



Timber Sale Appraisal
Sunday Passage
Sale FG-341-2018-024-

District: Forest Grove

Date: August 23, 2017

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,295,699.11	\$68,708.64	\$3,364,407.75
		Project Work:	(\$464,920.00)
		Advertised Value:	\$2,899,487.75



Timber Sale Appraisal Sunday Passage Sale FG-341-2018-024-

District: Forest Grove

Date: August 23, 2017

Timber Description

Location: Sections 11, 12, 13, 14, 23, and 24, T1S, R6W, W.M., Washington County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	98
Western Hemlock / Fir	26	0	98
Alder (Red)	14	0	95

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	4,979	1,948	223	0	7,150
Western Hemlock / Fir	148	37	2	0	187
Alder (Red)	0	0	0	264	264
Total	5,127	1,985	225	264	7,601

Comments: Pond Values Used: Local Pond Values, June 2017.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$1,237.54/\text{MBF} = \$1,481.14/\text{MBF} - \$243.60/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

BRANDING AND PAINTING COST ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

Non Project Road: 24.82 sta. @ \$100/sta. = \$2,482

TOTAL Other Costs (with Profit & Risk to be added) = \$2,482

Other Costs (No Profit & Risk added):

Machine Time to Block/Waterbar Roads, and Skid Trails:

15 hours x \$150/hour = \$2,250

Machine Time to Pile Landing Slash and Sort Firewood:

20 hours x \$150/hour = \$3,000

Equipment Cleaning: 4 x \$1,000/Piece = \$4,000

Slash Treatment: 10 acres x \$200/acre = \$2,000

Snag Creation: 115 trees x \$40/tree = \$4,600

Weyerhaeuser Road Use Fee = \$1.92/MBF/Mile x 7,601 MBF x 5.94 miles = \$86,688

Stimson Road Use Fee = \$8,103

TOTAL Other Costs (No Profit & Risk added) = \$110,641

ROAD MAINTENANCE

Move-in: \$2,000

General Road Maintenance: 11 miles x \$1,000/mile = \$11,000

TOTAL Road Maintenance: \$13,000 / 7,601 MBF = \$1.71/MBF



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Logging Conditions

Combination#: 1

Douglas - Fir	79.90%
Western Hemlock / Fir	78.00%
Alder (Red)	80.09%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 10 **bd. ft / load:** 4600

cost / mbf: \$130.44

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	20.10%
Western Hemlock / Fir	22.00%
Alder (Red)	19.91%

Logging System: Shovel **Process:** Stroke Delimber

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 12 **bd. ft / load:** 4600

cost / mbf: \$57.46

machines: Stroke Delimber (B)



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Logging Costs

Operating Seasons: 2.00	Profit Risk: 10%
Project Costs: \$464,920.00	Other Costs (P/R): \$2,482.00
Slash Disposal: \$0.00	Other Costs: \$110,641.00

Miles of Road

Road Maintenance: \$1.71

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	4.8
Western Hemlock / Fir	\$0.00	2.0	4.8
Alder (Red)	\$0.00	1.0	3.8



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
\$115.77	\$1.74	\$1.15	\$82.88	\$0.33	\$20.19	\$0.00	\$7.00	\$14.56	\$243.62
Western Hemlock / Fir									
\$114.38	\$1.74	\$1.15	\$82.88	\$0.33	\$20.05	\$0.00	\$7.00	\$14.56	\$242.09
Alder (Red)									
\$115.91	\$1.80	\$1.15	\$215.52	\$0.33	\$33.47	\$0.00	\$7.00	\$14.56	\$389.74

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$695.69	\$452.07	\$0.00
Western Hemlock / Fir	\$0.00	\$581.12	\$339.03	\$0.00
Alder (Red)	\$0.00	\$650.00	\$260.26	\$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	7,150	\$452.07	\$3,232,300.50
Western Hemlock / Fir	187	\$339.03	\$63,398.61
Alder (Red)	264	\$260.26	\$68,708.64

Gross Timber Sale Value

Recovery: \$3,364,407.75

Prepared By: Eric Foucht

Phone: 503-359-7473

PROJECT COST SUMMARY SHEETTimber Sale: Sunday PassageSale Number: 341-18-24**PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT****CONSTRUCTION**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
G to H	10+30	\$4,519.12
	10+30 stations	
	0.20 miles	

SUBTOTAL CONSTRUCTION = \$4,519.12**IMPROVEMENTS**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	363+20	\$108,349.49
C to D	116+00	\$5,770.80
E to F	7+00	\$1,662.00
Point I	-	\$350.00
	486+20 stations	
	9.21 miles	

SUBTOTAL IMPROVEMENTS = \$116,132.29**TOTAL PROJECT NO. 1 COST = \$120,651.41****PROJECT NO. 2: SURFACING**

<u>Road Segment</u>	<u>Rock Amount</u>	<u>Rock Type</u>	<u>Cost</u>
A to B	1,059 cy	1 1/2" - 0	\$19,273.80
	9,542 cy	3" - 0	\$180,534.64
	456 cy	36" - 24"	\$4,863.24
C to D	48 cy	1 1/2" - 0	\$771.36
	3,800 cy	3" - 0	\$63,802.00
E to F	537 cy	3" - 0	\$8,710.14
G to H	899 cy	3" - 0	\$14,833.50
Total	1,107 cy	1 1/2" - 0	
	14,778 cy	3" - 0	
	456 cy	36" - 24"	

TOTAL PROJECT NO. 2 COST = \$292,788.68**PROJECT NO. 3 GRASS SEED, FERTILIZE, & MULCH****TOTAL PROJECT NO. 3 COST = \$2,682.75****PROJECT NO. 4 BUILD 2,000cy STOCKPILE OF 3"-0 @ POINT I****TOTAL PROJECT NO. 4 COST = \$40,716.00****MOVE-IN & EQUIPMENT CLEANING**

Grader	\$1,284.22
Roller (smooth/grid) & Compactor	\$912.70
Excavator - Equipment Cleaning	\$2,284.22
Dozer - Equipment Cleaning	\$2,328.80
Dump Trucks	\$1,084.12
Water Truck	\$187.10

