



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Millicoma Flats 2  
Sale WL-341-2020-W00339-01

District: Western Lane

Date: November 20, 2019

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**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$159,723.99	\$11,180.16	\$170,904.15
		Project Work:	(\$19,212.00)
		Advertised Value:	\$151,692.15



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**Timber Description**

Location: Sec 9 ,16 of T24S R11W

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	98
Western Hemlock / Fir	20	0	98
Alder (Red)	15	0	97

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	225	156	66	0	447
Western Hemlock / Fir	49	9	2	0	60
Alder (Red)	0	0	0	48	48
Total	274	165	68	48	555

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

Douglas-fir Stumpage Price/MBF = \$323.57/MBF  
Douglas-fir Stumpage Price/Ton = \$43.73/Ton

Western Red Cedar and Other Cedars Stumpage Price/MBF = Pond Value minus Logging Cost:  
\$650.84/MBF = \$975/MBF - \$324.16/MBF  
Western Red Cedar and Other Cedars Stumpage Price/Ton = \$125.65/Ton

Western Hemlock and Other Conifer Stumpage Price/MBF = Pond Value minus Logging Cost:  
\$251.47/MBF = \$575.63/MBF - \$324.16/MBF  
Western Hemlock and Other Conifer Stumpage Price/Ton = \$32.66/Ton

Red alder Stumpage Price/MBF = \$232.92/MBF  
Red alder Stumpage Price/Ton = \$29.86/Ton

Hardwood Pulp Stumpage Price/Ton = \$2.00/Ton

Conifer pulp Stumpage Price/Ton = \$2.00/Ton

Branding and Painting = \$2.00/MBF

Fuel Cost Allowance = \$3.00/gallon

Hauling Cost Allowance = equivalent to \$900 daily truck cost.

Other Cost(With Profit and Risk to be added):  
None.

Other Cost (No Profit and Risk added):  
Final Road Maintenance = \$6,883  
Total other cost (No Profit and Risk added): \$6,883



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**Logging Conditions**

**Combination#: 1**

Douglas - Fir	60.69%
Western Hemlock / Fir	51.67%
Alder (Red)	94.79%

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

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

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 6 **bd. ft / load:** 3800

**cost / mbf:** \$139.12

**machines:** Stroke Delimber (B)

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**Combination#: 2**

Douglas - Fir	39.31%
Western Hemlock / Fir	48.33%
Alder (Red)	5.21%

**Logging System:** Wheel Skidder **Process:** Manual Delimbing

**yarding distance:** Long (1,500 ft) **downhill yarding:** No

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 7 **bd. ft / load:** 3800

**cost / mbf:** \$119.25

**machines:** Feller Buncher w/ Delimber

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### Logging Costs

Operating Seasons: 1.00	Profit Risk: 16%
Project Costs: \$19,212.00	Other Costs (P/R): \$0.00
Slash Disposal: \$0.00	Other Costs: \$6,883.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	1.0	0.0	0.0

### Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	3.8
Western Hemlock / Fir	\$0.00	3.0	3.8
Alder (Red)	\$0.00	3.0	3.5



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### 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>									
\$131.31	\$1.04	\$7.91	\$127.50	\$0.00	\$42.84	\$0.00	\$2.00	\$12.40	\$325.00
<b>Western Hemlock / Fir</b>									
\$129.52	\$1.04	\$7.91	\$85.00	\$0.00	\$35.76	\$0.00	\$2.00	\$12.40	\$273.63
<b>Alder (Red)</b>									
\$138.09	\$1.05	\$7.91	\$93.19	\$0.00	\$38.44	\$0.00	\$2.00	\$12.40	\$293.08

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$648.57	\$323.57	\$0.00
Western Hemlock / Fir	\$0.00	\$525.10	\$251.47	\$0.00
Alder (Red)	\$0.00	\$526.00	\$232.92	\$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	447	\$323.57	\$144,635.79
Western Hemlock / Fir	60	\$251.47	\$15,088.20
Alder (Red)	48	\$232.92	\$11,180.16

