



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Middle Windy Bear
Sale 341-13-87

District: Southwest

Date: May 09, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$407,037.68	\$0.00	\$407,037.68
		Project Work:	\$(26,768.82)
		Advertised Value:	\$380,268.86



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timber description

Location: Portions of Sections 5, 6, 7, and 8, T32S, R5W, W.M., Douglas County, Oregon.
(Gledale, Oregon - 100% BOF)

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	15	0	100
Grand Fir	16	0	100
Incense Cedar	20	0	100

Volume by Grade	2S	3S	4S	5S	6S	Total
Douglas - Fir	217	666	262	0	0	1,145
Grand Fir	32	107	26	0	0	165
Incense Cedar	0	5	3	7	11	26
Total	249	778	291	7	11	1,336



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comments: Pond Values Used: 1st Quarter Calendar Year 2013.

Combination of six thinning units and one clear-cut unit.
Douglas-fir 58-108 yrs old with some grand fir and incense cedar.
Areas 1-3, 5, and part of 6, skidder logging; Areas 4, part of 6,
and 7, yarder logging. Upper road for Area 6, 7, and Pt. K to L
may need some drill/shoot.

Madrone and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost:
\$40/MBF = \$340/MBF - \$300/MBF

Pulp (Conifer & Hardwood) Price = \$40/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: 1,336 MBF @ \$1/MBF = \$1,336
Snag Topping: Top 10 trees @ \$100/tree = \$1,000
Girdling: Girdle 10 trees @ \$20/tree = \$200
TOTAL Other Costs (with Profit & Risk to be added) = \$2,536

Other Costs (No Profit & Risk added):
None.



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logging conditions

combination#: 1

	Douglas - Fir	63.97%
	Grand Fir	25.15%
	Incense Cedar	86.54%
yarding distance:	Medium (800 ft)	downhill yarding: No
logging system:	Cable: Small Tower <=40	Process: Stroke Delimber
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF	
loads / day:	4.0	bd. ft / load: 3,300
cost / mbf:	\$214.72	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Small)	

combination#: 2

	Douglas - Fir	36.03%
	Grand Fir	74.85%
	Incense Cedar	13.46%
yarding distance:	Short (400 ft)	downhill yarding: Yes
logging system:	Wheel Skidder	Process: Manual Falling/Delimbing
tree size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	5.0	bd. ft / load: 3,300
cost / mbf:	\$190.55	
machines:	Log Loader (B) Tire Skidder	



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logging costs

Operating Seasons:	1.00	Profit Risk:	10.00%
Project Costs:	\$26,768.82	Other Costs (P/R):	\$2,536.00
Slash Disposal:	\$0.00	Other Costs:	\$0.00

Miles of Road

Road Maintenance: \$0.00

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	4.0	3.3
Grand Fir	\$0.00	4.0	3.5
Incense Cedar	\$0.00	4.0	3.7

Local Pond Values

Date	Specie	Grade	Value
5/9/13	Incense Cedar	3S	\$650.00
5/9/13	Incense Cedar	4S	\$600.00
5/9/13	Incense Cedar	5S	\$550.00
5/9/13	Incense Cedar	6S	\$500.00



"STEWARDSHIP IN FORESTRY"

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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$206.01	\$0.00	\$3.28	\$53.72	\$1.90	\$26.49	\$0.00	\$5.00	\$0.00	\$296.40
Grand Fir									
\$196.63	\$0.00	\$3.28	\$50.65	\$1.90	\$25.25	\$0.00	\$5.00	\$0.00	\$282.71
Incense Cedar									
\$211.47	\$0.00	\$3.28	\$47.91	\$1.90	\$26.46	\$0.00	\$5.00	\$0.00	\$296.02

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$622.65	\$326.25	\$0.00
Grand Fir	\$0.00	\$445.00	\$162.29	\$0.00
Incense Cedar	\$0.00	\$553.85	\$257.83	\$0.00



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Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,145	\$326.25	\$373,556.25
Grand Fir	165	\$162.29	\$26,777.85
Incense Cedar	26	\$257.83	\$6,703.58

Gross Timber Sale Value

Recovery: \$407,037.68

Prepared by: Chris Rudd

Phone: 541-471-4245

TIMBER SALE SUMMARY
Middle Windy Bear
No. 341-13-87

1. **Type of Sale:** Combination Thinning 132 acres and 24 Retention/clearcut sale, recovery, sealed bid auction.
2. **Revenue Distribution:** 100% BOF, Douglas County.
3. **Sale Acreage:** For the sale, 156 net acres were used for the cruise expansion, including 132 acres of thinnable ground and 24 acres of Retention cut.
4. **Volume:**

SPECIES	2 SAW	3 SAW	4 SAW	5 SAW	6 SAW	NET VOL (MBF)
Douglas-fir	217	666	262			1,145
Grand Fir	32	107	26			165
Incense Cedar		5	3	7	11	26
Total	249	778	291	7	11	1,336

A small amount of madrone will be removed from the sale from logging corridors roads and to clear safe felling patterns, but madrone is reserved from cutting in the sale units.

5. **Cruise Data:** The standard error for the cruise was 6.4% for the take trees in the 8 units of the timber sale. The volume range is expected to be between 1,291 and 1,422 MBF for the sale area. See Cruise Report for details.
6. **Timber Description:** The timber was split out into four areas that have similar size and prescriptions. The table below shows the averages for the take trees and take volume. See also, the cruise report and Cruise Summary tables.

Strata	Area	Age	Diameter DF	Diameter GF	Vol/Acre Total
1	I	55	9.6	11	1,178
2	II, III	65, 72	16.1	14.3	6,065
3	IV	108	16.2	26	24,247
4	V, VI, VII, VIII	78	<u>13.3</u>	<u>12.5</u>	<u>7,214</u>
		Averages (Weighted)	13.8	16.2	8,560

7. **Topography and Logging Method:** This timber sale is relatively flat. The three north units are all ground based logging with slopes less than 35%. The units in the south are slated for a combination of ground-based logging and cable. Area IV is required cable logging due to the powerlines at the bottom of the unit and the configuration of the landings with the road at the top. Area V will be skidder logged up gentle slopes to 3 landings on the west of the unit. Area VI is a combination of cable logging for the south end and skidder logging on the north end. Area VII will be entirely cable logged. See the logging plan maps for the most likely logging scenario.

