



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Carlou  
Sale FG-343-2018-234-

District: Forest Grove

Date: March 09, 2018

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**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$99,368.10	\$0.00	\$99,368.10
		Project Work:	\$0.00
		Advertised Value:	\$99,368.10



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**Timber Description**

**Location:** Section 20, T3N, R5W, W.M., Washington Co., Oregon

**Stand Stocking:** 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	98

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	151	96	247
<b>Total</b>	151	96	247

**Comments:** Pond Values Used: Local Pond Values, January 2018.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$290/\text{MBF} = \$723/\text{MBF} - \$433/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:

$\$995/\text{MBF} = \$1,428/\text{MBF} - \$433/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:  
 $\$397/\text{MBF} = \$830/\text{MBF} - \$433/\text{MBF}$

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  $\$780$  daily truck cost.

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

Other Costs (No Profit & Risk added):  
Machine time to block/waterbar roads, and skid trails:  
10 Hours @  $\$150/\text{Hr.} = \$1,500$   
Equipment Cleaning:  $2 \times \$1,000/\text{Machine} = \$2,000$   
TOTAL Other Costs (No Profit & Risk added) =  $\$3,500$

ROAD MAINTENANCE

Move-in:  $\$1,000$   
General Road Maintenance:  $3.5 \text{ miles} \times \$500/\text{mile} = \$1,750$   
TOTAL:  $\$2,570/247 \text{ MBF} = \$11.13/\text{MBF}$



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**Logging Conditions**

<b>Combination#:</b> 1	Douglas - Fir	100.00%
<b>Logging System:</b>	Shovel	<b>Process:</b> Manual Delimbing
<b>yarding distance:</b>	Short (400 ft)	<b>downhill yarding:</b> No
<b>tree size:</b>	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF	
<b>loads / day:</b>	4	<b>bd. ft / load:</b> 4000
<b>cost / mbf:</b>	\$207.96	
<b>machines:</b>	Shovel Logger	

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# Timber Sale Appraisal Carlou Sale FG-343-2018-234-

**District: Forest Grove**

**Date: March 09, 2018**

## Logging Costs

<b>Operating Seasons:</b> 1.00	<b>Profit Risk:</b> 25%
<b>Project Costs:</b> \$0.00	<b>Other Costs (P/R):</b> \$0.00
<b>Slash Disposal:</b> \$0.00	<b>Other Costs:</b> \$3,500.00

### Miles of Road

**Road Maintenance:** \$11.13

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	4.0



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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
<b>Douglas - Fir</b>									
\$207.96	\$11.35	\$17.75	\$99.45	\$0.00	\$84.13	\$0.00	\$7.00	\$14.17	\$441.81

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$844.11	\$402.30	\$0.00



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**Summary**

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	247	\$402.30	\$99,368.10

**Gross Timber Sale Value**

**Recovery:** \$99,368.10

**Prepared By:** Adrian Torres

**Phone:** 503-359-7460

**TIMBER SALE SUMMARY/CRUISE REPORT**  
**Carlou**  
**Contract No. 343-18-234**

1. **Location:** Section 20, T3N, R5W, W.M., Washington Co., Oregon.
2. **Type of Sale:** This timber sale is 22 net acres of Moderate Thinning. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, Washington County.
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 Area was cruised on March 05, 2018 and sampled with 15 variable radius plots using a 20 BAF prism. The plots were laid out on a 3 ½ chain line. Cruisers “thinned” plots from below to 160 square feet of basal area. All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments. Cruise estimates and sampling statistics were derived from Super ace 2008 software.
6. **Timber Description:** The Timber Sale Area consists of an 80-85 year old Douglas-fir stand with minor amounts of western hemlock, western redcedar, grand fir, and hardwoods. The stand has an average of 200 ft<sup>2</sup> of basal area (all species) and average take Douglas-fir DBH of 18 inches.

