

Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$448,449.86	\$0.00	\$448,449.86
		Project Work:	(\$20,966.65)
		Advertised Value:	\$427,483.21



Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Timber Description

Location: Portions of Sections 17, 19, and 20, T32S, R6W, W.M., Douglas County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	90
Grand Fir	25	0	90

Volume by Grade	2\$	38	4 S	Total
Douglas - Fir	764	517	49	1,330
Grand Fir	37	14	1	52
Total	801	531	50	1,382

Comments: Pond Values Used: 4th Quarter Calendar Year 2016.

Sugar Pine and Other Pines Stumpage Price = Pond Value minus Logging Cost:

\$110/MBF = \$460/MBF - \$350/MBF

Incense Cedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:

305/MBF = 655/MBF - 350/MBF

Madrone and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:

40/MBF = 390/MBF - 350/MBF

Pulp Price (Conifer and Hardwoods) = \$40/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):

None.

Other Costs (No Profit & Risk added):

None.

PROJECT WORK:

Project 1:

Area 4: .39 miles of new road will need to be constructed in from point A to B splitting the unit in half making it more accessible.

Area 6: This is a short road that is needed to access the landing area in the unit. The right of way timber is not valued due to its small diameter class and how short the road is.

Project 2: Road grading, reshaping, and brushing will be needed on the portions of the haul route listed.

Project 3: The Stream Enhancement Project will use logs from the sale area to be placed throughout the stream for riparian area improvement.



Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Logging Conditions

Combination#: 1 Douglas - Fir 37.89%

Grand Fir 53.85%

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

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

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

cost / mbf: \$263.16

machines: Log Loader (A)

Stroke Delimber (A) Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 6.77%

Logging System: Track Skidder Process: Manual Falling/Delimbing

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

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

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

cost / mbf: \$195.41

machines: Log Loader (B)

Track Skidder

Combination#: 3 Douglas - Fir 55.34% Grand Fir 46.15%

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

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

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

cost / mbf: \$263.16

machines: Log Loader (A)

Stroke Delimber (A)
Tower Yarder (Medium)



Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Logging Costs

Operating Seasons: 2.00

Profit Risk: 12%

Project Costs: \$20,966.65

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$0.00

Miles of Road

Road Maintenance:

\$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	0.0	4.0	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	6.0	3.8
Grand Fir	\$0.00	6.0	3.8



Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas -	Fir								
\$258.58	\$4.27	\$6.35	\$37.63	\$0.00	\$36.82	\$0.00	\$7.00	\$0.00	\$350.65
Grand Fir									
\$263.16	\$4.27	\$6.35	\$37.63	\$0.00	\$37.37	\$0.00	\$7.00	\$0.00	\$355.78

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$679.56	\$328.91	\$0.00
Grand Fir	\$0.00	\$567.31	\$211.53	\$0.00



Sale GP-341-2017-58-

District: Southwest Date: December 30, 2016

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,330	\$328.91	\$437,450.30
Grand Fir	52	\$211.53	\$10,999.56

Gross Timber Sale Value

Recovery: \$448,449.86

Prepared By: Chris Rudd Phone: 541-474-3152

Project Summary

Project 1: Construction

New Road Construction Area 4	
Length (miles)	0.39
Length (feet)	2,038.00
Station Length (feet)	100
# Stations	20.38
Per Station Cost	\$425
Subtotal	\$8,662
Clearing and Grubbing Costs \$/mi	
Heavy	\$1,400
Length (miles)	0.39
Subtotal	\$546
Subgrade Treatment \$/mi	
Unsurfaced Common	\$774
Length (miles)	0.39
Subtotal	\$301.86
Mobilization	\$3,000
Subtotal Project Cost	\$12,509

Description:

Area 4: The new road will be constructed in Area 4 connecting to an existing road going through the eastern corner of the unit. This will split the unit in half making the corridors shorter, easier to log, and a shorter haul route for half the unit. This will be a single lane, dirt road and a ditch. There will be moderate to heavy grubbing in some sections due to a few scattered trees and large stumps that will need to be removed. This road is accounted for in the final timber sale appraisal.

New Road Construction Area 6	
Length (feet)	100
Per Station Cost \$ /100ft	\$425
Mobilization	\$100
Subtotal Project Cost	\$525.00

Description:

Area 6: This is a short road that is needed to access the landing area in unit 6. The right of way timber is not valued due to its small diameter class and how short the road is. This road is accounted for in the final timber sale appraisal.