8. **Access:** All access has been secured. The sale will be entirely hauled on State land to the County Road.

9. Projects:

New Construction:	\$ 17,441.05
Road Improvement:	\$ 6,493.77
Move In Costs:	<u>\$ 2,834.00</u>
Total Project Credits:	\$26,768.82

10. Other Costs:

Road use fees: None
Snag Creation: \$1,200 (\$100 per snag and \$20 per girdled tree)
Costs not accounted for in the appraisal are the responsibility of the Purchaser.

11. Slash Disposal:

Purchaser will pile slash on landings with an excavator or log loader. ODF will burn the piles.

PROJECT SUMMARY

Sale Name: Middle Windy Bear

NEW CONSTRUCTION

<u>Road Segment</u>		<u>Length</u>			<u>Cost</u>
A to B		0.34 miles	18+00	stations	\$5,136.53
C to D	optional	0.95 miles	5+00	stations	
I to J		0.27 miles	14+00	stations	\$4,567.68
K to L		0.33 miles	17+35	stations	\$7,736.84
SUBTOTALS		0.94 miles	49+35	stations	\$17,441.05

ROAD IMPROVEMENT

<u>Road Segment</u>		<u>Length</u>			<u>Cost</u>
I-1 to I-2		0.20 miles	10+70	stations	\$723.84
I-3 to I-4		0.76 miles	40+50	stations	\$839.59
I-5 to I-6		0.67 miles	35+70	stations	\$1,405.36
E to F		0.24 miles	12+40	stations	\$1,254.61
G to H		0.41 miles	21+40	stations	\$2,270.37
SUBTOTALS		2.28 miles	120+70	stations	\$6,493.77

ROAD CLOSURE

<u>Road Segment</u>		<u>Length</u>			<u>Cost</u>
SUBTOTALS		0.00 miles	0.00	stations	\$0.00

MOVE IN

	Quantity	
D7	1	\$590.00
EXCAVATOR	1	\$945.00
GRADER	1	\$540.00
POWDER HOUSE	1	\$260.00
DRILL & COMPRESSOR	1	\$260.00
12 YRD.DUMP	1	\$119.00
FIRE EQUIPMENT	1	\$120.00
SUBTOTALS		\$2,834.00

GRAND TOTAL ROAD PROJECTS **\$26,768.82**

Sale Name:	Middle Windy Bear	Length	const	18+00	sta	0.34	miles
Segment Name:	A-B		impr		sta		miles
CLEARING & GRUBBING							
1.65	acres	@		\$420.00	per acre	=	\$693.00
0	acres	@			per acre	=	\$0.00
0	acres	@			per acre	=	\$0.00
					Subtotal		\$693.00
EXCAVATION							
Common	<30	18 stat.	@	\$139.00	per/stat.	=	\$2,502.00
	>50				per/stat.	=	
Boulders		0 cy	@		per cy	=	\$0.00
	>50	0 cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	
	>50	0 cy	@		per cy	=	\$0.00
Rippable		0 cy	@		per cy	=	\$0.00
	>50	cy	@		per cy	=	\$0.00
Solid Rock		0 cy	@		per cy	=	\$0.00
	>50	cy	@		per cy	=	\$0.00
ENDHAUL		0 cy	@		per cy	=	\$0.00
Landing const.		2	@	\$85.00	per/ldg	=	\$170.00
					Subtotal		\$2,672.00
CULVERTS							
		30 lf of 30" Alum. Steel culvert @		\$30.00	per/lf	=	\$900.00
		* price per/lf= installation costs					
					Subtotal		\$900.00
SURFACING							
Surfacing		30 cy of 4 "- 0"	Pit Run	\$12.00	per cy	=	\$360.00
Turnouts		cy of 4 "- 0"			per cy	=	\$0.00
Landings		cy of 4 "- 0"			per cy	=	\$0.00
					Subtotal	=	\$360.00
* Cost per cy. Includes loading/ hauling costs from rock pit							
SPECIAL PROJECTS							
0.34	mi. grading		@	\$769.20	per/mi.	=	\$261.53
2.5	hrs. sprd. slash/r wads at stat. 11+20		@	\$100.00	per/hr.	=	\$250.00
					Subtotal		\$511.53
					GRAND TOTAL	=	\$5,136.53

Sale Name:	Middle Windy Bear	Length	const	5+00	sta	0.950	miles
Segment Name:	C-D (Optional)		impr		sta		miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
0	0	@			per acre	=	\$0.00
0	0	@			per acre	=	\$0.00
					Subtotal		
EXCAVATION							
Common <30		stat.	@		per/stat.	=	
Common <50		stat.	@		per/stat.	=	
Common >50		cy	@		per cy	=	\$0.00
		cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Rippable		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Solid Rock		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
ENDHAUL		cy	@		per cy	=	\$0.00
Landing const.		landings	@		per/lbg	=	
					Subtotal		
CULVERTS							
			@		per/lf	=	
			@		per/lf	=	
					Subtotal		\$0.00
SURFACING							
Subgrade		cy of 4 "- 0"	@		per/cy	=	
Turnouts		cy of 4 "- 0"	@		per/cy	=	
Landings		cy of 4 "- 0"	@		per/cy	=	
Culvert bedding		cy of 11/2"-0"	@		per/cy	=	
Fill armor		cy of 24"-6"	@		per/cy	=	
					Subtotal		\$0.00
SPECIAL PROJECTS							
			@		per/mi.	=	
					Subtotal		
					GRAND TOTAL	=	\$0.00

