



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Wolf Junction  
Sale WO-341-2020-w00378-01

District: West Oregon

Date: November 25, 2019

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**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,326,372.58	\$16,125.40	\$1,342,497.98
		Project Work:	(\$75,429.00)
		Advertised Value:	\$1,267,068.98



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**Timber Description**

**Location:** Portions of Sections 30 & 31 of T11S, R8W and Sections 25 & 36 of T11S, R9W W.M. Lincoln County

**Stand Stocking:** 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	28	0	97
Alder (Red)	16	0	96
Maple	16	0	91

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	Camprun	Total
Douglas - Fir	2,560	267	150	0	2,977
Alder (Red)	0	0	0	71	71
Maple	0	0	0	20	20
<b>Total</b>	2,560	267	150	91	3,068

**Comments:** Pond Values Used: Local Pond Values, October, 2019

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$286.98/\text{MBF} = \$490/\text{MBF} - \$203.02/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:  
 $\$696.98/\text{MBF} = \$1050/\text{MBF} - \$353.02/\text{MBF}$

PULP (Conifer and Hardwood Price) = \$3/TON

Other Costs (with Profit & Risk to be added): None

TOTAL Other Costs (with Profit & Risk to be added) = None

Other Costs (No Profit & Risk added):

Artificial Guy line (dozer move-in cost): \$905

Felling of sub-merch species: 30 hrs. @ \$45/hr = \$1,350

Equipment Cleaning (Invasive Species): \$2,000

Water Bar and Block Dirt Roads: 13 stations @ \$15.96/station = \$207

Landing slash piling/firewood sorting: 3 Landings @ \$180/Landing = \$540

Landing slash piling: 1 landing @ \$100/Landing = \$100

TOTAL Other Costs (No Profit & Risk added) = \$5,102

#### ROAD MAINTENANCE

Move-in: (Grader) \$875

Final Road Maintenance: \$15,363.4

TOTAL Road Maintenance: \$16,238.4/3068 MBF = \$5.29/MBF

#### SLASH DISPOSAL

Weed Wash: \$300

Move-In: \$1,290

Project Work:

In Unit: 26 hrs @ \$150/hr = \$3900

TOTAL Slash Disposal = \$5490



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**Logging Conditions**

**Combination#: 1**                      Douglas - Fir                      88.00%  
   Alder (Red)                      88.00%  
   Maple                      88.00%

**Logging System:** Cable: Large Tower >=70                      **Process:** Manual Falling/Delimbing  
**yarding distance:** Medium (800 ft)                      **downhill yarding:** No  
**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF  
**loads / day:** 11                      **bd. ft / load:** 4600  
**cost / mbf:** \$134.39  
**machines:** Log Loader (A)  
                         Tower Yarder (Large)

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**Combination#: 2**                      Douglas - Fir                      12.00%  
   Alder (Red)                      12.00%  
   Maple                      12.00%

**Logging System:** Shovel                      **Process:** Manual Falling/Delimbing  
**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:** \$71.33  
**machines:** Shovel Logger

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"STEWARDSHIP IN FORESTRY"

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### Logging Costs

Operating Seasons: 2.00	Profit Risk: 10%
Project Costs: \$75,429.00	Other Costs (P/R): \$0.00
Slash Disposal: \$5,490.00	Other Costs: \$5,102.00

Miles of Road

Road Maintenance: \$5.29

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	4.0	5.5
Alder (Red)	\$0.00	2.0	3.5
Maple	\$0.00	2.0	3.5



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Wolf Junction Sale WO-341-2020-w00378-01

District: West Oregon

Date: November 25, 2019

## Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$126.82	\$5.45	\$2.86	\$44.48	\$0.00	\$17.96	\$1.79	\$2.00	\$1.66	\$203.02
<b>Alder (Red)</b>									
\$126.82	\$5.50	\$2.86	\$141.14	\$0.00	\$27.63	\$1.79	\$2.00	\$1.66	\$309.40
<b>Maple</b>									
\$126.82	\$5.77	\$2.86	\$147.92	\$0.00	\$28.34	\$1.79	\$2.00	\$1.66	\$317.16

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$648.56	\$445.54	\$0.00
Alder (Red)	\$0.00	\$516.00	\$206.60	\$0.00
Maple	\$0.00	\$390.00	\$72.84	\$0.00



Timber Sale Appraisal  
Wolf Junction  
Sale WO-341-2020-w00378-01

District: West Oregon

Date: November 25, 2019

### Summary

#### Amortized

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

#### Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,977	\$445.54	\$1,326,372.58
Alder (Red)	71	\$206.60	\$14,668.60
Maple	20	\$72.84	\$1,456.80

#### Gross Timber Sale Value

Recovery: \$1,342,497.98

Prepared By: Zane Sandborg

Phone: 541-929-3266

## SUMMARY OF ALL PROJECT COSTS

Sale Name: Wolf Junction

Date: November 2019

Time: 7:49

### Project #1 - Road Improvement

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
1 to 2 (Wolf Cabin Road)	28.7 sta	\$5,215
2 to 3 (Wolf Flat Road)	29.8 sta	\$5,933
3 to 4	22.8 sta	\$13,418
5 to 6	16.7 sta	\$1,150
7 to 8	4.7 sta	\$3,740
9 to 10	13.3 sta	\$1,260
<b>TOTALS</b>	116.0 sta	\$30,716

	<u>Length</u>	<u>Cost</u>
<u>Project #2 - Roadside Brushing</u>		
Roadside brushing	4.56 mi	\$3,707
Sod and brushing debris removal	4.56 mi	\$5,274
<b>TOTALS</b>	4.56 mi	\$8,981

<u>Project #3 Roadside Spraying</u>	<u>Length</u>	
Roadside spray	6.83 mi	\$1,330

<u>Project #4 - Stockpile Creation</u>	<u>Cost</u>
	\$22,428

<u>Project #5 - Stream Enhancement</u>	<u>Cost</u>
	\$6,798

<u>Project #6 - Move in</u>	<u>Cost</u>
Dozer, D-7 or equiv.	\$905
Grader, Cat 14-G or equiv.	\$875
Road brusher	\$778
Front end loader	\$838
Excavator, C315 or equiv.	\$905
Vibratory roller	\$875
<b>TOTAL</b>	\$5,176

