



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Sweet Eddy  
Sale 341-15-45

District: West Oregon

Date: November 17, 2014

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$135,541.72	\$0.00	\$135,541.72
		<b>Project Work:</b>	\$(76,078.00)
		<b>Advertised Value:</b>	\$59,463.72



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**timber description**

**Location:** Area 1, portions of Section 15, T11S, R9W, behind Kessi's farm; Areas 2 & 3 – portions of Section 20, T11S, R9W, W.M., Lincoln County, Oregon. Areas 4-5, Sugarbowl area; portions of Section 29, T11S, R7W and Section 18, T12S, R7W, W.M., Benton County, Oregon.

**Stand Stocking:** 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	95

Volume by Grade	3S	4S	Total
Douglas - Fir	802	396	1,198
Total	802	396	1,198



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**comments:** Pond Values Used: 3rd Quarter Calendar Year 2014.

Western Hemlock and Other Conifers Stumpage Price =  
Douglas-fir Bid Price

Western redcedar and Other Cedars Stumpage Price = Douglas-fir Bid  
Price

Red Alder and Other Hardwoods Stumpage Price =  
Douglas-fir Bid Price

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COSTS

Hauling costs equivalent to \$780 daily truck cost.

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

Brand and Paint: 1,198 MBF @ \$1/MBF = \$1,198

TOTAL Other Costs (with Profit & Risk to be added) = \$1,198

Other Costs (No Profit & Risk added):

Thompson Timber Road Use Fee = \$872 payable prior to log haul.

Equipment Cleaning (Invasive Species): \$2,000

Firewood Sorting: 10 landings @ \$100 per landing = \$1,000

TOTAL Other Costs (No Profit & Risk added) = \$3,872



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**logging conditions**

**combination#: 1** Douglas - Fir 88.75%  
**yarding distance:** Medium (800 ft) **downhill yarding:** No  
**logging system:** Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber  
**tree size:** Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF  
**loads / day:** 3.5 **bd. ft / load:** 3,300  
**cost / mbf:** \$289.53  
  
**machines:** Log Loader (A)  
Stroke Delimber (A)  
Tower Yarder (Medium)

**combination#: 2** Douglas - Fir 11.25%  
**yarding distance:** Short (400 ft) **downhill yarding:** No  
**logging system:** Shovel **Process:** Manual Delimiting  
**tree size:** Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF  
**loads / day:** 4.0 **bd. ft / load:** 3,300  
**cost / mbf:** \$189.74  
  
**machines:** Shovel Logger



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**logging costs**

<b>Operating Seasons:</b>	2.00	<b>Profit Risk:</b>	14.00%
<b>Project Costs:</b>	\$76,078.00	<b>Other Costs (P/R):</b>	\$1,198.00
<b>Slash Disposal:</b>	\$0.00	<b>Other Costs:</b>	\$3,872.00

**Miles of Road**

Road Maintenance: \$8.00

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	3.3



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**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$278.30	\$8.40	\$7.32	\$108.85	\$1.00	\$56.54	\$0.00	\$5.00	\$3.23	\$468.64

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$581.78	\$113.14	\$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	1,198	\$113.14	\$135,541.72

**Gross Timber Sale Value**

Recovery: \$135,541.72

Prepared by: Jim Doyal

Phone: 541-929-3266

## SUMMARY OF ALL PROJECT COSTS

**Sale Name:** Sweet Eddy

**Date:** September 2014

**Time:** 14:33

**Project #1 - New Construction**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>	
A2 to A3	10.6 sta	\$2,083	
A6 to A7	7.2 sta	\$1,610	
A8 to A9	6.2 sta	\$1,464	
C3 to C4	2.4 sta	\$845	
E2 to E3	6.8 sta	\$1,499	
<hr/>			
<b>TOTALS</b>	33.2 sta		<b>\$7,501</b>

**Project #2 - Improvements**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>	
A0 to B	265.3 sta	\$12,535	
A to A1	61.6 sta	\$1,901	
A4 to A5	10.0 sta	\$99	
A10 to A11	2.2 sta	\$299	
A12 to A13	7.5 sta	\$780	
B to B1	59.5 sta	\$19,478	
B2 to B3	2.2 sta	\$2,647	
B4 to B5	3.0 sta	\$3,188	
B6 to B7	27.4 sta	\$9,969	
C to C1	128.5 sta	\$4,376	
C1 to C2	24.4 sta	\$242	
C2 to C3	11.0 sta	\$953	
D to E	Pt. D to 101+10	\$1,390	
E to E1	38.2 sta	\$1,366	
E4 to E5	19.5 sta	\$1,809	
<hr/>			
<b>TOTALS</b>	761.4 sta		<b>\$61,032</b>

**Project #3 Post Harvest**

Landing patch rock

**\$3,871**

**Move in**

	<u>Cost</u>	<u>On-site move</u>
Crawler tractor, D-7 or equiv.	\$1,640	
Grader, Cat 14-G or equiv.	\$340	\$227
Water Truck	\$446	
Backhoe	\$340	
Vibratory roller	\$681	

