



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Treebeard
Sale 341-13-35

District: Forest Grove

Date: February 04, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,300,587.67	\$0.00	\$1,300,587.67
		Project Work:	\$(75,000.00)
		Advertised Value:	\$1,225,587.67



"STEWARDSHIP IN FORESTRY"

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District: Forest Grove

Date: February 04, 2013

timber description

Location: Portions of Section 32, T2N, R5W, W.M., Washington County, Oregon, and portions of Sections 5 and 6, T1N, R5W, W.M., and Section 31, T2N, R5W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	98
Western Hemlock / Fir	9	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	660	2,495	468	3,623
Western Hemlock / Fir	0	18	0	18
Total	660	2,513	468	3,641



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comments: Pond Values Used: 4th Quarter Calendar Year 2012.

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost:
 $\$813.15/\text{MBF} = \$985/\text{MBF} - \$171.85/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost:
 $\$388.15/\text{MBF} = \$560/\text{MBF} - \$171.85/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 3,641 MBF @ \$1/MBF = \$3,641
Contract Operator Spurs: 10 sta. x \$200/sta. = \$2,000
Total Other Costs (with Profit & Risk to be added) = \$5,641

Other Costs (No Profit & Risk added):
Block/Waterbar Roads & Skid Trails: 15 Hours @ \$150/Hr. = \$2,250
Equipment Cleaning: 4 @ \$1,000/Piece = \$4,000
Slash Treatment: 25 acres @ \$150/acre = \$3,750
Pile Landing Slash and Sort Firewood: 15 hrs @ \$150/hr = \$2,250
Fire Trail Construction: 1,684 ft. @ \$.75/ft. = \$1,263
Dust Abatement: 2 Applications - 1,500 ft @ 1.10/ft = \$3,300
TOTAL Other Costs (No Profit & Risk added) = \$16,813

ROAD MAINTENANCE
Move-in: \$2,000
General Road Maintenance: 4.7 miles x \$1,000/mile = \$4,700
TOTAL: \$6,700 / 3,641 MBF = \$1.84/MBF



"STEWARDSHIP IN FORESTRY"

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Treebeard
Sale 341-13-35

District: Forest Grove

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logging conditions

combination#: 1 Douglas - Fir 70.55%
 Western Hemlock / Fir 100.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 6.0 **bd. ft / load:** 4,000
cost / mbf: \$59.93

machines: Stroke Delimber (B)

combination#: 2 Douglas - Fir 29.45%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 3.0 **bd. ft / load:** 4,000
cost / mbf: \$119.85

machines: Stroke Delimber (B)



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Treebeard Sale 341-13-35

District: Forest Grove

Date: February 04, 2013

logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$75,000.00	Other Costs (P/R):	\$5,641.00
Slash Disposal:	\$0.00	Other Costs:	\$16,813.00

Miles of Road

Road Maintenance: \$1.84

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	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	3.8



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Treebeard
Sale 341-13-35

District: Forest Grove

Date: February 04, 2013

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$77.58	\$1.88	\$2.41	\$57.65	\$1.55	\$21.16	\$0.00	\$5.00	\$4.62	\$171.85
Western Hemlock / Fir									
\$59.93	\$1.88	\$2.41	\$60.69	\$1.55	\$18.97	\$0.00	\$5.00	\$4.62	\$155.05

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$529.44	\$357.59	\$0.00
Western Hemlock / Fir	\$0.00	\$435.00	\$279.95	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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District: Forest Grove

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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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,623	\$357.59	\$1,295,548.57
Western Hemlock / Fir	18	\$279.95	\$5,039.10

Gross Timber Sale Value

Recovery: \$1,300,587.67

Prepared by: Joe Koch

Phone: 503-359-7460

TIMBER SALE SUMMARY

Treebeard

Contract No. 341-13-35

1. **Legal Description:** Portions of Section 32, T2N, R5W, W.M., Washington County, Oregon, and Portions of Sections 5 and 6, T1N, R5W, W.M., and Section 31, T2N, R5W, W.M., Tillamook County, Oregon.
2. **Type of Sale:** 90 acres of Modified Clearcut (MC), 87 acres of Moderate Partial Cut (PC-M) and 4 acres of Right of Way. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF; 57% Washington County. 43% Tillamook County, Tax Code 9-2.
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise Data:** The Timber Sale was cruised by ODF foresters in August 2012. For more information see Cruise Report.
6. **Timber Description:** Timber Sale Area is well stocked, 58 year old stands of Douglas-fir with minor amounts of western hemlock and hardwoods. For Area 1 (MC) the average volume per acre is approximately 26 MBF, for Area 2 (MC) it is 28 MBF, and for Area 3 (PC-M) it is 12 MBF. The average 'take' tree DBH is approximately 12 inches.
7. **Topography and Logging Method:** Slopes within the sale vary in aspect and range from 0% to 35%. The sale area is 100% ground-based yarding.
8. **Access:** From Forest Grove, proceed west on Gales Creek Road for 8.5 miles. Turn left onto Highway 6 west, continue for 9.5 miles to Beaverdam Road. Turn left onto Beaverdam Road, continue for 2 miles to Powderhouse Road. For areas 1, 2, and the northern portion of area 3, turn left onto Powderhouse Road for 1.5 miles. For the southern portion of area 3, continue on Beaverdam road for 0.5 miles to Scoggins Creek Road. Turn left onto Scoggins Creek road for 1 mile to the Timber Sale Area.

