



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,744,556.12	\$0.00	\$2,744,556.12
		Project Work:	\$0.00
		Advertised Value:	\$2,744,556.12



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Timber Description

Location:

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	22	0	97
Western Hemlock / Fir	12	0	95

Volume by Grade	2S	3S & 4S 6"-11"	Camprun	SM & Better	Total
Douglas - Fir	8,545	556	60	729	9,890
Western Hemlock / Fir	108	24	1	0	133
Total	8,653	580	61	729	10,023

Comments: Pond Values Used: Local Pond Values, September 2020.

Red alder and other hardwoods stumpage price = Pond Value minus logging cost:
 $\$259/\text{MBF} = \$534/\text{MBF} - \$275.00/\text{MBF}$

Western redcedar and other cedars stumpage price = Pond Value minus logging cost & additional haul cost:
 $\$575/\text{MBF} = \$900/\text{MBF} - \$275.00/\text{MBF} - \$50/\text{MBF}$ additional hauling cost.

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

BRANDING AND PAINTING COST ALLOWANCE = $\$2.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to $\$900$ daily truck cost.

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

Season 1 Equipment Move-In: Accounted for in Appraisal System

Season 1 Equipment Weed Wash: $((\$120.00/\text{hr loaded transport}) + (\$22.00/\text{hr} \times 2 \text{ pilots per piece of equipment})) \times 4 \text{ hour wash time} = \$656.00 \times 4 \text{ pieces of equipment} = \$2,624$

Season 2 Equipment Move-In: $((\$120.00/\text{hr loaded transport}) + (\$22.00/\text{hr} \times 2 \text{ pilots per piece of equipment})) \times 6 \text{ hour Move-In Cycle} = \$984.00 \times 4 \text{ pieces of equipment} = \$3,936$

Season 2 Equipment Weed Wash: $((\$120.00/\text{hr loaded transport}) + (\$22.00/\text{hr} \times 2 \text{ pilots per piece of equipment})) \times 4 \text{ hour wash time} = \$656.00 \times 4 \text{ pieces of equipment} = \$2,624$

= $\$9,184$

Non-Project Roads: (See attached Non-Project Roads sheet for costs)

Rocking = $(35 \text{ station} \times 60\text{cy} \times \$16/\text{cy load\&haul}) = \$33,600$

Construction = $(35 \text{ station} \times \$500) = \$17,500$

Move-in = $\$7,720$

Total = $\$58,820$

TOTAL Other Costs (with Profit & Risk to be added) = $\$68,004$

Other Costs (No Profit & Risk added):

Additional $\$50/\text{mbf}$ for logging = $501,550.00$

ROAD MAINTENANCE:

Dust Abatement: $11 \text{ stations} \times .54\text{cents}/\text{ft} = \$594 \times 2 = \$1,188$

Move-in: $\$120/\text{hr} \times 6 \text{ hr move/cycle} \times 1 \text{ Grader} = \720

General Road Maintenance: $12.7 \text{ miles} \times \$1,100/\text{mile} = \$13,970$

Additional Maintenance Rock: $50 \text{ loads} \times (\$25/\text{cy load\&haul} \times 10\text{cy/load}) = \$12,500$

TOTAL: $\$28,378/10,605.89 \text{ MBF} = \$2.68/\text{MBF}$



Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Logging Conditions

Combination#: 1 Douglas - Fir 6.00%
 Western Hemlock / Fir 6.00%

Logging System: Cable: Small Tower <=40 **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: 7 **bd. ft / load:** 4500

cost / mbf: \$196.83

machines: Log Loader (A)
 Tower Yarder (Small)

Combination#: 2 Douglas - Fir 94.00%
 Western Hemlock / Fir 94.00%

Logging System: Shovel **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: 9 **bd. ft / load:** 4500

cost / mbf: \$97.22

machines: Shovel Logger



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Logging Costs

Operating Seasons: 2.00	Profit Risk: 20%
Project Costs: \$0.00	Other Costs (P/R): \$68,004.00
Slash Disposal: \$0.00	Other Costs: \$501,150.00