**TOTAL**

**\$3,674**

**GRAND TOTAL**

**\$76,078**

Compiled by J. Doyal

Date 09/18/2014



## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 265.3 sta  
ROAD A0 to B

### IMPROVEMENT

Shape surface 265.3 sta. @ \$13.75 /sta = \$3,648  
(with road grader)

TOTAL IMPROVEMENT \$3,648

### SURFACING

		Size	Cost/yd		
Spot rock	120 cy of	1 1/2-0"	\$25.39	=	\$3,047
(sta 0+00 to 255+00)					
Surface rock 4" lift	230 cy of	1 1/2-0"	\$25.39	=	\$5,840
(sta 255+00 to 265+30)					

TOTAL ROCK COST = \$8,887

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$12,535**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 61.6 sta  
ROAD A to A1

### IMPROVEMENT

Shape surface 61.6 sta. @ \$9.90 /sta = \$610  
(with road grader)

TOTAL IMPROVEMENT \$610

### SURFACING

Spot rock 60 cy of Size Cost/yd  
(Kessi's Road) 1½-0" \$21.51 = \$1,291

TOTAL ROCK COST = \$1,291

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$1,901**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #1 LENGTH const 10.6 sta  
ROAD A2 to A3

### CLEARING AND GRUBBING

0.58 acres	@	\$1,010.24 /acre	=	\$586 road
0.10 acres	@	\$1,010.24 /acre	=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$687

### EXCAVATION

With D7 dozer or equivalent

Construct road	10.6 sta.	@	\$74.28 /sta.	=	\$787
Construct landing	2 hr.	@	\$135.80 /hr.	=	\$272
Shape subgrade (with road grader)	10.6 sta.	@	\$11.55 /sta.	=	\$122

TOTAL EXCAVATION = \$1,181

### SURFACING

Junction Patch rock (Pt. A2)	10 cy of	Size	Cost/yd	=	\$215
		1 1/2-0"	\$21.51		

TOTAL ROCK COST = \$215

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$2,083**

**SUMMARY OF CONSTRUCTION COST**

SALE Sweet Eddy - Project #2 LENGTH improve 10.0 sta  
ROAD A4 to A5

**IMPROVEMENT**

Shape surface 10.0 sta. @ \$9.90 /sta = \$99  
(with road grader)

TOTAL IMPROVEMENT \$99

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$99**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #1 LENGTH const 7.2 sta  
ROAD A6 to A7

### CLEARING AND GRUBBING

0.40 acres	@	\$1,010.24 /acre	=	\$404 road
0.10 acres	@	\$1,010.24 /acre	=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$505

### EXCAVATION

With D7 dozer or equivalent

Construct road	7.2 sta.	@	\$74.28 /sta.	=	\$535
Construct landing	2 hr.	@	\$135.80 /hr.	=	\$272
Shape subgrade (with road grader)	7.2 sta.	@	\$11.55 /sta.	=	\$83

TOTAL EXCAVATION = \$890

### SURFACING

Junction Patch rock (Pt. A6)	10 cy of	Size	Cost/yd		
		1 1/2-0"	\$21.51	=	\$215

TOTAL ROCK COST = \$215

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$1,610**

### SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #1 LENGTH const 6.2 sta  
ROAD A8 to A9

#### CLEARING AND GRUBBING

0.34 acres @ \$1,010.24 /acre = \$343 road  
0.10 acres @ \$1,010.24 /acre = \$101 landing

TOTAL CLEARING AND GRUBBING = \$444

#### EXCAVATION

With D7 dozer or equivalent

Construct road 6.2 sta. @ \$74.28 /sta. = \$461  
Construct landing 2 hr. @ \$135.80 /hr. = \$272  
Shape subgrade 6.2 sta. @ \$11.55 /sta. = \$72  
(with road grader)

TOTAL EXCAVATION = \$805

#### SURFACING

Junction Patch rock 10 cy of Size 1 1/2-0" Cost/yd \$21.51 = \$215  
(Pt. A8)

TOTAL ROCK COST = \$215

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$1,464**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 2.2 sta  
ROAD A10 to A11

### IMPROVEMENT

Re-open road (with dozer)	2.2 sta.	@	\$74.28 /sta	=	\$163
Re-open landing	1 hrs.	@	\$135.80 /hr.	=	\$136

TOTAL IMPROVEMENT \$299

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$299**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 7.5 sta  
ROAD A12 to A13

### IMPROVEMENT

Re-open road (with dozer)	7.5 sta.	@	\$74.28 /sta	=	\$557
Re-open landing	1 hrs.	@	\$135.80 /hr.	=	\$136
Shape surface (with road grader)	7.5 sta.	@	\$11.55 /sta	=	\$87