**GRAND TOTAL** **\$75,429**

Compiled by Z. Sandborg

Date 11/26/2019



# SUMMARY OF CONSTRUCTION COST

SALE	Wolf Junction	Project #	1	LENGTH improve	28.7 sta
ROAD	1 to 2 (Surfaced)				
NAME	Wolf Cabin Road				

## SURFACING

		Size		Rate		
Spot rock	80 CY	1½"-0	@	\$19.69 /CY	=	\$1,575
Process surface rock (with road grader)	28.7 sta.		@	\$20.63 /sta	=	\$592
Compact surface (with vibratory roller)	28.7 sta.		@	\$16.00 /sta	=	\$459

TOTAL ROCK COST = \$2,626

## SPECIAL PROJECTS

Culvert (sta. 16+92)						
48"x34'	34 ft		@	\$44.76 /ft	=	\$1,522
Culvert Removal	1 hrs		@	\$114.00 /hr	=	\$114
Install Culvert (Sta. 16+92)	2.5 hrs		@	\$114.00 /hr	=	\$285
Culvert Disposal	1 culvert		@	\$100.00 ea.	=	\$100
Culvert bedding/backfill	20 CY	1½"-0	@	\$19.69 /CY	=	\$394
Bedding compaction (with handheld tamper + labor)	2 hrs		@	\$57.00 /hr	=	\$114
Site dewatering	4 hrs		@	\$12.00 /hr	=	\$48
Mulching	1 straw bale		@	\$12.00 ea.	=	\$12

TOTAL SPECIAL PROJECTS COST = \$2,589

Compiled by:	Z. Sandborg
Date:	Nov 26, 2019

GRAND TOTAL =====> \$5,215

## SUMMARY OF CONSTRUCTION COST

SALE Wolf Junction Project # 1 LENGTH improve 29.8 sta  
ROAD 2 to 3 (Surfaced)  
NAME Wolf Flat Road

### SURFACING

		<u>Size</u>		<u>Rate</u>		
Spot rock	200 CY	1½"-0	@	\$24.09 /CY	=	\$4,818
Process surface rock (with road grader)	29.8 sta.		@	\$20.63 /sta	=	\$615
Compact road surface (with a vibratory roller)	29.8 sta.		@	\$16.00 /sta	=	\$477
TOTAL ROCK COST =						\$5,910

### SPECIAL PROJECTS

Repair culvert inlet (Sta. 4+44)	0.5 hrs	@	\$45.00 /hr	=	\$23
TOTAL SPECIAL PROJECTS COST=					\$23

Compiled by: Z. Sandborg  
Date: Nov 26, 2019

**GRAND TOTAL =====>** \$5,933

Note: Grading for Sod and Brushing debris removal is costed under Project No. 2

# SUMMARY OF CONSTRUCTION COST

SALE Wolf Junction Project # 1 LENGTH improve 22.8 sta  
ROAD 3 to 4 (Surfaced)  
NAME n/a

## IMPROVEMENT

		<u>Size</u>		<u>Rate</u>		
Re-open Landing(1) (using dozer)	0.5 hrs		@	\$162.00 /hr	=	\$81
TOTAL IMPROVEMENT COST =						\$81

## SURFACING

Surface Rock (4" lift)	500 CY	1½"-0	@	\$24.09 /CY	=	\$12,045
Landing rock (1)	20 CY	Jaw-Run	@	\$22.84 /CY	=	\$457
Process surface rock (with road grader)	22.8 sta.		@	\$20.63 /sta	=	\$470
Compact road surface (with vibratory roller)	22.8 sta.		@	\$16.00 /sta	=	\$365
TOTAL ROCK COST =						\$13,337

Compiled by: Z. Sandborg  
Date: Nov 26, 2019  
**GRAND TOTAL =====>** \$13,418

Note: Grading for Sod and Brushing debris removal is costed under Project No. 2

## SUMMARY OF CONSTRUCTION COST

SALE	Wolf Junction	Project #	1	LENGTH improve	16.7 sta
ROAD	5 to 6 (Surfaced)				
NAME	n/a				

### IMPROVEMENT

		<u>Size</u>		<u>Rate</u>		
Re-open Landing(1) (using dozer)	0.5 hrs		@	\$162.00 /hr	=	\$81
TOTAL IMPROVEMENT COST =						\$81

### SURFACING

Surface Rock (4" lift)	360 CY	1½"-0	@	\$24.09 /CY	=	\$8,672
Landing rock	20 CY	Jaw-Run	@	\$22.84 /CY	=	\$457
Process surface rock (with road grader)	16.7 sta.		@	\$20.63 /sta	=	\$345
Compact road surface (with vibratory roller)	16.7 sta.		@	\$16.00 /sta	=	\$267
TOTAL ROCK COST =						\$1,069

Compiled by: Z. Sandborg  
 Date: Nov 26, 2019

**GRAND TOTAL =====>** \$1,150

Note: Grading for Sod and Brushing debris removal is costed under Project No. 2

## SUMMARY OF CONSTRUCTION COST

SALE Wolf Junction Project # 1 LENGTH improve 4.7 sta  
ROAD 7 to 8 (Surfaced)  
NAME n/a

### EXCAVATION

		<u>Size</u>		<u>Rate</u>		
Re-open & enlarge Landing (using dozer)	1 hrs		@	\$162.00 /hr	=	\$162
Remove large stump	1 stump		@	\$82.50 ea.	=	\$83

TOTAL EXCAVATION COST = \$245

### SURFACING

Surface Rock (4" lift)	100 CY	1½"-0	@	\$24.09 /CY	=	\$2,409
Landing rock	40 CY	Jaw-Run	@	\$22.84 /CY	=	\$914
Process surface rock (with road grader)	4.7 sta.		@	\$20.63 /sta	=	\$97
Compact road surface (with vibratory roller)	4.7 sta.		@	\$16.00 /sta	=	\$75

TOTAL ROCK COST = \$3,495

Compiled by: Z. Sandborg  
Date: Nov 26, 2019

GRAND TOTAL =====> \$3,740

Note: Grading for Sod and Brushing debris removal is costed under Project No. 2

### SUMMARY OF CONSTRUCTION COST

SALE Wolf Junction Project # 1 LENGTH improve 13.3 sta  
ROAD 9 to 10 (Unsurfaced)  
NAME n/a