9. Projects:

Project No. 1: 1.30 miles of road improvement and 1.65 miles road construction	\$37,558.32
Project No. 2: Road Surfacing	\$17,269.34
Project No. 3: Seed, fertilize, and mulch areas of disturbed soil	\$1,175.29
Project No. 4: Block and vacate roads	\$7,472.65
Project No. 5: Install fish pipe at point U	\$2,273.58
Project No. 6: Vacate road from point S to point T	\$3,615.46
Move in and equipment cleaning:	\$5,527.30

Project Total (rounded): \$75,000.00**10. Other Costs:**

Other Costs (with Profit and Risk)

Brand and Paint: 2,129 MBF @ \$1.00/MBF	\$3,641.00
Non Project Road: 1000 feet @ \$2.00 per foot	\$2,000.00
Total Other Costs with (P/R)	\$5,641.00

Other Costs (no P/R)

Blocking/Waterbarring skid roads: 15 Hours @ \$150.00/hour	\$2,250.00
Piling Landing Slash and firewood sort: 15hours @ \$150.00/hour	\$2,250.00
Slash Treatment: 25 acres @ \$150.00/ acre	\$3,750.00
Fire Trail Construction: 1684 feet @ .75/ft.	\$1,263.00
Equipment Cleaning: 4 machines @ 1000/machine	\$4,000.00
Dust Abatement: 2 applications; 1500 ft. @ \$1.10/ ft.	\$3,300.00
Total Other Costs (no P/R)	\$16,813.00

Total Other Costs	\$22,454.00
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ROAD MAINTENANCE

Move-in: \$2,000

General Road Maintenance: 4.7 miles x \$1,000/mile = \$4,700

TOTAL: \$6,700 / 3,641 MBF = \$1.84/MBF

PROJECT COST SUMMARY SHEET

Timber Sale: Treebeard
 Sale Number: 341-12-35

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

CONSTRUCTION

Road Segment	Length	Cost
B to E	23+40	\$6,249.81
F to G	9+40	\$3,871.17
H to I	7+25	\$3,316.24
J to K	5+20	\$1,437.39
L to M	35+50	\$11,187.19
N to O	3+00	\$1,053.57
P to Q	3+50	\$1,088.91
	87+25 stations	
	1.65 miles	

SUBTOTAL CONSTRUCTION \$28,204.29

IMPROVEMENTS

Road Segment	Length	Cost
A to B	43+75	\$1,615.63
C to D	20+00	\$5,782.24
G to H	5+10	\$146.37
Point R		\$1,810.00
	68+85 stations	
	1.30 miles	

SUBTOTAL IMPROVEMENTS \$9,354.23

TOTAL PROJECT NO. 1 COST = \$37,558.52

PROJECT NO. 2: SURFACING

Road Segment	Amount	Type	Cost
B to E	1,165 cy	3" - 0	\$6,116.25
H to I	20 cy	1 1/2" - 0	\$52.80
L to M	20 cy	1 1/2" - 0	\$109.00
L to M	1,667 cy	3" - 0	\$9,085.15
L to M	50 cy	6" - 0	\$272.50
N to O	280 cy	3" - 0	\$1,489.60
Point R	20 cy	1 1/2" - 0	\$55.40
Point R	20 cy	6" - 0	\$55.40
Point R	12 cy	24" - 6"	\$33.24
Point U	40 cy	1 1/2" - 0	\$93.20
Point U	24 cy	6" - 0	\$55.92
Point U	62 cy	24" - 6"	\$144.46
	100 cy	1 1/2" - 0	
	3,112 cy	3" - 0	
	94 cy	6" - 0	
	74 cy	24" - 6"	

TOTAL PROJECT NO. 2 COST = \$17,562.92

PROJECT NO. 3: GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 3 COST = \$1,119.89

PROJECT NO. 4: BLOCK AND/OR VACATE ROADS

Move in Equipment	\$1,667.23
Block and/or Vacate Roads	\$5,608.42

TOTAL PROJECT NO. 4 COST = \$7,275.65

PROJECT NO. 5: INSTALL FISH PIPE AT POINT U

TOTAL PROJECT NO. 5 COST = \$2,273.58

PROJECT NO. 6: VACATE S TO T

TOTAL PROJECT NO. 6 COST = \$3,616.21

MOVE IN & EQUIPMENT CLEANING \$5,527.30

TOTAL ALL PROJECTS \$74,934.07
TOTAL CREDITS \$75,000.00

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Treebeard</u>	Timber Sale No. :	<u>341-12-35</u>
Road Segment:	<u>A to B</u>	Improvement:	<u>43+75 stations</u> <u>0.83 miles</u>

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll	43.75	sta @	\$28.70	per sta =	\$1,255.63	
Construct Rolling Dips	2.00	ea @	\$150.00	per each =	\$300.00	
				TOTAL EXCAVATION COSTS=		\$1,555.63

Culvert Markers	
6 markers	<u>\$60.00</u>

TOTAL CULVERT COSTS = \$60.00

PROJECT NO. 1 TOTAL COST = \$1,615.63

TOTAL COST = \$1,615.63

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	C to D	Improvement:	20+00 stations 0.38 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.12	acres @	\$980.00	per acre =	\$119.24
Drift	2.50	sta @	\$150.00	per sta =	\$375.00
Curve Widening (Drift)	2.80	sta @	\$90.00	per sta =	\$252.00
Construct Junction	1.00	sta @	\$150.00	per sta =	\$150.00
Construct OHV filter	1.00	sta @	\$150.00	per sta =	\$150.00
Grade, Ditch, and Roll	20.00	sta @	\$28.70	per sta =	\$574.00
TOTAL EXCAVATION COSTS=					\$5,782.24

PROJECT NO. 1 TOTAL COST = \$5,782.24

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.06	acres @	\$220.00	per acre =	\$13.38
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PROJECT NO. 3 TOTAL COST = \$13.38

TOTAL COST = \$5,795.62

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No.:	341-12-35
Road Segment:	B to E	Construction:	23+40 stations 0.44 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	2.69	acres @	\$980.00	per acre =	\$2,632.23
Balanced Road Construction	18.90	sta @	\$90.00	per sta =	\$1,701.00
Drift	4.50	sta @	\$150.00	per sta =	\$675.00
Construct Junction	1.00	sta @	\$90.00	per sta =	\$90.00
Construct Turnouts (2)	2	ea @	\$60.00	per ea =	\$120.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	23.40	sta @	\$28.70	per sta =	\$671.58
TOTAL EXCAVATION COSTS=					\$6,249.81

PROJECT NO. 1 TOTAL COST = \$6,249.81

PROJECT NO. 2:

SURFACING

	8	" deep =	42 cy/sta		
B to E	983	cy of	3" - 0	@	\$5.25 per cy = \$5,160.75
Turnouts (2)	28	cy of	3" - 0	@	\$5.25 per cy = \$147.00
Turnaround (1)	14	cy of	3" - 0	@	\$5.25 per cy = \$73.50
Junction	20	cy of	3" - 0	@	\$5.25 per cy = \$105.00
Landing (1)	120	cy of	3" - 0	@	\$5.25 per cy = \$630.00
Total =	1165	cy of	3" - 0		

PROJECT NO. 2 TOTAL COST = \$6,116.25

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	1.34	acres @	\$220.00	per acre =	\$295.45
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PROJECT NO. 3 TOTAL COST = \$295.45