TOTAL IMPROVEMENT \$780

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$780**



## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 59.5 sta  
ROAD B to B1

### IMPROVEMENT

Shape surface	47.9 sta.	@	\$9.90 /sta	=	\$474
(with road grader 0+00 to 47+90)					
Shape subgrade	11.6 sta.	@	\$11.55 /sta	=	\$134
(with road grader 47+90 to 59+50)					
Compact subgrade	11.6 sta.	@	\$8.31 /sta	=	\$96
(with vibratory roller sta 47+90 to 59+50)					

TOTAL IMPROVEMENT \$704

### SURFACING

		Size	Cost/yd		
Spot rock	50 cy of	1½-0"	\$23.89	=	\$1,195
(sta 0+00 to 47+90)					
Base rock (12" lift)	770 cy of	pit run	\$22.83	=	\$17,579
(sta 47+90 to 59+50)					

TOTAL ROCK COST = \$18,774

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$19,478**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 2.2 sta  
ROAD B2 to B3

### IMPROVEMENT

Re-open road (with dozer)	2.2 sta.	@	\$74.28 /sta	=	\$163
Re-open landing (with dozer)	1 hrs.	@	\$ 135.80 /hr.	=	\$136
Compact subgrade (with vibratory roller)	2.2 sta.	@	\$8.31 /sta	=	\$18

TOTAL IMPROVEMENT \$317

### SURFACING

			Size	Cost/yd		
Base rock (6" lift)	60 cy of		3-0"	\$23.70	=	\$1,422
Landing rock	40 cy of		jaw-run	\$22.69	=	\$908

TOTAL ROCK COST = \$2,330

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$2,647**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 3.0 sta  
ROAD B4 to B5

### IMPROVEMENT

Re-open road (with dozer)	3 sta.	@	\$74.28 /sta	=	\$223
Re-open landing (with dozer)	1 hrs.	@	\$ 135.80 /hr.	=	\$136
Compact subgrade (with vibratory roller)	3.0 sta.	@	\$8.31 /sta	=	\$25

TOTAL IMPROVEMENT \$384

### SURFACING

			Size	Cost/yd		
Base rock (6" lift)	80	cy of	3-0"	\$23.70	=	\$1,896
Landing rock	40	cy of	jaw-run	\$22.69	=	\$908

TOTAL ROCK COST = \$2,804

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$3,188**

## SUMMARY OF CONSTRUCTION COST

SALE	Sweet Eddy	- Project #2	LENGTH	27.4 sta
ROAD	B6 to B7		LENGTH maint	21.9 sta
			LENGTH imp	5.5 sta

### IMPROVEMENT

Shape surface (with road grader 0+00 to 21+90)	21.9 sta.	@	\$11.55 /sta	=	\$253
Re-open road (with dozer sta. 21+90 to 26+90)	5.5 sta.	@	\$74.28 /sta	=	\$409
Re-open landing (with dozer sta. 26+90 to 27+40)	2 hrs.	@	\$ 135.80 /hr.	=	\$272
Shape subgrade (with road grader 21+90 to 27+40)	5.5 sta.	@	\$11.55 /sta	=	\$64
Compact subgrade (with vibratory roller sta 21+90 to 27+40)	5.5 sta.	@	\$8.31 /sta	=	\$46

TOTAL IMPROVEMENT \$1,044

### SURFACING

			Size	Cost/yd	
Spot rock (sta 0+00 to 21+90)	20 cy of		1½-0"	\$23.89	\$478
Base rock (12" lift) (sta 21+90 to 26+90)	330 cy of		pit run	\$22.83	\$7,534
Landing rock (sta 26+90 to 27+40)	40 cy of		pit run	\$22.83	\$913

TOTAL ROCK COST = \$8,925

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$9,969**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 128.5 sta  
ROAD C to C1

### IMPROVEMENT

Shape surface 128.5 sta. @ \$9.90 /sta = \$1,272  
(with road grader)

TOTAL IMPROVEMENT \$1,272

### SPECIAL PROJECTS

Slough Removal 16 hrs. @ \$ 194 /hr. = \$ 3,104  
(24+20 to 128+50)

TOTAL SPECIAL PROJECTS COST = \$3,104

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$4,376**

**SUMMARY OF CONSTRUCTION COST**

SALE Sweet Eddy - Project #2 LENGTH improve 24.4 sta  
ROAD C1 to C2

**IMPROVEMENT**

Shape surface 24.4 sta. @ \$9.90 /sta = \$242  
(with road grader)

TOTAL IMPROVEMENT \$242

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$242**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 11.0 sta  
ROAD C2 to C3

### IMPROVEMENT

Re-open road (with dozer)	11.0 sta.	@	\$74.28 /sta	=	\$817
Re-open landing	1 hrs.	@	\$ 135.80 /hr.	=	\$136

TOTAL IMPROVEMENT \$953

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====>** **\$953**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #1 LENGTH const 2.4 sta  
ROAD C3 to C4

### CLEARING AND GRUBBING

0.13 acres @ \$1,010.24 /acre = \$131 road  
0.10 acres @ \$1,010.24 /acre = \$101 landing