Miles of Road

Road Maintenance: \$2.83

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	3.0	4.5
Western Hemlock / Fir	\$0.00	3.0	4.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$103.20	\$2.91	\$0.88	\$72.48	\$6.78	\$37.25	\$0.00	\$2.00	\$50.00	\$275.50
Western Hemlock / Fir									
\$103.20	\$2.97	\$0.88	\$73.89	\$6.78	\$37.54	\$0.00	\$2.00	\$50.00	\$277.26

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$552.03	\$276.53	\$0.00
Western Hemlock / Fir	\$0.00	\$350.00	\$72.74	\$0.00



Timber Sale Appraisal
#1 Stout Creek Restoration
Sale NC-341-2020-W00880-01

District: N Cascade

Date: December 10, 2020

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	9,890	\$276.53	\$2,734,881.70
Western Hemlock / Fir	133	\$72.74	\$9,674.42

Gross Timber Sale Value

Recovery: \$2,744,556.12

Prepared By: Wyatt Taylor

Phone: 503-302-4886

Non-Project Roads

#1 Stout Creek Restoration						
Operator Option				Construction Cost		
		Segments	Length	Pit Run 8"-0"	Station	Construct \$
POTENTIAL ROADS:		Potential Roads	35+00	60 cy	\$ 500.00	\$ 17,500.00
						\$ -
						\$ -
						\$ -
						\$ -
			35+00	60 cy	500 cy	\$ 17,500.00
					Move-in	\$ 7,720.00
		TOTALS	0.66	miles	Road Cost	\$ 25,220.00
		Total miles	TOTAL ROCK			
ROCK SOURCES:			Size of Rock	Needed for Roads	Load & Haul	Cost
			8"+ Pit Run	2,100 cy	\$ 16.00	\$ 33,600.00
		Location		2,100 cy		
		Polly Pit				
		TOTAL	TOTAL Road Cost		\$ 58,820.00	

Move in costs							
No.	Equipment Description	Transport Cost	Hours of Transport	Cost to Move	Weedwash Time (Hrs)	Weedwash Labor (\$65/hour)	Total Cost
1	Grader	\$ 175.00	6	\$ 1,100.00	0	\$ -	\$ 1,100.00
1	Rollers & Compactor	\$ 175.00	6	\$ 1,100.00	0	\$ -	\$ 1,100.00
1	Excavator	\$ 175.00	6	\$ 1,100.00	3	\$ 195.00	\$ 1,295.00
1	Small backhoe	\$ 175.00	6	\$ 1,100.00	3	\$ 195.00	\$ 1,295.00
1	Tractors Dozer (D5 - D8)	\$ 175.00	6	\$ 1,100.00	6	\$ 390.00	\$ 1,490.00
1	Dump Truck (10 cy +)	\$ 85.00	2	\$ 170.00	0	\$ -	\$ 170.00
1	Loader	\$ 175.00	6	\$ 1,100.00	0	\$ -	\$ 1,100.00
0	Road Brusher	\$ 175.00	6	\$ 1,100.00	3	\$ 195.00	\$ -
1	Water Truck (1000 gallon)	\$ 85.00	2	\$ 170.00	0	\$ -	\$ 170.00
						Total one time	\$ 7,720.00
				TOTAL COSTS (One Time)			\$ 7,720.00

TIMBER SALE SUMMARY
#1 Stout Creek Restoration
Contract No. NC-341-2020-W00880-01