PROJECT NO. 4:

Block Road	1.00	each @	\$50.00	per each =	\$50.00
Construct Drivable Waterbars	6.00	each @	\$25.00	per each =	\$150.00

PROJECT NO. 4 TOTAL COST = \$200.00

TOTAL COST = \$12,861.52

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Treebeard</u>	Timber Sale No. :	<u>341-12-35</u>
Road Segment:	<u>F to G</u>	Construction:	<u>9+40 stations</u> <u>0.18 miles</u>

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	1.08	acres @	\$980.00	per acre =	\$1,057.39
Balanced Road Construction	5.40	sta @	\$90.00	per sta =	\$486.00
Drift	4.00	sta @	\$150.00	per sta =	\$600.00
Construct Turnaround (1)	2	ea @	\$75.00	per ea =	\$150.00
Grade, Ditch, and Roll	9.40	sta @	\$28.70	per sta =	\$269.78
TOTAL EXCAVATION COSTS=					\$2,563.17

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" \$1,288.00

Culvert Markers

2 markers \$20.00

TOTAL CULVERT COSTS = \$1,308.00

PROJECT NO. 1 TOTAL COST = \$3,871.17

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.54	acres @	\$220.00	per acre =	\$118.69
Mulch					\$9.00

PROJECT NO. 3 TOTAL COST = \$127.69

PROJECT NO. 4:

Construct Tank Traps	3.00	each @	\$50.00	per each =	\$150.00
Construct Waterbars	3.00	each @	\$25.00	per each =	\$75.00
Rip Road Surface, Fill and Sidecast Removal	9.40	sta @	\$50.00	per sta =	\$470.00
Remove Culverts	2.00	each @	\$150.00	per each =	\$300.00
Block road at trail crossings	2.00	each @	\$150.00	per each =	\$300.00
Grass seed and fertilize areas of disturbed soil.	9.40	sta @	\$8.14	per sta =	\$76.52
Mulch					\$207.00

PROJECT NO. 4 TOTAL COST = \$1,578.52

TOTAL COST = \$5,577.37

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Treebeard</u>	Timber Sale No. :	<u>341-12-35</u>
Road Segment:	<u>G to H</u>	Improvement:	<u>5+10 stations</u> <u>0.10 miles</u>

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll	5.10	sta @	\$28.70 per sta =	\$146.37
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PROJECT NO. 1 TOTAL COST = \$146.37

PROJECT NO. 4:

Construct Tank Traps	1.00	each @	\$50.00 per each =	\$50.00
Construct Waterbars	2.00	each @	\$25.00 per each =	\$50.00
Rip Road Surface, Fill and Sidecast Removal	5.10	sta @	\$50.00 per sta =	\$255.00
Remove Culverts	1.00	each @	\$150.00 per each =	\$150.00
Grass seed and fertilize areas of disturbed soil.	5.10	sta @	\$8.14 per sta =	\$41.51
Mulch				<u>\$112.00</u>

PROJECT NO. 4 TOTAL COST = \$658.51

TOTAL COST = \$804.88

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Treebeard</u>	Timber Sale No. :	<u>341-12-35</u>
Road Segment:	<u>H to I</u>	Construction:	<u>7+25 stations</u> <u>0.14 miles</u>

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.83	acres @	\$980.00	per acre =	\$815.54	
Balanced Road Construction	6.75	sta @	\$90.00	per sta =	\$607.50	
Drift	0.50	sta @	\$150.00	per sta =	\$75.00	
Landing	1	ea @	\$285.00	per ea =	\$285.00	
Grade and Roll (Outslope)	7.25	sta @	\$27.20	per sta =	\$197.20	
					<u>TOTAL EXCAVATION COSTS=</u>	<u>\$1,980.24</u>

CULVERTS - MATERIALS & INSTALLATION

Culverts
34 LF of 30" \$1,326.00

Culvert Markers
1 markers \$10.00

TOTAL CULVERT COSTS = \$1,336.00

PROJECT NO. 1 TOTAL COST = \$3,316.24

PROJECT NO. 2:

SURFACING

Culvert Bedding	20	cy of	1 1/2" - 0	@	\$2.64	per cy =	<u>\$52.80</u>
Total =	20	cy of	1 1/2" - 0				

PROJECT NO. 2 TOTAL COST = \$52.80

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.42	acres @	\$220.00	per acre =	\$91.54
Mulch					<u>\$9.00</u>

PROJECT NO. 3 TOTAL COST = \$100.54

PROJECT NO. 4:

Rip Road Surface to 60"	7.25	sta @	\$50.00	per sta =	\$362.50
Grass seed and fertilize areas of disturbed soil.	7.25	sta @	\$8.14	per sta =	<u>\$59.02</u>

PROJECT NO. 4 TOTAL COST = \$421.52

TOTAL COST = \$3,891.10

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	J to K	Construction:	5+20 stations 0.10 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.48	acres @	\$980.00	per acre =	\$467.95
Balanced Road Construction	5.20	sta @	\$90.00	per sta =	\$468.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade and Roll (Outslope)	5.20	sta @	\$27.20	per sta =	\$141.44
TOTAL EXCAVATION COSTS=					\$1,437.39

PROJECT NO. 1 TOTAL COST = \$1,437.39

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.24	acres @	\$220.00	per acre =	\$52.53
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PROJECT NO. 3 TOTAL COST = \$52.53

PROJECT NO. 4:

Construct Tank Traps	3.00	each @	\$50.00	per each =	\$150.00
Construct Waterbars	2.00	each @	\$25.00	per each =	\$50.00
Block road at trail crossings	3.00	each @	\$150.00	per each =	\$450.00
Rip Road Surface, Fill and Sidecast Removal	5.20	sta @	\$50.00	per sta =	\$260.00
Grass seed and fertilize areas of disturbed soil.	5.20	sta @	\$8.14	per sta =	\$42.33

PROJECT NO. 4 TOTAL COST = \$952.33

TOTAL COST = \$2,442.25

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	L to M	Construction:	35+50 stations
			0.67 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	4.07	acres @	\$980.00	per acre =	\$3,993.34
Balanced Road Construction	35.50	sta @	\$90.00	per sta =	\$3,195.00
Construct Turnouts (1)	3	ea @	\$60.00	per ea =	\$180.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Approach to landing	0.00	sta @	\$90.00	per sta =	\$0.00
Roadside Landing	0	ea @	\$150.00	per ea =	\$0.00
Landing Small	0	ea @	\$200.00	per ea =	\$0.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	35.50	sta @	\$28.70	per sta =	\$1,018.85
TOTAL EXCAVATION COSTS=					\$8,747.19