TOTAL CLEARING AND GRUBBING = \$232

### EXCAVATION

With D7 dozer or equivalent

Construct road 2.4 sta. @ \$74.28 /sta. = \$178  
Construct landing 3 hr. @ \$135.80 /hr. = \$407  
Shape subgrade 2.4 sta. @ \$11.55 /sta. = \$28  
(with road grader)

TOTAL EXCAVATION = \$613

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$845**



**SUMMARY OF CONSTRUCTION COST**

SALE Sweet Eddy - Project #2 LENGTH improve 101.1 sta  
ROAD D to E

**IMPROVEMENT**

Shape surface 101.1 sta. @ \$13.75 /sta = \$1,390  
(with road grader Pt. D to 101+10 )

TOTAL IMPROVEMENT \$1,390

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$1,390**

**SUMMARY OF CONSTRUCTION COST**

SALE Sweet Eddy - Project #2 LENGTH improve 38.2 sta  
ROAD E to E1

**IMPROVEMENT**

Shape surface 38.2 sta. @ \$9.90 /sta = \$378  
(with road grader)

TOTAL IMPROVEMENT \$378

**SURFACING**

Spot rock 40 cy of Size 1 1/2-0" Cost/yd \$24.70 = \$988

TOTAL ROCK COST = \$988

Compiled by: J. Doyal  
Date: Sep 18, 2014

**GRAND TOTAL =====> \$1,366**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #1 LENGTH const 6.8 sta  
ROAD E2 to E3

### CLEARING AND GRUBBING

0.37 acres	@	\$1,010.24 /acre	=	\$374 road
0.10 acres	@	\$1,010.24 /acre	=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$475

### EXCAVATION

With D7 dozer or equivalent

Construct road	6.8 sta.	@	\$74.28 /sta.	=	\$505
Construct landing	2 hr.	@	\$135.80 /hr.	=	\$272

TOTAL EXCAVATION = \$777

### SURFACING

Junction Patch rock (Pt. E2)	10 cy of	Size	Cost/yd	=	\$247
		1 1/2-0"	\$24.70		

TOTAL ROCK COST = \$247

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$1,499**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #2 LENGTH improve 19.5 sta  
ROAD E4 to E5

### IMPROVEMENT

Re-open road (with dozer)	19.5 sta.	@	\$74.28 /sta	=	\$1,448
Re-open landing (with dozer)	1 hrs.	@	\$ 135.80 /hr.	=	\$136
Shape subgrade (with road grader)	19.5 sta.	@	\$11.55 /sta	=	\$225

TOTAL IMPROVEMENT \$1,809

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====> \$1,809**

## SUMMARY OF CONSTRUCTION COST

SALE Sweet Eddy - Project #3 Post Harvest  
ROAD

### Surfacing

Landing patch rock (6) (A to A1)	60 cy of	1½-0"	\$21.51	=	\$ 1,291
Landing patch rock (9) (B to B1)	90 cy of	1½-0"	\$23.89	=	\$ 2,150
Landing patch rock (2) (E to E1)	20 cy of	1½-0"	\$21.51	=	\$ 430

TOTAL SURFACING = \$ 3,871

Compiled by:  
Date:

J. Doyal  
Sep 18, 2014

**GRAND TOTAL =====>**

**\$3,871**

### Rock Haul Cost Computation

SALE NAME: Sweet Eddy	DATE: Sep 18, 2014
ROAD NAME:	CLASS: Medium
ROCK SOURCE: Richard Quarry	18 CY truck
Route:	

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0	minutes
2.	50 MPH		MRT	0.0	minutes
3.	45 MPH		MRT	0.0	minutes
4.	40 MPH		MRT	0.0	minutes
5.	35 MPH		MRT	0.0	minutes
6.	30 MPH		MRT	0.0	minutes
7.	25 MPH		MRT	0.0	minutes
8.	20 MPH	24.2	MRT	72.6	minutes
9.	15 MPH		MRT	0.0	minutes
10.	10 MPH		MRT	0.0	minutes
11.	05 MPH		MRT	0.0	minutes

Dump or spread time per RT		0.50	minutes
Total hauling cycle time for this setting (100% efficiency)			
		73.10	minutes

Operator efficiency correction	0.85		86.00 minutes
Job efficiency correction	0.85		101.18 minutes

Truck capacity (CY)	10.00		10.12 min/CY
Loading time, delay time per CY			0.25 min/CY
TIME (minutes) per cubic yard			10.37 min/CY

COST per CY computation			
Cost of truck and operator per hour		\$80.55	/hr.
Cost of truck and operator per minute		\$1.34	/min

Cost per CY		\$13.90	/CY
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Spread and compact	Water truck, Grader & Roller		\$1.50 /CY
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Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$ 10.80	\$24.70	\$26.20
3 - 0"	\$ 9.11	\$23.01	\$24.51
Jaw Run	\$ 8.10	\$22.00	\$23.50
<b>Pit Run</b>	<b>\$ 7.43</b>	<b>\$21.33</b>	<b>\$22.83</b>

