to A8	3.1	\$9.90	\$30.69	0.06
Intermediate Grading	Hours	Cost/Hr	Cost	
A to A1	12.0	\$90.75	\$1,089.00	
<b>Total</b>	231.8		\$4,143.04	4.39

**Maintenance Rock:**

	Volume	Cost/CY	Cost
1½-0"	243	\$23.36	\$5,676.48
3-0"	45	\$21.67	\$975.15
Grand Total			\$ 11,475.67
TS Volume	2,598 MBF		
Cost / MBF =	\$4.42		

**NOTES:**



### Rock Haul Cost Computation

SALE NAME: Big LYR DATE: May 15, 2015  
 ROAD NAME: Green Mountain Rd CLASS: Medium  
 ROCK SOURCE: Rickard 9 CY truck  
 Route: Garrett Ln, Hwy 20, Eddyville-Blodgett Hwy,  
 Logsdan Rd, Green Mnt Rd

**TIME Computation:**

Road speed time factors:

1.	55 MPH	12.6	MRT	13.7 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH	21.2	MRT	31.8 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH	2.6	MRT	6.2 minutes
8.	20 MPH		MRT	0.0 minutes
9.	15 MPH	7.5	MRT	30.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT 0.50 minutes

Total hauling cycle time for this setting  
(100% efficiency) 82.20 minutes

Operator efficiency correction 0.85 96.71 minutes

Job efficiency correction 0.90 107.46 minutes

Truck capacity (CY) 9.00 11.94 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 12.19 min/CY

**COST per CY computation**

Cost of truck and operator per hour \$61.50 /hr.

Cost of truck and operator per minute \$1.03 /min

Cost per CY \$12.56 /CY

Spread and compact Water truck, Grader & Roller \$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$ 10.80	\$23.36	\$24.86
3 - 0"	\$ 9.11	\$21.67	\$23.17
Jaw Run	\$ 8.10	\$20.66	\$22.16
Pit-Run	7.43	\$19.99	\$21.49

**TIMBER CRUISE REPORT**

1. **Sale Area Location:** Portions of Section 18, T10S, R7W, & Sections 13 & 24 T10S, R8W, W.M., Benton & Lincoln Counties, Oregon
2. **Fund Distribution:**
  - a. **Fund** BOF 32.28%; CSL 67.72%
  - b. **Tax Code**
3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Acreage Adjustment	Net Sale Acres	Acreage Comp. Method
1	Modified Clearcut	78	Cruise	65	Ortho photo, GIS, GPS

4. **Cruisers and Cruise Dates:** The sale was cruised by Joe Goldsby, Matt McBride, and Dave Wiger in the Spring of 2015.
5. **Cruise Method and Computation:** The sale consists of one modified clearcut area that was cruised using variable radius plot sampling. The sale area was cruised using a 40 BAF with plots spaced 150 feet apart on plot lines spaced 300 feet apart. A total of 54 plots were taken with 37 count plots and 17 cruise plots. Cruise plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury SuperACE 2008 cruise program to calculate net board feet per acre. Individually marked green trees within the sale area were tallied and removed from the final calculated volume.  
  
Stereo photos, digital ortho photos, LiDar data, and GPS data from a Garmin GPSmap 62s were used to map the boundaries for the sale, and ArcMap 10.2 was used to determine gross and net acreage.
6. **Measurement Standards:** Heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or total height. Diameters were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. All trees were graded in 40 foot segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.
7. **Timber Description:** Timber in the sale area consists of 75 to 80 year-old Douglas-fir and red alder. There are also large Douglas-fir over 100 years old scattered throughout the sale area. Conifer trees other than Douglas-fir are reserved from cutting but were not observed during cruising or other field work.
8. **Statistical Analysis and Stand Summary:** (See attached "Statistics").

Target CV	Target SE	Actual CV	Actual SE
65%	9%	47.1%	6.4%

Note: Statistics shown are for Douglas-fir and hardwood trees combined. Percentages are for net board foot volume.

9. **Total Volume (MBF) by Species and Grade:** (See attached “Stand Table Summary” and “Species, Sort Grade”).

Species	Gross Cruise Volume	Cruised D & B <sup>1</sup>	Cruised D & B (MBF) <sup>1</sup>	Hidden D & B	Hidden D & B (MBF)	GTR (MBF)	Net Sale Volume
Douglas-fir	2777	3%	75	10%	278	4	2420
Red alder	213	7%	14	10%	21	--	178
<b>Total</b>	2990	3%	89	10%	299	4	2598

<sup>1</sup> Includes volume graded as Utility.