CULVERTS - MATERIALS & INSTALLATION

Culverts	
120 LF of 18"	\$2,400.00
Culvert Markers	
4 markers	\$40.00

TOTAL CULVERT COSTS = \$2,440.00

PROJECT NO. 1 TOTAL COST = \$11,187.19

PROJECT NO. 2:

SURFACING

	8	" deep =	42 cy/sta			
L to M	1,491	cy of	3" - 0	@	\$5.45	per cy = \$8,125.95
Turnouts (3)	42	cy of	3" - 0	@	\$5.45	per cy = \$228.90
Turnaround (1)	14	cy of	3" - 0	@	\$5.45	per cy = \$76.30
Landing (1)	120	cy of	3" - 0	@	\$5.45	per cy = \$654.00
Culvert Bedding	20	cy of	1 1/2" - 0	@	\$5.45	per cy = \$109.00
Subgrade Reinforcement	50	cy of	6" - 0	@	\$5.45	per cy = \$272.50
Total =	20	cy of	1 1/2" - 0		\$5.45	per cy = \$109.00
	1667	cy of	3" - 0	@	\$5.45	per cy = \$9,085.15
	50	cy of	6" - 0	@	\$5.45	per cy = \$272.50

PROJECT NO. 2 TOTAL COST = \$9,466.65

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	2.04	acres @	\$220.00	per acre =	\$448.23
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PROJECT NO. 3 TOTAL COST = \$448.23

PROJECT NO. 4:

Construct Tank Trap	1.00	each @	\$50.00	per each =	\$50.00
Construct Waterbars	8.00	each @	\$25.00	per each =	\$200.00
Block road at trail crossings	4.00	each @	\$150.00	per each =	\$600.00

PROJECT NO. 4 TOTAL COST = \$850.00

TOTAL COST = \$21,952.07

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	N to O	Construction:	3+00 stations 0.06 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.34	acres @	\$980.00	per acre =	\$337.47
Balanced Road Construction	3.00	sta @	\$90.00	per sta =	\$270.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	3.00	sta @	\$28.70	per sta =	\$86.10
TOTAL EXCAVATION COSTS=					\$1,053.57

PROJECT NO. 1 TOTAL COST = \$1,053.57

PROJECT NO. 2:

SURFACING	8	" deep =	42 cy/sta		
N to O	126	cy of	3" - 0	@	\$5.32 per cy = \$670.32
Turnaround (1)	14	cy of	3" - 0	@	\$5.32 per cy = \$74.48
Junction	20	cy of	3" - 0	@	\$5.32 per cy = \$106.40
Landing (1)	120	cy of	3" - 0	@	\$5.32 per cy = \$638.40
Total =	280	cy of	3" - 0		

PROJECT NO. 2 TOTAL COST = \$1,489.60

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.17	acres @	\$220.00	per acre =	\$37.88
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PROJECT NO. 3 TOTAL COST = \$37.88

PROJECT NO. 4:

Construct Waterbars	1.00	each @	\$25.00	per each =	\$25.00
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PROJECT NO. 4 TOTAL COST = \$25.00

TOTAL COST = \$2,606.04

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	P to Q	Construction:	3+50 stations 0.07 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.40	acres @	\$980.00	per acre =	\$393.71
Balanced Road Construction	3.50	sta @	\$90.00	per sta =	\$315.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade and Roll (Outslope)	3.50	sta @	\$27.20	per sta =	\$95.20

PROJECT NO. 1 TOTAL COST = \$1,088.91

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.20	acres @	\$220.00	per acre =	\$44.19
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PROJECT NO. 3 TOTAL COST = \$44.19

PROJECT NO. 4:

Construct Tank Traps	1.00	each @	\$150.00	per each =	\$150.00
Construct Waterbars	1.00	each @	\$25.00	per each =	\$25.00
Grass seed and fertilize areas of disturbed soil.	3.50	sta @	\$8.14	per sta =	\$28.49
Mulch					\$77.00

PROJECT NO. 4 TOTAL COST = \$280.49

TOTAL COST = \$1,413.59

SUMMARY OF CONSTRUCTION COST

Timber Sale: Treebeard Timber Sale No. : 341-12-35
 Road Segment: Point R

PROJECT NO. 1

Culverts

30 LF of 36" \$1,500.00

Culvert Markers

1 markers \$10.00

Additional Culvert Installation Cost 2.00 Hrs @ \$150.00 per hr = \$300.00

PROJECT NO. 1 TOTAL COST = \$1,810.00

PROJECT NO. 2:

SURFACING

Culvert Bedding	20	cy of	1 1/2" - 0	@	\$2.77 per cy =	\$55.40
Energy Dissipator	12	cy of	24" - 6"	@	\$2.77 per cy =	\$33.24
Fill Armor	20	cy of	6" - 0	@	\$2.77 per cy =	<u>\$55.40</u>
Total =						
	20	cy of	1 1/2" - 0		\$2.77 per cy =	\$55.40
	20	cy of	6" - 0		\$2.77 per cy =	\$55.40
	12	cy of	24" - 6"		\$2.77 per cy =	\$33.24

PROJECT NO. 2 TOTAL COST = \$144.04

TOTAL COST = \$1,954.04

SUMMARY OF CONSTRUCTION COST

Timber Sale: Treebeard Timber Sale No.: 341-12-35
Road Segment: S to G Vacate: 35+80 stations
0.68 miles

PROJECT NO. 6:

Construct OHV width Filter	1.00	each @	150.00	per each =	\$150.00
Construct Tank Traps	1.00	each @	\$50.00	per each =	\$50.00
Construct Waterbars	12.00	each @	\$25.00	per each =	\$300.00
Construct Rolling Dips	1.00	each @	\$150.00	per each =	\$150.00
Rip Road Surface, Fill and Sidecast Removal	22.20	sta @	\$50.00	per sta =	\$1,110.00
Remove Culverts	4.00	each @	\$150.00	per each =	\$600.00
Grass seed and fertilize areas of disturbed soil.	22.20	sta @	\$8.14	per sta =	\$180.71
Mulch					\$490.00
Excavate Fills	65	cy @	\$1.31	per cy =	\$85.15
Excavate large fill and remove culvert	185	cy @	\$1.31	per cy =	\$242.35
Endhaul unsuitable fill material	120	cy @	\$2.15	per cy =	\$258.00