#### Gross Timber Sale Value

Recovery: \$170,904.15

Prepared By: Ross Huffman

Phone: 541-935-2283

State Timber Sale Contract  
 WL 341-2020-W00339-01  
 Millicoma Flats

**Final Road Maintenance Cost**

	West Fork Millicoma Rd.	Spur 1	TOTAL
<b>Totals</b>			
Stations	104.91	6.15	
Cost/Sta	\$ 37.06	\$ 243.07	
<b>Total Cost</b>	<b>\$ 3,888</b>	<b>\$ 1,495</b>	<b>\$ 5,383</b>

**Summary of Cost**

	West Fork Millicoma Rd.	Spur 1	TOTAL
<b>Spot Rocking</b>			
Total Yds	30	0	
Rock Size	3/4"-0"	0	
\$/yd	\$28.83	\$0.00	
Subtotal	\$ 865	\$ -	<b>\$ 865</b>

	West Fork Millicoma Rd.	Spur 1	TOTAL
<b>Grade, Shape &amp; Pull Ditches</b>			
Stations	56.62	0.00	
\$/STA	\$ 18.35	\$ 18.35	
Subtotal	\$ 1,039	\$ -	<b>\$ 1,039</b>

	Millicoma Rd.	Spur 1	TOTAL
<b>Road Vacating (Final)</b>			
Stations	0.00	6.15	
\$/Station	\$ 30.43	\$ 30.43	
Hours	0.0	3.0	
Excavator \$/hour	\$ 132.85	\$ 132.85	
Subtotal	\$ -	\$ 585.67	<b>\$ 586.00</b>

	West Fork Millicoma Rd.	Spur 1	TOTAL
<b>Landing clean up</b>			
Stations	0.00	1.00	
\$/STA	\$ 100.00	\$ 100.00	
Subtotal	\$ -	\$ 100.00	<b>\$ 100</b>

	West Fork Millicoma Rd.	Spur 1	Total
<b>Block Vehicle Access (Final)</b>			
Cost	\$ -	\$ 309.23	<b>\$ 309.00</b>

	West Fork Millicoma Rd.	Spur 1	Total
<b>Additional Grading/Maintenance during "active log haul"</b>			
Cost	\$ 1,984.00	\$ 500.00	<b>\$ 2,484.00</b>

Move In	Initial	Between Proj.
Grader	\$ 500	
Vibratory Rolloer		
D * Cat		
Excavator	\$ 1,000	
Dump Truck		

Move in costs associated with one entry for the entire project

**Total Final Maintenance Costs** (Including Move in) **\$ 6,883**



State Timber Sale Contract  
Millicoma Flats  
WL 341-2020-W00339-01

Road Brushing Costs

Location	West Fork Millicoma	
Point to Point/Satationing	A to G	*
Miles	2.00	Total
Brushing Intensity	Light to Medium	Light to Medium
Cost /Mile	\$ 1,350	\$ 1,350
Move In Cost	\$ 500	
Total Cost	\$ 3,200.00	\$ - \$ 3,200

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State Timber Sale Contract  
 WL 341-2020-W00339-01  
 Millicoma Flats

## Rocking and Compaction

Rock Source: Commercial

### Rock Quantity (Inplace)

Additional Rock	West Fork Millicoma Rd.	TOTAL
Rock Size	3/4"-0"	
Number of Points	2	
Curve Widening/Spot Rocking (Yds)	10	
<b>Subtotal Spot/Widening Rock</b>	<b>20</b>	<b>20</b>
Rock Size	1 1/2"-0"	
Number of Points	2	
Curve Widening/Spot Rocking (Yds)	10	
<b>Subtotal Spot/Widening Rock</b>	<b>20</b>	<b>20</b>

<b>Energy Dissipator Yds</b>	Pit Run	
Rock Size	Rip Rap	
<b>Approx Total (cu. Yds)</b>	<b>30</b>	<b>30</b>

### ROCK COST (Rock + Delivery)

Road Segment/Name	West Fork Millicoma	TOTAL
Rock Size	3/4"-0"	
Approx cu. yds <b>Spot Rock</b>	20	20
Cost/yd (includes load/spread)	\$30.02	
Subtotal	\$600.38	
Rock Size	1 1/2"-0"	
Approx cu. Yds <b>Spot Rock</b>	20	20
Cost/yd (includes load/spread)	\$28.83	
Subtotal	\$576.63	
Rock Size	Pit Run	
Approx cu. Yds <b>Engery Dissipator</b>	30	30
Cost/yd (includes load/spread)	\$30.02	
Subtotal	\$900.58	
<b>Subtotal Cost "Additional" Rock</b>	<b>\$ 2,078</b>	<b>\$ 2,078</b>