7. **Volume Summary**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	154	90	8	252
	Hidden D&B (2%)	(3)	(2)	( )	(5)
	<b>NET TOTAL</b>	151	88	8	247
	% of Total	61	36	3	

8. **Topography and Logging Method:** Slopes within the sale areas range from 5% to 45%, but are generally less than 35%, and are north in aspect. The timber sale is 100% ground-based yarding. The average horizontal skid trail length is approximately 300 feet and the maximum is approximately 547 feet.
9. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 8 to its junction with Highway 6. Turn left and travel west approximately 3.5 miles to Timber Road. Turn right and travel north for 6.7 miles to Cochran Rd. Turn right and travel west for 2.2 to Carlson Creek rd. Turn right and travel north for 2.2 to timber sale area Carlou (On the north side of the road).



TC PSTATS			PROJECT STATISTICS							PAGE 1		
			PROJECT CRLURAW							DATE 3/6/2018		
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
03N	05	20	00A1	00PC		22.00		15	150	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES		PERCENT SAMPLE TREES				
TOTAL			15	150	10.0							
CRUISE			15	150	10.0	1,587		9.5				
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-L			106	38.2	26.0	153	27.7	141.3	46,663	46,663	8,282	8,282
DOUG FIR-T			36	28.0	17.7	132	11.4	48.0	11,583	11,474	2,375	2,375
WHEMLOCK-L			5	5.1	15.5	97	1.7	6.7	1,668	1,668	311	311
GR FIR-L			2	.6	27.9	168	0.5	2.7	1,024	1,024	177	177
BL MAPLE-L			1	.2	36.0	112	0.2	1.3	385	385	66	66
TOTAL			150	72.1	22.5	141	42.1	200.0	61,323	61,214	11,211	11,211
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-L			52.4	5.1	1,535	1,617	1,699					
DOUG FIR-T			57.3	9.5	487	538	589					
WHEMLOCK-L			114.8	57.1	380	886	1,392					
GR FIR-L			46.1	43.1	1,004	1,765	2,526					
BL MAPLE-L												
TOTAL			66.1	5.4	1,266	1,338	1,411	175	44	19		
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-L			46.3	4.5	269	281	294					
DOUG FIR-T			51.6	8.6	100	109	119					
WHEMLOCK-L			106.8	53.1	73	155	238					
GR FIR-L			42.7	40.0	181	303	424					
BL MAPLE-L												
TOTAL			58.6	4.8	225	237	248	137	34	15		
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-L			41.8	11.2	34	38	42					
DOUG FIR-T			130.8	34.9	18	28	38					
WHEMLOCK-L			294.3	78.6	1	5	9					
GR FIR-L			272.7	72.8	0	1	1					
BL MAPLE-L			387.3	103.4	0	0	0					
TOTAL			59.4	15.9	61	72	84	151	38	17		
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-L			12.5	3.3	137	141	146					
DOUG FIR-T			108.9	29.1	34	48	62					
WHEMLOCK-L			185.2	49.5	3	7	10					
GR FIR-L			263.9	70.5	1	3	5					
BL MAPLE-L			387.3	103.4	1	1	3					
TOTAL			30.7	8.2	184	200	216	40	10	4		

**PROJECT STATISTICS**  
**PROJECT CRLURAW**

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	05	20	00A1	00PC	22.00	15	150	S	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
DOUG FIR-L	15.3	4.1	44,758	46,663	48,568				
DOUG FIR-T	104.2	27.8	8,279	11,474	14,668				
WHEMLOCK-L	174.2	46.5	892	1,668	2,444				
GR FIR-L	265.2	70.8	299	1,024	1,749				
BL MAPLE-L	387.3	103.4		385	783				
<b>TOTAL</b>	27.3	7.3	56,750	61,214	65,678	32	8	4	

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-L	14.7	3.9	7,957	8,282	8,607				
DOUG FIR-T	104.7	28.0	1,711	2,375	3,039				
WHEMLOCK-L	172.4	46.1	168	311	454				
GR FIR-L	264.5	70.7	52	177	301				
BL MAPLE-L	387.3	103.4		66	134				
<b>TOTAL</b>	29.2	7.8	10,336	11,211	12,085	37	9	4	