Sale Name:	Middle Windy Bear	Length	const		sta		miles
Segment Name:	E-F		impr	12+40	sta	0.24	miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
0	0	@			per acre	=	
0	0	@			per acre	=	
					Subtotal		\$0.00
EXCAVATION							
Common < 30		stat.	@	\$139.00	per/stat.	=	
Common < 50		stat.	@		per/stat.	=	
Common > 50		cy	@		per stat.	=	
		cy	@		per cy	=	
Loose		cy	@		per cy		
>50		cy	@		per cy		
Rippable		cy	@		per cy		
>50		cy	@		per cy		
Solid Rock		cy	@		per cy		
>50		cy	@		per cy		
ENDHAUL		cy	@		per cy		
Landing const.	2	landings	@	\$85.00	per/lbg	=	\$170.00
					Subtotal		\$170.00
CULVERTS							
	30	lf. of 30" Alum. Steel culver		\$30.00	per/lf	=	\$900.00
		*Price per/lf= installation costs				=	
					Subtotal		\$900.00
SURFACING							
Subgrade		cy of 4 "- 0"	@		per/cy	=	
Turnouts		cy of 4 "- 0"	@		per/cy	=	
Landings		cy of 4 "- 0"	@		per/cy	=	
Culvert bedding		cy of 11/2"-0"	@		per/cy	=	
Fill armor		cy of 24"-6"	@		per/cy	=	
					Subtotal		
SPECIAL PROJECTS							
0.24	mi. grading		@	\$769.20	per/mi.		\$184.61
					Subtotal		\$184.61
				GRAND TOTAL			\$1,254.61

Sale Name:	Middle Windy Bear	Length	const		sta		miles
Segment Name:	G-H		impr	21+40	sta	0.41	miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
	acres	@			per acre	=	
	acres	@			per acre	=	
					Subtotal		\$0.00
EXCAVATION							
Common <30		per/stat	@		per cy	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Boulders	0	cy	@		per cy	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Rippable		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Solid Rock		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
ENDHAUL	0	cy	@		per cy	=	\$0.00
Landing const.	3	landings	@	\$85.00	per/ldg	=	\$255.00
					Subtotal		\$255.00
CULVERTS							
			@		per/lf	=	
			@		per/lf	=	
			@		per/lf	=	
					Subtotal		\$0.00
SURFACING							
Rolling dips	cr. surface rock 50	cy of 3 "- 0"	@	\$12.00	per cy	=	\$600.00
Turnouts	0	cy of 4 "- 0"			per cy	=	
Landings	0	cy of 4 "- 0"			per cy	=	
Culvert bedding		cy of 11/2"-0"	@		per/cy	=	
Fill armor		cy of 24"-0"	@		per/cy	=	
	cost per/cy include loading/ hauling costs from the St. Pil				Subtotal		\$600.00
SPECIAL PROJECTS							
0.41 mi. grading			@	\$769.20	per/mi.	=	\$315.37
5 hrs.machine time at dips (5)			@	\$120.00	per/unit	=	\$600.00
5 hrs. spread/ grade rock at dips (5)			@	\$100.00	per/hr.	=	\$500.00
					Subtotal		\$1,415.37
				GRAND TOTAL	=		\$2,270.37
							03/29/2013

Sale Name:	Middle Windy Bear	Length	const	14+00	sta	0.27	miles
Segment Name:	I-J		impr		sta		miles
CLEARING & GRUBBING							
1.3	acres	@		\$980.00	per acre	=	\$1,274.00
0	acres	@			per acre	=	\$0.00
0	acres	@			per acre	=	\$0.00
					Subtotal		\$1,274.00
EXCAVATION							
Common <30	12.0	Stat.	@	\$139.00	per/stat.	=	\$1,668.00
<50	2	Stat.	@	\$250.00	per/stat.	=	\$500.00
>50		Stat.	@	\$300.00	per/stat.	=	\$0.00
Boulders		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Rippable		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Solid Rock		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Landing const.	3	landings	@	\$85.00	per/lbg.	=	\$255.00
					Subtotal		\$2,423.00
CULVERTS							
	30	lf. of 24" Polyethylene culvert @ 22.10			per/lf	=	\$663.00
					per/lf	=	
					Subtotal		\$663.00
SURFACING							
Subgrade					per cy	=	
Turnouts					per cy	=	
Landings					per cy	=	
culvert bedding					per/cy	=	
Fill armor					per/cy	=	
					Subtotal		\$0.00
SPECIAL PROJECTS							
0.27	mi. grading		@	\$769.20	per/mi.	=	\$207.68
					Subtotal		\$207.68
				GRAND TOTAL	=		\$4,567.68

Sale Name:	Middle Windy Bear	Length	const	17+85	sta	0.33	miles
Segment Name:	K-L		impr		sta		miles
CLEARING & GRUBBING							
1.6 acres	@			\$980.00	per acre	=	\$1,568.00
0 acres	@				per acre	=	\$0.00
0 acres	@				per acre	=	\$0.00
					Subtotal		\$1,568.00
EXCAVATION							
Common <30	Stat.	@		\$139.00	per/stat.	=	
<50	5 Stat.	@		\$250.00	per/stat.	=	\$1,250.00
>50	8 Stat.	@		\$300.00	per/stat.	=	\$2,400.00
Boulders	cy	@			per cy	=	
>50	cy	@			per cy	=	\$0.00
Loose	cy	@			per cy	=	\$0.00
>55	4 Stat.	@		\$350.00	per cy	=	\$1,400.00
Rippable		@			per cy	=	\$0.00
>55		@			per cy	=	
Solid Rock		@			per cy	=	\$0.00
>55	1 Stat.	@		\$400.00	per cy	=	\$400.00
Landing const.	3 landings	@		\$85.00	per/ldg.	=	\$255.00
Drill and shoot approx.	70 cyds	@		\$3.00	per/cy	=	\$210.00
					Subtotal		\$5,915.00
CULVERTS							
					per/lf	=	
					per/lf	=	
					Subtotal		\$0.00
SURFACING							
Subgrade					per cy	=	
Turnouts					per cy	=	
Landings					per cy	=	
culvert bedding					per/cy	=	
Fill armor					per/cy	=	
					Subtotal		\$0.00
SPECIAL PROJECTS							
0.33 mi. grading		@		\$769.20	per/mi.	=	\$253.84
					Subtotal		\$253.84
				GRAND TOTAL		=	\$7,736.84