#### IMPROVEMENT

		<u>Size</u>		<u>Rate</u>		
Re-open road and Landing (using dozer)	2.5 hrs		@	\$162.00 /sta =		\$405
Shape subgrade (with road grader)	13.3 sta.		@	\$20.63 /sta =		\$274
Compact subgrade (with vibratory roller)	13.3 sta.		@	\$16.00 /sta =		\$213

TOTAL IMPROVEMENT COST = \$892

#### SURFACING

Junction rock	18 CY	3" - 0	@	\$19.44 /CY =		\$350
Process surface rock (with road grader)	0.5 sta.		@	\$20.63 /sta =		\$10
Compact surfacing (with vibratory roller)	0.5 sta.		@	\$16.00 /sta =		\$8

TOTAL SURFACING COST = \$368

Compiled by: Z. Sandborg  
Date: Nov 26, 2019

GRAND TOTAL =====> \$1,260

**Wolf Junction Timber Sale**

**Project No. 2**

**Roadside Brushing and Grading for Sod & Debris Removal Costs**

Road Segment/ Point	Road Name	Length (Feet)	Miles	Brush Density	Brushing Cost / Mile	Segment Brushing Cost	Sod Removal cost/mile	Segment Sod Removal Cost
2 to 3	Wolf Flat Rd.	2980	0.56	Medium	\$1,100.00	\$616	\$813.00	\$455
3 to 4		2280	0.43	Medium	\$1,100.00	\$473	\$813.00	\$350
5 to 6		1670	0.32	Heavy	\$1,400.00	\$448	\$813.00	\$260
7 to 8		470	0.09	Heavy	\$1,400.00	\$126	\$813.00	\$73
11 to 12		1417	0.27	Medium	\$1,100.00	\$297	\$813.00	\$220
3 to 13	Wolf Flat Rd.	3186	0.60	Light	\$800.00	\$480	\$813.00	\$488
14 to 15		1622	0.31	Heavy	\$1,400.00	\$434	\$813.00	\$252
16 to 17		603	0.11	Heavy	\$1,400.00	\$154	\$813.00	\$89
18 to 19	Wolf Heights Rd.	6203	1.17	Medium	\$1,100.00	\$1,287	\$813.00	\$951
20 to 21		3338	0.63	Heavy	\$1,400.00	\$882	\$813.00	\$512
22 to 23		378	0.07	Medium	\$1,100.00	\$77	\$813.00	\$57
<b>Totals</b>		<b>24,147</b>	<b>4.56</b>			<b>\$5,274</b>		<b>\$3,707</b>
						<b>Grand Total</b>		<b>\$8,981</b>

Date: Nov 26, 2019

11/26/2019

## Wolf Junction Timber Sale

### Project No. 3 Roadside Spraying

Road Segment/ Point	Road Name	Length (Feet)	Miles	Spray Cost /mile	Segment Cost
1 to 24	Wolf Cabin Rd.	11940	2.26	\$195	\$441
2 to 3	Wolf Flat Rd.	2980	0.56	\$195	\$109
3 to 4		2280	0.43	\$195	\$84
5 to 6		1670	0.32	\$195	\$62
7 to 8		470	0.09	\$195	\$18
11 to 12		1417	0.27	\$195	\$53
3 to 13	Wolf Flat Rd.	3186	0.60	\$195	\$117
14 to 15		1622	0.31	\$195	\$60
16 to 17		603	0.11	\$195	\$21
18 to 19		6203	1.17	\$195	\$228
20 to 21		3338	0.63	\$195	\$123
22 to 23		378	0.07	\$195	\$14
<b>Totals</b>		<b>36,087</b>	<b>6.83</b>		<b>\$1,330</b>

Date: Nov 26, 2019



## SUMMARY OF PROJECT COST

SALE Wolf Junction  
ROAD Wolf Cabin

Project # 4 - Rock Stockpile

### RESTOCKING

			Size	Cost/yd	
Stockpile rock (using 18cy truck)	1000 CY	1½"-0	@	\$19.69 /CY	= \$19,690
Barrier boulders (24" minimum)	20 CY	Boulder	@	\$39.89 /CY	= \$798
Front end loader	20 hr.		@	\$97.00 /hr.	= \$1,940

TOTAL ROCK COST = \$22,428

Compiled by: Z. Sandborg  
Date: Nov 26, 2019

**GRAND TOTAL =====>** \$22,428

## SUMMARY OF PROJECT COST

SALE Wolf Junction

Project # 5 - Stream Enhancement

### LOGGING COST

			Cost/yd		
Logging cost	24.5 MBF	@	\$126.82 /MBF	=	\$3,107

TOTAL LOGGING COST = \$3,107

### LOADING/ HAULING/ STAGING

Loading logs	2.5 hr.	@	\$114.00 /hr.	=	\$285
Hauling logs	6 hr.	@	\$97.50 /hr.	=	\$585
Staging logs	2.5 hr.	@	\$114.00 /hr.	=	\$285

TOTAL LOADING/ HAULING/ STAGING COST= \$1,155

### LOG PLACEMENT

Felling/bucking trees (using chainsaw + labor)	1 hr	@	\$60.00	=	\$60
Sites (11)	9 hr.	@	\$114.00 /hr.	=	\$1,026

TOTAL SITE ACCESS COST= \$1,086

### MOVE-IN

2nd Loader \$1,450

Compiled by: Z. Sandborg  
Date: Nov 26, 2019

GRAND TOTAL =====> \$6,798

## SUMMARY OF MAINTENANCE COST

SALE

## Wolf Junction

### - Final Maintenance Cost Estimate

*(Costed in appraisal, not in project costs)*

## Grading

Move-in		
Grader	\$	875
Total	\$	875

Road Segment	Length	Cost/Sta	Cost	Mileage
Salmon Creek Road.	139.3 sta	\$20.63	\$2,873.76	2.64
Wolf Creek Road.	85.8 sta	\$20.63	\$1,770.05	1.63
1 to 2 (Wolf Cabin Road)	28.7 sta	\$20.63	\$592.08	0.54
2 to 3 (Wolf Flats Road)	29.8 sta	\$20.63	\$614.77	0.56
3 to 4	22.8 sta	\$20.63	\$470.36	0.43
5 to 6	16.7 sta	\$20.63	\$344.52	0.32
7 to 8	4.7 sta	\$20.63	\$96.96	0.09
<b>Total</b>	<b>327.8 sta</b>		<b>\$6,762.50</b>	<b>6.21</b>