TOTAL MOVE-IN & EQUIPMENT CLEANING COST = \$8,081.16**TOTAL CREDITS \$464,920.00**

SUMMARY OF CONSTRUCTION COST

Timber Sale: Sunday Passage
Road Segment: A to B

Sale Number: 341-18-24
Improvement: 363+20 stations
6.88 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	6.68	ac @	\$1,078.00	per acre =	\$7,201.04
Clean ditch & end-haul waste material	363.20	sta @	\$63.04	per sta =	\$22,896.13
Clean culvert inlet & outlet	39	ea @	\$25.00	per ea =	\$975.00
Fill Excavation for Culverts Nos. 7, 10, 18, 24, 25 & 28					
Excavate existing culvert & fill	1,460	cy @	\$1.64	per cy =	\$2,394.40
End-haul unsuitable fill material	464	cy @	\$3.04	per cy =	\$1,410.56
Haul fill material	280	cy @	\$3.04	per cy =	\$851.20
Place fill & rock	1,228	cy @	\$2.40	per cy =	\$2,947.20
Compact fill	1,228	cy @	\$0.50	per cy =	\$614.00
Pump culvert installation	6	day @	\$150.00	per day =	\$900.00
Fill Excavation for Culverts Nos. 33, 34, 36, 37, 38 & 40					
Excavate & load	300	cy @	\$1.64	per cy =	\$492.00
End-haul	144	cy @	\$3.04	per cy =	\$437.76
Place fill	300	cy @	\$2.40	per cy =	\$720.00
Compact fill	300	cy @	\$0.50	per cy =	\$150.00
Pump culvert installation	5	day @	\$150.00	per day =	\$750.00
Improve Turnouts	40	ea @	\$66.00	per ea =	\$2,640.00
Grade, ditch, & roll	363.20	sta @	\$36.00	per sta =	\$13,075.20

TOTAL EXCAVATION COSTS = \$58,454.49

CULVERTS - MATERIALS & INSTALLATION

Culverts

960 LF of 18"	\$19,200.00
150 LF of 24"	\$4,350.00
40 LF of 36"	\$2,000.00
380 LF of 42"	\$23,180.00

Bands

1 ea of 36"	\$52.00
13 ea of 42"	\$793.00

Culvert Markers

32 markers	\$320.00
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TOTAL CULVERT COSTS = \$49,895.00

PROJECT NO. 1 TOTAL COST = \$108,349.49

PROJECT NO. 2:

SURFACING

	8 " deep =	42 cy/sta					
	4 " deep =	20 cy/sta					
26+90 to 273+00	4,922	cy of	3" - 0	@	\$18.92	per cy =	\$93,124.24
273+00 to 363+20	3,788	cy of	3" - 0	@	\$18.92	per cy =	\$71,668.96
Turnouts	760	cy of	3" - 0	@	\$18.92	per cy =	\$14,379.20
Junction	72	cy of	3" - 0	@	\$18.92	per cy =	\$1,362.24
Culvert bedding and backfill	816	cy of	1 1/2" - 0	@	\$18.20	per cy =	\$14,851.20
Culvert bedding	243	cy of	1 1/2" - 0	@	\$18.20	per cy =	\$4,422.60
Energy Dissipator	216	cy of	36" - 12"	@	\$10.67	per cy =	\$2,303.64
Fill armor	240	cy of	36" - 12"	@	\$10.67	per cy =	\$2,559.60
Rock Total =	11,057						
	1,059	cy of	1 1/2" - 0				
	9,542	cy of	3" - 0				
	456	cy of	36" - 12"				

PROJECT NO. 2 TOTAL COST = \$204,671.68

PROJECT NO. 3:

Grass seed & fertilizer	3.34	acres	@	\$425.00	per acre =	\$1,419.50
Mulch	117	bales	@	\$8.00	per bale =	\$936.00

PROJECT NO. 3 TOTAL COST = \$2,355.50

TOTAL COST = \$315,376.67

SUMMARY OF CONSTRUCTION COST

Timber Sale: Sunday Passage Sale Number: 341-18-24
 Road Segment: C to D Improvement: 116+00 stations
2.20 miles

PROJECT NO. 1

EXCAVATION

Clean culvert inlet & outlet	12	ea @	\$25.00	per ea =	\$300.00
Grade, ditch, & roll	117.80	sta @	\$36.00	per sta =	\$4,240.80
TOTAL EXCAVATION COSTS =					\$4,540.80

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" \$1,200.00

Culvert Markers

3 markers \$30.00

TOTAL CULVERT COSTS = \$1,230.00

PROJECT NO. 1 TOTAL COST = \$5,770.80

PROJECT NO. 2:

SURFACING

6 " deep = 31 cy/sta

C to D	3,596	cy of	3" - 0	@	\$16.79	per cy =	\$60,376.84
Turnout	112	cy of	3" - 0	@	\$16.79	per cy =	\$1,880.48
Y - Junction	56	cy of	3" - 0	@	\$16.79	per cy =	\$940.24
Junction	36	cy of	3" - 0	@	\$16.79	per cy =	\$604.44
Culvert bedding and backfill	48	cy of	1 1/2" - 0	@	\$16.07	per cy =	\$771.36
Rock Total =	3,848						
	48	cy of	1 1/2" - 0				
	3,800	cy of	3" - 0				

PROJECT NO. 2 TOTAL COST = \$64,573.36

TOTAL COST = \$70,344.16

SUMMARY OF CONSTRUCTION COST

Timber Sale: Sunday Passage
 Road Segment: E to F

Sale Number: 341-18-24
 Improvement: 7+00 stations
0.13 miles

PROJECT NO. 1

EXCAVATION

Road widening (drift)	7.00	sta @	\$110.00	per sta =	\$770.00
Clean ditch & scatter waste material	7.00	sta @	\$60.00	per sta =	\$420.00
Construct Landing	1	ea @	\$220.00	per ea =	\$220.00
Grade, ditch, & roll	7.00	sta @	\$36.00	per sta =	\$252.00

PROJECT NO. 1 TOTAL COST = \$1,662.00

PROJECT NO. 2:

SURFACING

10 " deep = 53 cy/sta

E to F	371	cy of	3" - 0	@	\$16.22	per cy =	\$6,017.62
Turnaround	16	cy of	3" - 0	@	\$16.22	per cy =	\$259.52
Landing	150	cy of	3" - 0	@	\$16.22	per cy =	\$2,433.00
Rock Total =	537						
	537	cy of	3" - 0				

PROJECT NO. 2 TOTAL COST = \$8,710.14

PROJECT NO. 3:

Grass seed & fertilizer	0.17	acres	@	\$425.00	per acre =	\$72.25
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PROJECT NO. 3 TOTAL COST = \$72.25

TOTAL COST = \$10,444.39

SUMMARY OF CONSTRUCTION COST

Timber Sale: Sunday Passage
Road Segment: G to H

Sale Number: 341-18-24
Construction: 10+30 stations
0.20 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	1.19	ac @	\$1,078.00	per acre =	\$1,282.82
Balanced road construction	6.30	sta @	\$110.00	per sta =	\$693.00
Drift	4.00	sta @	\$180.00	per sta =	\$720.00
Junction	1	ea @	\$180.00	per ea =	\$180.00
Turnouts	1	ea @	\$66.00	per ea =	\$66.00
Turnarounds	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	10.30	sta @	\$36.00	per sta =	\$370.80

TOTAL EXCAVATION COSTS = \$3,709.12

CULVERTS - MATERIALS & INSTALLATION

Culverts

40 LF of 18" \$800.00

Culvert Markers

1 markers \$10.00

TOTAL CULVERT COSTS = \$810.00

PROJECT NO. 1 TOTAL COST = \$4,519.12

PROJECT NO. 2:

SURFACING

12 " deep = 65 cy/sta

G to H	670	cy of	3" - 0	@	\$16.50	per cy =	\$11,055.00
Turnout	29	cy of	3" - 0	@	\$16.50	per cy =	\$478.50
Turnaround	20	cy of	3" - 0	@	\$16.50	per cy =	\$330.00
Landing	180	cy of	3" - 0	@	\$16.50	per cy =	\$2,970.00
Rock Total =	899						
	899	cy of	3" - 0				

PROJECT NO. 2 TOTAL COST = \$14,833.50

PROJECT NO. 3:

Grass seed & fertilizer 0.60 acres @ \$425.00 per acre = \$255.00

PROJECT NO. 3 TOTAL COST = \$255.00

TOTAL COST = \$19,607.62

SUMMARY OF CONSTRUCTION COST

Timber Sale: Sunday Passage
Point I

Sale Number: 341-18-24

PROJECT NO. 1

EXCAVATION

Clear & Improve Site 2.00 hr @ \$175.00 per hr = \$350.00

PROJECT NO. 1 TOTAL COST = \$350.00

PROJECT NO. 4

Crush 2,000 cy 2,320 cy of 3"-0 @ \$16.45 per cy = \$38,164.00

Build & shape stockpile 2,320 cy of 3"-0 @ \$1.10 per cy = \$2,552.00

PROJECT NO.4 TOTAL COST = \$40,716.00

TOTAL COST = \$41,066.00

ROCK PIT DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale:	<u>Sunday Passage</u>
Sale Number:	<u>341-18-24</u>
Pit Name:	<u>Seven Cedars</u>

1 1/2" - 0:	<u>1,107 cy</u>	(truck measure)
3" - 0:	<u>14,778 cy</u>	(truck measure)
Stockpile:	<u>2,000 cy</u>	(stockpile measure)
Total truck yardage:	<u>18,205 cy</u>	
Total in place yardage:	<u>14,004 cy</u>	

Swell:	<u>130%</u>
Shrinkage:	<u>116%</u>
Screening Loss:	<u>15%</u>

Pit development, including clearing & grubbing of waste area, place overburden in waste area, spread & compact.

					\$5,670.35
Drill & shoot	<u>\$2.80</u>	/ cy x	<u>16,475</u>	cy =	\$46,130.32
Load crusher	<u>\$0.80</u>	/ cy x	<u>21,418</u>	cy =	\$17,134.12
Screen rock	<u>\$2.90</u>	/ cy x	<u>21,418</u>	cy =	\$62,111.18
Waste reject	<u>\$0.80</u>	/ cy x	<u>3,213</u>	cy =	\$2,570.12
Crush (1 1/2" - 0)	<u>\$3.30</u>	/ cy x	<u>1,107</u>	cy =	\$3,653.10
Crush (3" - 0)	<u>\$3.30</u>	/ cy x	<u>14,778</u>	cy =	\$48,767.40
Crush (3"-0 Stockpile)	<u>\$3.30</u>	/ cy x	<u>2,320</u>	cy =	\$7,656.00
Load dump truck	<u>\$0.80</u>	/ cy x	<u>18,205</u>	cy =	\$14,564.00
			Subtotal:		<u>\$208,256.58</u>

Move in & setup drill		\$674.81
Equipment cleaning & move in excavator		\$2,096.20
Move in & setup screening plant		\$1,843.00
Move in loader		\$957.49
Move in crusher		\$3,286.00
Setup crusher		\$3,327.00
Gradation tests	\$71.50 /2,000cy x <u>10</u> tests	\$715.00
Change gradation		\$275.00
Clean up pit		\$500.00
	Subtotal:	<u>\$13,674.50</u>

TOTAL PRODUCTION COST = \$221,931.08

ROCK DEVELOPMENT COST = \$12.19/cy

TIMBER SALE SUMMARY
Sunday Passage
Timber Sale #341-18-24

1. **Location:** Portions of Sections 11, 12, 13, 14, 23, and 24, T1S, R6W, W.M., Washington County, Oregon.
2. **Type of Sale:** This timber sale is 173 acres of Modified Clearcut in 2 sale areas, and a 1 acre right-of-way. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, 100% Washington County, Oregon.
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise:** The Timber Sale was cruised by ODF Cruisers in July of 2017. For more information see Cruise Report.
6. **Timber Description:**

The Timber Sale Area consists of two well stocked Douglas-fir stands that range in age from 51 to 68 years. The Douglas-fir net volume comprises 92% of the total net volume of Area 1 and 97% of the total net volume of Area 2. The following table summarizes the ODF cruise estimates for the Douglas-fir in these stands.