TC PSCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																					
T03N R05W S20 Ty00PC 22.00				Project: CRLURAW												Page 1							
				Acres 22.00												Date 3/6/2018							
																Time 1:32:02PM							
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre		
									Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf			
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99							
DF		2M		12	.9	7,057	6,996	154			75	25	2	2		97	39	14	312	1.52	22.4		
DF		3M		87	.1	50,739	50,690	1,115			14	20		6	43	51	36	13	290	1.47	174.6		
DF		4M		1		450	450	10			100		32	61	7		21	6	25	0.31	17.8		
DF	Totals			95	.2	58,246	58,137	1,279			13	27	60	0	6	38	56	35	12	271	1.42	214.8	
GF		3M		100		1,024	1,024	23			2		13			44	56	37	15	406	1.92	2.5	
GF	Totals			2		1,024	1,024	23			2		13			44	56	37	15	406	1.92	2.5	
WH		3M		91		1,521	1,521	33			7	12	30		27	27	46	34	11	215	1.15	7.1	
WH		4M		9		147	147	3			33	67		67	33			21	7	30	0.32	4.9	
WH	Totals			3		1,668	1,668	37			9	17	28	46	6	28	24	42	29	9	139	0.90	12.0
BM		3M		100		385	385	8			3		97			100		33	20	680	3.57	.6	
BM	Totals			1		385	385	8			3		97			100		33	20	680	3.57	.6	
Totals					0.2	61,323	61,214	1,347			0	13	26	60	1	6	38	56	35	12	266	1.41	229.9



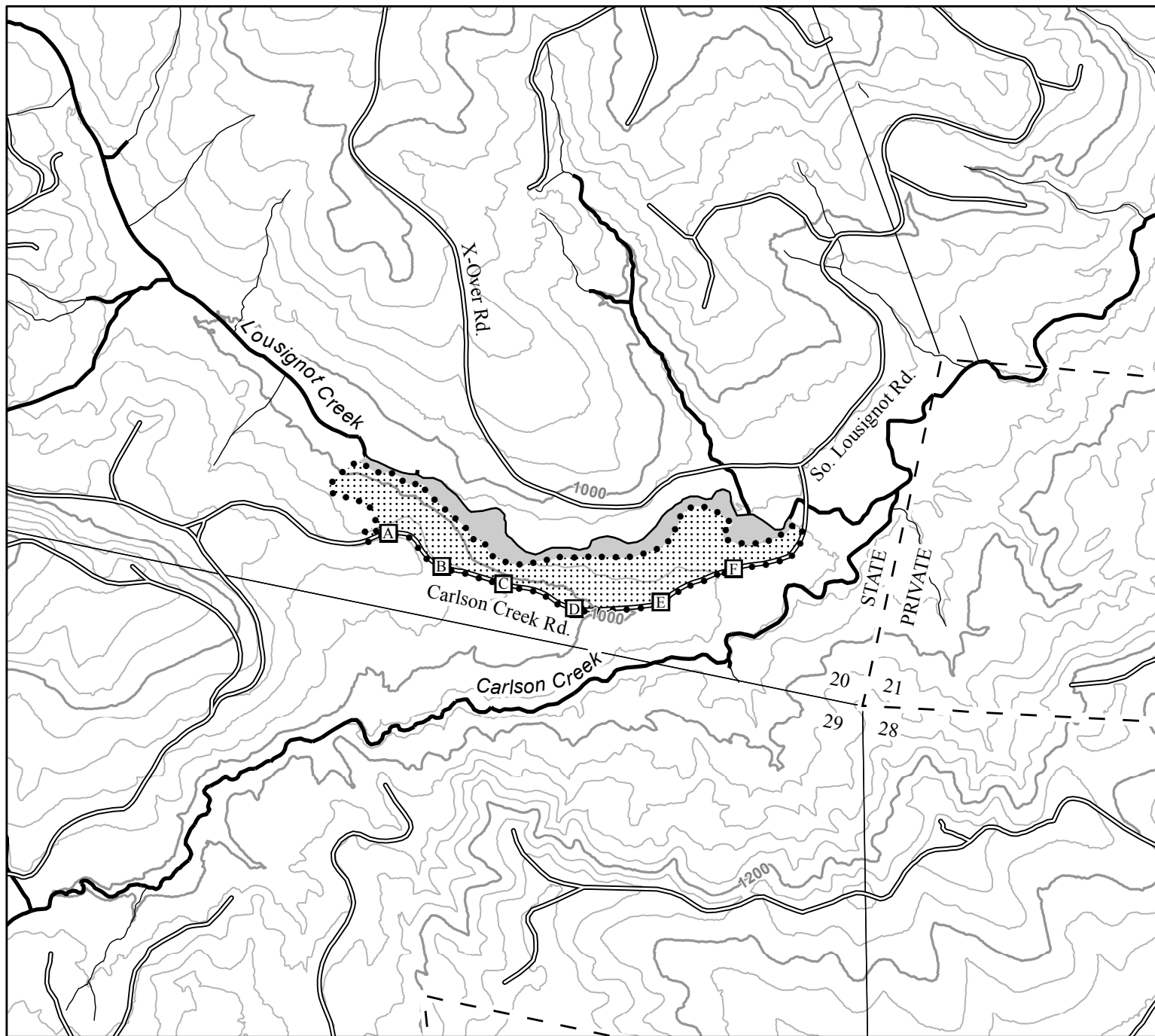
TC PLOGSTVB		Log Stock Table - MBF																	
T03N R05W S20 Ty00PC 22.00					Project: CRLURAW										Page 2				
					Acres 22.00										Date 3/6/2018				
															Time 1:32:03PM				
S T	S pp	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches										
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
	WH		4M	22	1		1	2.9	1										
	WH		Totals		37		37	2.7	3	2	4	4	9	8	6				
	BM		3M	32	8		8	97.1						3		5			
	BM		3M	34	0		0	2.9		0									
	BM		Totals		8		8	.6		0				3		5			
	Total		All Species		1,349		1,347	100.0	4	73	29	74	130	160	307	325	210	34	