Sale Name:	Middle Windy Bear	Length	const		sta		miles
Segment Name:	I1-I2		impr	10+70	sta	0.20	miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
	acres	@			per acre	=	
		@			per acre	=	\$0.00
					Subtotal		
EXCAVATION							
Common	<30	stat.			per/stat.	=	
	<50	stat.			per/stat.	=	
	>50	stat.			per/stat.	=	
Boulders		cy @			per cy	=	\$0.00
	>50	cy @			per cy	=	\$0.00
Loose		cy @			per cy	=	\$0.00
	>50	cy @			per cy	=	\$0.00
Rippable		cy @			per cy	=	\$0.00
	>50	cy @			per cy	=	\$0.00
Solid Rock		cy @			per cy	=	\$0.00
	>50	cy @			per cy	=	\$0.00
ENDHAUL		cy @			per cy	=	\$0.00
Landing const.		landings	@		per/lbg	=	
					Subtotal		
CULVERTS							
			@		per/lf	=	\$0.00
			@		per/lf	=	\$0.00
					Subtotal		\$0.00
SURFACING							
Rolling dips	cr. surface rock	20	cy of 3 "- 0"	@	\$12.00	per/cy	= \$240.00
Pit Run			cy of 4 "- 0"	@		per/cy	= \$0.00
Landings			cy of 4 "- 0"	@		per/cy	= \$0.00
Culvert bedding			cy of 11/2"-0"	@		per/cy	= \$0.00
Rip Rap			cy of 24"-6"	@		per/cy	= \$0.00
*	costs per/cy include loading/ hauling costs from St. Pile				Subtotal		\$240.00
SPECIAL PROJECTS							
0.2	mi grading		@	\$769.20	per/mi.	=	\$153.84
1.5	hrs. machine time on dips (2)		@	\$120.00	per/hr.	=	\$180.00
1.5	hrs. spread/ grade rock at dips (2)		@	\$100.00	per/hr.	=	\$150.00
					Subtotal		\$483.84
			GRAND TOTAL			=	\$723.84

Sale Name:	Middle Windy Bear	Length	const		sta		miles
Segment Name:	I3-I4		impr	40+50	sta	0.76	miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
	acres	@			per acre	=	
	acres	@			per acre	=	
					Subtotal		
EXCAVATION							
Common <30		stat.	@	\$139.00	per stat.	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Boulders	0	cy	@		per cy	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Rippable		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Solid Rock		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
ENDHAUL	0	cy	@		per cy	=	\$0.00
Landing const.	3	landing	@	\$85.00	per/ldg	=	\$255.00
					Subtotal		\$255.00
CULVERTS							
			@		per/lf	=	
			@		per/lf	=	
			@		per/lf	=	
					Subtotal		
SURFACING							
Subgrade	0	cy of 4 "- 0"			per cy	=	\$0.00
Turnouts	0	cy of 4 "- 0"			per cy	=	\$0.00
Landings	0	cy of 4 "- 0"			per cy	=	\$0.00
Culvert bedding		cy of 1 1/2"-0"	@		per/cy	=	
Fill armor		cy of 24"-0"	@		per/cy	=	
					Subtotal		
SPECIAL PROJECTS							
0.76 mi. grading			@	\$769.20	per/mi.	=	\$584.59
			@		per/mi.	=	
			@		per/hr.	=	
			@		per/unit	=	
					Subtotal		\$584.59
				GRAND TOTAL	=		\$839.59

Sale Name:	Middle Windy Bear	Length	const		sta		miles
Segment Name:	I5-6		impr	35+70	sta	0.67	miles
CLEARING & GRUBBING							
	acres	@			per acre	=	
	acres	@			per acre	=	
	acres	@			per acre	=	
					Subtotal		
EXCAVATION							
Common <30		stat.	@	\$139.00	per stat.	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Boulders	0	cy	@		per cy	=	\$0.00
>50	0	cy	@		per cy	=	\$0.00
Loose		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Rippable		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
Solid Rock		cy	@		per cy	=	\$0.00
>50		cy	@		per cy	=	\$0.00
ENDHAUL	0	cy	@		per cy	=	\$0.00
Landing const.	2	landing	@	\$85.00	per/ldg	=	\$170.00
					Subtotal		\$170.00
CULVERTS							
			@		per/lf	=	
			@		per/lf	=	
			@		per/lf	=	
					Subtotal		
SURFACING							
Subgrade	0	cy of 4 "- 0"			per cy	=	\$0.00
Turnouts	0	cy of 4 "- 0"			per cy	=	\$0.00
Landings	0	cy of 4 "- 0"			per cy	=	\$0.00
Culvert bedding		cy of 11/2"-0"	@		per/cy	=	
Fill armor		cy of 24"-0"	@		per/cy	=	
					Subtotal		
SPECIAL PROJECTS							
6 hrs.	machine time re- shape road		@	\$120.00	per/hr.	=	\$720.00
0.67	mi. grading		@	\$769.20	per/mi.	=	\$515.36
					Subtotal		\$1,235.36
				GRAND TOTAL	=		\$1,405.36

OREGON DEPARTMENT of FORESTRY
CRUISE REPORT

SALE NAME: Middle Windy Bear

SALE NUMBER: 341-13-087

1. **Acreage Calculation:** There are 156 net cruise acres in the sale area determined by a combination of GPS points and ArcMap 10.1 GIS software. Net acres do not include the riparian areas and other areas of exclusion outside the sale boundary.
2. **Cruise Method:** Middle Windy Bear was cruised by ODF in March 2012 (north units) and December 2012 (south units). A variable plot cruise was conducted on each of four logical stand types with similar characteristics, called strata.
3. **RIGHT of WAY VOLUMES:** The road in Area VI has approximately 2 acres of volume. This road was considered about the same volume as strata 4 and was lumped with area V, VI, and VII. The K to L road has an incidental amount of volume that was not added to the cruise.
4. **Group Selection Areas:** None
5. **Sampling Intensity:**

CV (BA)	105% (DF)
SE	6.4% (Take Trees)
# Plots	86 Total Plots (44 full measure, 42 count)

*All volumes are reported at the 68% confidence level according to ODF standards. The average conifer volume of take trees was 8.56 MBF per acre for 156 acres (total volume 1,336 MBF), and the cruise would indicate 68% confidence that the measured volume of take trees lies between 1,291 MBF and 1,422 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.
8. **Diameter standards:** Diameters were measured outside bark at breast height to the nearest inch.
9. **Grading System:** Trees were graded to preferred lengths primarily 34 and some 40 foot segments. Segments under 20" (large end) were recorded as 34 foot logs and over 20" were recorded as 40 foot logs. Two foot multiples were used less frequently when the segment of the tree logically fit into this size.
10. **Merchantable top:** Conifer were cruised (graded) to a 5 or 6 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. An estimated volume reduction for this anticipated loss to volume was 10%.
13. **Cruisers:** The sale was cruised by Chris Rudd, Lee Winslow, Curtis Clark and Paul Moreno.