### Maintenance Rock:

	Volume	Cost/CY	Cost
1½"-0	290	\$19.69	\$5,710.10
1½"-0	120	\$24.09	\$2,890.80

Grand Total	\$ 16,238.40
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TS Volume 3,068 MBF

Cost / MBF = \$5.29

**NOTES:** Spot rock and grade rock surfacing on all roads used for hauling as directed by STATE. Apply 30 C'

# Rock Haul Cost Computation

SALE NAME: Wolf Junction                      DATE: Nov 26, 2019  
ROAD NAME: Wolf Cabin road                      CLASS: Medium  
ROCK SOURCE: Hardrock Quarry                      10 CY truck  
Route: Hwy 20, Salmon creek road,  
Wolf Creek road, Wolf Cabin Road

## TIME Computation:

### Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH	28.00	MRT	33.6 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	11.50	MRT	34.5 minutes
9.	15 MPH		MRT	0.0 minutes
10.	10 MPH	1.50	MRT	9.0 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) 77.60 minutes

Operator efficiency correction 0.85 91.29 minutes

Job efficiency correction 0.90 101.43 minutes

Truck capacity (CY) 10.00 10.14 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 10.39 min/CY

## COST per CY computation

Cost of truck and operator per hour \$90.00 /hr.

Cost of truck and operator per minute \$1.50 /min

Cost per CY \$15.59 /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	\$ 8.50	\$24.09	\$25.59
3" - 0	\$ 8.25	\$23.84	\$25.34
Jaw-Run	\$ 7.25	\$22.84	\$24.34
Pit-Run	\$ 6.50	\$22.09	\$23.59
Boulders	\$ 24.30	\$39.89	

# Rock Haul Cost Computation

SALE NAME: Wolf Junction DATE: Nov 26, 2019  
ROAD NAME: Wolf Cabin Road CLASS: Medium  
ROCK SOURCE: Hardrock Quarry 18 CY truck  
Route: Hwy 20, Salmon creek road,  
Wolf Creek road, Wolf Cabin Road

## TIME Computation:

### Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH	28.00	MRT	33.6 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	11.50	MRT	34.5 minutes
9.	15 MPH		MRT	0.0 minutes
10.	10 MPH	1.50	MRT	9.0 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) 77.60 minutes

Operator efficiency correction 0.85 91.29 minutes  
Job efficiency correction 0.90 101.43 minutes

Truck capacity (CY) 18.00 5.64 min/CY  
Loading time, delay time per CY 0.25 min/CY  
TIME (minutes) per cubic yard 5.89 min/CY

## COST per CY computation

Cost of truck and operator per hour \$114.00 /hr.  
Cost of truck and operator per minute \$1.90 /min

Cost per CY \$11.19 /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	\$ 8.50	\$19.69	\$21.19
3" - 0	\$ 8.25	\$19.44	\$20.94
Jaw-Run	\$ 7.25	\$18.44	\$19.94
Pit-Run	\$ 6.50	\$17.69	\$19.19

## TIMBER CRUISE REPORT

### **Wolf Junction (WO-341-2020-W00378-01) FY 2020**

1. **Sale Area Location:** Portions of Sections 30 and 31, T11S, R8W, and Sections 25 and 36, T11S, R9W, W.M., Lincoln County, Oregon.
2. **Fund Distribution:**
  - a. **Fund** BOF 80%  
CSL 20%

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Stream Buffers	Existing Roads	Slope Buffers	Green Tree Areas	Net Sale Acres	Acreage Comp. Method
1	Modified Clearcut	91	10	3	1	4	73	GIS

4. **Cruisers and Cruise Dates:** This sale was cruised by Cody Valencia, Aaron McEwen, Leo Williamson and Zane Sandborg in September 2019.
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 3 chains apart on plot lines spaced 3 chains apart. A total of 67 plots were taken with 34 measure plots and 33 count plots.
6. Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury SuperACE cruise program to determine stand statistics and net board foot volume. Additional volume was removed to account for hidden defect and breakage.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcMap GIS was used to determine gross and net acreage.
7. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or to 40% of form factor. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40 foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.
8. **Timber Description:** Timber in the sale area is primarily 58-88 year old Douglas-fir with scattered red alder and bigleaf maple. The average Douglas-fir is approximately 28 inches DBH, with an average cruised height of 114 feet to 40 percent of form point. The average volume net per acre to be harvested (net) is approximately 43 MBF. Conifer trees other than Douglas-fir are reserved from cutting.

**9. Statistical Analysis and Stand Summary:** (See attached "Statistics").

Area	Target CV	Target SE	Actual CV	Actual SE
1	65%	9%	51.1%	6.2%

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

**10. Total Volume (MBF) by Species and Grade:** (See attached volume report "Species, Sort Grade – Board Foot Volumes - Project").

Species	Gross Cruise Volume	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
Douglas-fir	3069	1%	31	2%	2977	2977
Red Alder	74	1%	1	2%	1	71
Bigleaf Maple	23	13%	3	1%	<1	20
<b>Total</b>	3166	1%	35	2%	63	3068

Species	Ave. DBH	Net Vol.	2-Saw	3-Saw	4-Saw	Camp Run
Douglas-fir	28	Grade %	86%	12%	2%	-
		2977	2560	357	60	-
Red Alder	16	Grade %	-	-	-	100%
		71	-	-	-	71
Bigleaf Maple	16	Grade %	-	-	-	100%
		20	-	-	-	20
<b>Total</b>		3068	2560	357	60	91

Attachments: Cruise Design  
Cruise Maps  
Statistics  
Stand Table Summary  
Species, Sort Grade – Board Foot Volume  
Log Stock Table – MBF

Prepared by: Zane Sandborg

Date: 11/25/19

Unit Forester:   
Evelyn Hukari

Date: 11/25/19



## CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: Wolf Junction Area 1

Harvest Type: MC

Approx. Cruise Acres: 73 Estimated CV% 65 /Acre Net BF SE% Objective 9 /Acre Net BF

Planned Sale Volume: 3.525 MMBF Estimated Sale Area Value/Acre: \$ 27,025

- A. **Cruise Goals:** (a) Grade minimum 100 conifer and 0 hardwood trees:  
(b) Sample 67 cruise plots ( 34 grade: 33 count); (c) Other goals X Determine log grades for sale value;    Determine take and leave tree species and sizes.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers.