Location	Cost
Area 4	\$12,509
Area 6	\$525.00
Total Project 1 Cost	\$13,034.36

Project 2: Improvements

Points	Length Miles	Work Description
C-F	0.28	Light road grading and brushing to get into the unit on existing road
H-J	0.32	Light to medium grading and brushing to open road
H-A	0.22	Light grading and reshaping
A-K	0.27	Light to medium grading and road brushing on existing road
A-I	0.52	Light to medium grading: Light road brushing to open road

Costs	
Length mile	1.61
Cost \$/mile	\$800.00
Mobilization	\$500.00
Total Project 2 Cost	\$1,788.00

Description:

Road grading, reshaping, and brushing will be needed on the portions of the haul route listed above in the sale area. This cost is included in the final timber sale appraisal.

Project 3: Fish Log Placement

Log Values	Number of Trees	Species	Height (ft)	DBH (in)	Logs	Net BdFt	Saw Grade	Log Lengths (ft)	Pond Value
	1	IC	90	22	3	290	D4	24,24,25	\$188.50
	1	IC	90	22	3	290	D4	24,24,25	\$188.50
	1	IC	100	24	3	380	D4	26,28,28	\$247.00
	1	IC	100	24	3	380	D4	26,28,28	\$247.00
	1	IC	110	26	3	480	D4	30,30,32	\$312.00
	1	DF	125	18	4	380	D4	24,24,26,26	\$228.00
	1	DF	130	20	4	520	D4	26,26,27,28	\$312.00
	1	DF	140	22	4	630	D4	28,29,30,30	\$378.00
	1	DF	140	22	4	630	D4	28,29,30,30	\$378.00
	1	DF	145	24	4	830	D4	30,30,31,32	\$498.00
	1	PP	90	16	3	130	D4	21,22,22	\$47.45
	1	PP	100	20	3	280	D4	26,26,27	\$102.20
	3	CQ	60	15	2	70	D4	22,23	\$21.00
Subtotals	16				43	5,290			\$3,147.65

Operations					
			\$/hr	Hours	Subtotal
	a)	Cutting/ Bucking	\$46	5	\$230
	b)	Decking	\$149	3	\$447
	c)	Hauling	\$100	4	\$400
	d)	Fish Log Placement	\$120	16	\$1,920
Subtotal					\$2,997.00

Total Project 3 Cost	\$6,144.65

Operations:

- a) Cutting, and bucking of fish logs
- b) Decking of fish logs
- c) Hauling fish logs already on the ground from other parts of the unit to a decking location.
- d) Fish log placement in the stream
 - * Operation Notes: If cutting and bucking is to be done, log lengths will be determined by the sale administrator or appointed representative prior to starting the process.

Description: The fish logs are marked with a blue "F" and will come from throughout the unit, but mostly from the bottom of unit 4 and 5 along McCullough Creek. They will be staged or placed with the assistance of an appointed representative with low impact loader, harvester on treads, or cable systems throughout the stream at a number of undetermined locations. The log values and equipment costs are noted above. The log values came from the 2016 Grants Pass district 3rd quarter pond values. This cost is included in the timber sale appraisal.

All Projects Combined

Total Project Costs			
	Project #	Description	Cost
	1	New Road Area 4	\$12,509.00
	1	New Road Area 6	\$525.00
	2	Road Improvements	\$1,788.00
	3	Fish Log : Riparian	
	3	Enhancement	\$6,144.65
Total Combined			
Project Cost			\$20,966.65

SALE NAME: <u>Little Mac</u>

SALE NUMBER: <u>341-17-58</u>

- 1. Acreage Calculation: There are 127 net cruise acres in the sale area determined by a combination of GPS points and ArcMap 10.3.1 GIS software. There were 23 acres of green tree retention (GTR) areas that include riparian buffers, and a small section in area 2 that is inaccessible.
- 2. Cruise Method: Little Mac was cruised by ODF in August and September of 2016. A variable plot cruise was conducted on each strata based on the size of the timber and cutting prescription.
- 3. Right of Way Volumes: There was little volume removed from road building in Areas 4&6. Due to the low volume taken out from the right of way areas, the volume was included in the total calculation in Areas 4&6.
- **4. Sale Area Prescriptions**: Areas 2: 80 SF BA, Area 4: 120-140 SF BA, Area 5: 140 SF BA, and Area 6: 80 SF BA, all take trees were marked in blue paint. Also, Area 3 will have a few leave trees marked for future sales as guy-line trees.
- 5. Sampling Intensity:

CV (BA)

102% (DF)

SE

13% (Take Trees)

Plots

37 Full Measure plots and 65 Total Plots

*All volumes are reported at the 68% confidence level according to ODF standards. The average conifer volume of take trees was 10.9 MBF per acre for 127 acres (total volume 1,382 MBF), and the cruise would indicate 68% confidence that the measured volume of take trees lies between 1,208,071MBF and 1,558,647 MBF.