PROJECT NO. 6 TOTAL COST = \$3,616.21

TOTAL COST = \$3,616.21

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Treebeard	Timber Sale No. :	341-12-35
Road Segment:	H to T	Vacate:	7+75 stations
			0.15 miles

PROJECT NO. 4:

Construct Waterbars	2.00	each @	\$25.00	per each =	\$50.00
Construct OHV filter	1.00	each @	\$150.00	per each =	\$150.00
Rip Road Surface to 60"	7.75	sta @	\$50.00	per sta =	\$387.50
Grass seed and fertilize areas of disturbed soil.	7.75	sta @	\$7.04	per sta =	\$54.56

PROJECT NO. 4 TOTAL COST = \$642.06

TOTAL COST = \$642.06

SUMMARY OF CONSTRUCTION COST

Timber Sale: Treebeard Timber Sale No. : 341-12-35
 Road Segment: Point U

PROJECT NO. 5

Culvert Installation				12.00	Hrs @	\$150.00	per hr =	\$ 1,800.00
Culvert Pickup and Haul				2.00	Hrs @	\$90.00	per hr =	\$ 180.00
Culvert Bedding	40	cy of	1 1/2" - 0	@	\$2.33	per cy =		\$93.20
Culvert Seeding	24	cy of	6" - 0	@	\$2.33	per cy =		\$55.92
Fill Armor	50	cy of	24" - 6"	@	\$2.33	per cy =		\$116.50
Energy Dissipator	12	cy of	24" - 6"	@	\$2.33	per cy =		\$27.96
Total =								
	40	cy of	1 1/2" - 0		\$2.33	per cy =		\$93.20
	24	cy of	6" - 0		\$2.33	per cy =		\$55.92
	62	cy of	24" - 6"		\$2.33	per cy =		\$144.46

TOTAL COST = \$2,273.58

Move-In & Equipment Cleaning

Timber Sale:	Tree Beard
Sale Number:	341-12-35

LOWBOY HAUL (One-way)		
DIST. (mi)	ROAD	AVE SPEED (mph)
4.0	Main Lines	7
0.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Within			Within			Total Miles	Total Area Cost	Total Cost
			Base Cost	Woods Cost	Pilot Cars	Area Move (\$/mile)	Begin Mileage	End Mileage			
1	Graders		\$300.00	\$102.86		\$3.65	0.0	0.0	\$0.00	\$402.86	
1	Loader (Med. & Large)		\$414.39	\$183.35	1	\$9.00	0.0	0.0	\$0.00	\$597.74	
1	Rollers (smooth/grid) & Compactors		\$308.59	\$132.25		\$5.00	0.0	0.0	\$0.00	\$440.84	
1	Excavators (Large)	\$1,000	\$466.14	\$201.09	1	\$44.80	0.0	0.0	\$0.00	\$1,667.23	
1	Tractor (D8)	\$1,000	\$473.80	\$190.58	2	\$15.10	0.0	0.0	\$0.00	\$1,664.38	
4	Dump Truck (10 cy +)		\$466.67	\$160.00		\$2.85	0.0	0.0	\$0.00	\$626.67	
1	Water Truck (1500 Gal)		\$95.00	\$32.58		\$2.85	0.0	0.0	\$0.00	\$127.58	
TOTAL MOVE-IN COSTS:											\$5,527.30

VOLUME SUMMARY

(Shown in MBF)

Treebeard

341-13-35

August 2012

AREA 1: MC - 33 acres

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	201	585	73	859
	Hidden D&B (2%)	4	12	1	17
	NET TOTAL	197	573	72	842
	% of Total	23	68	9	

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Western Hemlock	Cruise Volume	0	18	0	18
	Hidden D&B (2%)	0	0	0	0
	NET TOTAL	0	18	0	18
	% of Total	0	100	13	

AREA 2: MC - 57 acres

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	343	1,062	226	1,631
	Hidden D&B (2%)	7	21	5	33
	NET TOTAL	336	1,041	221	1,598
	% of Total	21	65	14	

AREA 3: PC (M)- 87 acres

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	76	844	169	1,089
	Hidden D&B (2%)	2	17	3	22
	NET TOTAL	74	827	166	1,067
	% of Total	7	78	16	

Right-of-Way: 4 acres

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	54	55	9	118
	Hidden D&B (2%)	1	1	0	2
	NET TOTAL	53	54	9	116
	% of Total	46	47	8	

Stand Total: 181 acres

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	660	2,495	468	3,623
Western Hemlock	0	18	0	18
				3,641

CRUISE REPORT
Treebeard
341-13-35

1. LEGAL DESCRIPTION:

Portions of Section 32, T2N, R5W, W.M., Washington County, Oregon, and Portions of Sections 5 and 6, T1N, R5W, W.M., and Section 31, T2N, R5W, W.M., Tillamook County, Oregon.

2. CRUISE DESIGN:

The volume estimate was obtained with ODF-cruised variable radius plots. The cruise design assumed a Coefficient of Variation CV% of 55%, an average stand diameter of 18 inches, a desired sampling error (SE%) of 10%.

3. SAMPLING METHOD:

All sale areas were cruised in 2013 by ODF foresters using a 20 BAF prism. A total of 20 measure plots and 15 count plots were evenly distributed throughout the sale areas. Plots falling on or near existing roads or no-harvest areas were offset 1 chain. Sale Area 1 had 10 plots laid out on a 5 chain by 3 chain grid. Sale Area 2 had 12 plots laid out on an 8 chain by 5 chain grid. Sale Area 3 had 13 plots laid out on an 8 chain by 5 chain grid. Plots in Sale Area 3 were thinned from below to 140 ft² of basal area by assigning a 'Take' or 'Leave' status to each tree in every plot.

4. CRUISE RESULTS

215 trees were measured and graded producing a cumulative sampling error on the 'Take' tree basal area of 6.2% and 7.6% on the Board Foot Volume at a 68% confidence level.

5. TREE MEASUREMENT AND GRADING:

For Sale Area 1 and 2, all sample trees were measured and graded. For Area 3, all trees assigned a 'Take' status were measured and graded. Columbia River Log Scale grade rules were used favoring 40 foot segments.