Species	DBH	Net Vol.	2-Saw	3-Saw	3-Saw 12”+	4-Saw	Camp Run
	Grade Percentages		81%	13%	5%	1%	--
Douglas-fir	25.6	2420	1958	304	131	27	--
	Grade Percentages		--	--	--	--	100%
Red alder	16.7	178	--	--	--	--	178
	Grade Percentages		75%	12%	5%	1%	7%
<b>Total</b>	25.0	2598	1958	304	131	27	178

TC		PSTNDSUM		Stand Table Summary							Page		1			
											Date:		4/8/2015			
T10S R07W S24 Ty0ALL				65.00		Project				BIG LYR		Time:		11:42:56AM		
						Acres				65.00		Grown Year:				
S Sp	T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		14	1	87	109	2.152	2.30	4.30	22.0	85.0		95	366		62	24
DF		16	2	86	126	3.295	4.60	8.24	26.2	100.0		216	824		140	54
DF		18	4	86	129	5.207	9.20	14.32	30.5	117.3		437	1,679		284	109
DF		19	3	87	128	3.505	6.90	9.35	36.5	137.5		341	1,285		222	84
DF		20	2	89	150	2.109	4.60	6.33	40.3	170.0		255	1,075		166	70
DF		21	1	85	154	.956	2.30	2.87	47.3	186.7		136	536		88	35
DF		22	6	86	154	5.228	13.80	13.94	52.6	223.7		734	3,119		477	203
DF		23	2	84	130	1.594	4.60	4.78	46.2	191.7		221	917		144	60
DF		24	9	86	143	6.590	20.70	19.77	55.4	225.9		1,095	4,466		711	290
DF		25	2	81	116	1.350	4.60	4.05	43.3	163.3		175	661		114	43
DF		26	8	85	148	4.991	18.40	16.84	56.9	246.3		959	4,149		623	270
DF		27	2	80	142	1.157	4.60	3.47	68.7	268.3		238	931		155	61
DF		28	4	87	155	2.152	9.20	6.46	81.2	382.5		524	2,469		341	160
DF		29	1	84	148	.501	2.30	1.50	83.7	363.3		126	547		82	36
DF		30	2	88	151	.937	4.60	3.28	71.1	348.6		233	1,143		152	74
DF		31	2	87	143	.878	4.60	3.07	77.7	371.4		239	1,141		155	74
DF		32	3	88	149	1.236	6.90	4.12	94.5	465.0		389	1,915		253	124
DF		34	2	80	144	.730	4.60	2.19	106.5	440.0		233	963		152	63
DF		35	1	89	152	.344	2.30	1.03	130.7	703.3		135	726		88	47
DF		36	1	86	153	.325	2.30	1.30	102.0	530.0		133	690		86	45
DF		37	1	84	165	.308	2.30	.92	145.3	750.0		134	693		87	45
DF		38	3	87	161	.876	6.90	3.21	126.2	660.9		405	2,123		263	138
DF		40	2	85	159	.527	4.60	2.11	126.2	618.8		266	1,305		173	85
DF		42	2	86	167	.478	4.60	1.67	163.4	860.0		274	1,439		178	94
DF		46	2	85	158	.399	4.60	1.79	143.3	744.4		257	1,335		167	87
DF		48	1	84	155	.183	2.30	.73	175.0	880.0		128	644		83	42
DF		50	2	89	165	.337	4.60	1.35	211.9	1180.0		286	1,592		186	104
DF		52	2	87	166	.312	4.60	1.25	226.9	1246.2		283	1,555		184	101
DF		60	1	79	152	.117	2.30	.35	333.0	1623.3		117	571		76	37
DF		62	2	87	174	.219	4.60	.88	330.3	1837.5		290	1,613		188	105
DF		Totals	76	86	141	48.992	174.81	145.48	64.3	292.0		9,355	42,474		6,081	2,761
RA		12	1	87	50	3.537	2.78	3.54	17.0	50.0		60	177		39	11
RA		14	1	86	89	2.598	2.78	5.20	21.0	70.0		109	364		71	24
RA		15	2	79	52	4.527	5.56	4.53	28.0	65.0		127	294		82	19
RA		16	2	82	54	3.979	5.56	5.97	22.3	60.0		133	358		87	23
RA		17	2	77	64	3.525	5.56	5.29	29.0	70.0		153	370		100	24
RA		18	5	78	68	7.860	13.89	15.72	23.8	69.0		374	1,085		243	70
RA		20	2	75	56	2.546	5.56	5.09	21.0	60.0		107	306		70	20
RA		25	1	80	76	.815	2.78	1.63	56.0	185.0		91	302		59	20
RA		Totals	16	80	62	29.387	44.44	46.96	24.6	69.3		1,155	3,255		751	212
Totals			92	84	111	78.379	219.26	192.44	54.6	237.6		10,510	45,729		6,831	2,972