Sale Area	Net Acres	Average DBH	Trees/Acre	Net MBF/Acre
Area 1	115	21	84	39.3
Area 2	58	18	141	47.4

7. **Topography and Logging Method:**

Area 1 has a western aspect and Area 2's aspect is eastern. Elevations range from 1270 to 1910 feet and slopes generally range from 10% to 70%. The following table summarizes the estimated maximum and average horizontal cable corridor length, the estimated maximum and average tractor skid trail length, and the percent harvest method for each Sale Area.

Sale Area	Tractor			Cable		
	Average	Maximum	%	Average	Maximum	%
Area 1	470	620	22	617	1327	78
Area 2	430	625	16	625	1077	84

8. Access:

All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, drive south 15 miles on Highway 47 to Pike Road in the city of Yamhill. Turn right onto Pike Road and continue for 4.5 miles. Pike Road then becomes Turner Creek Road. Continue on Turner Creek Road for 4 miles to a Weyerhaeuser gate. Proceed through the gate and drive an additional 4.5 miles to the North Fork of Trask River Road. Turn right onto North Fork Trask River Road and continue for 1.5 miles to a second Weyerhaeuser gate. Proceed through this gate and continue for 4.3 miles to Sunday Creek Road. Turn right and drive on Sunday Creek Road 4 miles to the north end of Area 1.

9. Projects:

Project No. 1: Road construction and improvement	\$120,651.41
Project No. 2 Road surfacing	\$292,788.68
Project No. 3: Grass seed, fertilize, and mulch	\$2,682.75
Project No. 4: Build 2000cy rock stockpile	\$40,716.00
Move in and equipment cleaning	\$8,081.16
Total	\$464,920

CRUISE REPORT
Sunday Passage
Timber Sale #341-18-24

1. LOCATION: Portions of Sections 11, 12, 13, 14, 23, and 24, T1S, R6W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

Pre-cruise evaluation indicated that the stand's average DBH is approximately 17 inches and the Coefficient of Variation (CV) is about 60%. For sales of this size and estimated value, ODF cruise standards require a Sampling Error of 9% at a 68% confidence level, and a minimum sample size of 100 graded trees. Because the CV% was higher than normal, a larger sample size was required to achieve the desired Sampling Error.

3. SAMPLING METHOD:

The Timber Sale Area was sampled in July, 2017 with 38 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 5 chain x 5 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain,

4. CRUISE RESULTS

228 trees were measured and graded producing a cumulative Sampling Error (SE) of 8.8% on the Basal Area and 9.6% on the Board Foot Volume. While the SE on the volume was slightly higher than ODF cruise standards for these stands, the relatively high tree count was judged to be an adequate sample and no additional plots were measured.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments.

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet.

5. DATA PROCESSING

a) **Volumes and Statistics,** Cruise estimates and sampling statistics, were derived from Super Ace 2008 cruise software. The volume for Area 3 was estimated from known volumes of adjacent stands.

b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

6. Cruisers: The sale was cruised by ODF cruisers Kenton Burns and Mark Savage..

Prepared by: Kenton Burns 8/02/2017

Reviewed by: Eric Foucht 8/04/2017

TC PSTATS			PROJECT STATISTICS						PAGE	1		
			PROJECT		SUNPSFIN		DATE 7/20/2017					
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
01S	06	11	00A1	00MC		173.00		38	228	S	W	
01S	06W	11	00A2	00MC								
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES		PERCENT SAMPLE TREES				
TOTAL			38	228	6.0							
CRUISE			38	228	6.0	20,998		1.1				
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR			206	103.0	19.6	118	48.9	216.6	42,391	41,984	9,412	9,412
R ALDER			16	16.4	13.7	76	4.6	16.9	1,529	1,489	404	404
WHEMLOCK			5	1.4	26.0	131	1.0	5.3	1,112	1,109	251	251
BL MAPLE			1	.5	20.0	82	0.2	1.0	95	71	16	16
TOTAL			228	121.4	19.0	112	55.0	239.8	45,127	44,652	10,082	10,082
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	
DOUG FIR			68.5	4.8	628	659	690					
R ALDER			72.9	18.8	93	114	136					
WHEMLOCK			38.2	19.0	676	834	992					
BL MAPLE												
TOTAL			73.3	4.8	592	622	653	214	54	24		
CL	68.1	COEFF	SAMPLE TREES - CF						# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR			65.0	4.5	139	145	152					
R ALDER			81.4	21.0	25	32	39					
WHEMLOCK			37.9	18.8	154	189	225					
BL MAPLE												
TOTAL			69.3	4.6	131	138	144	192	48	21		
CL	68.1	COEFF	TREES/ACRE						# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR			73.3	11.9	91	103	115					
R ALDER			240.5	39.0	10	16	23					
WHEMLOCK			366.5	59.4	1	1	2					
BL MAPLE			616.4	99.9	0	0	1					
TOTAL			65.5	10.6	108	121	134	171	43	19		
CL	68.1	COEFF	BASAL AREA/ACRE						# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR			54.5	8.8	197	217	236					
R ALDER			245.0	39.7	10	17	24					
WHEMLOCK			360.9	58.5	2	5	8					
BL MAPLE			616.4	99.9	0	1	2					
TOTAL			48.1	7.8	221	240	259	92	23	10		
CL	68.1	COEFF	NET BF/ACRE						# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR			59.5	9.6	37,933	41,984	46,034					
R ALDER			248.6	40.3	889	1,489	2,089					
WHEMLOCK			364.7	59.1	453	1,109	1,764					
BL MAPLE			616.4	99.9	0	71	142					

TC PSTATS		PROJECT STATISTICS							PAGE	2
		PROJECT SUNPSFIN							DATE	7/20/2017
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
01S	06	11	00A1	00MC		173.00	38	228	S	W
01S	06W	11	00A2	00MC						
CL	68.1		COEFF	NET BF/ACRE				# OF PLOTS REQ.	INF. POP.	
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			54.3	8.8	40,722	44,652	48,582	118	29	13
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
DOUG FIR			57.1	9.3	8,540	9,412	10,283			
R ALDER			250.1	40.5	240	404	567			
WHEMLOCK			363.8	59.0	103	251	399			
BL MAPLE			616.4	99.9	0	16	32			
TOTAL			51.8	8.4	9,235	10,082	10,930	107	27	12