- **6. Form Factors:** Form factors (a ratio of diameter at 4 and 16 feet) were measured for all take trees and measured or estimated on non-candidate measure trees.
- 7. **Height Standards:** Most conifer trees were measured for total height with a laser rangefinder. Hardwoods were measured to a 6 or 10" top.
- 8. Diameter standards: Diameters were measured outside bark at breast height to the nearest inch.
- **9. Grading System:** All trees were graded using 34 foot segments and according to Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group.
- **10. Merchantable top:** Conifer were cruised (graded) to a 5 or 6 inch merchantable top and Hardwoods were measured to an 8 to 10 inch merchantable top. (Outside bark.)
- 11. Computation Procedures: Volume was computed using the SuperAce cruise program.
- **12. Deductions for Cull, Defect and Breakage:** All visible field cull was removed in the cruise computation. Additional volume was deducted for the anticipated amount of hidden cull and breakage during logging. The estimated volume reduction used for this anticipated loss to volume was 10%.
- 13. Cruisers: The sale was cruised by Chris Rudd and Wyatt Taylor.

*ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to do their own cruise and sale volume calculations.

Chris Rudd. Unit Forester

11/7/2016 Date

			Volume Tabl						
Adjusted Total Net Volume (BF) All Areas									
	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals			
Douglas-fir	763,745	518,776	49,468	0	0	1,331,989			
Grand Fir	36,635	13,961	964	0	0	51,560			
Total	800,381	532,737	50,432	0	0	1,383,549			

Summary Volume Table Adjusted Total Net Volume (%) All Areas										
•	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals				
Douglas-fir	55%	37%	4%	0%	0%	96%				
Grand Fir	3%	1%	0%	0%	0%	4%				
Total	58%	38%	4%			100%				

		2.5	Proje	ct Summary				
Species Status	Sample Trees	TPA	Avg DBH	Bole Length	BA	Gross Bf/Ac	Net Bf/Ac	Total MBF
DOUG-FIR	52	26.7	20.5	120	60.9	12,500	12,469	1,583
GRAND-FIR	2	0.8	24.5	146	2.5	653	649	82
Total	54	27.5			63.4	13,153	13,118	1,665

	Plots	Trees	Trees Per Plot
Cruise	37	319	4.9
Count	28	150	4.1
Total	65	469	9

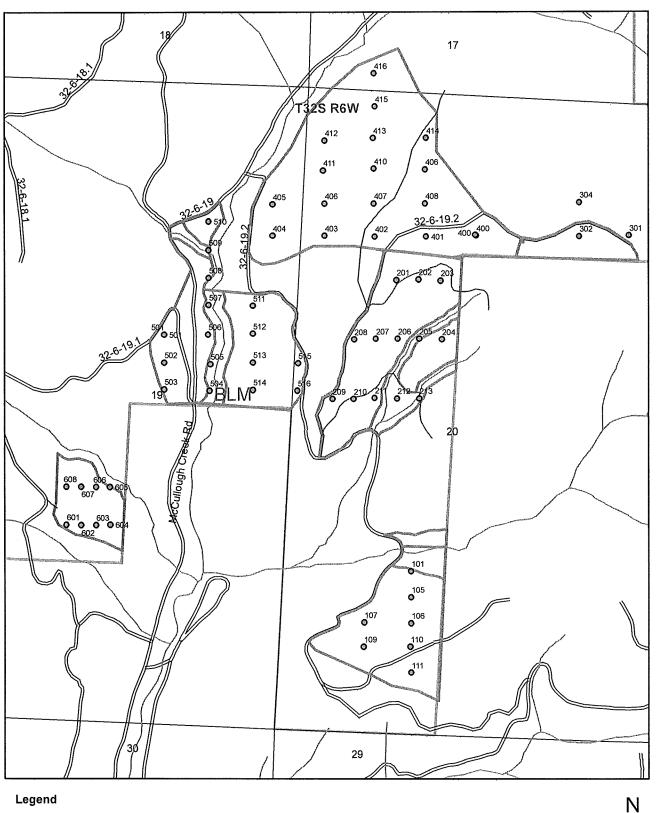
								Log Sc	ale Dia			Log I	ength			Aw	rage Log		
SPP	GRADE	NET BD	% TOTAL VOLUME	DEF%	GROSS BF/AC	NET BF/AC	TOTAL NET MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	FT.	DIAM	BDFT	LOGS PER AC
DF	CU															34	12		0.7
DF	2M	55	53%	0.1	6,941	6,936	881	0	1	52	47	1		100	0	34	15	334	20,8
DF	3M	40	38%	0.5	5,051	5,026	638	9	51	36	4	2	18	67	12	32	9	114	
DF	4M	5	4%	1	507	507	64	39	45	16		1	83	5	11	27	7	51]
DFTOTAL	s	42	95%	0,3	12,500	12,469	1,583	5	23	44	28	1	11	83	6	32	11		
GF	2M	70	3%		455	455	58			19	81			100		34	18		
GF	3M	28	1%	2.5	186	182	23	10	31	59				100		33			
GF	4M	2	0%		12	12	1	100				alan 11 yan 1 1 yay y		T.T.T.	100		5	40	
GFTOTAL	S	2	5%	7	653	649	82	5	9	30	57			98	2	34	12		STATE OF THE STATE
TOTALS			100%		13,153	13,118	1,665								_				