TC		PSTNDSUM											Stand Table Summary											Page		1	
																								Date:		3/6/2018	
T03N R05W S20 Ty00PC 22.00					Project					CRLURAW					Time:		1:32:01PM										
					Acres					22.00					Grown Year:												
S Spec	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Tons/ Acre	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		8	1	82	50	3.820	1.33	3.82	3.5	20.0	.38	13	76	8	3	2											
DF		10	1	87	71	2.445	1.33	2.44	11.5	60.0	.80	28	147	18	6	3											
DF		13	3	89	114	4.340	4.00	8.68	17.3	80.0	4.28	150	694	94	33	15											
DF		14	1	89	94	1.247	1.33	2.49	17.6	75.0	1.25	44	187	28	10	4											
DF		15	2	89	106	2.173	2.67	4.35	22.6	102.5	2.80	98	445	62	22	10											
DF		16	3	89	129	2.865	4.00	7.64	22.8	101.2	4.96	174	773	109	38	17											
DF		17	2	90	149	1.692	2.67	5.92	22.4	102.9	3.77	132	609	83	29	13											
DF		18	3	89	135	2.264	4.00	6.79	27.0	124.4	5.23	183	845	115	40	19											
DF		19	6	89	148	4.063	8.00	12.87	31.7	148.4	11.62	408	1,910	256	90	42											
DF		20	6	90	158	3.667	8.00	12.83	33.7	173.3	12.34	433	2,225	271	95	49											
DF		21	8	90	152	4.435	10.67	14.97	37.6	186.3	16.06	563	2,788	353	124	61											
DF		22	7	90	156	3.536	9.33	12.12	42.2	212.1	14.56	511	2,571	320	112	57											
DF		23	6	90	157	2.773	8.00	10.17	43.4	223.2	12.58	441	2,269	277	97	50											
DF		24	9	90	166	3.820	12.00	14.85	46.1	244.9	19.51	685	3,637	429	151	80											
DF		25	6	90	159	2.347	8.00	9.00	49.4	262.6	12.66	444	2,362	279	98	52											
DF		26	9	90	162	3.255	12.00	13.02	52.5	290.3	19.50	684	3,779	429	150	83											
DF		27	12	90	172	4.024	16.00	16.10	59.2	326.0	27.16	953	5,248	597	210	115											
DF		28	8	89	167	2.495	10.67	9.98	62.8	348.1	17.85	626	3,474	393	138	76											
DF		29	3	90	168	.872	4.00	3.49	67.4	371.7	6.70	235	1,296	147	52	29											
DF		30	8	89	172	2.173	10.67	9.24	70.3	405.0	18.50	649	3,740	407	143	82											
DF		31	5	89	158	1.272	6.67	5.09	74.1	422.0	10.74	377	2,147	236	83	47											
DF		32	6	90	172	1.432	8.00	5.73	83.8	473.8	13.69	480	2,714	301	106	60											
DF		33	4	89	180	.898	5.33	3.82	88.5	520.6	9.62	338	1,987	212	74	44											
DF		34	8	90	184	1.692	10.67	7.40	93.9	561.7	19.80	695	4,158	436	153	91											
DF		35	3	90	187	.599	4.00	2.79	94.5	578.6	7.52	264	1,616	165	58	36											