*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

3-28-13
Date

Net Volume (BF) by Area*					Area Volume by Grade					
Area	Strata	Net Acres	Strata Net Vol/Ac	Area Net Vol/Ac	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Adjusted Net Volume
I	1	22	1,788	1,788	0	27,878	11,464	0	0	39,343
II	2	22	6,065	6,065	19,602	92,999	20,829	0	0	133,430
III	2	17	6,065	6,065	15,147	71,866	16,096	0	0	103,109
IV	3	22	24,247	24,247	175,408	250,569	93,199	7,227	7,029	533,432
V	4	8	7,214	7,214	4,334	36,504	16,409	0	468	57,715
VI	4	49	7,214	7,214	26,548	223,587	100,504	0	2,867	353,506
VII	4	14	7,214	7,214	7,585	63,882	28,715	0	819	101,002
VIII (ROW)	4	2	7,214	7,214	1,084	9,126	4,102	0	117	14,429
Sub Totals					249,709	776,411	291,318	7,227	11,300	1,335,965

*The sale was cruised by strata; volume cutout by area will not be as accurate.

Middle Windy Bear
Volume Summary

Summary Volume by Cruise Strata*							
Volume (BF)							
		2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals
Strata 1	Douglas-fir	0	22,275	9,227	0	0	31,502
Area 1	Grand Fir	0	5,603	2,237	0	0	7,841
	Incense Cedar	0	0	0	0	0	0
	Strata 1 Subtotal	0	27,878	11,464	0	0	39,343
Strata 2	Douglas-fir	23,622	91,085	20,183	0	0	134,889
Areas 2, 3	Grand Fir	11,127	73,780	16,743	0	0	101,650
	Incense Cedar	0	0	0	0	0	0
	Strata 2 Subtotal	34,749	164,865	36,925	0	0	236,539
Strata 3	Douglas-fir	154,381	243,104	88,981	0	0	486,466
Area 4	Grand Fir	20,790	5,881	792	0	0	27,463
	Incense Cedar	238	1,584	3,425	7,227	7,029	19,503
	Strata 3 Subtotal	175,408	250,569	93,199	7,227	7,029	533,432
Strata 4	Douglas-fir	39,092	309,316	143,620	0	0	492,027
Areas 5,6,7	Grand Fir	0	21,418	6,110	0	0	27,528
	Incense Cedar	460	2,365	0	0	4,271	7,096
	Strata 3 Subtotal	39,551	333,099	149,730	0	4,271	526,651
	Total	249,709	776,411	291,318	7,227	11,300	1,335,965

Summary Volume Table						
Total Net Volume (BF) All Areas						
	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals
Douglas-fir	217,094	665,780	262,011	0	0	1,144,885
Grand Fir	31,917	106,682	25,882	0	0	164,481
Incense Cedar	698	3,949	3,425	7,227	11,300	26,599
Totals	249,709	776,411	291,318	7,227	11,300	1,335,965

Summary Volume Table						
Total Net Volume (%) All Areas						
	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals
Douglas-fir	16%	50%	20%	0%	0%	86%
Grand Fir	2%	8%	2%	0%	0%	12%
Incense Cedar	0%	0%	0%	1%	1%	2%

Middle Windy Bear
Cruise Volume
Gross to net by Strata

CRUISED VOLUME Stata 1- Area I

Strata 1	2 Saw	3 Saw	4 Saw	5Saw	6 Saw	Net Vol/ Acre
Douglas-fir	0	1,125	466	0	0	1,591
Grand Fir	0	283	113	0	0	396
Incense Cedar	0	0	0	0	0	0
Total vol/acre Strata 1						1,987

ADJUSTED VOLUME Volume Adjusted by: 0.9 for Hidden Cull and Breakage

Strata 1	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Adjusted Net Vol/ Acre	Net Acres	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Adjusted Net Volume
Douglas-fir	0	1,013	419	0	0	1,432	22	0	22,275	9,227	0	0	31,502
Grand Fir	0	255	102	0	0	356	22	0	5,603	2,237	0	0	7,841
Incense Cedar	0	0	0	0	0	0	22	0	0	0	0	0	0
Total vol/acre	0	1,267	521	0	0	1,788	22	0	27,878	11,464	0	0	39,343
Sale Volume							Total	0	27,878	11,464	0	0	39,343

CRUISED VOLUME Stata 2- Area II-III

Strata 2	2 Saw	3 Saw	4 Saw	5Saw	6 Saw	Net Vol/ Acre
Douglas-fir	673	2,595	575	0	0	3,843
Grand Fir	317	2,102	477	0	0	2,896
Incense Cedar	0	0	0	0	0	0
Total vol/acre Strata 2	990	4,697	1,052	0	0	6,739

ADJUSTED VOLUME Volume Adjusted by: 0.9 for Hidden Cull and Breakage

Strata 2	2 Saw	3 Saw	4 Saw	5Saw	6Saw	Adjusted Net Vol/ Acre	Net Acres	2 Saw	3 Saw	4 Saw	5Saw	6Saw	Adjusted Net Volume
Douglas-fir	606	2,336	518	0	0	3,459	39.0	23,622	91,085	20,183	0	0	134,889
Grand Fir	285	1,892	429	0	0	2,606	39.0	11,127	73,780	16,743	0	0	101,650
Incense Cedar	0	0	0	0	0	0	39.0	0	0	0	0	0	0
Total vol/acre	891	4,227	947	0	0	6,065	39.0	34,749	164,865	36,925	0	0	236,539
Sale Volume							Total	34,749	164,865	36,925	0	0	236,539