1. **Location:** Portions of Section 2, 3 and 4 of T9S, R2E and Portions of Section 34, T8S, R2E, W.M., Marion County, Oregon.
2. **Type of Sale:** This an 11 unit, 275 net acre salvage sale. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, Marion 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 volume was calculated using forest inventory volume analysis.
6. **Timber Description:** The Timber Sale Area consists primarily of medium stocked 70 year old Douglas-fir that was burned during the Beachie Creek fire in September 2020. The average Douglas-fir DBH is 22". The total estimated net per acre volume is 45.5 MBF/ac.
7. **Volume Summary:** See attached document (Timber Sale Notice).
8. **Topography and Logging Method:** The average elevation for the Timber Sale is 1,800 feet. Slopes within the sale areas range from 5-35%. The Timber Sale Area is 95% ground-based logging and 5% cable logging.
9. **Access:** The Timber Sale Area is located North of Lyons, Oregon, within Department of Forestry lands on the North Cascade District. Access to the Timber Sale Area is as follows: From the town of Lyons take Highway 226 towards SR 22 for approximately 0.2 mile, then continue across SR 22 onto Wagner Road. Continue on Wagner Road for approximately 2 miles until you reach a yellow gate (**A key will be required to gain access to the timber sale area**). Continue through the gate approximately 0.26 mile until you reach timber sale boundary signs.

CRUISE REPORT
#1 Stout Creek Restoration
Contract No. NC-341-2020-W00880-01

1. Locations:

Portions of Section 2, 3, 4 of T9S, R2E and Portions of Section 34, T8S, R2E, W.M., Marion County, Oregon.

2. Cruise Design:

The cruise design for the timber sale is as follows:

Stand Level Inventory (SLI) measurements were utilized to collect cruise data on the timber sale area. Stand characteristics utilized in this exercise were TPA, BA, Volume/Acre and Average DBH.

3. Sampling Methods:

The timber sale area was imputed from SLI information and past cruise data on an adjacent sale.

4. Cruise Report:

Timber Sale Area:

Stand Characteristic	Stand ID: 12809 Inventory Data
TPA	99
Basal Area/Acre	217 ft ²
Gross Volume/Acre	45.50 MBF
Average DBH	19"

5. Tree Measurement and Grading:

For information on species and grade breakdown for the timber sale area, data from an adjacent past timber sale was used. 2018 cruise data from the ReStout timber sale was used, which is adjacent to the current timber sale and thought to have the most similar make-up of species and grade breakdown. The percentage of total volume by each species and grade of that respective species was used in this exercise. See Attached Microsoft Excel Volume Summary.

5. Data Processing:

a) **Volumes and Statistics:** Volume estimates and sampling statistics were derived from Stand Level Inventory (SLI) measurements.

