



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$262,802.88	\$1,011.01	\$263,813.89
		Project Work:	(\$33,550.00)
		Advertised Value:	\$230,263.89



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Timber Description

Location: Portions of Section 16, T16S, R7W, W.M., Lane County, Oregon.

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	97
Western Hemlock / Fir	16	0	97
Maple	10	0	100

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	435	285	51	0	771
Western Hemlock / Fir	1	2	0	0	3
Maple	0	0	0	7	7
Total	436	287	51	7	781

Comments: Pond Values Used: 1st Quarter Calender Year 2016.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
\$940/MBF = \$1,185/MBF - \$245/MBF

Red Alder Stumpage Price = Pond Value minus Logging Cost:
\$360/MBF = \$605/MBF - \$245/MBF

SCALING COST ALLOWANCE = \$5.00/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):
Final Road Maintenance = \$3,625
BLM Road Use Fee = \$4,162
TOTAL Other Costs (No Profit & Risk added) = \$7,787



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Logging Conditions

Combination#: 1

Douglas - Fir	78.25%
Western Hemlock / Fir	82.00%
Maple	82.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

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

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

loads / day: 8 **bd. ft / load:** 4200

cost / mbf: \$178.57

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	21.75%
Western Hemlock / Fir	18.00%
Maple	18.00%

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

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

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

loads / day: 10 **bd. ft / load:** 4200

cost / mbf: \$75.52

machines: Stroke Delimber (B)



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Logging Costs

Operating Seasons: 1.00

Profit Risk: 15%

Project Costs: \$33,550.00

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$7,787.00

Miles of Road

Road Maintenance: \$0.00

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	4.0	4.0
Western Hemlock / Fir	\$0.00	4.0	3.8
Maple	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$156.15	\$4.20	\$5.61	\$50.21	\$0.00	\$32.43	\$0.00	\$5.00	\$9.97	\$263.57
Western Hemlock / Fir									
\$160.02	\$4.20	\$5.61	\$52.86	\$0.00	\$33.40	\$0.00	\$5.00	\$9.97	\$271.06
Maple									
\$160.02	\$4.08	\$5.61	\$74.29	\$0.00	\$36.60	\$0.00	\$5.00	\$9.97	\$295.57

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$603.74	\$340.17	\$0.00
Western Hemlock / Fir	\$0.00	\$448.33	\$177.27	\$0.00
Maple	\$0.00	\$440.00	\$144.43	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Skinny Bear

Sale WL-341-2016-96-

District: Western Lane

Date: April 11, 2016

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	771	\$340.17	\$262,271.07
Western Hemlock / Fir	3	\$177.27	\$531.81
Maple	7	\$144.43	\$1,011.01

Gross Timber Sale Value

Recovery: \$263,813.89

Prepared By: Chad Howard

Phone: 541-935-2283

Summary of "Other Costs" for Timber Sale Appraisals

Skinny Bear (341-16-96)

"Other Costs" with Profit and Risk to be Added:

None

Total "Other Costs" with Profit and Risk to be Added:

\$0



"Other Costs" With No Additional Profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
Final Road Maintenance	Operation			\$ 3,625
BLM Road Use Fee	Operation			\$ 4,161

Total "Other Costs" With No Additional Profit and Risk:

\$ 7,786

Cost per MBF 781 MBF

\$ 9.97

SKINNY BEAR
341-16-96
Combined Project Costs

Project 1	Construct and compact sub-grades, Road Improvements, Culverts.	\$13,101
Project 2	Conduct roadside brushing.	\$1,983
Project 3	Spread and compact rock for roads.	\$16,455
Project 4	In-unit slash pilling.	\$2,011
TOTAL PROJECT COSTS		\$33,550

State Timber Sale Contract
 341-16-96
 SKINNY BEAR

Final Road Maintenance Cost Summary

Totals	16-7-15.1	Spur 1	TOTAL
Stations	58.00	12.80	
Cost/Sta	\$ 38.31	\$ 70.55	
Total Cost	2222	903	\$ 3,125