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																		
T01S R06W S11 Ty00MC115.00				Project: SUNPSFIN														Page 1				
				Acres 115.00														Date 7/20/2017				
																		Time 1:32:41PM				
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%GrossNet			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			CU															20	15		0.00	2.3
DF			2M	75	1.5	30,238	29,791	3,426				40	60	1	1		98	39	16	417	2.25	71.4
DF			3M	22	.5	8,473	8,430	969			99	1				6	94	39	8	98	0.67	86.2
DF			4M	3		1,047	1,047	120			100			41	59			21	6	26	0.35	40.1
DF Totals				92	1.2	39,758	39,268	4,516			24	31	45	2	2	1	94	35	11	196	1.26	200.0
RA			CU															13	7		0.00	7.5
RA			CR	100	2.6	1,568	1,528	176			86	14		28	22	7	44	24	8	56	0.66	27.5
RA Totals				4	2.6	1,568	1,528	176			86	14		28	22	7	44	22	8	44	0.58	34.9
WH			2M	78	.4	1,322	1,317	151				47	53				100	40	17	458	2.49	2.9
WH			3M	20		333	333	38			100				4	8	87	36	9	122	0.87	2.7
WH			4M	2		18	18	2			100			100				14	7	20	0.46	.9
WH Totals				4	.3	1,673	1,668	192			21	37	42	1	1	2	96	35	12	257	1.67	6.5
Totals					1.2	42,998	42,463	4,883			26	30	44	3	3	2	93	33	10	176	1.20	241.4

TC PLOGSTVB		Log Stock Table - MBF																	
T01S R06W S11 Ty00MC 115.00					Project: SUNPSFIN Acres 115.00										Page 1 Date 7/20/2017 Time 1:32:40PM				
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches										
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
DF		2M	14		11		11	.2							11				
DF		2M	16		13		13	.3									13		
DF		2M	20		8	8.3	7	.2					7						
DF		2M	22		17		17	.4									17		
DF		2M	23		19		19	.4									19		
DF		2M	40		3,409	1.5	3,359	74.4					513		531	1274	892	148	
DF		3M	32		30		30	.7			30								
DF		3M	34		31		31	.7			17	14							
DF		3M	36		33		33	.7			33								
DF		3M	38		45		45	1.0			32	7	6						
DF		3M	40		836		831	18.4			183	277	358	13					
DF		4M	12		4		4	.1			4								
DF		4M	14		10		10	.2			9	1							
DF		4M	16		6		6	.1			6								
DF		4M	18		8		8	.2			8								
DF		4M	20		21		21	.5			20	1							
DF		4M	22		18		18	.4			17	1							
DF		4M	24		10		10	.2			9	1							
DF		4M	26		9		9	.2			9								
DF		4M	28		13		13	.3			13								
DF		4M	30		21		21	.5			21								
DF		Totals			4,572	1.2	4,516	92.5			411	302	364	533	531	1285	928	161	
RA		CR	14		8		8	4.4			3	5							
RA		CR	16		22		22	12.5			7	15							
RA		CR	18		7		7	3.9				7							
RA		CR	20		12		12	7.0			12								
RA		CR	22		11		11	6.3			11								
RA		CR	24		8		8	4.5			8								
RA		CR	26		7		7	3.9			7								
RA		CR	28		15	16.0	12	7.0						12					
RA		CR	32		13	12.5	12	6.7						12					
RA		CR	36		13		13	7.4			13								
RA		CR	40		64		64	36.2				40	24						
RA		Totals			180	2.6	176	3.6			61	67	24	12	12				
WH		2M	40		152		151	79.0					13		113		25		
WH		3M	24		2		2	.9				2							

TC PLOGSTVB				Log Stock Table - MBF																
T01S R06W S11 Ty00MC 115.00				Project: SUNPSFIN												Page 2				
				Acres 115.00												Date 7/20/2017				
																Time 1:32:40PM				
S T Spp	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
WH		3M	32	3		3	1.7			3										
WH		3M	36	3		3	1.7			3										
WH		3M	40	30		30	15.7					30								
WH		4M	12	1		1	.6			1										
WH		4M	16	1		1	.5			1										
WH		Totals		192		192	3.9			7	3	30	13	113	25					
Total		All Species		4,945	1.2	4,883	100.0			480	371	418	558	543	1398	954	161			