CRUISED VOLUME Stata 3- Area IV, CLEARCUT

Strata 3	2 Saw	3 Saw	4 Saw	5Saw	6 Saw	Net Vol/ Acre
Douglas-fir	7,797	12,278	4,494	0	0	24,569
Grand Fir	1,050	297	40	0	0	1,387
Incense Cedar	12	80	173	365	355	985
Total vol/acre Strata 2						26,941

ADJUSTED VOLUME Volume Adjusted by: 0.9 for Hidden Cull and Breakage

Strata 3	2 Saw	3 Saw	4 Saw	5Saw	6Saw	Adjusted Net Vol/ Acre	Net Acres	2 Saw	3 Saw	4 Saw	5Saw	6Saw	Adjusted Net Volume
Douglas-fir	7,017	11,050	4,045	0	0	22,112	22.0	154,381	243,104	88,981	0	0	486,466
Grand Fir	945	267	36	0	0	1,248	22.0	20,790	5,881	792	0	0	27,463
Incense Cedar	11	72	156	329	320	887	22.0	238	1,584	3,425	7,227	7,029	19,503
Total vol/acre	7,973	11,390	4,236	329	320	24,247	22.0	175,408	250,569	93,199	7,227	7,029	533,432
Sale Volume							Total	175,408	250,569	93,199	7,227	7,029	533,432

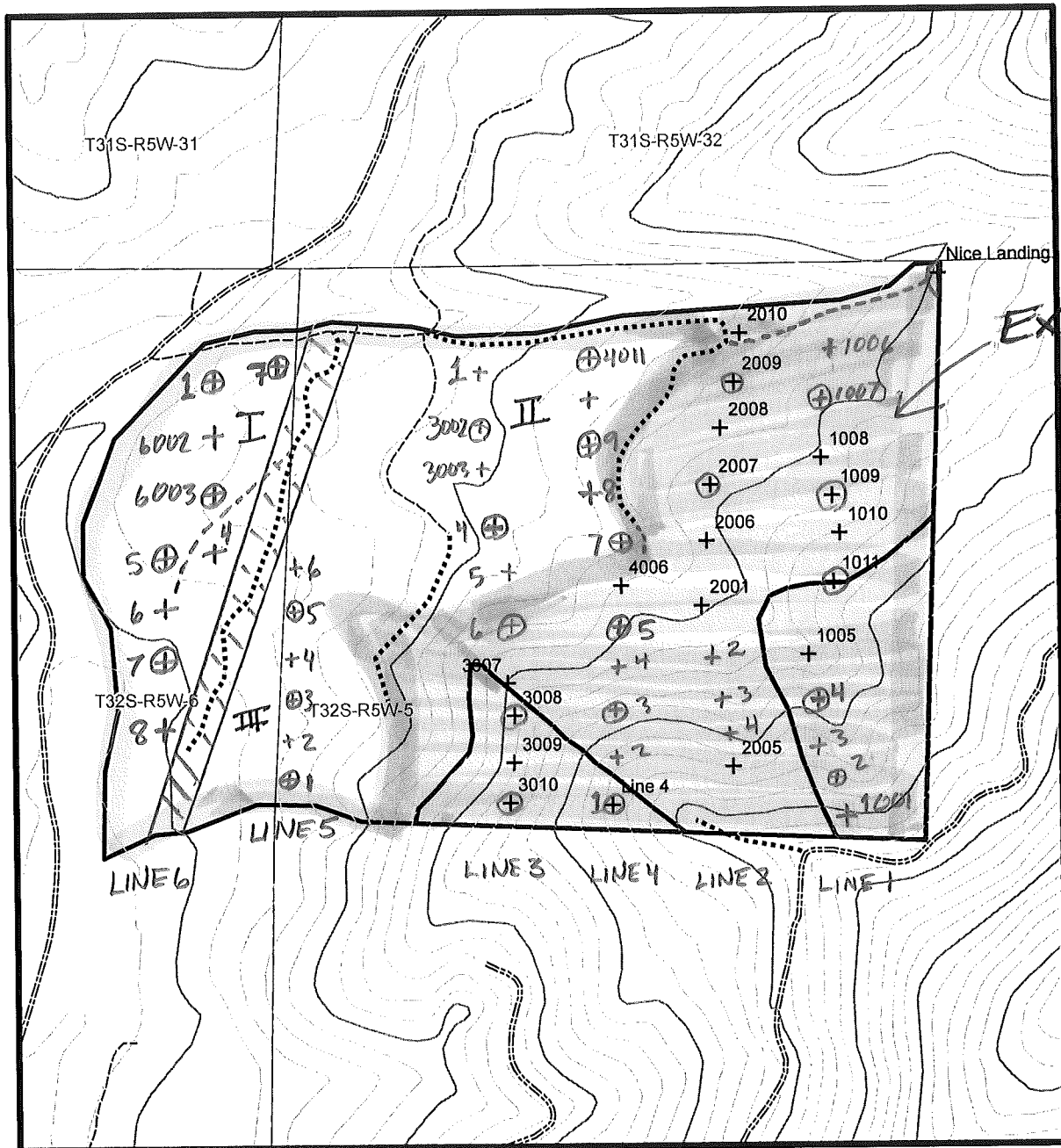
CRUISED VOLUME Stata 4- Area V, VI, VII

Strata 4	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Net Vol/ Acre
Douglas-fir	595	4,708	2,186	0	0	7,489
Grand Fir	0	326	93	0	0	419
Incense Cedar	7	36	0	0	65	108
Total vol/acre Strata 3						8,016

ADJUSTED VOLUME Volume Adjusted by: 0.9 for Hidden Cull and Breakage

Strata 4	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Adjusted Net Vol/ Acre	Net Acres	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Adjusted Net Volume
Douglas-fir	536	4,237	1,967	0	0	6,740	73.0	39,092	309,316	143,620	0	0	492,027
Grand Fir	0	293	84	0	0	377	73.0	0	21,418	6,110	0	0	27,528
Incense Cedar	6	32	0	0	59	97	73.0	460	2,365	0	0	4,271	7,096
Total vol/acre	542	4,563	2,051	0	59	7,214	73.0	39,551	333,099	149,730	0	4,271	526,651
Sale Volume							Total	39,551	333,099	149,730	0	4,271	526,651