DO NOT RECORD 12', 22', 24' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

**B. Cruise Design:**

1. **Plot Cruises:** BAF 40 (**Full point**; Half point) (circle one)  
Cruise Line Direction(s) See Map  
Cruise Line Spacing 3/198 (chains) (feet)  
Cruise Plot Spacing 3/198 (chains) (feet)  
Grade/Count Ratio 1:1

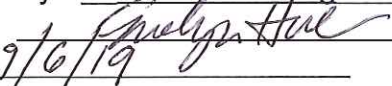
**C. Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.  
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
3. **Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 24" dbh and 40% of dob @ FP for trees > 24" dbh.
4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

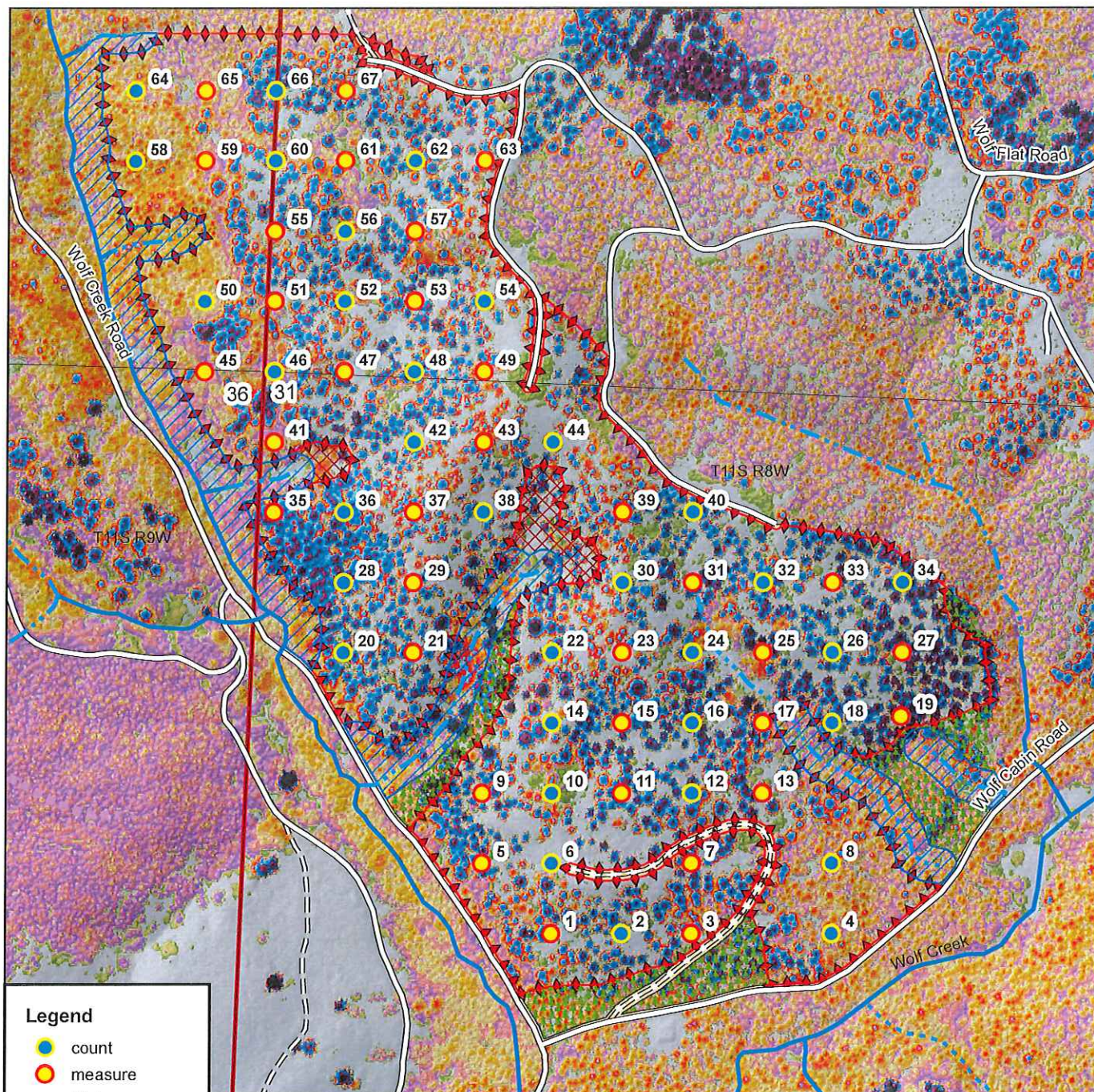


hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)  
B. Sort: Use code "1" (Domestic).  
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;  
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave. ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Zane Sandborg  
Approved by:   
Date: 9/6/19





#### Legend

- count
- measure
- Fish
- Nonfish
- Unknown;

#### Roads

- Surfaced Road
- = Dirt road
- Other Road
- Sections\_WO
- Townships\_WO

#### Harvest Type

- CCM
- GTR
- RDBF
- SLPBF
- STRBF

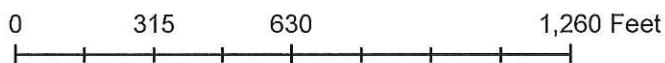
## Wolf Junction Timber Cruise FY 2020

Portions of Sections 30 & 31 of T11S, R8W, and  
Sections 25 & 36 of T11S R9W.W.M.  
Lincoln County, Oregon

BAF: 40  
Spacing: 3x3 chains



1:5,000





TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																		
<div>T011 R008 S31 TyTES373.00</div>				Project:				WOLF JUN								Page				1		
				Acres				73.00								Date				10/22/2019		
																Time				3:11:28PM		
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		
					Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF		DO	CU														20	25		0.00	.9	
DF		DO	2M	86	1.0	36,361	35,992	2,627				27	73	1	2	2	96	39	17	522	2.74	69.0
DF		DO	3M	12	1.2	5,171	5,108	373			58	15	27	6	6	11	77	35	10	148	1.12	34.5
DF		DO	4M	2		512	512	37	7	93				50	33	12	5	21	7	35	0.56	14.6
DF Totals				96	1.0	42,043	41,612	3,038	0	8	25	66		2	3	3	92	35	14	350	2.11	119.0
RA				DO	CR																	
RA				DO	CR																	
RA Totals				2	1.2	1,008	995	73		47	41	13		18	10		72	31	9	101	1.00	9.8
DFL				DO	2M																	
DFL				DO	3M																	
DFL Totals				1		394	394	29		0		100		3	6		91	33	31	1947	10.46	.2
BM				DO	CR																	
BM Totals				1	14.8	317	270	20		24	59	17		60	37		3	19	10	64	1.09	4.2
Totals					1.1	43,762	43,271	3,159	0	9	26	65		3	3	3	91	34	14	325	2.03	133.3