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet on all sale areas.

6. DATA PROCESSING

a) **Volumes and Statistics,** Cruise and grown forward volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software.

b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

c) **Right of Way:** The volume for new construction right of way was derived from reassigning every tree as 'Take' from Area 3 and using the total per-acre volume of multiplied by the number of acres in a 30 foot right of way width.

7. CRUISERS: The sale was cruised ODF cruisers Mark Savage and Joe Koch.

Prepared by: Joe Koch 10/23/2012
ODF Forester Date

Reviewed by: Eric Foucht
Date

TC		PLOGSTVB		Log Stock Table - MBF															
<div>T02N R05W S32 Ty00A133.00</div>				Project: TREEBEAR Acres 33.00														Page 1	
																		Date 8/29/2012	
																		Time 10:53:39AM	
S T Spp	So Gr rt 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	40+	
DF	2M	40	201		201	23.4					119		48	16	18				
DF	3M	24	2		2	.2			2										
DF	3M	32	53		53	6.2			43	10									
DF	3M	40	530		530	61.7			184	180	154	12							
DF	4M	12	15		15	1.7			14	1									
DF	4M	16	23		23	2.7			23										
DF	4M	24	35		35	4.1			35										
DF	Totals		859		859	98.0			299	193	154	131	48	16	18				
WH	3M	40	18		18	100.0			18										
WH	Totals		18		18	2.0			18										
Total	All Species		877		877	100.0			317	193	154	131	48	16	18				

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)															
<div>T02N R05W S32 Ty00A133.00</div>				Project:		TREEBEAR										Page		1	
				Acres		33.00										Date		8/29/2012	
																Time		10:53:40AM	
S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
				Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
DF		CU														16		0.00	14.1
DF		2M	23		6,076	6,076	201			83	17				100	40	280	1.48	21.7
DF		3M	68		17,721	17,721	585		98	2			0	9	91	39	87	0.48	204.1
DF		4M	9		2,221	2,221	73		100			52	48			17	20	0.26	110.9
DF Totals			98		26,018	26,018	859		75	21	4	4	4	6	85	31	74	0.51	350.8
WH		3M	100		543	543	18		100						100	40	60	0.27	9.1
WH Totals			2		543	543	18		100						100	40	60	0.27	9.1
Totals					26,561	26,561	877		76	20	4	4	4	6	85	31	74	0.51	359.8

TC		PSTNDSUM										Stand Table Summary										Page		1	
																						Date:		8/29/2012	
T02N R05W S32 Ty00A1					33.00					Project					TREEBEAR					Time:		10:53:40AM			
										Acres					33.00					Grown Year:					
S Sp	T	Tot			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s												
		Sample DBH	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF										
DF		8	1	89	95	9.420	3.29	9.42	5.6	30.0	1.49	52	283	49	17	9									
DF		9	18	88	95	133.971	59.19	52.10	9.9	54.3	14.67	515	2,828	484	170	93									
DF		10	3	89	104	18.086	9.86	36.17	7.6	35.0	7.79	273	1,266	257	90	42									
DF		11	3	89	109	14.947	9.86	29.89	10.0	45.0	8.50	298	1,345	281	98	44									
DF		12	4	89	107	16.746	13.15	33.49	13.4	60.0	12.76	448	2,010	421	148	66									
DF		13	4	89	113	14.269	13.15	28.54	16.1	77.5	13.10	459	2,212	432	152	73									
DF		14	5	89	118	15.379	16.44	30.76	20.0	95.0	17.51	614	2,922	578	203	96									
DF		15	4	90	122	10.718	13.15	29.47	17.4	79.1	14.61	513	2,331	482	169	77									
DF		16	3	89	112	7.065	9.86	18.84	19.9	88.8	10.66	374	1,672	352	123	55									
DF		18	4	89	121	7.443	13.15	22.33	24.6	102.5	15.63	549	2,289	516	181	76									
DF		19	6	89	127	10.020	19.73	30.06	28.5	122.8	24.37	855	3,691	804	282	122									
DF		20	1	90	134	1.507	3.29	4.52	34.0	156.7	4.38	154	708	145	51	23									
DF		21	1	90	138	1.367	3.29	5.47	29.2	147.5	4.55	160	807	150	53	27									
DF		27	1	89	139	.827	3.29	3.31	49.0	240.0	4.62	162	794	152	53	26									
DF		28	1	89	142	.769	3.29	2.31	73.3	373.3	4.82	169	861	159	56	28									
DF		Totals		59	89	104	262.534	194.00	336.68	16.6	77.3	159.46	5,595	26,018	5,262	1,846	859								
WH		9	1	93	97	9.054	4.00	9.05	10.9	60.0	3.16	99	543	104	33	18									
WH		Totals		1	93	97	9.054	4.00	9.05	10.9	60.0	3.16	99	543	104	33	18								
Totals		60		89	104	271.588	198.00	345.74	16.5	76.8	162.62	5,694	26,561	5,366	1,879	877									

TC		PLOGSTVB		Log Stock Table - MBF															
<div>T02N R05W S32 Ty00A2</div> <div>57.00</div>				Project:		TREEBEAR		Page		1		Date		8/29/2012		Time		10:46:54AM	
Spp	S T	So Gr rt 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	40+
DF		2M	40	343		343	21.0					219		97	27				
DF		3M	24	17		17	1.1					17							
DF		3M	32	99		99	6.1			55	43								
DF		3M	40	946		946	58.0			320	276	305	45						
DF		4M	12	8		8	.5			8									
DF		4M	16	67		67	4.1			67									
DF		4M	24	113		113	6.9			113									
DF		4M	32	38		38	2.4			38									
DF		Totals		1,631		1,631	100.0			602	320	322	263	97	27				
Total		All Species		1,631		1,631	100.0			602	320	322	263	97	27				