Windy Bear Cruise Map



Legend

- + Windy Bear plots
- Windy_Bear_Excluded_Area
- ... Windy_Bear_Pre_Op_Roads
- Windy_Bear_PreOp_Boundary
- QuinesRunCruiseBound
- pls_swo_20020422

Windy Bear 341-13-87

T32S R5W S5 NW 1/4
T32S R5W S6 E1/2 NE 1/4

April 2012

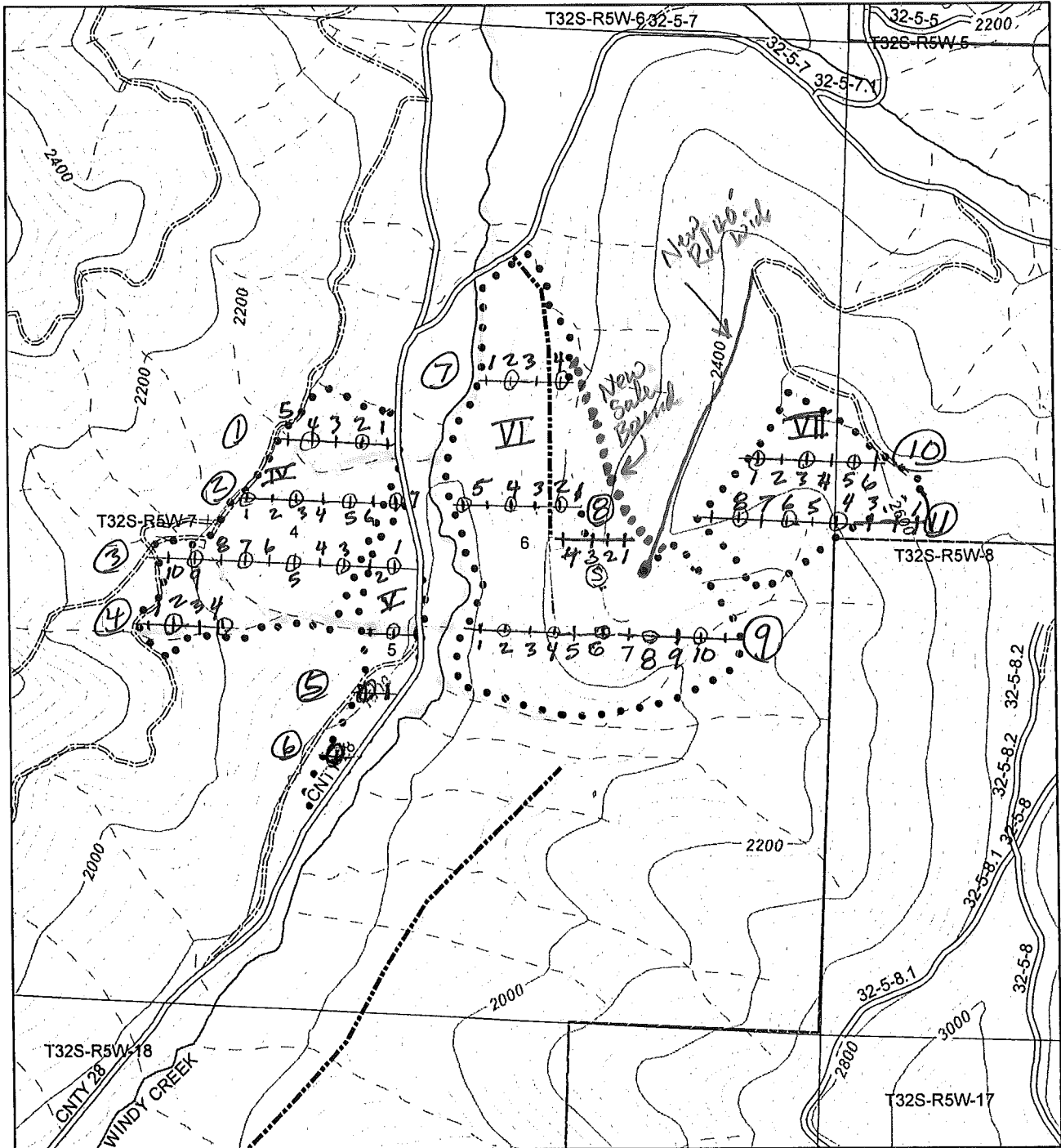
+ count
⊕ measure



0 250 500 1,000
Feet

1:8,000

ODF, Grants Pass Unit



Cruise Map Middle Windy Bear Exhibit A

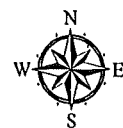
Township 32 South, Range 5 West Secion 7,
W.M. Douglas County, OR

LEGEND	
	Rock Road
	Natural Surface Road
	gtrn_roads_work_Copy
	1= New Rd, 6= Reconstruct
Streams	
	Fish
	Nonfish
	Unknown
	Middle Windy Bear Areas