DF		36	3	90	183	.566	4.00	2.45	106.9	646.2	7.47	262	1,584	164	58	35											
DF		37	2	90	186	.357	2.67	1.61	109.9	670.0	5.03	177	1,077	111	39	24											
DF		38	4	90	178	.677	5.33	3.05	111.1	679.4	9.65	339	2,070	212	74	46											
DF		39	1	91	200	.161	1.33	.80	116.0	746.0	2.66	93	600	58	21	13											
DF		41	1	89	185	.145	1.33	.73	120.2	754.0	2.49	87	548	55	19	12											
DF		46	1	89	188	.116	1.33	.58	154.0	966.0	2.54	89	558	56	20	12											
DF		Totals	142	89	144	66.217	189.33	214.80	49.6	270.7	303.72	10,657	58,137	6,682	2,344	1,279											
WH		10	1	91	73	2.445	1.33	4.89	6.6	30.0	1.04	32	147	23	7	3											
WH		13	1	92	100	1.447	1.33	2.89	17.4	85.0	1.62	50	246	36	11	5											
WH		20	1	93	130	.611	1.33	1.83	37.7	186.7	2.21	69	342	49	15	8											
WH		25	1	94	145	.391	1.33	1.56	47.7	270.0	2.39	75	422	52	16	9											
WH		35	1	94	162	.200	1.33	.80	106.0	640.0	2.71	85	511	60	19	11											
WH		Totals	5	92	97	5.093	6.67	11.98	26.0	139.3	9.96	311	1,668	219	68	37											
GF		25	1	94	160	.391	1.33	1.56	52.8	297.5	1.82	83	465	40	18	10											
GF		32	1	93	180	.239	1.33	.95	98.5	585.0	2.07	94	559	46	21	12											
GF		Totals	2	94	168	.630	2.67	2.52	70.1	406.5	3.89	177	1,024	85	39	23											
BM		36	1	96	112	.189	1.33	.57	116.5	680.0	1.75	66	385	38	15	8											
BM		Totals	1	96	112	.189	1.33	.57	116.5	680.0	1.75	66	385	38	15	8											
Totals		150	89	141		72.128	200.00	229.87	48.8	266.3	319.31	11,211	61,214	7,025	2,466	1,347											

**VOLUME SUMMARY**  
 (Shown in MBF)  
**Carlou**  
**343-18-234**  
**Marh 05, 2017**

**AREA 1: PC-M (22 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	154	90	8	252
	Hidden D&B (2%)	(3)	(2)	( )	(5)
	<b>NET TOTAL</b>	151	88	8	247
	% of Total	61	36	3	



## Legend

- Timber Sale Boundary
- Roads
- Type F Stream
- Type N Stream
- Stream Buffer
- Tractor Grounding Area
- Tractor Landing
- ODF Ownership Boundary
- Section Line
- 40 ft contours
- 200 ft contours

## LOGGING PLAN

FOR TIMBER SALE CONTRACT 343-18-234  
CARLOU  
SECTION 20, T3N, R5W, W.M.,  
WASHINGTON COUNTY, OREGON

Forest Grove District GIS  
March, 2018

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



### APPROXIMATE NET ACRES

TRACTOR	CABLE
22	0

1:12,000

1 inch = 1,000 feet