Spot Rocking	16-7-15.1	Spur 1	TOTAL
Total Yds	50	20	
Rock Size	3"-0"	3"-0"	
\$/yd	\$22.16	\$22.16	
Subtotal	\$ 1,108	\$ 443	\$ 1,551

Grade,Shape & Pull Ditches	16-7-15.1	Spur 1	TOTAL
Stations	58.00	12.80	
\$/STA	\$ 18.35	\$ 18.35	
Subtotal	\$ 1,064	\$ 235	\$ 1,299

Install Waterbars	16-7-15.1	Spur 1	TOTAL
# of waterbars		5.00	
\$/waterbar	\$35.00	\$35.00	
Subtotal	\$ -	\$ 175.00	\$ 175.00

Landing clean up	16-7-15.1	Spur 1	TOTAL
Stations	1.00	1.00	
\$/STA	\$ 50.00	\$ 50.00	
Subtotal	\$ 50	\$ 50	\$ 100

Move In	Initial	Between Proj.
Grader	\$ 500	

Move in costs associated with one entry for the entire project

Total Final Maintenance Costs \$ 3,625

State Timber Sale Contract
SKINNY BEAR
341-16-96

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

Totals	16-7-15.1	Spur 1	TOTAL
Stations	58	12.8	71
Cost/Sta	\$ 58.17	\$ 447.41	
Cost	\$ 3,373.88	\$ 5,726.84	\$ 9,101.00

Earthwork

Clearing and Grubbing	16-7-15.1	Spur 1	TOTAL
Acreage		1.2	
Cost/Acre	\$1,337.00	\$1,069.00	
Total	\$ -	\$ 1,283	\$ 1,283.00

Excavation yards are bank run from State's design

Construction/Excavation	16-7-15.1	Spur 1	TOTAL
Stations		12.8	
Drift/Excavation Cu Yd		1000	
\$/sta	\$122.00	\$122.00	
Drift/Excavation \$/yd		\$2.00	
Turn Around Construct	\$200.00		
Landing Construction	\$389.00	\$389.00	
Subtotal	\$ 589	\$ 3,951	\$ 4,540.00

End-haul Costs are in addition to excavation costs above. Assumes 5% loss of endhaul material.

Cu Yd	230		
\$/yd	\$4.00		
\$/sta			
Subtotal	\$ 920	\$ -	\$ 920.00

Subgrade Treatment

Compaction w/ Roller	16-7-15.1	Spur 1	TOTAL
Road Stations	4	12.8	17
Cost/STA	\$ 20.20	\$ 20.20	
Subtotal	\$ 81	\$ 259	\$ 340

Grade and Shape	16-7-15.1	Spur 1	TOTAL
Road Stations	58	12.8	
Cost/STA	\$ 30.76	\$ 18.35	
Subtotal	\$ 1,784	\$ 235	\$ 2,019

Move in Cost	Initial		
D-7 Cat	\$ 1,500	Project Cost	\$ 9,101.00
Dump Truck	\$ 200		
grader	\$ 500	Move In Cost	\$ 4,000
excavator	\$ 1,500		
vibratory roller	\$ 200	Total Cost	\$ 13,101.00
water truck	\$ 100		

State Timber Sale Contract
341-16-96
SKINNY BEAR

Rocking and Compaction

Rock Source: Hale Valley

Rock Quantity (Inplace)

Base Rock	16-7-15.1	Spur 1	TOTAL
Rock Size		3"-0"	
Stations		12.80	13.00
Approx yds/sta		33	
Subtotal base (cu. yds)	0	422	422

Landings	16-7-15.1	Spur 1	TOTAL
Rock Size	Pit Run	Pit Run	
Stations	1.00	1.00	2.00
Approx yds/sta	30	30	
Subtotal base (cu. yds)	30	30	60