Grand total quarry approx yds	70	70
<b>Total Quarry Rock Cost</b>	<b>\$ 2,078</b>	<b>\$ 2,078</b>

Compaction w/Processing	West Fork Millicoma	TOTAL
Cost/Cu. Yd.	\$2.00	
<b>Subtotal Processing</b>	<b>\$ 140</b>	<b>\$ 140</b>

\$/yd <sup>3</sup> rock in place & compacted	West Fork Millicoma	Total
<b>Total Rock Costs</b>	<b>\$2,218</b>	<b>\$ 2,218</b>

Move-in included in subgrade construction

Due to rounding, the numbers in the table above may not add up to the totals shown.

State Timber Sale Contract  
 Millicoma Flats  
 WL 341-2020-W00339-01

**Subgrade Construction/Culverts**  
 Processing and Decking Right-of-Way Logs Not Included

Totals	West Fork Millicoma	Spur 1	TOTAL
Stations	104.91	6.15	111
Cost/Sta	\$ 73.00	\$ 509.00	
<b>Cost</b>	<b>\$ 7,663.00</b>	<b>\$ 3,131.00</b>	<b>\$ 10,794.00</b>

**Earthwork**

Clearing and Grubbing	West Fork Millicoma	Spur 1	TOTAL
Acreage	0	0.2	
Cost/Acre	\$1,337.00	\$1,337.00	
<b>Total</b>	<b>\$ -</b>	<b>\$ 268</b>	<b>\$ 268.00</b>

Excavation yards are bank run from State's design

Construction/Excavation	West Fork Millicoma	Spur 1	TOTAL
Stations	0	6.15	
Drift/Excavation Cu Yd		456	
\$/sta	\$150.91	\$150.91	
Drift/Excavation \$/yd		\$2.23	
Landing Construction		\$481.17	
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 2,425</b>	<b>\$ 2,425.00</b>

**Culverts**

Aluminized Steel	West Fork Millicoma	West Fork Millicoma	
Length (ft)	40	120	
Diameter	18"	24"	0
Cost/Foot	\$ 13.85	\$ 18.12	
<b>Subtotal</b>	<b>\$ 554.00</b>	<b>2174.4</b>	
<b>Subtotal</b>	<b>\$ 554</b>	<b>\$ 2,175</b>	<b>\$ 2,729.00</b>
<b>Installation Cost</b>	<b>\$ 638</b>	<b>\$ 1,914</b>	<b>\$ 2,552.00</b>

**Subgrade Treatment**

Compaction w/ Roller	West Fork Millicoma	Spur 1	TOTAL
Road Stations	0	6.15	6
Cost/STA	\$ 24.99	\$ 24.99	
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 154</b>	<b>\$ 154</b>

Grade, Shape & Pull Ditches	West Fork Millicoma	Spur 1	TOTAL
Road Stations	104.91	6.15	
Cost/STA	\$ 22.70	\$ 46.06	
<b>Subtotal</b>	<b>\$ 2,382</b>	<b>\$ 284</b>	<b>\$ 2,666</b>

Move in Cost	Initial	Between Projects	TOTAL
D-7 Cat	\$ 1,500		\$ 10,794.00
Dump Truck	\$ 200		<b>Total Move in cost</b>
grader	\$ 500		<b>\$ 3,000</b>
vibratory roller	\$ 200		\$ 13,794.00
water truck	\$ 100		
small excavator	\$ 500		

**Millicoma Flats**  
**WL 341-2020-W00339-01**  
**Combined Project Costs**

Project 1	Roadside brushing	\$3,200
Project 2	Road Improvements, Clean Catch Basins and Ditches on West Fork Millicoma Rd.	\$2,382
Project 3	Replace culverts	\$5,281
Project 4	Spot & Engery Disipator Rocking Project	\$2,218
Project 5	Construct and compact sub-grade and Stump Removal for Spur 1	\$3,131
Project 6	Equipment Move in	\$3,000
TOTAL PROJECT COSTS		\$19,212

# Cruise Report

Millicoma Flats 2

SALE # 341-2020-W00339-01

**Sale Area:** Portions of Section 9 and 16, T24S, R11W, W.M., Coos County, Oregon. The sale's net harvestable acres are 19. There are approximately 1 acres of stream buffers and 4 acres of green tree retention area. Acres were determined using a combination of aerial photos, GPS, GIS, and topographic maps.