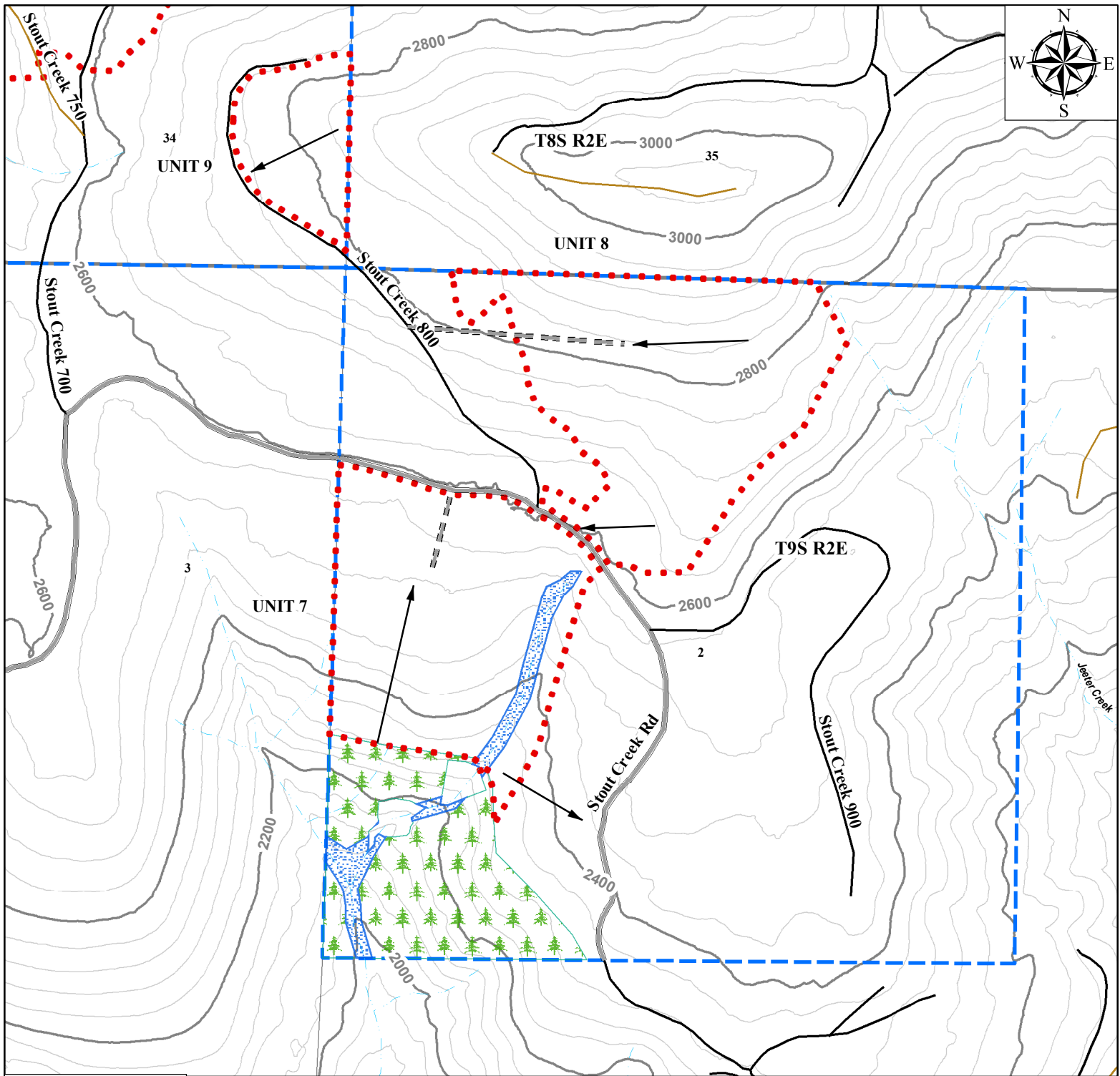
c) **Acreage:** Timber Sale Area has a total net acres of 275.

SLI Stand Summary For Stout Creek Restoration

Avg DBH		Average Net Mbf/Acre	45.5
DF	22	Gross SLI Volume	12,528.43
WH	12	Leave Tree Retention Strategy and Recovery	20%
GF	12		

Ground Based Logging				Cable Logging				
Adjusted Volume	9,439.60			Adjusted Volume	583.14			
	<u>Grade</u>	<u>Volume</u>	<u>Percentage</u>		<u>Grade</u>	<u>Volume</u>	<u>Percentage</u>	<u>Combined</u>
DF	3p	15.36	0.16%	DF	3p	0.95	0.16%	16.31
	Special Mill	670.85	7.11%		Special Mill	41.44	7.11%	712.30
	Camp Run	56.48	0.60%		Camp Run	3.49	0.60%	59.97
	2 Saw	8,048.20	85.26%		2 Saw	497.19	85.26%	8,545.38
	3 Saw	447.40	4.74%		3 Saw	27.64	4.74%	475.04
	4 Saw	76.29	0.81%		4 Saw	4.71	0.81%	81.01
WH	Camp Run	0.95	0.01%	WH	Camp Run	0.06	0.01%	1.01
	2 Saw	89.80	0.95%		2 Saw	5.55	0.95%	95.35
	3 Saw	14.15	0.15%		3 Saw	0.87	0.15%	15.03
	4 Saw	7.20	0.08%		4 Saw	0.44	0.08%	7.64
GF	Camp Run	0.07	0.00%	GF	Camp Run	0.00	0.00%	0.08
	2 Saw	12.03	0.13%		2 Saw	0.74	0.13%	12.78
	3 Saw	0.68	0.01%		3 Saw	0.04	0.01%	0.72
	4 Saw	0.13	0.00%		4 Saw	0.01	0.00%	0.14
Ground Total		9,439.60		Cable Total		583.14		