Additional Rock	16-7-15.1	Spur 1	TOTAL
Rock Size	3"-0"	3"-0"	
Turnouts and Turn-Arounds	1	1	
Approx cu. yds	60	20	
Subtotal Tunouts/Around (cu. yds)	60	20	80
Rock Size	3"-0"	3"-0"	
Number of Points	1	2	
Curve Widening/Spot Rocking (Yds)	80	25	
Subtotal Spot/Widening Rock	80	50	130

ROCK COST (Rock + Delivery)

Road Segment/Name	16-7-15.1	Spur 1	TOTAL
Rock Size	0	3"-0"	
Approx cu. yds	0	422	422
Cost/yd (includes load/spread)	\$0.00	\$22.16	
Subtotal Cost "Base" Rock	\$ -	\$ 9,359	\$ 9,359

Rock Size	3"-0"	3"-0"	
Approx cu. yds Tunouts/Arounds	60	20	80
Cost/yd (includes load/spread)	\$22.16	\$22.16	
Subtotal	\$1,329.36	\$443.12	
Rock Size	3"-0"	3"-0"	
Approx cu. Yds Spot/Widening	80	50	130
Cost/yd (includes load/spread)	\$22.16	\$22.16	
Subtotal	\$1,772.48	\$1,107.80	
Subtotal Cost "Additional" Rock	\$ 3,102	\$ 1,551	\$ 4,653

Rock Size	Pit Run	Pit Run	
Approx cu. yds	\$ 30	\$ 30	60
Cost/yd (includes load/spread)	\$19.32	\$19.32	
Subtotal Cost "Landing" Rock	\$ 580	\$ 580	\$ 1,160

Grand total quarry approx yds	\$ 170	472.4	642
Total Quarry Rock Cost	\$ 3,681	\$ 11,489	\$ 15,170

Compaction w/Processing	16-7-15.1	12.8	TOTAL
Cost/Cu. Yd.	\$2.00	\$2.00	
Subtotal Processing	\$ 340	\$ 945	\$ 1,285

\$/yd ³ rock in place & compacted	16-7-15.1	Spur 1	Total
Total Rock Costs	\$4,021	\$12,434	\$ 16,455

Move-in included in subgrade construction.

Loose truck volumes are provided. However, depth measure shall be used for contract compliance.

State Timber Sale Contract
 341-16-96
 SKINNY BEAR

Slash Piling

Machine Piling

<u>Machine Productivity (acres/hr)</u>	<u>Acres</u>	<u>Duration (hrs)</u>
0.85	7	8.24
<u>Operating Cost (\$/hr)</u>	<u>Cost/Acre</u>	<u>Machine Cost</u>
\$ (130.00)	\$ (152.94)	\$ (1,070.59)

Covering Piles

<u>Piles/Acre</u>	<u>Acres</u>	<u>Total Piles</u>
5	7	35
<u>Productivity (piles/day)</u>	<u>Productive hrs</u>	<u>Duration (hrs)</u>
90	8	3.1
<u>Crew Members</u>	<u>\$/hr/Crew Member</u>	
4	\$ (25.00)	
<u>Crew Cost (\$/hr)</u>	<u>Cost/Acre</u>	<u>Piling Covering Cost</u>
\$ (100.00)	\$ (44.44)	\$ (311.11)

Materials

<u>4 mil 10'x100' Visqueen (\$/Roll)</u>	<u>Dimension</u>	<u>Cost/tarp</u>
\$ (36.97)	10'x10'	\$ (3.70)
Home Depot Pricing (9/5/2013)	<u>Piles</u>	<u>Material Cost</u>
	35	\$ (129.40)

	<u>Cost/Acre</u>	<u>Total Cost</u>
	Move-in Cost	\$ (500.00)
Grand Total	\$ (287.30)	\$ (2,011.09)

Cruise Report

Skinny Bear

SALE # 341-16-96

Sale Area: Portions of Section 16, T16S, R7W, W.M., Lane County, Oregon. The sale's net harvestable acres are 17.5. Acres were determined using a combination of aerial photos, GPS, GIS, and topographic maps.