TC PSTATS				PROJECT STATISTICS					PAGE	1	
				PROJECT	WOLF JUN			DATE	10/22/2019		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt	
011	008	31	A1	TES3	73.00		67	303	1	W	
				TREES		ESTIMATED	PERCENT				
				PER PLOT		TOTAL	SAMPLE				
PLOTS				TREES	TREES		TREES				
TOTAL			67	303	4.5						
CRUISE			34	150	4.4		3,528		4.3		
DBH COUNT											
REFOREST											
COUNT			33	153	4.6						
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			125	37.5	28.1	114	30.4	161.2	42,043	41,612	8,849
R ALDER			13	7.1	16.2	46	2.5	10.1	1,008	995	302
SNAG			4	1.0	29.3	70	0.9	4.8			
BL MAPLE			6	2.6	15.8	32	0.9	3.6	317	270	85
DF LEAVE			2	.1	65.8	124	0.1	1.2	394	394	70
TOTAL			150	48.3	26.2	99	35.3	180.9	43,762	43,271	9,306
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			60.7	5.4	1,355	1,432	1,510				
R ALDER			64.7	18.6	173	213	253				
SNAG											
BL MAPLE			75.3	33.5	132	198	265				
DF LEAVE			20.3	19.0	6,394	7,890	9,386				
TOTAL			89.3	7.3	1,245	1,343	1,441	318	80	35	
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			51.2	4.6	280	293	306				
R ALDER			60.8	17.5	52	63	74				
SNAG											
BL MAPLE			69.0	30.7	43	62	80				
DF LEAVE			13.6	12.7	1,215	1,392	1,568				
TOTAL			76.0	6.2	257	274	291	231	58	26	
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DF			67.7	8.3	34	38	41				
R ALDER			323.3	39.5	4	7	10				
SNAG			346.9	42.3	1	1	1				
BL MAPLE			783.2	95.6	0	3	5				
DF LEAVE			576.8	70.4	0	0	0				
TOTAL			77.1	9.4	44	48	53	237	59	26	
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			54.5	6.6	150	161	172				
R ALDER			324.3	39.6	6	10	14				
SNAG			372.3	45.4	3	5	7				
BL MAPLE			693.6	84.7	1	4	7				
DF LEAVE			574.4	70.1	0	1	2				
TOTAL			46.1	5.6	171	181	191	85	21	9	

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
011	008	31	A1	TES3	73.00	67	303	1	W

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		55.7	6.8	38,783	41,612	44,441			
R ALDER		326.5	39.9	599	995	1,392			
SNAG									
BL MAPLE		676.3	82.6	47	270	493			
DF LEAVE		575.2	70.2	117	394	670			
<b>TOTAL</b>		<i>51.1</i>	<i>6.2</i>	<i>40,574</i>	<i>43,271</i>	<i>45,969</i>	<i>104</i>	<i>26</i>	<i>12</i>

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		56.4	6.9	8,240	8,849	9,459			
R ALDER		323.9	39.5	183	302	421			
SNAG									
BL MAPLE		688.4	84.0	14	85	157			
DF LEAVE		574.4	70.1	21	70	119			
<b>TOTAL</b>		<i>50.5</i>	<i>6.2</i>	<i>8,732</i>	<i>9,306</i>	<i>9,880</i>	<i>102</i>	<i>25</i>	<i>11</i>