Note: Pit costs Nov 2012 Rickard Rock Quarry

### Rock Haul Cost Computation

SALE NAME: Sweet Eddy	DATE: Sep 18, 2014
ROAD NAME:	CLASS: Medium
ROCK SOURCE: Richard Quarry	18 CY truck
Route:	

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH	44.0	MRT	58.7 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH		MRT	0.0 minutes
9.	15 MPH		MRT	0.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT	0.50	minutes
Total hauling cycle time for this setting (100% efficiency)		
	59.20	minutes

Operator efficiency correction	0.85	
Job efficiency correction	0.90	77.39 minutes

Truck capacity (CY)	10.00	
Loading time, delay time per CY		7.74 min/CY
TIME (minutes) per cubic yard		0.25 min/CY
		7.99 min/CY

COST per CY computation		
Cost of truck and operator per hour	\$80.55	/hr.
Cost of truck and operator per minute	\$1.34	/min

Cost per CY	\$10.71	/CY
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Spread and compact		Water truck, Grader & Roller
	\$1.50	/CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$ 10.80	\$21.51	\$23.01
3 - 0"	\$ 9.11	\$19.82	\$21.32
Jaw Run	\$ 8.10	\$18.81	\$20.31

Note: Pit costs Nov 2012 Rickard Rock Quarry

### Rock Haul Cost Computation

SALE NAME: Sweet Eddy	DATE: Sep 18, 2014
ROAD NAME:	CLASS: Medium
ROCK SOURCE: Richard Quarry	18 CY truck
Route:	

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH	54.2	MRT	72.3 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH		MRT	0.0 minutes
9.	15 MPH		MRT	0.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT 0.50 minutes

Total hauling cycle time for this setting  
(100% efficiency) 72.80 minutes

Operator efficiency correction 0.85 85.65 minutes

Job efficiency correction 0.90 95.17 minutes

Truck capacity (CY) 10.00 9.52 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 9.77 min/CY

COST per CY computation

Cost of truck and operator per hour \$80.55 /hr.

Cost of truck and operator per minute \$1.34 /min

Cost per CY \$13.09 /CY

Spread and compact Water truck, Grader & Roller \$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$ 10.80	\$23.89	\$25.39
3 - 0"	\$ 9.11	\$22.20	\$23.70
Jaw Run	\$ 8.10	\$21.19	\$22.69
<b>Pit Run</b>	\$ 7.43	\$20.52	\$22.02

Note: Pit costs Nov 2012 Rickard Rock Quarry



## TIMBER CRUISE SUMMARY

**Sale Name:** Sweet Eddy, 341-15-45

**Sale Type:** Areas 1, 2, 3, 4, and 5 are automark thinnings.

**Sale Area:** Areas 1-3: are located in portions of Sections 15 and 20, T11S, R9W, W.M., Lincoln County, Oregon. Areas 4 and 5 are located in portions of Section 18, T12S, R7W, W.M., Benton County, Oregon.