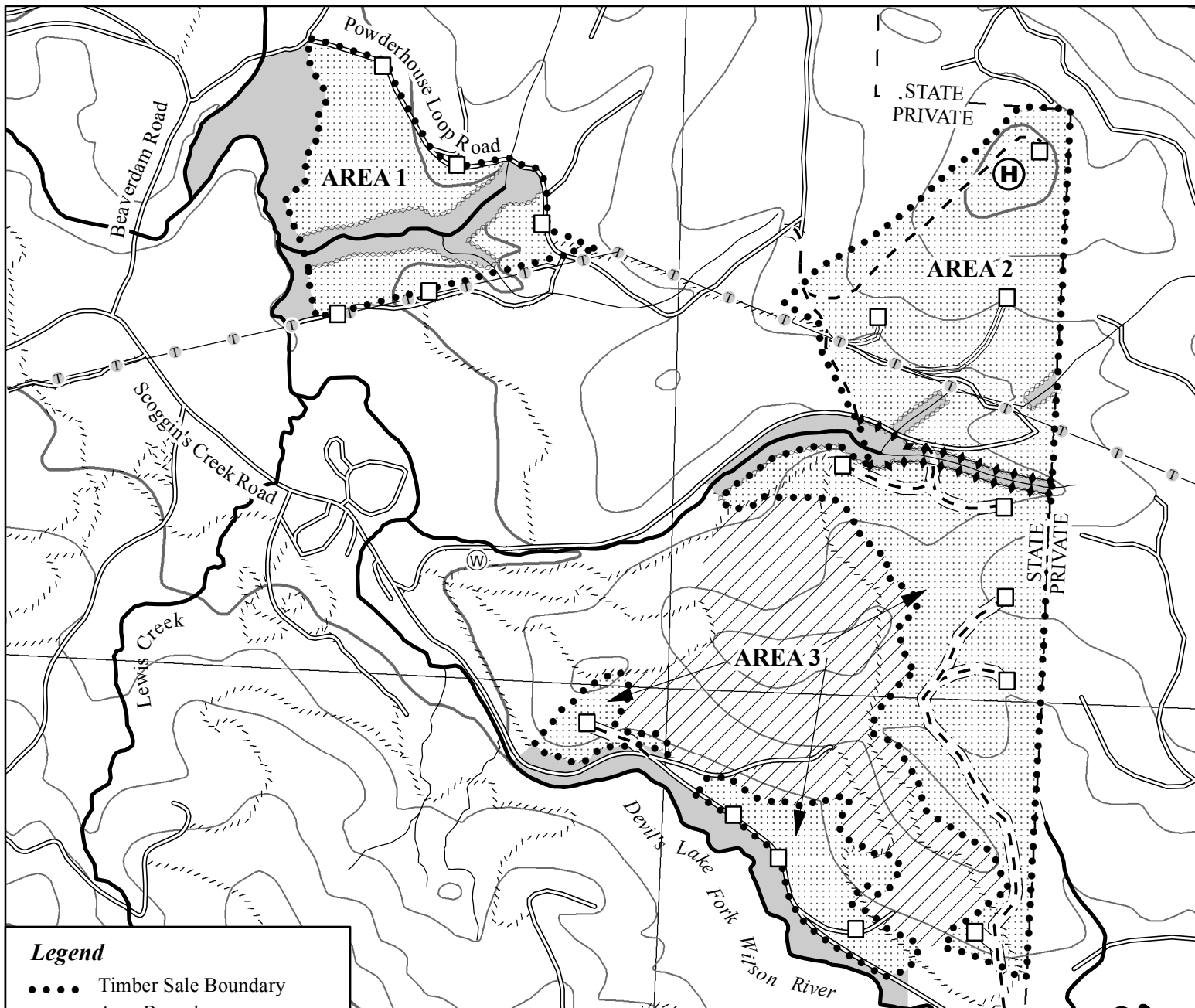
TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)															
<div>T02N R05W S32 Ty00A257.00</div>				Project: TREEBEAR										Page 1					
				Acres 57.00										Date 8/29/2012					
														Time 10:46:55AM					
S So Gr Spp T rt ad		% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs	
		Def%	Gross	Net	Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	Per /Acre			
					4-5		6-11	12-16	17+	12-20	21-30	31-35					36-99		
DF	CU															7		0.00	6.3
DF	2M	21		6,010	6,010	343			100						100	40	265	1.42	22.7
DF	3M	65		18,634	18,634	1,062		96	4			2	9	89		39	92	0.50	202.9
DF	4M	14		3,966	3,966	226		100				33	50	17		21	27	0.27	148.2
DF Totals		100		28,610	28,610	1,631		76	24			5	8	8	79	31	75	0.51	380.1
Totals				28,610	28,610	1,631		76	24			5	8	8	79	31	75	0.51	380.1

TC		PSTNDSUM										Stand Table Summary										Page		1					
																						Date:		8/29/2012					
T02N R05W S32 Ty00A2					57.00					Project					TREEBEAR					Time:					10:46:56AM				
										Acres					57.00					Grown Year:									
S	T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/Acre	BA/Acre	Logs Acre	Average Log		Tons/Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s															
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF													
DF		8	6	88	92	53.448	18.66	53.45	5.3	28.3	8.00	281	1,514	456		160	86												
DF		9	8	88	100	56.307	24.88	56.31	10.6	58.7	17.07	599	3,308	973		341	189												
DF		10	1	88	107	5.701	3.11	11.40	7.6	35.0	2.46	86	399	140		49	23												
DF		11	5	88	103	23.558	15.55	47.12	9.7	44.0	12.97	455	2,073	739		259	118												
DF		12	2	88	108	7.918	6.22	15.84	13.4	60.0	6.03	212	950	344		121	54												
DF		13	5	89	120	16.867	15.55	37.11	15.6	77.3	16.51	579	2,867	941		330	163												
DF		14	5	89	118	14.544	15.55	29.09	20.6	99.0	17.11	600	2,880	975		342	164												
DF		15	2	88	114	5.068	6.22	10.14	23.6	105.0	6.81	239	1,064	388		136	61												
DF		16	5	89	122	11.135	15.55	33.40	19.2	88.7	18.30	642	2,962	1,043		366	169												
DF		17	2	90	124	3.945	6.22	11.84	22.6	98.3	7.63	268	1,164	435		153	66												
DF		18	1	89	129	1.760	3.11	5.28	26.6	116.7	4.00	140	616	228		80	35												
DF		19	20	89	127	31.585	62.19	42.64	28.9	127.0	35.09	1,231	5,417	2,000		702	309												
DF		20	3	89	132	4.276	9.33	12.83	33.4	153.3	12.21	428	1,967	696		244	112												
DF		21	1	90	131	1.293	3.11	3.88	37.5	180.0	4.15	145	698	236		83	40												
DF		22	1	89	137	1.178	3.11	3.53	42.8	206.7	4.31	151	730	245		86	42												
DF		Totals		67	88	108	238.581	208.33	373.84	16.2	76.5	172.63	6,057	28,610	9,840	3,453	1,631												
Totals				67	88	108	238.581	208.33	373.84	16.2	76.5	172.63	6,057	28,610	9,840	3,453	1,631												