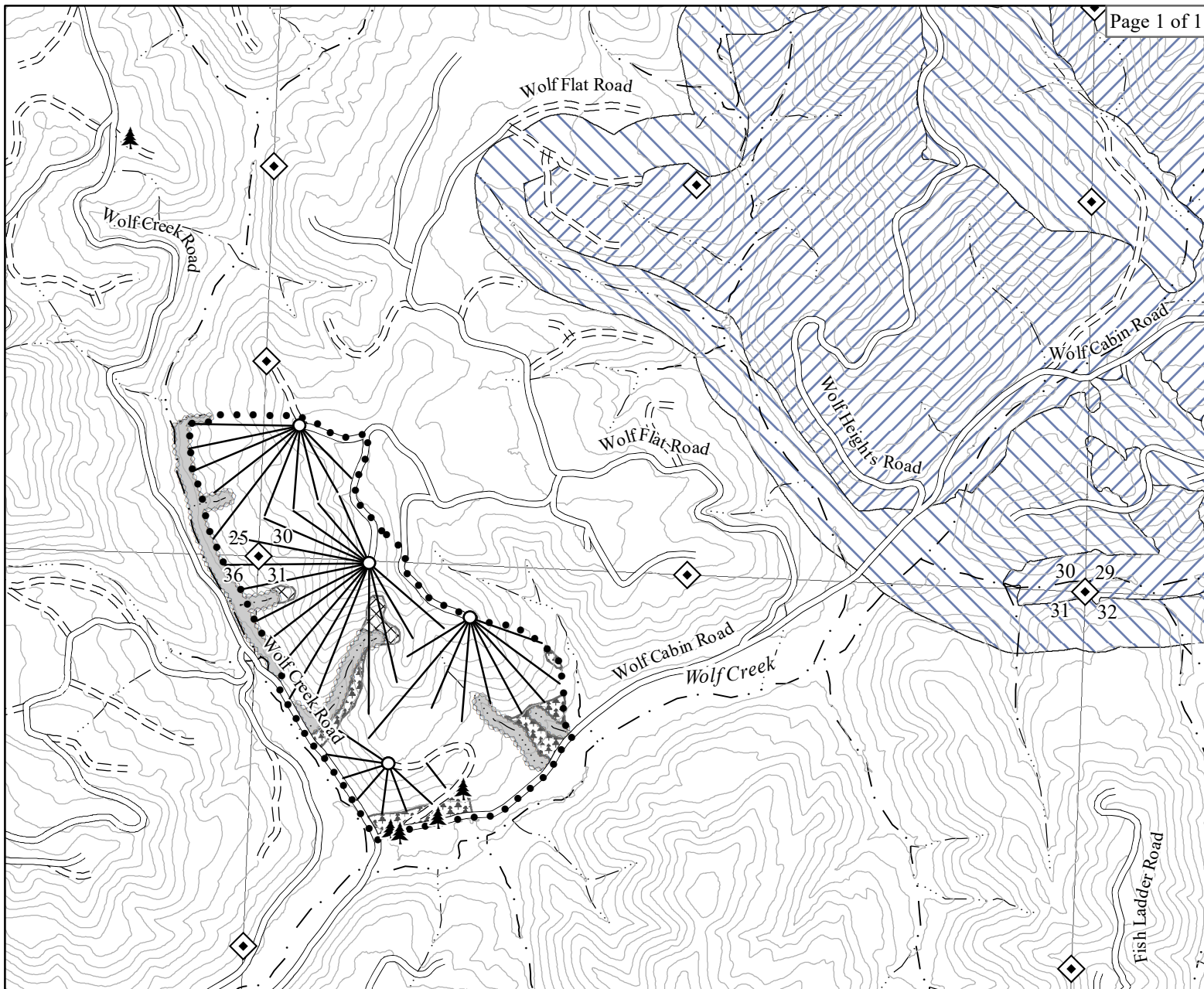
TC		PSTNDSUM		Stand Table Summary								Page		1		
												Date:		10/22/2019		
T011 R008 S31 TyTES3				73.00				Project		WOLF JUN		Time:		2:52:45PM		
								Acres		73.00		Grown Year:				
S SpC	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s		
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		18	1	92	106	.730	1.29	1.46	37.0	130.0		54	190	39	14	
DF		19	3	86	125	1.965	3.87	5.24	31.2	125.0		164	655	120	48	
DF		20	4	85	137	2.364	5.16	7.09	38.7	150.8		274	1,070	200	78	
DF		21	3	86	116	1.608	3.87	4.29	40.6	156.3		174	670	127	49	
DF		22	4	87	130	1.954	5.16	5.37	47.9	191.8		257	1,031	188	75	
DF		23	7	87	145	3.129	9.03	9.39	52.5	217.1		493	2,038	360	149	
DF		24	8	86	136	3.284	10.32	9.44	56.8	232.2		536	2,192	391	160	
DF		25	8	87	138	3.026	10.32	9.08	60.3	257.9		547	2,342	400	171	
DF		26	4	86	131	1.399	5.16	4.20	63.3	268.3		265	1,126	194	82	
DF		27	6	87	146	1.946	7.74	6.16	70.1	327.9		432	2,021	315	148	
DF		28	5	88	169	1.508	6.45	5.43	73.3	355.6		398	1,930	291	141	
DF		29	6	86	148	1.687	7.74	5.06	84.4	393.3		427	1,990	312	145	
DF		30	7	86	148	1.839	9.03	5.78	84.9	410.0		490	2,370	358	173	
DF		31	5	86	162	1.230	6.45	4.43	81.1	379.4		359	1,680	262	123	
DF		32	9	86	158	2.078	11.61	7.16	90.8	444.2		650	3,179	474	232	
DF		33	6	86	160	1.303	7.74	4.78	95.5	474.1		456	2,264	333	165	
DF		34	6	87	147	1.227	7.74	4.09	103.7	508.0		424	2,078	310	152	
DF		35	2	86	159	.386	2.58	1.35	110.1	552.9		149	747	109	55	
DF		36	11	85	163	2.007	14.19	7.48	111.8	569.0		836	4,256	611	311	
DF		37	3	88	166	.518	3.87	2.07	111.6	610.8		231	1,266	169	92	
DF		38	1	85	141	.164	1.29	.49	135.3	656.7		66	323	49	24	
DF		39	4	85	170	.622	5.16	2.49	121.4	650.0		302	1,617	220	118	
DF		40	3	85	155	.443	3.87	1.48	140.6	744.0		208	1,099	152	80	
DF		41	3	86	156	.422	3.87	1.41	129.3	669.0		182	941	133	69	
DF		42	1	85	189	.134	1.29	.67	129.2	710.0		87	476	63	35	
DF		43	1	85	146	.128	1.29	.38	179.7	896.7		69	344	50	25	
DF		46	3	88	161	.335	3.87	1.34	174.9	949.2		235	1,273	171	93	
DF		50	1	85	176	.095	1.29	.47	173.6	940.0		82	444	60	32	
DF		Totals	125	86	144	37.530	161.19	118.08	74.9	352.4		8,849	41,612	6,460	3,038	
RA		10	1	86	46	1.431	.78	1.43	9.0	30.0		13	43	9	3	
RA		13	2	86	56	1.694	1.56	1.69	21.5	65.0		36	110	27	8	
RA		15	3	86	75	1.909	2.34	2.54	29.3	85.0		74	216	54	16	
RA		17	1	87	104	.495	.78	.99	34.0	120.0		34	119	25	9	
RA		18	1	86	91	.442	.78	.88	35.0	120.0		31	106	23	8	
RA		22	2	86	80	.591	1.56	1.18	46.7	162.5		55	192	40	14	
RA		26	1	86	48	.212	.78	.42	39.5	175.0		17	74	12	5	
RA		28	1	86	64	.183	.78	.37	59.5	195.0		22	71	16	5	
RA		30	1	87	67	.159	.78	.32	62.0	200.0		20	64	14	5	
RA		Totals	13	86	67	7.116	10.15	9.83	30.7	101.2		302	995	220	73	
DFL		63	1	85	154	.028	.60	.11	314.5	1690.0		.00	35	186	0	25
DFL		69	1	86	160	.023	.60	.09	381.2	2255.0		.00	35	207	0	26
DFL		Totals	2	85	157	.051	1.19	.20	344.8	1946.9		.00	70	394	0	51
BM		9	1	86	35	1.351	.60	1.35	6.0	20.0		8	27	6	2	
BM		17	1	87	55	.379	.60	.76	20.0	60.0		15	45	11	3	
BM		18	1	86	59	.338	.60	1.01	16.3	50.0		17	51	12	4	
BM		21	1	87	54	.248	.60	.50	30.0	95.0		15	47	11	3	
BM		24	1	86	56	.190	.60	.38	41.5	125.0		16	48	12	3	
BM		31	1	86	62	.114	.60	.23	65.5	230.0		15	52	11	4	
BM		Totals	6	86	45	2.620	3.58	4.23	20.2	63.9		85	270	62	20	
SN		23	1	99	112	.414	1.19									