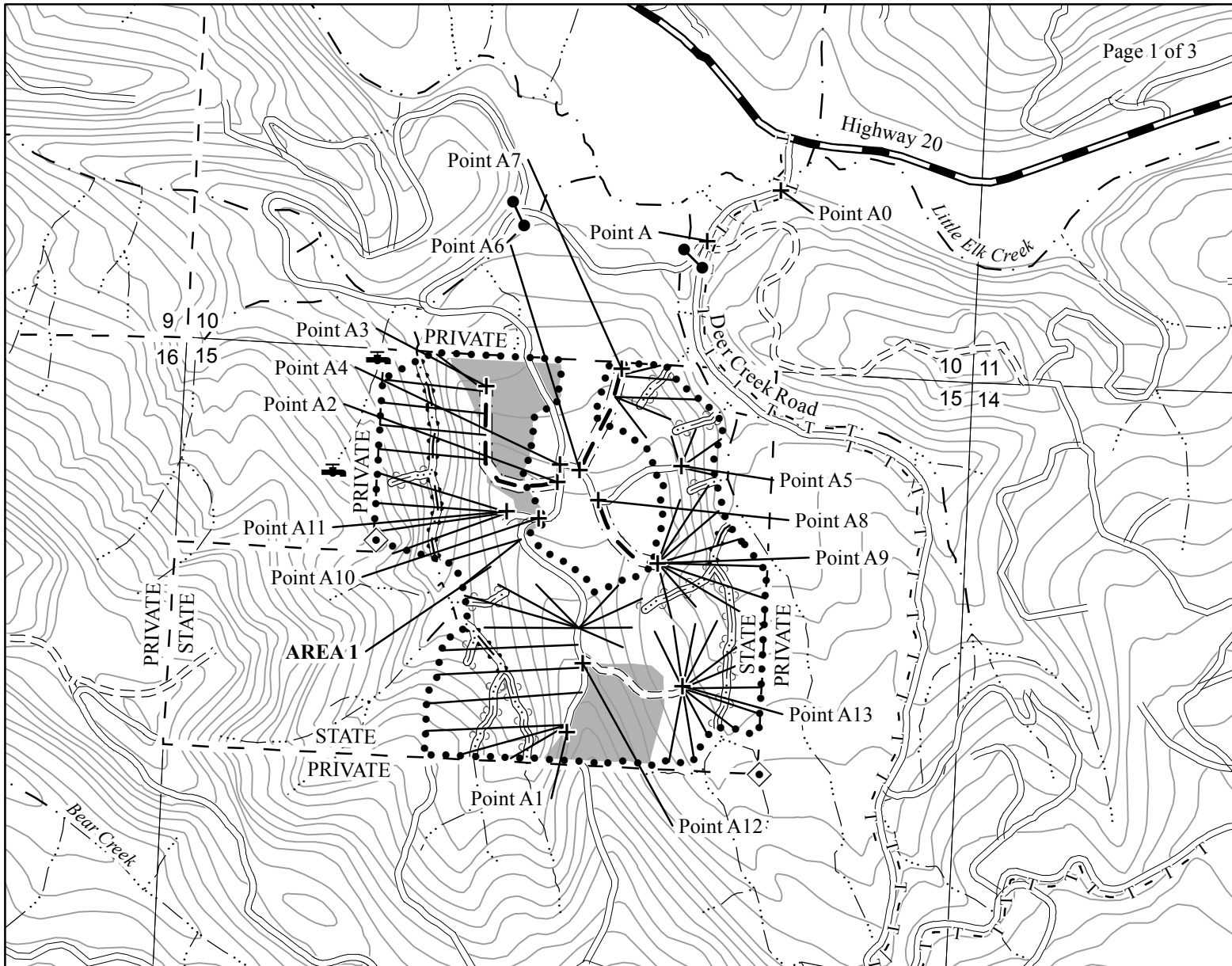
**Cruise Summary:**

MBF Volume <sup>1</sup>								
Area	Gross Acres	Net Acres <sup>2</sup>	Species	Gross Volume	MBF/Acre	Net Volume	% Hidden D & B	Final Adjusted Volume
1	106	97	Douglas-fir	495	5	485	3	470
2	46	43	Douglas-fir	308	6	258	3	250
3	42	40	Douglas-fir	282	7	280	3	272
4	12	12	Douglas-fir	84	6	72	3	70
5	31	28	Douglas-fir	145	5	140	3	136
<b>Totals</b>	<b>237</b>	<b>220</b>		<b>1,314</b>		<b>1,235</b>		<b>1,198</b>

<sup>1</sup> Volumes are from measured SLI data, imputed SLI data, or post thinning plots estimated forward.

<sup>2</sup> Net acres represent a reduction of gross acres to account for roads and stream buffers. Acres were determined using the STATE Geographic Information System and orthographic & aerial photographs.

Grade by Percent				
Area	Species	2-Saw	3-Saw	4-Saw
1	Douglas-fir	-	67	33
2	Douglas-fir	-	67	33
3	Douglas-fir	-	67	33
4	Douglas-fir	-	67	33
5	Douglas-fir	-	67	33



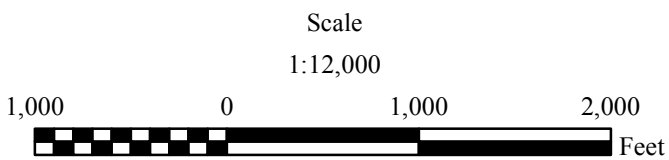
- Legend**
- Boundaries**
- Timber Sale Boundary
  - - - State Forest Property Boundary
  - == Right of Way Boundary (Posted)
  - T - T - Buried Fiber Optic Line
- Roads**
- ▬ Highway
  - ▬ Surfaced Road
  - ▬▬ Unsurfaced Road
  - ▬▬▬ New Construction
- Streams**
- - · Type F
  - Type N
- Stream Buffer**
- ▬▬▬ Posted
  - ▬▬▬ Unposted
- Yarding Method**
- ▬ Tractor Yarding Area
  - ▬ Cable Corridors
- + Project Point
  - ◇ Land Survey Monument
  - Gates
  - ⊕ Domestic Water Source