Net Bf/Ac Confidence Interval											
Species Status	CV%	S.E.%	LOW	AVG	HIGH						
DOUG-FIR	101%	13%	10,913	12,469	14,025						
GRAND-FIR	489%	61%	256	649	1,041						
Total	102%	13%	11,169	13,118	15,066						

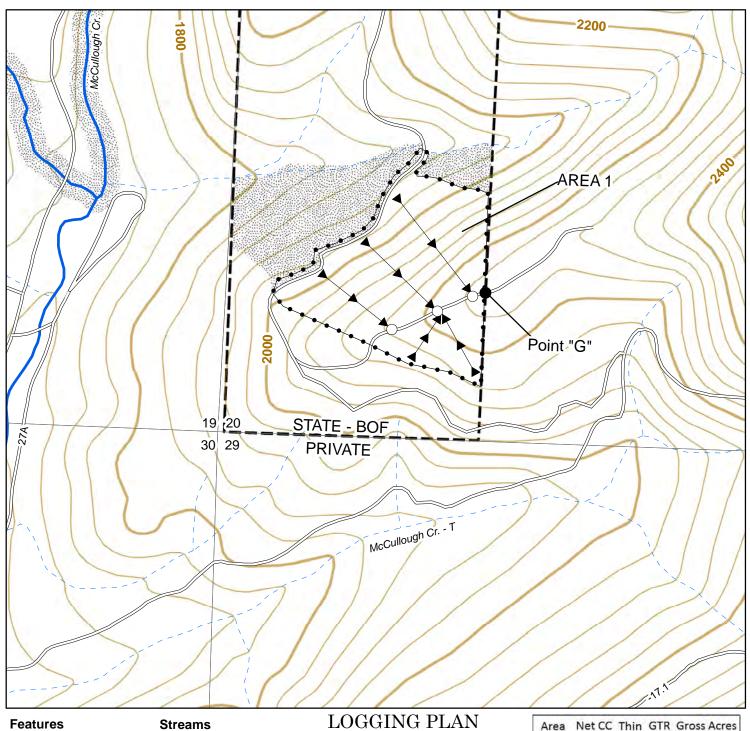
	1000			Board F	oot Volume S	Summary by Stra	ta		
Area	Acres	Plots	Average BF/ac	CV	SE	SE units	Low (BF)	Total Net (BF)	High (BF)
1	17	7	22,793	0.72	0.27	105,966	281,519	387,485	493,451
2	23	13	8,491	1.19	0.33	64,592	130,712	195,304	259,897
3	5	3	19,371	0.23	0.13	13,024	83,832	96,856	109,880
4	51	18	8,855	1.08	0.26	115,328	336,295	451,623	566,951
5	24	16	8,862	0.89	0.22	47,574	165,126	212,699	260,273
6	7	8	27,923	0.78	0.28	53,888	141,572	195,460	249,348
Total	127	65	16,049	102%	13%	184,495	1,354,933	1,539,428	1,723,923

Numl	Number of Rings for outside 2"						
Stand	RPI1in"	RPI 2in"	Outside 2" Average				
1	8.8	9	8.9				
2	10.3	10.3	10.3				
3	14.8	12.2	13.5				
4	16.5	10.5	13.5				
5	11.1	17.4	14.3				
6	17.8	14.3	16				