TC		PSTNDSUM		Stand Table Summary										Page		2	
														Date:		10/22/2019	
				T011 R008 S31 TyTES3		73.00		Project		WOLF JUN		Time:		2:52:45PM			
								Acres		73.00		Grown Year:					
	S				Tot				Average Log			Net	Net				
Sp	T	DBH	Sample	FF	Av	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.	T o t a l s			
			Trees	16'	Ht	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF	
SN		33	3	99	61	.603	3.58										
SN		Totals	4	99	82	1.017	4.78										
Totals			150	87	126	48.334	180.90	132.34	70.3	327.0	.00	9,306	43,271	0	6,793	3,159	

TC		PLOGSTVB		Log Stock Table - MBF																	
T011 R008 S31 TyTES3				73.00		Project:		WOLF JUN		Page		1		Date		10/22/2019		Time		2:52:45PM	
				Acres		73.00															
Spp	S T	So Gr rt 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+		
DF		DO	2M	16	2		2	.1					1	1							
DF		DO	2M	18	9	2.8	9	.3					1	1			7				
DF		DO	2M	20	3	4.6	3	.1					1	2							
DF		DO	2M	24	2		2	.1					2								
DF		DO	2M	26	30		30	1.0					5	6		7		12			
DF		DO	2M	28	9		9	.3					6	3							
DF		DO	2M	30	2		2	.1					2								
DF		DO	2M	32	45		45	1.5					9	14	4	17					
DF		DO	2M	34	11		11	.4					7	4							
DF		DO	2M	36	23		23	.8					7	4	13						
DF		DO	2M	38	81		81	2.7					27	8	45						
DF		DO	2M	40	2,438	1.1	2,412	79.4					160	177	747	679	552	98			
DF		DO	3M	16	13		13	.4					7			6					
DF		DO	3M	18	4		4	.1					4								
DF		DO	3M	20	5		5	.2					4	1							
DF		DO	3M	24	5		5	.2					5								
DF		DO	3M	26	1		1	.0				1									
DF		DO	3M	28	7		7	.2			3	3	1								
DF		DO	3M	30	8		8	.3				3		2		3					
DF		DO	3M	32	32		32	1.0			11	8	13								
DF		DO	3M	34	10		10	.3			2	4	3								
DF		DO	3M	36	18		18	.6			6		11								
DF		DO	3M	38	29	1.1	28	.9			4	5	12	7							
DF		DO	3M	40	246	1.7	242	8.0			8	38	59	38	6		63	16	15		
DF		DO	4M	12	1		1	.0				1	1								
DF		DO	4M	14	1		1	.0			1										
DF		DO	4M	16	12		12	.4			4	8									
DF		DO	4M	18	2		2	.1				1	1								
DF		DO	4M	20	3		3	.1			1	2									
DF		DO	4M	24	6		6	.2		1	4	1									
DF		DO	4M	28	4		4	.1			4										
DF		DO	4M	30	2		2	.1			2										
DF		DO	4M	32	5		5	.2		1	3										
DF		DO	4M	36	2		2	.1			2										
DF		Totals			3,069	1.0	3,038	96.2	2		55	74	122	275	226	813	771	574	125		
RA		DO	CR	14	0		0	.3			0										
RA		DO	CR	18	10	6.4	10	13.5				1					9				



TC		PLOGSTVB		Log Stock Table - MBF																	
T011 R008 S31 TyTES3					73.00		Project:		WOLF JUN								Page		2		
							Acres		73.00								Date		10/22/2019		
																	Time		2:52:45PM		
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	40+	
RA		DO	CR	20	3		3	4.3			3										
RA		DO	CR	24	2		2	3.4			2										
RA		DO	CR	26	4	6.0	3	4.6			3										
RA		DO	CR	28	2		2	2.2			2										
RA		DO	CR	36	22		22	30.3			3		7		13						
RA		DO	CR	38	17		17	23.5					7	6		4					
RA		DO	CR	40	13		13	17.9			3	10									
RA		Totals			74	1.2	73	2.3			17	10	7	13	13	4	9				
DFL		DO	2M	18	1		1	2.6										1			
DFL		DO	2M	24	2		2	6.2											2		
DFL		DO	2M	40	26		26	90.6									1		4	20	
DFL		DO	3M	20	0		0	.5					0								
DFL		Totals			29		29	.9					0				1	1	6	20	
BM		DO	CR	14	11	18.0	9	46.8				0		1	4			3			
BM		DO	CR	16	1	28.9	1	3.5			0	1									
BM		DO	CR	18	2		2	10.0			2										
BM		DO	CR	26	5	12.0	4	20.3			1				3						
BM		DO	CR	30	4	11.1	3	16.9							3						
BM		DO	CR	36	1	25.0	0	2.5				0									
BM		Totals			23	14.8	20	.6			3	2		1	10			3			
Total		All Species			3,195	1.1	3,159	100.0		2	76	86	128	289	249	817	782	578	131	20	



## Legend

### Boundaries

..... Timber Sale Boundary

Green Tree Retention Area

Stream Buffer

Slope Buffer

### Marbled Murrelet Management Area

Occupied Habitat

Non-Habitat Buffer

### Roads

===== Surfaced Road

===== Unsurfaced Road

### Streams

..... Type F Stream

..... Type N Stream

===== Cable Corridor

○ Landing

◆ Land Survey Monument

▲ Parent Tree

## LOGGING PLAN

OF TIMBER SALE CONTRACT NO. WO-341-2020-W00378-01

WOLF JUNCTION

PORTIONS OF SECTIONS 30 & 31, T11S, R08W,  
AND SECTIONS 25 & 36, T11S, R09W, W.M.,  
LINCOLN COUNTY, OREGON.

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

1,000

0

1,000

2,000

Feet

TRACTOR CABLE  
AREA ACRES ACRES

1 (MC) 10 63

TOTAL 10 63

N



Date: 11/25/2019