Cruise Method: The sale area(s) were cruised using a variable radius plot sampling method. Every tree was graded using the official rules for log scaling for the above species. 2 saw and 3 saw quality lumber favored 40' and 36' log lengths. Deductions for defect were estimated on a tree by tree basis. Logs that were not at least 16 feet in length and having at least 20 bf were not counted. Although other grades may be present, it was determined to be a small percentage of the actual volume and not incorporated into this sampling method.

Stand Description:

Area 1 is a mixed age stand composing mostly of 80 year old Douglas-fir. There are some scattered minor species but they were not captured in the cruise. The cruise captured a 5.5% defect from the gross volume. The net volume is reported below. The brush component is very light, with the species mostly consisting of salal and sword fern.

Area 2 is 8.5 acres with two age classes, 46 and 80. The area is mostly dominated by Douglas-fir, with scattered individual Western hemlock and Western red cedar trees. Area 2 has little to no visual defect. The brush component is very light, with the species mostly consisting of salal and sword fern.

Cruiser: Chad Howard, Nikolai Hall

Volume Table: Volumes were computed by using the SuperACE program.

Area 1: Net volume

	Avg. DBH	2 Saw (MBF)	3 Saw (MBF)	4 Saw (MBF)	Camp Run (MBF)	Sub-Total (MBF)
Douglas-fir	22.4	290	156	21		467
Total MBF Area 1 =						467

Area 2: Net volume

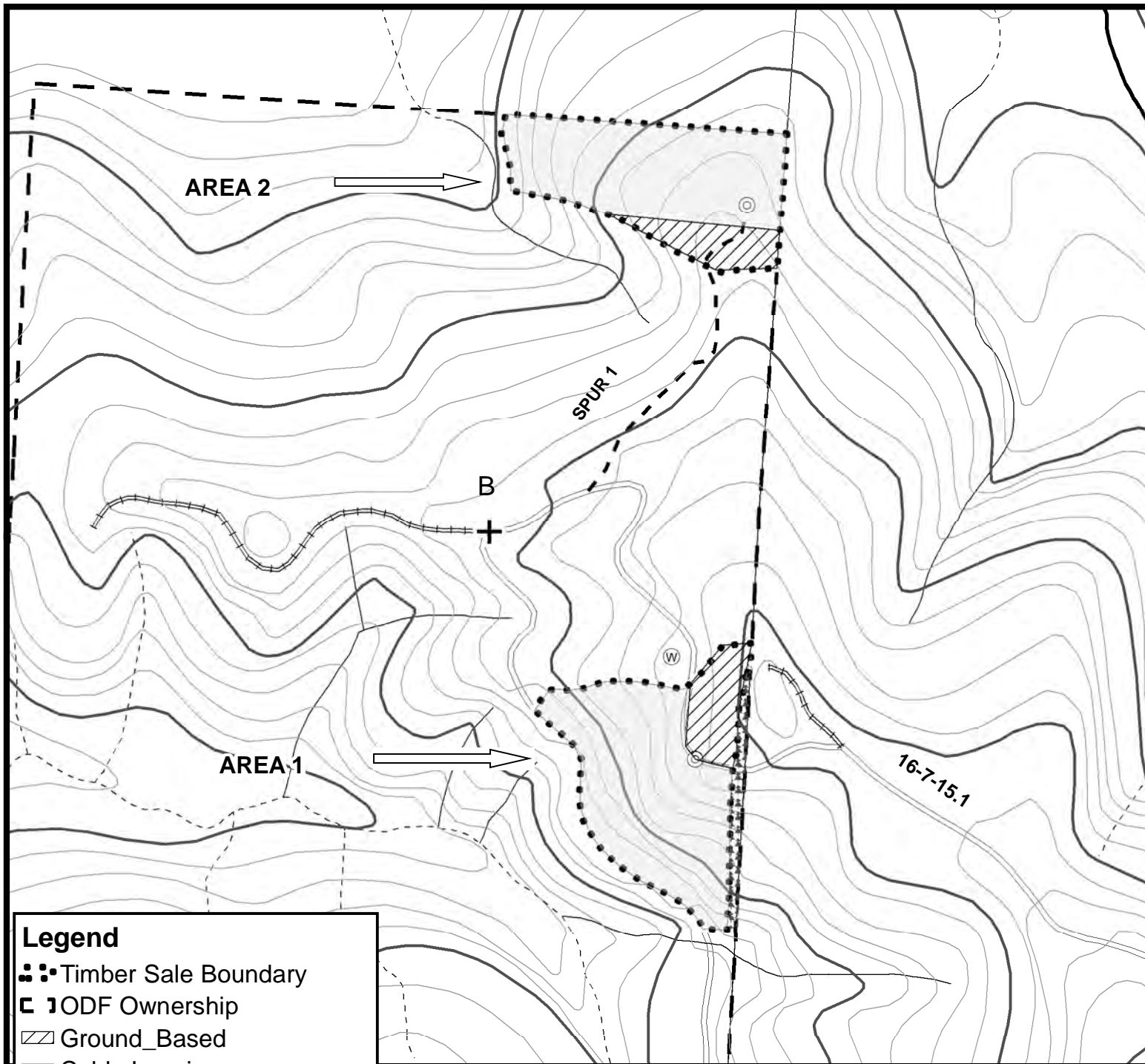
	Avg. DBH	2 Saw (MBF)	3 Saw (MBF)	4 Saw (MBF)	Camp Run (MBF)	Sub-Total (MBF)
Douglas-fir 80 year old	17.6	103	40	9		152
Douglas-fir 45 year old	14.8	34	61	15		110
Western Hemlock	16.0	1	2			3
Big Leaf Maple	10..3				7	7
Total MBF Area 2 =						272