## LOGGING PLAN

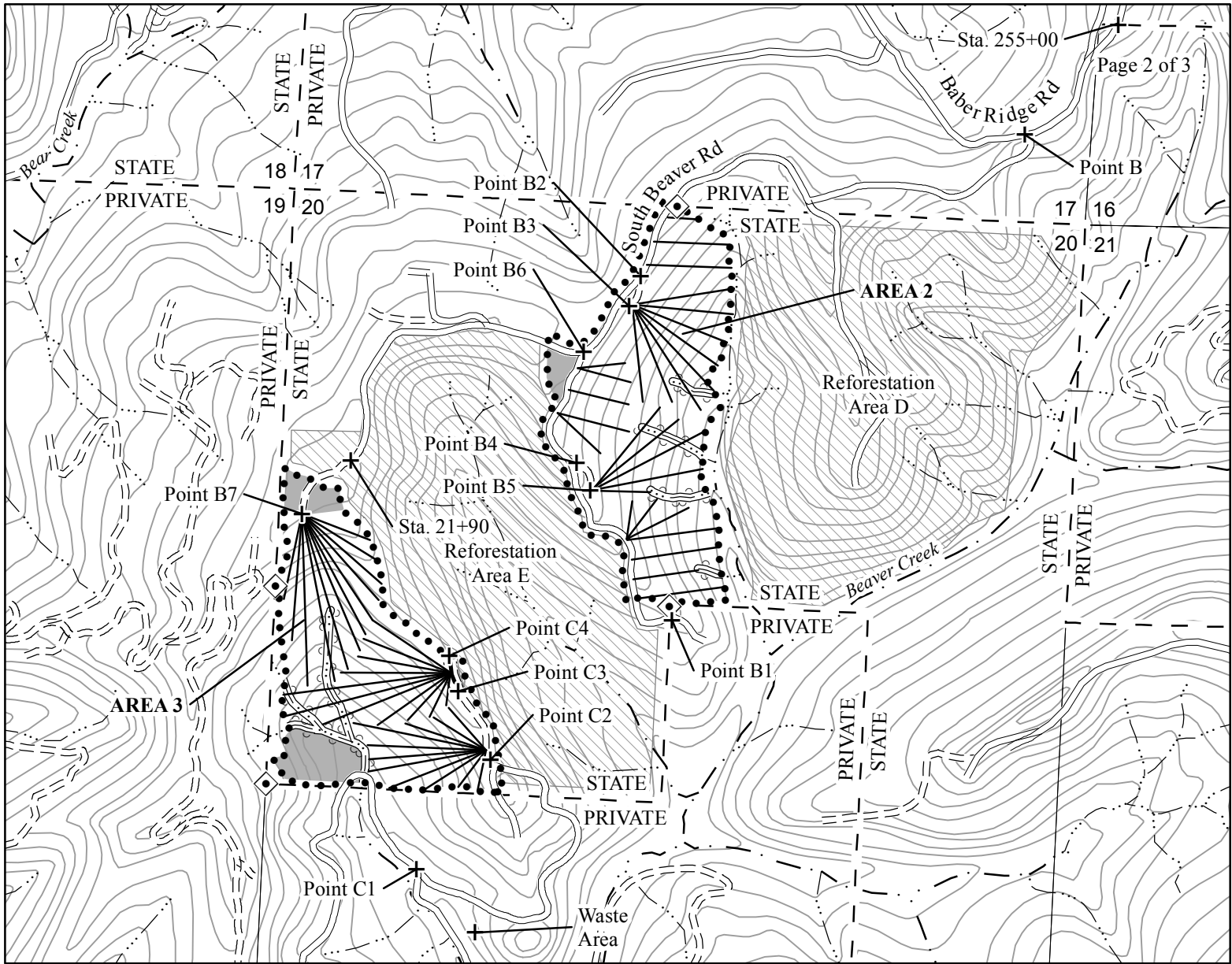
OF TIMBER SALE CONTRACT NO. 341-15-45  
SWEET EDDY  
PORTIONS OF SECTIONS 15 & 20, T11S, R09W,  
AND SECTION 18, T12S, R07W, W.M.,  
BENTON AND LINCOLN COUNTIES, OREGON

AREA	NET ACRES TRACTOR	NET ACRES CABLE
1 (PC)	19	78
2 (PC)	0	43
3 (PC)	0	40
4 (PC)	0	12
5 (PC)	8	20
<b>TOTAL</b>	<b>27</b>	<b>193</b>

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.



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bmckinley@odf.state.or.us  
Date: 06/02/2014