**Species, Sort Grade - Board Foot Volumes (Project)**

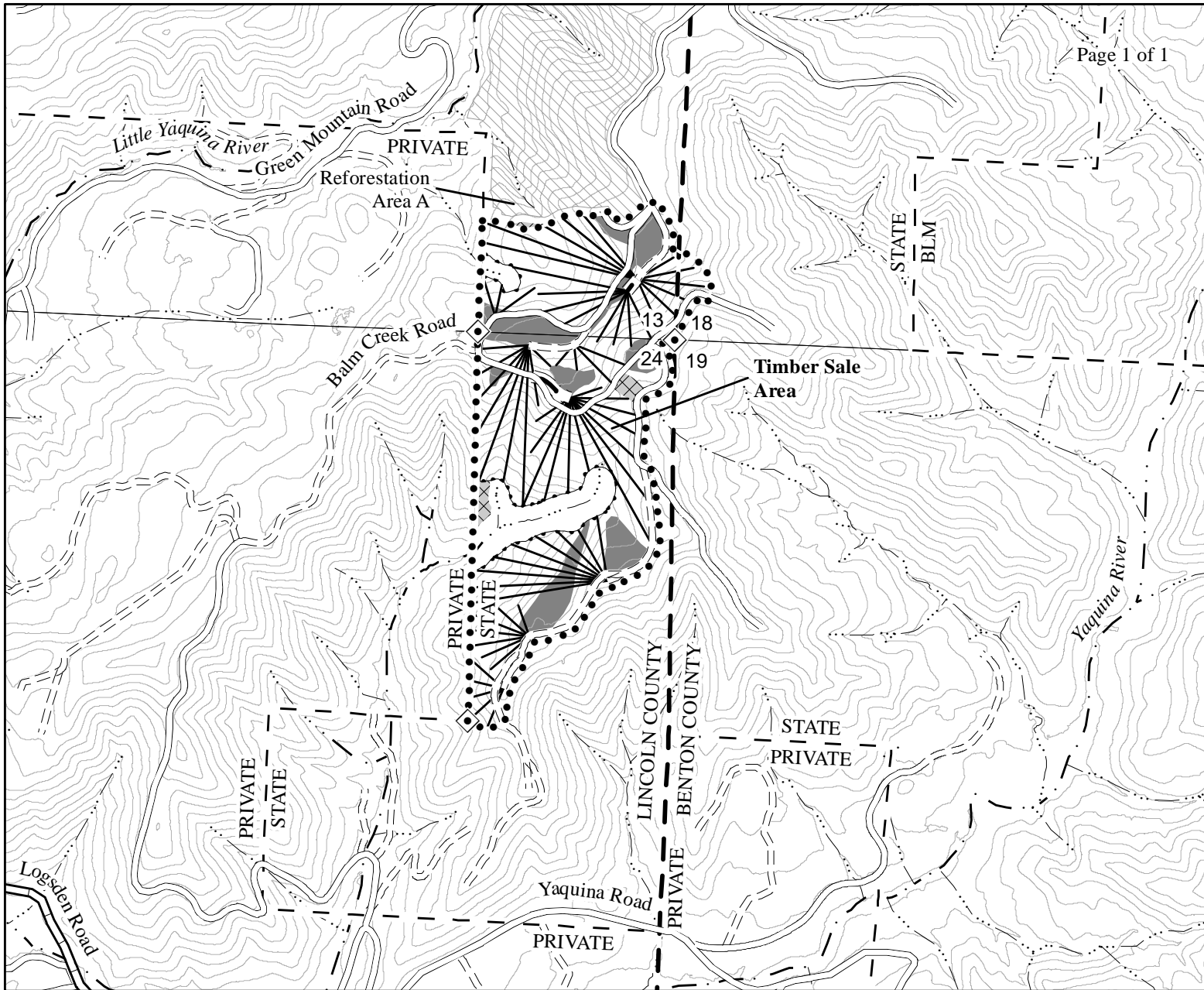
T10S R07W S24 Ty0ALL 65.00

**Project: BIG LYR**  
**Acres 65.00**

**Page 1**  
**Date 4/8/2015**  
**Time 11:42:57AM**

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
									Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF		2		79	.6	33,847	33,634	2,186			35	65	0	3	1	96	39	17	502	2.65	66.9	
DF		3		17	.5	7,540	7,500	487		70	14	16		0	5	95	39	9	130	0.94	57.6	
DF		4		1		442	442	29		100			34	66			23	6	26	0.46	16.8	
DF		UT		3		899	899	58				100	42		58		13	20	221	3.22	4.1	
<b>DF Totals</b>				93	.6	42,727	42,474	2,761		13	30	56	1	3	1	94	36	13	292	1.77	145.5	
RA		UT		6		199	199	13		100				100			12	12	31	0.78	6.4	
RA		CR		94	.7	3,078	3,056	199		3	81	16	9	13	40	38	30	8	75	0.91	40.6	
<b>RA Totals</b>				7	.7	3,277	3,255	212		2	83	15	9	18	37	35	27	8	69	0.90	47.0	
<b>Totals</b>					0.6	46,005	45,729	2,972		0	18	29	52	2	4	4	90	34	12	238	1.60	192.4

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	BIG LYR		DATE	4/8/2015		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
10S	07W	24	ALL	0ALL	65.00	54	296	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		54	296	5.5						
CRUISE		17	92	5.4	5,095		1.8			
DBH COUNT										
REFOREST										
COUNT		37	204	5.5						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF	76	49.0	25.6	119	34.6	174.8	42,727	42,474	9,355	9,355
R ALDER	16	29.4	16.7	46	10.9	44.4	3,277	3,255	1,155	1,155
<b>TOTAL</b>	<b>92</b>	<b>78.4</b>	<b>22.6</b>	<b>91</b>	<b>46.1</b>	<b>219.3</b>	<b>46,005</b>	<b>45,729</b>	<b>10,510</b>	<b>10,510</b>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		102.3	11.7	1,355	1,535	1,715				
R ALDER		69.7	18.0	103	126	148				
<b>TOTAL</b>		<b>118.2</b>	<b>12.3</b>	<b>1,131</b>	<b>1,290</b>	<b>1,448</b>	<b>558</b>	<b>139</b>	<b>62</b>	
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		88.9	10.2	281	313	345				