.,		LOG	GROSS	NET	%	4-	6-	8-	cent Net	12-	14-	16-	20-	24-	30-	40
SPP	GRD	LEN	MBF	MBF	SPC	5	7	9	11	13	15	19	23	29	39	40+
DF	2M	34	871	870	55.0						86	245	400	89	- 51	
DF	2M	35	8	8	0.5					8						
DF	2M	36	2	2	0.1		2	-								
DF	3M	16	9	9	0.6								9			
DF	3M	20	5	5	0.3					5						
DF	3M	21	1	1	0.1		1									
DF	3M	22	3	3	0.2					3						
DF	3M	23	4	4	0.3		1		3							
DF	3M	24	6	6	0.4		2					4				
DF	3M	25	11	11	0.7				6	5						
DF	3M	26	30	30	1.9		7			5	9		10			
DF	3M	27	6	6	0.4					6						
DF	3M	28	33	33	2.1		5			15	13					
DF	3M	29	2	2	0.1		2									
DF	3M	30	18	18	1.1		3			15						
DF	3M	32	39	39	2.5	-	2			15	11	11				
DF	3M	33	18	18	1.1		2	1.5		15	11.00					
DF	3M	34	365	362	22.9		8	17	7	184	86	23	19	17		
DF	3M	35	10	10	0.6	1 1	-515-1		2.4875	10	7 1 1		(**. ***			
DF	3M	36	29	29	1.8		11				18					
DF	3M	37	9	9	0.5		1.				9				111111	
DF	3M	38	26	26	1.7		6			12		9				
DF	3M	39	3	3	0.2		3		N. Yes				- 1			134.5
DF	3M	40	13	13	0.8		3				10					
DF	4M	19	1	1	0.0		1									-
DF	4M	21	6	6	0.4					6						
DF	4M	22	2	2	0.1		2			-						
DF	4M	23	9	9	0.6				9							
DF :	4M	24	7	7	0.4		7									
DF	4M	26	10	10	0.6							10				
DF	4M	27	5	5	0.3	:			1	5						
DF	4M	28	3	3	0.3		3	· · ·								
DF	4M	30	12	12	0.7		3			9		· · · · · · · · · · · · · · · · · · ·				
			3	3	0.7	:	3									
DF	4M	35	5	5			5	1.	5.54							
DF	4M	37			0.3		$\frac{3}{2}$	<u> </u>	-							
DF	4M	39	2	2	0.2							11	22	24		
GF	2M	34	58	58	70.2	<u>65 is</u>					-	11	23	24		
GF	3M	32	7	7	8.6					7			·			
GF	3M	33	2	2	2.9		2									
GF	3M	34	14	14	16.5							14				
GF	4M	39	1	1	1.8		. 1									









Stream

Stream

Unclassified

Green Tree

Streambuffers /

Retention Areas

Seasonal Type N

Existing Road STATE Maintained

Existing Road Purchaser Maintained

Project Points

Road Point

Landing

Sale No. 341-17-58 Type F Stream Perennial Type N Little Mac AREA 1

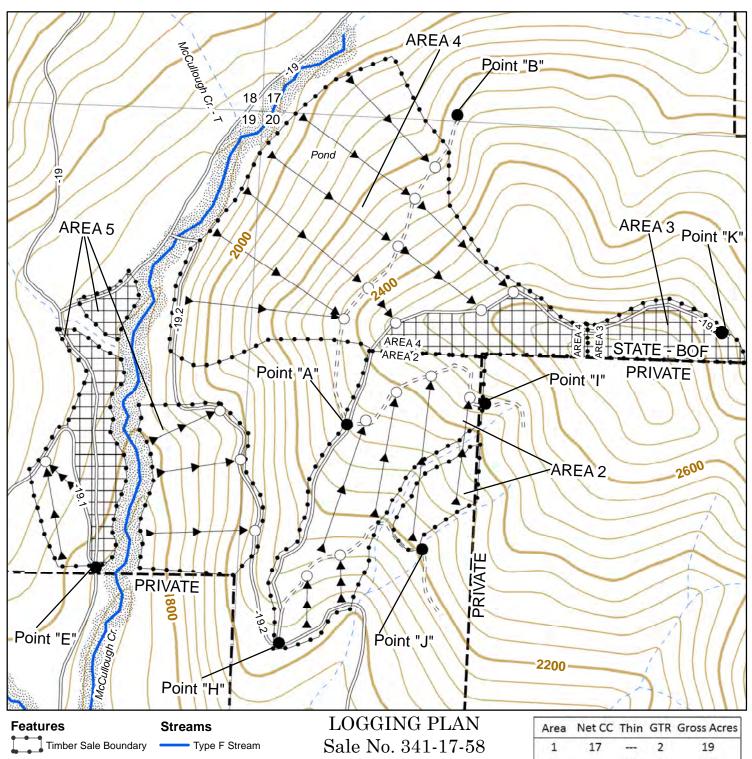
> Portions of Sections 17, 19, & 20 T32S R6W, W.M.