TC		PSTNDSUM		Stand Table Summary										Page Date:		1 7/20/2017	
T01S R06W S11 Ty00MC 115.00				Project SUNPSFIN						Time:		1:32:42PM					
				Acres 115.00						Grown Year:							
S Spec	T	Sample DBH Trees		Tot FF 16' Av Ht		Trees/ BA/ Logs Acre Acre Acre		Average Log		Net Net		T o t a l s Tons Cunits MBF					
								Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre				Bd.Ft. Acre		
DF		9	2	83	59	7.243	3.20	7.24	6.8	30.0	1.41	49	217	162	57	25	
DF		11	1	89	96	2.424	1.60	4.85	9.7	45.0	1.35	47	218	155	54	25	
DF		12	3	86	94	6.112	4.80	10.19	14.0	54.0	4.06	142	550	466	164	63	
DF		13	3	87	89	5.207	4.80	8.68	16.0	60.0	3.96	139	521	456	160	60	
DF		14	4	86	100	5.987	6.40	10.48	19.6	80.0	5.84	205	838	671	236	96	
DF		15	3	87	115	3.911	4.80	7.82	23.8	105.0	5.32	187	821	611	214	94	
DF		16	2	85	108	2.292	3.20	4.58	24.0	95.0	3.14	110	435	361	127	50	
DF		17	4	86	116	4.060	6.40	9.14	27.1	114.4	7.05	247	1,046	811	285	120	
DF		18	4	85	117	3.622	6.40	8.15	31.9	125.6	7.40	260	1,023	851	299	118	
DF		19	3	87	127	2.438	4.80	6.50	31.5	130.0	5.84	205	845	672	236	97	
DF		20	5	85	133	3.667	8.00	10.27	34.8	145.7	10.19	358	1,496	1,172	411	172	
DF		21	3	83	130	1.996	4.80	5.99	35.0	140.0	5.97	209	838	686	241	96	
DF		22	8	85	127	4.849	12.80	13.94	38.0	163.9	15.09	530	2,285	1,735	609	263	
DF		23	5	86	135	2.773	8.00	8.32	44.4	193.3	10.54	370	1,608	1,212	425	185	
DF		24	6	84	137	3.056	9.60	9.17	48.7	210.0	12.72	446	1,925	1,463	513	221	
DF		25	9	86	138	4.224	14.40	12.67	54.0	235.6	19.50	684	2,985	2,242	787	343	
DF		26	7	85	134	3.038	11.20	8.68	59.4	259.0	14.69	515	2,248	1,689	593	259	
DF		27	4	86	143	1.610	6.40	4.83	64.9	296.7	8.93	313	1,433	1,027	360	165	
DF		28	8	86	140	2.993	12.80	9.35	65.4	303.2	17.43	611	2,836	2,004	703	326	
DF		29	7	85	132	2.442	11.20	6.98	72.4	323.0	14.40	505	2,253	1,656	581	259	
DF		30	7	85	142	2.282	11.20	6.84	78.9	374.3	15.39	540	2,562	1,770	621	295	
DF		31	7	85	143	2.137	11.20	6.41	81.7	392.4	14.92	524	2,515	1,716	602	289	
DF		32	10	84	141	2.865	16.00	8.31	85.6	401.4	20.28	711	3,335	2,332	818	383	
DF		33	3	83	142	.808	4.80	2.42	95.2	446.7	6.58	231	1,083	756	265	125	
DF		34	3	83	153	.761	4.80	2.28	106.0	503.3	6.90	242	1,150	793	278	132	
DF		36	1	83	151	.226	1.60	.68	115.5	553.3	2.24	78	376	257	90	43	
DF		37	2	85	154	.429	3.20	1.50	110.7	544.3	4.73	166	816	544	191	94	
DF		40	1	80	164	.183	1.60	.55	147.6	736.7	2.31	81	405	266	93	47	
DF		43	1	77	154	.159	1.60	.48	163.1	553.3	2.21	78	263	254	89	30	
DF		46	1	78	155	.139	1.60	.42	185.4	816.7	2.20	77	340	253	89	39	
DF		Totals	127	85	116	83.932	203.20	197.71	44.8	198.6	252.57	8,862	39,268	29,045	10,191	4,516	
WH		23	1	84	139	.555	1.60	1.66	46.8	210.0	2.49	78	349	287	90	40	
WH		25	2	83	132	.939	3.20	2.82	54.4	238.3	4.90	153	671	564	176	77	
WH		26	1	87	117	.434	1.60	1.30	54.8	243.3	2.28	71	317	263	82	36	
WH		35	1	79	130	.239	1.60	.72	104.9	460.0	2.41	75	330	277	87	38	
WH		Totals	5	84	131	2.167	8.00	6.50	58.1	256.6	12.09	378	1,668	1,390	434	192	
RA		11	2	74	72	4.849	3.20	4.85	9.3	35.0	1.24	45	170	143	52	20	
RA		12	2	73	65	4.074	3.20	6.11	8.0	26.7	1.34	49	163	155	56	19	
RA		13	1	74	82	1.736	1.60	3.47	10.3	40.0	.98	36	139	113	41	16	
RA		14	2	81	75	2.993	3.20	4.49	16.6	56.7	2.04	74	254	235	85	29	
RA		15	1	91	77	1.304	1.60	2.61	17.6	70.0	1.26	46	183	145	53	21	
RA		16	2	82	81	2.292	3.20	3.44	22.0	90.0	2.08	76	309	239	87	36	
RA		20	1	74	97	.733	1.60	1.47	36.9	100.0	1.49	54	147	171	62	17	
RA		24	1	73	104	.509	1.60	1.02	53.1	160.0	1.49	54	163	171	62	19	
RA		Totals	12	77	75	18.491	19.20	27.45	15.8	55.6	11.93	434	1,528	1,372	499	176	
Totals			144	84	109	104.589	230.40	231.66	41.8	183.3	276.59	9,674	42,463	31,808	11,125	4,883	

TC		Species, Sort Grade - Board Foot Volumes (Project)																			
T01S R06W S11 Ty00MC58.00										Project: SUNPSFIN										Page 1	
										Acres 58.00										Date 7/20/2017	
																				Time 1:33:18PM	
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			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			CU														13	8		0.00	3.7
DF			2M	59	.7	28,278	28,089	1,629			70	30	0	1	1	97	39	15	331	1.74	84.9
DF			3M	37	.3	17,523	17,468	1,013		100					4	96	39	8	99	0.61	176.4
DF			4M	4		1,812	1,812	105		100			39	61			19	6	23	0.31	78.0
DF Totals				97	.5	47,613	47,369	2,747		41	41	18	2	3	2	93	34	9	138	0.89	342.9
BM																	24	9		0.00	2.8
BM			CR	100	25.0	282	212	12		100			100				20	16	150	1.68	1.4
BM Totals				0	25.0	282	212	12		100			100				23	11	50	0.49	4.2
RA										100			5	6		89	32	8	79	0.60	17.9
RA Totals				3	2.7	1,452	1,413	82		100			5	6		89	32	8	79	0.60	17.9
Totals					0.7	49,347	48,993	2,842		42	40	17	2	3	2	92	34	9	134	0.87	365.0