Total Net Sale Volume	10,022.74
-----------------------	-----------



Legend

- ⋯ Timber Sale Area
- Reserve Area
- Riparian
- Santiam State Forest

Streams

- Nonfish
- Non Project Roads

Road

- Mainline Road
- All Weather
- Dirt Road

Contour

- 200ft Index
- 40ft Intermediate

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-2020-W00880-01
 #1 STOUT CREEK RESTORATION
 PORTIONS OF SECTIONS 2,3 & 4 T9S, R2E, SECTIONS 34, T8S R2E W.M.
 MARION COUNTY, OREGON

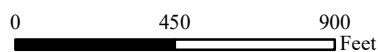
North Cascade District GIS

November, 2020

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

1:6,500

1 inch = 542 feet

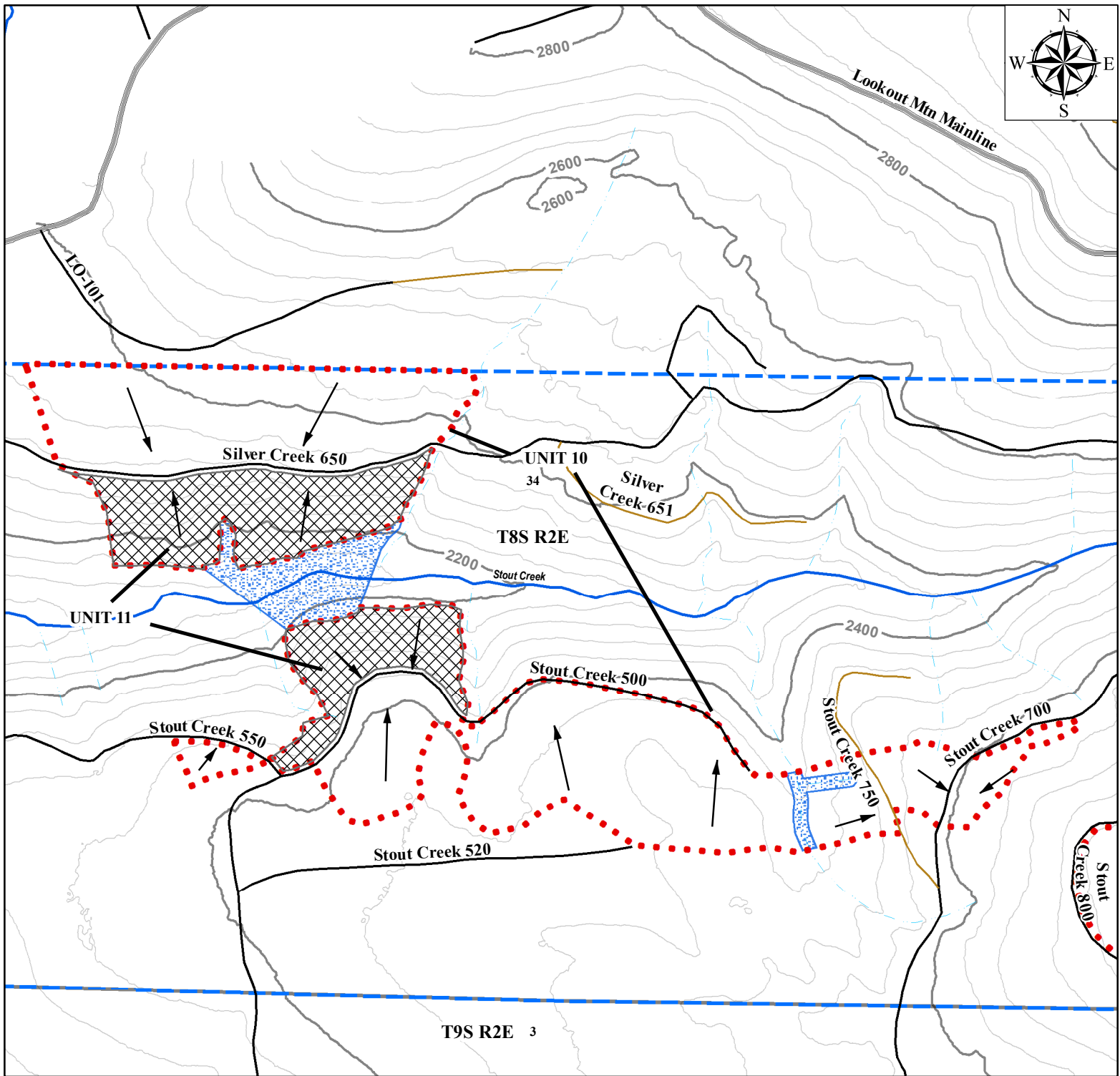


APPROXIMATE NET ACRES

UNIT 1	30	ACRES (MC)
UNIT 2	16	ACRES (MC)
UNIT 3	41	ACRES (MC)
UNIT 4	9	ACRES (MC)
UNIT 5	45	ACRES (MC)
UNIT 6	23	ACRES (MC)
UNIT 7	21	ACRES (MC)
UNIT 8	25	ACRES (MC)
UNIT 9	6	ACRES (MC)
UNIT 10	44	ACRES (MC)
UNIT 11	16	ACRES (MC)

TOTAL 275 ACRES

Map Projection:
 Oregon Statewide Lambert
 International Feet, NAD 1983



Legend

- Cable
- Timber Sale Area
- Riparian
- Santiam State Forest
- Streams**
 - Fish
 - Nonfish
- Road**
 - Mainline Road
 - All Weather
 - Dirt Road
- Contour**
 - 40ft Intermediate

LOGGING PLAN

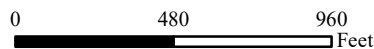
FOR TIMBER SALE CONTRACT # 341-2020-W00880-01
 #1 STOUT CREEK RESTORATION
 PORTIONS OF SECTIONS 2,3 & 4 T9S, R2E, SECTIONS 34, T8S R2E W.M.
 MARION COUNTY, OREGON