Spur 1 Right-of-Way: Net conifer volume

Note: this volume only includes the volume removed outside of the posted timber sale areas within the Right-of-Way posting.

	Avg. DBH	2 Saw (MBF)	3 Saw (MBF)	4 Saw (MBF)	Camp Run (MBF)	Sub-Total (MBF)
Douglas-fir	12.4	7	28	6		41
Total MBF Area 1 =						41

Total cruised volume = 781 MBF



Legend

⋯ Timber Sale Boundary

■ JODF Ownership

▨ Ground-Based

▨ Cable Logging

⊗ Reserved Tree Area

Roads

— Surfaced road

⋯ Old road bed - not driveable

- - New Road Construction

⊕ Project Point

⊙ Landing

⊙ Potential Waste Areas

Streams

— Fish

— Nonfish

- - Unknown

Logging Plan

OF TIMBER SALE CONTRACT NO. 341-16-96
SKINNY BEAR AREAS 1 AND 2
PORTIONS OF SECTION 16, T16S, R7W, W.M.
LANE COUNTY, OREGON

Contours = 40'

0 500 1,000
Feet

1 inch = 500 feet

This product is for informational use
and may not have been prepared
for or be suitable for legal, engineering
or surveying purposes. Users of this information should
review or consult the primary data and information
sources to ascertain the usability of this information.

APPROXIMATE NET ACRES

Area 1 9.0 ACRES (MC)

Cable 7.5 Acres (MC)

Ground 1.5 ACRES (MC)

Area 2 8.5 Acres (MC)

Cable 7.0 Acres (MC)

Ground 1.5 Acres (MC)

TOTAL 17.5 Acres (MC)



"STEWARDSHIP IN FORESTRY"