- Legend**
- Boundaries**
- Timber Sale Boundary
  - - - State Forest Property Boundary
  - == Right of Way Boundary (Posted)
- Roads**
- ==== Surfaced Road
  - === Unsurfaced Road
  - - - New Construction
- Streams**
- - · Type F
  - Type N
- Stream Buffer**
- ~~~~~ Unposted
- Yarding Method**
- Tractor Yarding Area
  - Cable Corridors
  - ▨ Reforestation Area
- + Project Point
  - ◆ Land Survey Monument

## LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-15-45  
SWEET EDDY  
PORTIONS OF SECTIONS 15 & 20, T11S, R09W,  
AND SECTION 18, T12S, R07W, W.M.,  
BENTON AND LINCOLN COUNTIES, OREGON

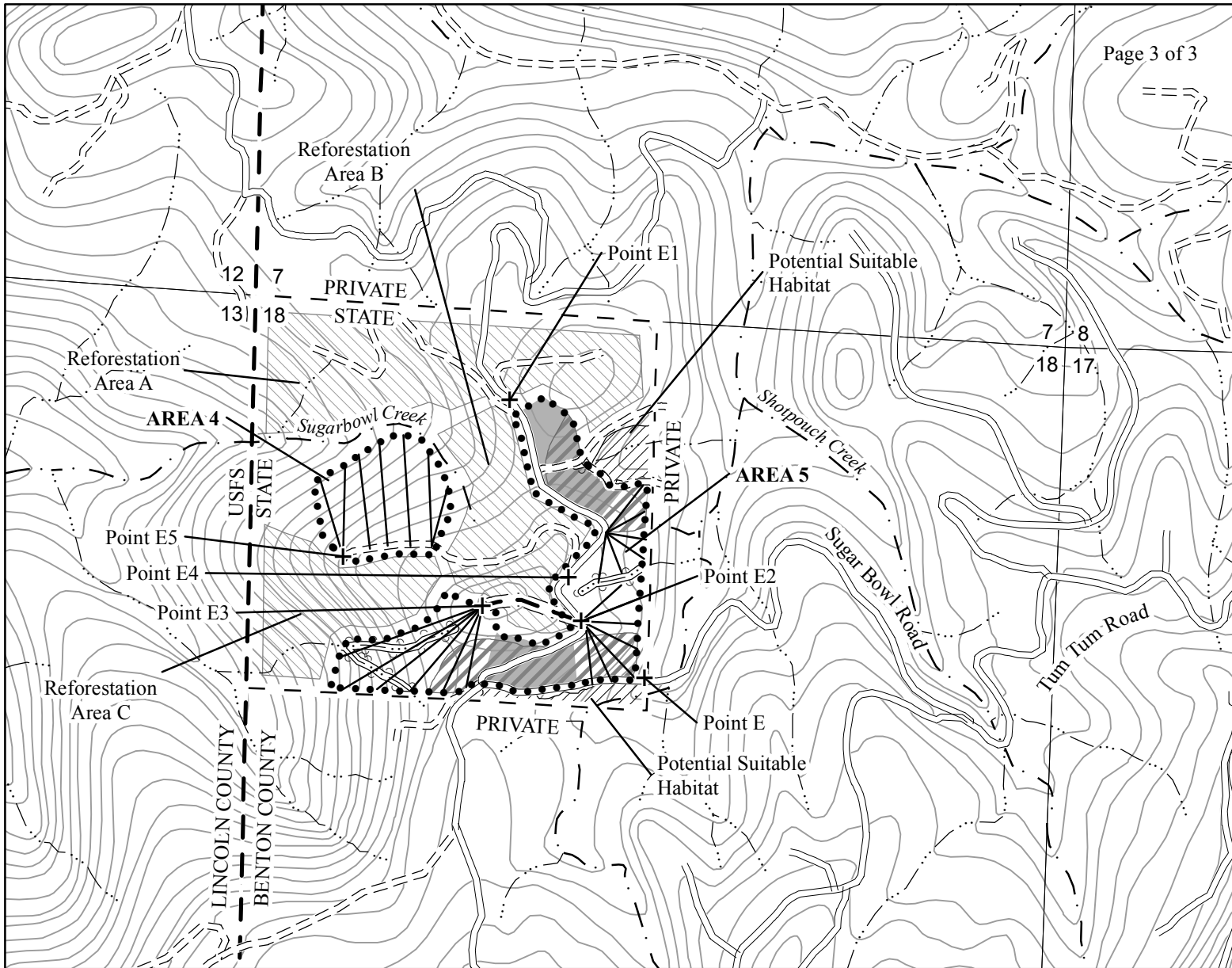
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AREA	NET ACRES	
	TRACTOR	CABLE
1 (PC)	19	78
2 (PC)	0	43
3 (PC)	0	40
4 (PC)	0	12
5 (PC)	8	20
<b>TOTAL</b>	<b>27</b>	<b>193</b>

Scale  
1:12,000



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Date: 06/02/2014



Legend

Boundaries

- Timber Sale Boundary
- - - State Forest Property Boundary
- == Right of Way Boundary (Posted)
- — — Countyline

Roads

- ==== Surfaced Road
- ==== Unsurfaced Road
- — — New Construction

Streams

- — · Type F
- Type N

Stream Buffer

- ~~~~~ Unposted

Yarding Method

- Tractor Yarding Area
- Cable Corridors
- ▨ Reforestation Area
- ▨ Potential Suitable Habitat
- ▨ Seasonally Restricted Buffer
- + Project Point

## LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-15-45  
 SWEET EDDY  
 PORTIONS OF SECTIONS 15 & 20, T11S, R09W,  
 AND SECTION 18, T12S, R07W, W.M.,  
 BENTON AND LINCOLN COUNTIES, OREGON

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AREA	NET ACRES	
	TRACTOR	CABLE
1 (PC)	19	78
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<b>TOTAL</b>	<b>27</b>	<b>193</b>

Scale

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