Douglas County, Oregon Regulated Use Area DG-2 100% Board of Forestry

Area	Net CC	Thin	GTR	Gross Acres
1	17		2	19
2		23	5	28
3	5			5
4	244	51	7	58
5		24	6	30
6		7	3	10
TOTAL	22	105	23	150

Contours			N	
200' Index Cor	ntour		Â	
40' Contour				
	0	262.5	525	1,050
				Feet
	1:1	2,000	1 inch =	1,000 feet

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.



Cable Yarding Ground Based Roads

Existing Road STATE Maintained

Existing Road Purchaser Maintained

Project Points

Landing

Road Point

Perennial Type N Stream

Seasonal Type N Stream

Unclassified

Streambuffers / Green Tree **Retention Areas**

Contours

200' Index Contou 40' Contour

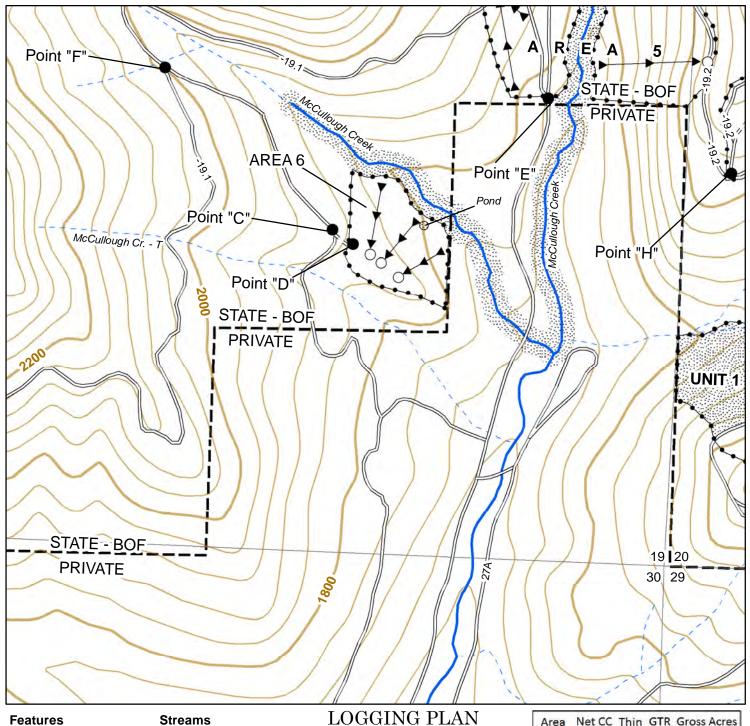
Little Mac AREA 2-5 Portions of Sections 17, 19, & 20 T32S R6W, W.M. Douglas County, Oregon Regulated Use Area DG-2

100% Board of Forestry

ur		N	
0	290	580	1,160
			Feet
1:6	,600	1 inch = 5	550 feet

Area	Net CC	Thin	GTR	Gross Acres
1	17		2	19
2		23	5	28
3	5			5
4		51	7	58
5		24	6	30
6		7	3	10
TOTAL	22	105	23	150

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.



Features Timber Sale Boundary Roads

Existing Road STATE Maintained

Existing Road Purchaser Maintained

Project Points

Landing

Road Point

Streams

Type F Stream

Perennial Type N

Stream Seasonal Type N Stream

Unclassified Streambuffers / Green Tree **Retention Areas**

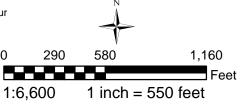
Contours

200' Index Contour 40' Contour

Little Mac AREA 6
Portions of Sections 17, 19, & 20
T32S R6W, W.M.
Douglas County, Oregon
Regulated Use Area DG-2
100% Board of Forestry

Sale No. 341-17-58

Area	Net CC	Thin	GTR	Gross Acres
1	17	()	2	19
2		23	5	28
3	5			5
4		51	7	58
5		24	6	30
6		7	3	10
TOTAL	22	105	23	150



The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.