North Cascade District GIS
 November, 2020

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

1:7,000

1 inch = 583 feet

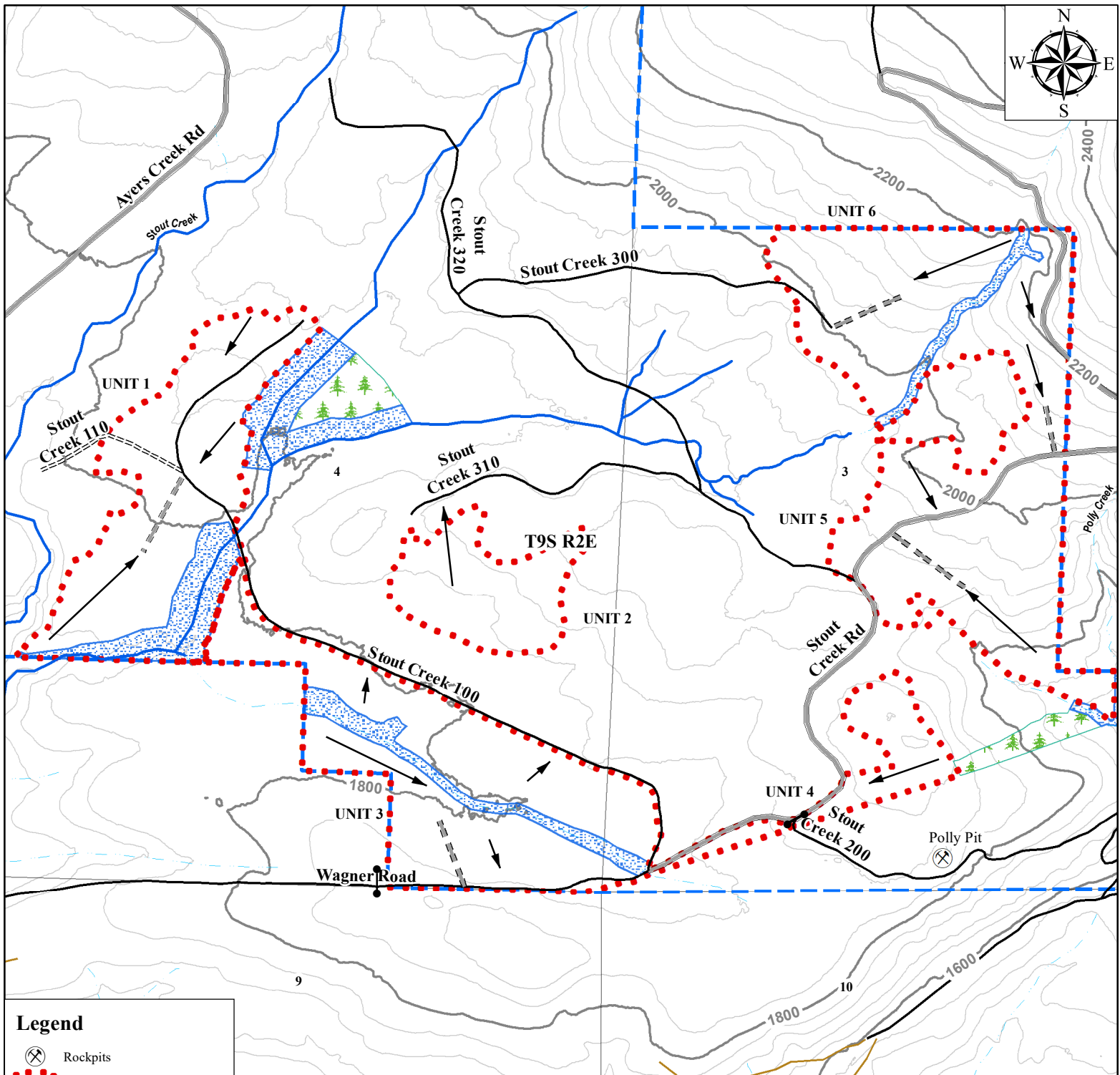


APPROXIMATE NET ACRES

UNIT 1	30	ACRES (MC)
UNIT 2	16	ACRES (MC)
UNIT 3	41	ACRES (MC)
UNIT 4	9	ACRES (MC)
UNIT 5	45	ACRES (MC)
UNIT 6	23	ACRES (MC)
UNIT 7	21	ACRES (MC)
UNIT 8	25	ACRES (MC)
UNIT 9	6	ACRES (MC)
UNIT 10	44	ACRES (MC)
UNIT 11	16	ACRES (MC)

TOTAL 275 ACRES

Map Projection:
 Oregon Statewide Lambert
 International Feet, NAD 1983



Legend

- Rockpits
- Timber Sale Area
- Reserve Area
- Riparian
- Santiam State Forest
- Streams**
 - Fish
 - Nonfish
- Road**
 - Non Project Roads
 - Mainline Road
 - All Weather
 - Dirt Road
 - Old Road Bed - Not Drivable
- Contour**
 - 200ft Index
 - 40ft Intermediate

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-2020-W00880-01
 #1 STOUT CREEK RESTORATION
 PORTIONS OF SECTIONS 2,3 & 4 T9S, R2E, SECTIONS 34, T8S R2E W.M.
 MARION COUNTY, OREGON

North Cascade District GIS
 November, 2020

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

1:10,000

1 inch = 833 feet

0 690 1,380
 Feet

APPROXIMATE NET ACRES

UNIT 1	30	ACRES (MC)
UNIT 2	16	ACRES (MC)
UNIT 3	41	ACRES (MC)
UNIT 4	9	ACRES (MC)
UNIT 5	45	ACRES (MC)
UNIT 6	23	ACRES (MC)
UNIT 7	21	ACRES (MC)
UNIT 8	25	ACRES (MC)
UNIT 9	6	ACRES (MC)
UNIT 10	44	ACRES (MC)
UNIT 11	16	ACRES (MC)

TOTAL 275 ACRES

Map Projection:
 Oregon Statewide Lambert
 International Feet, NAD 1983