R ALDER		54.5	14.1	38	44	50				
<b>TOTAL</b>		<b>102.5</b>	<b>10.7</b>	<b>238</b>	<b>266</b>	<b>295</b>	<b>419</b>	<b>105</b>	<b>47</b>	
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		65.1	8.8	45	49	53				
R ALDER		153.1	20.8	23	29	36				
<b>TOTAL</b>		<b>48.4</b>	<b>6.6</b>	<b>73</b>	<b>78</b>	<b>84</b>	<b>94</b>	<b>23</b>	<b>10</b>	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		57.3	7.8	161	175	188				
R ALDER		153.1	20.8	35	44	54				
<b>TOTAL</b>		<b>36.8</b>	<b>5.0</b>	<b>208</b>	<b>219</b>	<b>230</b>	<b>54</b>	<b>14</b>	<b>6</b>	
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		57.1	7.8	39,174	42,474	45,774				
R ALDER		157.0	21.3	2,560	3,255	3,949				
<b>TOTAL</b>		<b>47.1</b>	<b>6.4</b>	<b>42,801</b>	<b>45,729</b>	<b>48,656</b>	<b>89</b>	<b>22</b>	<b>10</b>	
CL:	68.1 %	COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF		57.2	7.8	8,628	9,355	10,082				
R ALDER		155.8	21.2	910	1,155	1,400				
<b>TOTAL</b>		<b>42.7</b>	<b>5.8</b>	<b>9,899</b>	<b>10,510</b>	<b>11,120</b>	<b>73</b>	<b>18</b>	<b>8</b>	



Legend

Boundaries

- Timber Sale Boundary
- - - State Forest Property Boundary
- — — County Line
- — — Right of Way (Posted)

Roads

- ▬▬▬ County Road
- ▬▬▬ Surfaced Road
- ▬▬▬ Unsurfaced Road
- ▬▬▬ New Construction

Streams

- — · Type F Stream
- Type N Stream
- ▬▬▬▬▬ Posted Stream Buffer

- ▨▨▨▨▨ Reforestation Area

Yarding Method

- ▬▬▬ Tractor Yarding Area
- ▬▬▬ Cable Corridors
- ◆ Land Survey Monument
- ▨▨▨▨▨ Green Tree Retention Area

# LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-16-24  
BIG LYR

PORTIONS OF SECTION 18, T10S, R7W, AND  
PORTIONS OF SECTIONS 13 & 24, T10S, R8W, W.M.,  
BENTON & LINCOLN COUNTIES, OREGON

NET ACRES CABLE = 53  
NET ACRES TRACTOR = 12

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

Scale

1:12,000



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blake.mckinley@oregon.gov  
Date: 05/12/2015