TC PLOGSTVB		Log Stock Table - MBF																	
T01S R06W S11 Ty00MC 58.00				Project: SUNPSFIN Acres 58.00														Page 1 Date 7/20/2017 Time 1:33:17PM	
S T Spp	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Sp	Net Volume by Scaling Diameter in Inches												
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DF	2M	14	6	12.5	5	.2					5								
DF	2M	24	12		12	.4								12					
DF	2M	28	11	12.5	10	.3								10					
DF	2M	34	24	8.9	21	.8								21					
DF	2M	38	19	8.7	17	.6						17							
DF	2M	40	1,569		1,564	56.9						413	546	327	278				
DF	3M	32	35		35	1.3			29	6									
DF	3M	34	9		9	.3			9										
DF	3M	36	20		20	.7			15		5								
DF	3M	38	10		10	.4			4	7									
DF	3M	40	942		939	34.2			241	313	385								
DF	4M	12	11		11	.4			11										
DF	4M	14	15		15	.5			15										
DF	4M	16	3		3	.1			3										
DF	4M	18	9		9	.3			9										
DF	4M	20	4		4	.1			4										
DF	4M	22	16		16	.6			16										
DF	4M	24	14		14	.5			12	1									
DF	4M	28	13		13	.5			13										
DF	4M	30	21		21	.8			21										
DF	Totals		2,762		2,747	96.7			401	327	390	435	546	370	278				
BM	CR	20	16	25.0	12	100.0								12					
BM	Totals		16	25.0	12	.4								12					
RA	CR	12	4		4	4.7			4										
RA	CR	22	5		5	6.2			5										
RA	CR	38	21		21	26.0				21									
RA	CR	40	54	4.2	52	63.0			14	15	23								
RA	Totals		84	2.7	82	2.9			23	36	23								
Total	All Species		2,862		2,842	100.0			424	363	413	435	546	382	278				

TC		PSTNDSUM		Stand Table Summary										Page Date:		1 7/20/2017	
T01S R06W S11 Ty00MC58.00					ProjectSUNPSFIN					Time:1:33:19PM							
					Acres58.00					Grown Year:							
S Sp	T	Tot				Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Sample Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
DF		10	2	86	72	11.283	6.15	11.28	10.2	45.0	3.28	115	508	190	67	29	
DF		11	2	88	82	9.325	6.15	13.99	11.3	46.7	4.50	158	653	261	92	38	
DF		12	3	88	113	11.753	9.23	23.51	13.4	60.0	8.97	315	1,410	520	183	82	
DF		13	5	89	110	16.691	15.38	33.38	16.6	76.0	15.80	554	2,537	916	321	147	
DF		15	2	88	126	5.015	6.15	10.03	24.7	107.5	7.06	248	1,078	410	144	63	
DF		16	7	88	126	15.426	21.54	39.67	22.0	96.7	24.89	873	3,834	1,443	506	222	
DF		17	4	88	121	7.808	12.31	19.52	25.6	108.0	14.22	499	2,108	825	289	122	
DF		18	7	88	126	12.188	21.54	33.08	27.7	117.9	26.07	915	3,900	1,512	531	226	
DF		19	7	88	133	10.939	21.54	32.82	29.9	131.4	27.94	980	4,313	1,621	569	250	
DF		20	7	88	131	9.873	21.54	28.21	34.3	150.5	27.59	968	4,245	1,600	561	246	
DF		21	5	89	129	6.396	15.38	20.47	34.3	158.7	20.03	703	3,249	1,162	408	188	
DF		22	5	89	138	5.828	15.38	17.48	42.0	195.3	20.91	734	3,415	1,213	426	198	
DF		23	3	86	135	3.199	9.23	9.60	43.4	192.2	11.88	417	1,845	689	242	107	
DF		24	4	87	147	3.918	12.31	11.75	52.3	236.7	17.52	615	2,782	1,016	357	161	
DF		25	1	88	144	.903	3.08	2.71	55.6	256.7	4.29	151	695	249	87	40	
DF		26	2	86	157	1.669	6.15	5.84	55.2	261.4	9.19	323	1,527	533	187	89	
DF		27	1	87	83	.774	3.08	.77	101.7	400.0	2.24	79	310	130	46	18	
DF		28	6	88	147	4.317	18.46	13.67	68.0	332.1	26.48	929	4,540	1,536	539	263	
DF		29	1	90	149	.671	3.08	2.01	81.0	410.0	4.64	163	825	269	95	48	
DF		30	1	85	151	.627	3.08	1.88	85.7	416.7	4.60	161	784	267	94	45	
DF		31	3	85	148	1.761	9.23	5.87	79.7	382.0	13.33	468	2,242	773	271	130	
DF		32	1	80	131	.551	3.08	1.65	81.5	343.3	3.84	135	567	223	78	33	
DF		Totals	79	88	119	140.913	243.08	339.19	31.0	139.7	299.29	10,502	47,369	17,359	6,091	2,747	
RA		12	1	92	76	3.918	3.08	3.92	18.5	60.0	2.00	73	235	116	42	14	
RA		13	1	92	80	3.338	3.08	6.68	13.8	65.0	2.53	92	434	147	53	25	
RA		14	1	91	73	2.878	3.08	2.88	25.4	90.0	2.01	73	259	117	42	15	
RA		16	1	92	86	2.204	3.08	4.41	24.0	110.0	2.91	106	485	169	61	28	
RA		Totals	4	92	78	12.338	12.31	17.88	19.2	79.0	9.45	343	1,413	548	199	82	
BM		20	1	91	82	1.410	3.08	1.41	33.7	150.0	1.26	47	212	73	28	12	
BM		Totals	1	91	82	1.410	3.08	1.41	33.7	150.0	1.26	47	212	73	28	12	
Totals		84	88	115		154.662	258.46	358.48	30.4	136.7	310.00	10,892	48,993	17,980	6,318	2,842	

VOLUME SUMMARY

VOLUMES IN MBF

SUNDAY PASSAGE

Sale No. 341-18-24

July 2017

AREA 1: MC (115 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	3,426	969	120		4,515
	Hidden D&B (2%)	(69)	(19)	(2)		(90)
	NET TOTAL	3,357	950	118		4,425
	% of Total	76	21	3		
Western hemlock	Cruise Volume	151	38	2		191
	Hidden D&B (2%)	(3)	(1)	()		(4)
	NET TOTAL	148	37	2		187
	% of Total	79	20	1		
Red alder and other hardwoods	Cruise Volume	0	0	0	176	176
	Hidden D&B (2%)	()	()	()	(4)	(4)
	NET TOTAL	0	0	0	172	172
	% of Total	0	0	0	100	