TC		PLOGSTVB		Log Stock Table - MBF															
T02N R05W S32 Ty00A3				87.00		Project:		TREEBEAR								Page		1	
						Acres		87.00								Date		8/29/2012	
																Time		10:40:41AM	
S T	So Gr rt 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	40+	
DF	2M	40	1,287		1,287	49.7						632		326	39	91	199		
DF	3M	24	9		9	.3					9								
DF	3M	32	218		218	8.4			188	30									
DF	3M	40	907		907	35.0			164	406	308	29							
DF	4M	12	24		24	.9			24										
DF	4M	16	44		44	1.7			44										
DF	4M	24	88		88	3.4			88										
DF	4M	40	13		13	.5			13										
DF	Totals		2,590		2,590	100.0			522	436	317	661	326	39	91	199			
Total	All Species		2,590		2,590	100.0			522	436	317	661	326	39	91	199			

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																
<div>T02N R05W S32 Ty00A387.00</div>				Project:				TREEBEAR				Page				1				
				Acres				87.00				Date				8/29/2012				
												Time				10:40:42AM				
S		So Gr		%	Bd. Ft. per Acre			Total	Percent of Net Board Foot Volume								Average Log			Logs
Spp	T	rt	ad	Net BdFt	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	Per /Acre
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
DF			CU													9		0.00	3.4	
DF			2M	49		14,793	14,793	1,287			77	23			100	40	290	1.54	51.0	
DF			3M	44		13,031	13,031	1,134		97	3			1	19	80	37	92	0.55	141.6
DF			4M	7		1,947	1,947	169		100			40	52		8	18	22	0.26	88.5
DF Totals				100		29,772	29,772	2,590		49	40	11	3	4	8	85	32	105	0.72	284.6
Totals						29,772	29,772	2,590		49	40	11	3	4	8	85	32	105	0.72	284.6

TC		PSTNDSUM		Stand Table Summary										Page 1			
														Date: 8/29/2012			
<div>T02N R05W S32 Ty00A387.00</div>					Project TREEBEAR					Time: 10:40:42AM							
					Acres 87.00					Grown Year:							
S Sp	T	Tot			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s				
		Sample DBH	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF		
DF		8	4	88	91	29.893	10.43	29.89	5.1	27.5	4.34	152	822	378	133	72	
DF		9	1	90	74	5.905	2.61	5.90	8.7	50.0	1.47	52	295	128	45	26	
DF		10	4	88	92	20.259	11.05	25.04	10.6	50.5	7.55	265	1,263	657	231	110	
DF		11	6	88	86	23.717	15.65	47.43	8.5	37.5	11.51	404	1,779	1,001	351	155	
DF		12	5	88	99	16.607	13.04	33.21	12.3	55.0	11.65	409	1,827	1,013	356	159	
DF		13	2	89	116	5.660	5.22	11.32	16.0	72.5	5.16	181	821	449	158	71	
DF		14	10	88	101	26.128	27.93	40.77	21.1	93.2	24.52	860	3,801	2,133	748	331	
DF		15	1	89	113	2.126	2.61	4.25	23.6	105.0	2.85	100	446	248	87	39	
DF		16	4	89	106	8.794	12.28	10.66	32.3	148.5	9.81	344	1,583	854	300	138	
DF		17	5	88	111	9.055	14.27	15.68	30.0	128.3	13.41	470	2,011	1,167	409	175	
DF		18	24	89	118	40.300	71.22	25.54	47.2	200.0	34.38	1,206	5,107	2,991	1,049	444	
DF		19	6	88	117	9.198	18.11	13.17	42.5	179.7	15.97	560	2,367	1,390	488	206	
DF		20	4	90	123	5.910	12.89	5.91	60.8	290.0	10.23	359	1,714	890	312	149	
DF		21	2	89	115	2.680	6.45	2.68	66.6	325.0	5.09	178	871	443	155	76	
DF		22	3	88	119	3.430	9.06	5.41	50.9	237.5	7.85	275	1,284	683	240	112	
DF		23	1	90	130	1.117	3.22	1.12	80.7	400.0	2.57	90	447	224	78	39	
DF		29	1	90	120	.703	3.22	.70	129.2	700.0	2.59	91	492	225	79	43	
DF		30	1	90	150	.657	3.22	.66	144.5	840.0	2.71	95	552	235	83	48	
DF		34	1	90	150	.511	3.22	.51	187.0	1150.0	2.72	96	588	237	83	51	
DF		36	2	90	150	.912	6.45	.91	207.4	1250.0	5.39	189	1,140	469	165	99	
DF		40	1	90	150	.369	3.22	.37	257.7	1520.0	2.71	95	561	236	83	49	
DF		Totals		88	88	103	213.933	255.38	281.15	23.0	105.9	184.49	6,473	29,772	16,050	5,632	2,590
Totals			88	88	103	213.933	255.38	281.15	23.0	105.9	184.49	6,473	29,772	16,050	5,632	2,590	



Legend

- Timber Sale Boundary
- ◆◆◆◆ Area Boundary
- Roads
- - - New Road Construction
- - - Posted Right of Way
- ===== Operator Spur
- Type F Stream
- Type N Stream
- ~~~~~ Stream Buffer Boundary
- //// Reforested Area
- Stream Buffer
- ⚡ Electric Transmission Lines
- Tractor Yarding Area
- //// Recreation Trail
- 400 Foot Contour Band
- 80 Foot Contour Band
- Section Line
- Ⓢ Waste Area
- Landing
- Gate

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-13-35
 TREEBEARD
 PORTIONS OF SECTION 32, T2N, R5W, W.M.
 WASHINGTON COUNTY, OREGON
 AND PORTIONS OF SECTIONS 5 & 6, T1N, R5W, W.M.
 AND SECTION 31, T2N, R5W, W.M.
 TILLAMOOK COUNTY, OREGON

Forest Grove District GIS
 August, 2012

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



APPROXIMATE NET ACRES	
TRACTOR	CABLE
181 ACRES	0 ACRES

1:12,000

1 inch = 1,000 feet