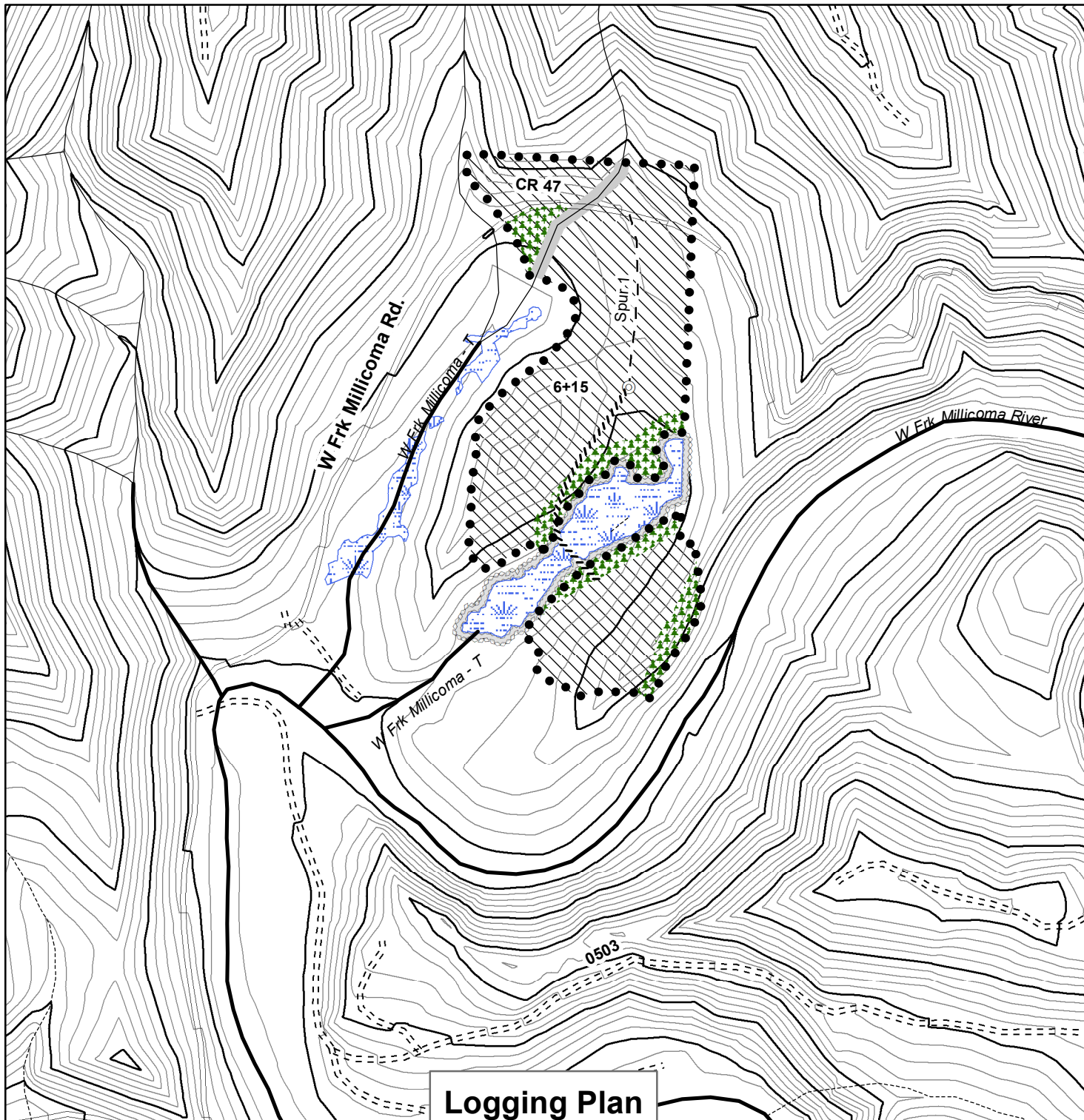
**Stand Description:** Millicoma Flats 2 is dominated by 52 and 87 year old Douglas-fir. A small component of bigleaf maple, western hemlock, myrtle and red alder are present. The majority of the hardwood component is concentrated near the small wetland areas. The understory consists of primarily sword fern, mountain huckleberry, salmonberry and vine maple. The slopes are primarily flat but have short slope with 35% and above in the timber sale area. There is one small type N stream branching off one small type F stream located near the Northwest portion and a small wetland area in the southern portion of the timber sale area. This unit was appraised for ground based operations.