AREA 2: MC (58 ACRES)

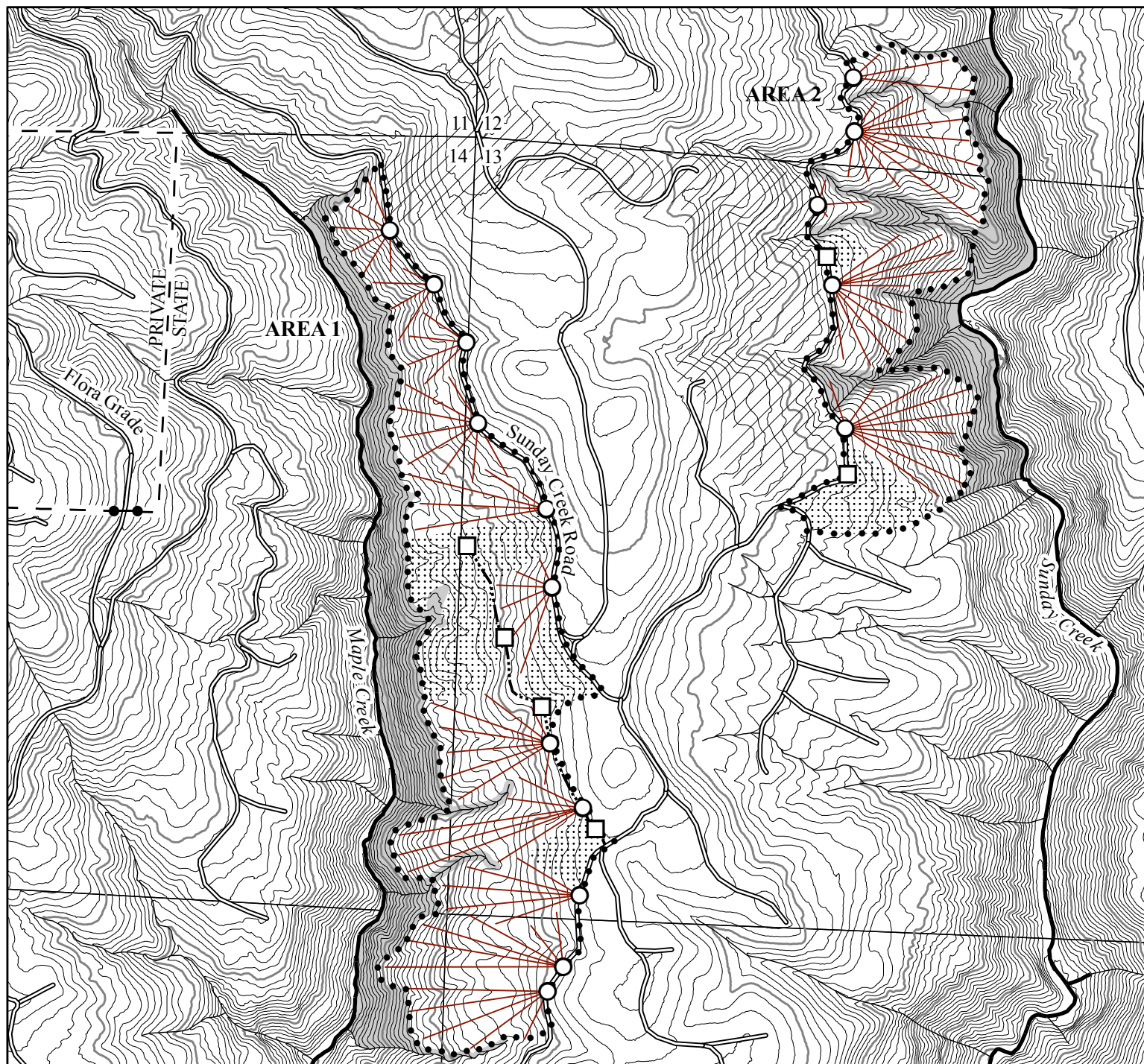
SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	1,629	1,013	105		2,747
	Hidden D&B (2%)	(33)	(20)	(2)		(55)
	NET TOTAL	1,596	993	103		2,692
	% of Total	59	37	4		
Red alder and other hardwoods	Cruise Volume	0	0	0	94	94
	Hidden D&B (2%)	()	()	()	(2)	(2)
	NET TOTAL	0	0	0	92	92
	% of Total	0	0	0	100	

AREA 3: R/W (1 ACRE)

SPECIES		2 SAW	3 SAW	4 SAW		TOTAL
Douglas-fir	Cruise Volume	27	5	2		34
	Hidden D&B (2%)	(1)	()	()		(1)
	NET TOTAL	26	5	2		33
	% of Total	79	15	6		

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	4,979	1,948	223		7,150
Western hemlock	148	37	2		187
Red alder/ hardwoods				264	264
TOTAL	5,127	1,985	225	264	7,601



Legend

- • • Timber Sale Boundary
- Surfaced Roads
- - - Non Project Road
- Type F Stream
- Type N Stream
- Stream Buffer
- ▨ Posted Stream Buffer Boundary
- ▤ Cable Yarding Area
- ▥ Tractor Yarding Area
- Cable Landing
- Tractor Landing
- /// Reforested Area
- ODF Ownership Boundary
- 20 Foot Contour Interval
- 200 Foot Contour Interval
- Section Line

LOGGING PLAN

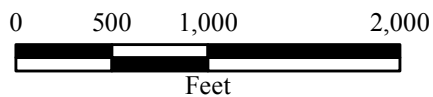
FOR TIMBER SALE CONTRACT 341-18 -24
SUNDAY PASSAGE
PORTIONS OF SECTIONS 12, 13, 14, 23, & 24,
T1S, R6W, W.M.,
WASHINGTON COUNTY, OREGON

Forest Grove District GIS
July, 2017

This product is for informational use and may not be
suitable for legal, engineering, or surveying purposes.

1:12,000

1 inch = 1,000 feet



APPROXIMATE NET ACRES

	TRACTOR	CABLE
AREA 1	25	90
AREA 2	9	49
AREA 3	1	0
TOTAL	35	139