**Cruise Method:** These areas were cruised in a grid pattern using a systematic variable radius plot sampling method. Area 1 Strata 1 was cruised using a 40 BAF all species. Area 1 Strata 2 was cruised in 2017 using a count 40 BAF all species and measure 160 BAF Douglas fir only. Area 2 was cruised in 2017 using a count 40 BAF all species and measure 250 BAF Douglas fir. All Strata cruise data was calculated using SuperACE program.

**Volume Tables:** Volumes were computed using SuperACE program and then converted to tons by a conversion factor.

<b>Area 1 Strata 1 Net Cruised Volume (MBF)</b>									<b>3 acres</b>
Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total (MBF)	Ton-Conversion Factor	Total Tons
Douglas-fir	20	-	43	30	12	-	85	7.4	629
Red Alder	14.9	-	-	-	-	32	32	7.8	249
Other Hardwoods	12	-	-	-	-	1	1	7.8	8
Western hemlock	22.1	-	25	5	1	-	31	7.7	239
<b>Total (MBF):</b>							<b>149</b>	<b>Tons</b>	<b>1125</b>
<b>Area 1 Strata 2 Net Cruised Volume (MBF)</b>									<b>12 Acres</b>
Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total (MBF)	Ton-Conversion Factor (Rounded)	Total Tons
Douglas-fir	15	-	104	72	31	-	207	7.4	1532
Red Alder	16.6	-	-	-	-	15	15	7.4	111
Other Hardwoods	10.7	-	-	-	-	6	6	7.8	47
Western hemlock	-	-	-	-	-	-	0	7.7	0
<b>Total (MBF):</b>							<b>228</b>	<b>Tons</b>	<b>1690</b>
<b>Area 2 Net Cruised Volume (MBF)</b>									<b>4 Acres</b>
Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total (MBF)	Ton-Conversion Factor (Rounded)	Total Tons
Douglas-fir	21.2	-	78	54	23		155	7.4	1147
Red Alder	14	-				1	1	7.8	8
Other Hardwoods	21	-				1	1	7.8	8
Western hemlock	19	-	24	4	1		29	7.7	223
<b>Total (MBF):</b>							<b>186</b>	<b>Tons</b>	<b>1386</b>
<b>Area 1 &amp; 2 Net Cruised Total Volumes</b>									
Species	MBF	Tons							
Douglas-fir	447	3308							
Red Alder	48	368							
Other hardwood	8	62							
Western hemlock	60	462							
<b>Sub Total</b>	<b>563</b>	<b>4201</b>							
<b>Merchantable</b>	<b>555</b>	<b>4138</b>							

Area 1 Strata 1 Acres: 4  
Area 1 Strata 2 Acres: 12  
Area 2 Acres: 3



**Legend**

**Streams**

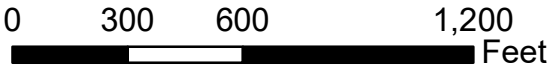
- Fish
- Nonfish
- - - Unknown
- Wetlands
- Wetland Buffer
- Stream Buffer
- Timber Sale Boundary
- Skid Trail
- Green Tree Retention

**Roads**

- All-Weather
- Highway
- Seasonal
- New Road to Construct
- Landing to Construct

OF TIMBER SALE CONTRACT NO. 341-2020-W00339-01  
 Millicoma Flats 2  
 PORTIONS OF SECTIONS 9 & 16, T24S, R11W, W.M.  
 COOS COUNTY, OREGON

TOTAL NET ACRES = 19



1 inch = 500 feet



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