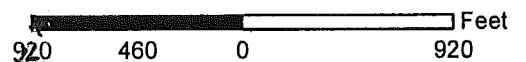
2x5 ch
2x10 ch
2x5 ch

1- 22
2- 22
3- 17
4- 22
5- 0
6- 49
7- 14
156 Net Acres

8 (ROW)=2



ODF, Grants Pass Unit



1:10,000

1 inch = 833 feet

Contour Interval : 40 feet

PROJECT STATISTICS										PAGE 1	
TC PSTATS					PROJECT WNDYBEAR					DATE 2/26/2013	
TWP	RGE	SC	TRACT	TYPE	STRATA	ACRES	PLOTS	TREES	CuFt	BdFt	
032	005	05	MIDWINBEAR	I	1	22.4003	9	37	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			9	37	4.1						
CRUISE			5	22	4.4	12,907	.2				
DBH COUNT											
REFOREST											
COUNT			4	15	3.8		Con 116 SF Resul RX-110				
BLANKS											
100 %											
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L		9	98.8	10.9	74	19	63.5	6,737	6,737	1,616	1,616
DOUG FIR-T		3	37.2	9.6	80	6	18.7	1,591	1,591	363	363
GR FIR-L		4	53.1	10.2	53	9	29.9	3,408	3,233	817	817
GR FIR-T		1	5.7	11.0	79	1	3.7	453	396	99	99
MADRONE-L		3	8.2	15.8	39		11.2	196	196	121	121
INC CED-L		2	12.2	13.0	41		11.2	813	813	253	253
TOTAL		22	215.1	10.9	66		138.2	13,198	12,966	3,269	3,269
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		90.3	31.9	78	114	151					
DOUG FIR-T		90.6	62.7	21	57	92					
GR FIR-L		65.6	37.5	61	98	134					
GR FIR-T											
MADRONE-L		86.6	59.9	8	20	32					
INC CED-L		112.2	105.0		145	297					
TOTAL		95.6	20.8	72	91	110	382	95	42		
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		96.1	33.9	19	28	38					
DOUG FIR-T		91.8	63.5	5	13	21					
GR FIR-L		72.8	41.6	15	26	37					
GR FIR-T											
MADRONE-L		87.8	60.7	5	12	20					
INC CED-L		117.5	110.0		48	100					
TOTAL		99.0	21.6	20	25	30	410	102	46		
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		59.4	21.0	78	99	119					
DOUG FIR-T		152.3	53.8	17	37	57					
GR FIR-L		144.0	50.8	26	53	80					
GR FIR-T		300.0	105.9		6	12					
MADRONE-L		238.1	84.0	1	8	15					
INC CED-L		181.6	64.1	4	12	20					
TOTAL		65.1	23.0	166	215	265	190	47	21		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		55.8	19.7	51	63	76					
DOUG FIR-T		158.7	56.0	8	19	29					
GR FIR-L		118.6	41.9	17	30	42					
GR FIR-T		300.0	105.9		4	8					

Con 116 SF Resul
RX-110

TC PSTATS				PROJECT STATISTICS						PAGE	31-13-087
				PROJECT WNDYBEAR						DATE	2/26/2013
TWP	RGE	SC	TRACT	TYPE	ACRES			PLOTS	TREES	CuFt	BdFt
032	005	05	MIDWINBEAR	1	22 60.00			9	37	S	W
CL	68.1	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15		
MADRONE-L		212.1	74.9	3	11	20					
INC CED-L		150.0	52.9	5	11	17					
TOTAL		61.3	21.7	108	138	168	169	42	19		
CL	68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		64.5	22.8	5,204	6,737	8,270					
DOUG FIR-T		203.5	71.8	449	1,591	2,734					
GR FIR-L		117.2	41.3	1,896	3,233	4,570					
GR FIR-T		300.0	105.9		396	815					
MADRONE-L		300.0	105.9		196	404					
INC CED-L		154.3	54.5	370	813	1,256					
TOTAL		64.3	22.7	10,025	12,966	15,907	185	46	21		
CL	68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		66.9	23.6	1,234	1,616	1,998					
DOUG FIR-T		203.5	71.8	102	363	623					
GR FIR-L		115.2	40.7	485	817	1,149					
GR FIR-T		300.0	105.9		99	203					
MADRONE-L		300.0	105.9		121	250					
INC CED-L		158.6	56.0	111	253	395					
TOTAL		67.1	23.7	2,495	3,269	4,043	202	50	22		

TC		PSPCSTGR Species, Sort Grade - Board Foot Volumes (Project)																				
T032 R005 S05 Ty160.00								Project: WNDYBEAR								Page 1						
								Acres 60.00 22								Date 2/26/2013						
																Time 7:08:54AM						
Spp	So	Gr	T	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				
GF	L	DO3M				76	6.6	2,635	2,460	148	22	78		76	24		25	48	0.49	51.0		
GF	L	DO4M				24		773	773	46	100		72		28		24	23	0.23	33.3		
GF Totals						25	5.1	3,408	3,233	194	40	60		75	18	7	25	38	0.39	84.3		
GF	T	DO3M				71	16.7	340	283	17		100			100		32	50	0.41	5.7		
GF	T	DO4M				29		113	113	7	100				100		22	20	0.20	5.7		
GF Totals						3	12.5	453	396	24	29	71		29	71		27	35	0.32	11.3		
DF	L	DO2M				10		704	704	42		100				100	40	240	1.66	2.9		
DF	L	DO3M				73		4,898	4,898	294	23	77		48	52		28	51	0.43	96.3		
DF	L	DO4M				17		1,135	1,135	68	58	42		9	70	20	22	23	0.24	48.4		
DF Totals						52		6,737	6,737	404	26	63	10	2	47	38	14	26	46	0.42	147.7	
DF	T	DO3M				70		1,125	1,125	68		100				100	32	58	0.43	19.3		
DF	T	DO4M				30		466	466	28	100					100	25	24	0.20	19.3		
DF Totals						12		1,591	1,591	95	29	71		29	71		29	41	0.33	38.7		
MA	L	DO4M				100		196	196	12	100					100	29	30	0.64	6.5		
MA Totals						2		196	196	12	100					100	29	30	0.64	6.5		
IC	L	DO3M				62		505	505	30	15	85				100	36	130	1.22	3.9		
IC	L	DO1P				38		308	308	18	100					100	28	30	0.29	10.3		
IC Totals						6		813	813	49	47	53		38		62	30	57	0.59	14.2		
Totals							1.8	13,198	12,966	778	33	59	9	1	51	35	13	26	43	0.41	302.6	

TC PSTATS				PROJECT STATISTICS							PAGE 1			
				PROJECT		WINDYBEAR					DATE 3/1/2013			
TWP	RGE	SC	TRACT	Area	TYPE	STRATA	ACRES	PLOTS	TREES	CuFt	BdFt			
032	005	05	MIDWINBEAR	11/111	2-3	2	39.00	15	83	S	W			
				PLOTS		TREES	TREES		ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL				15		83	5.5							
CRUISE				8		43	5.4		5,798		.7			
DBH COUNT														
REFOREST														
COUNT				7		40	5.7							
BLANKS														
100 %														
STAND SUMMARY														
				SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
DOUG FIR-L				14		56.3	14.3	84	17	62.7	7,981	7,578	1,915	1,915
DOUG FIR-T				6		20.7	16.1	90	7	29.1	3,905	3,843	942	942
GR FIR-L				14		50.7	15.1	77	16	62.7	9,196	8,947	2,263	2,263
GR FIR-T				7		18.2	14.3	93	5	20.2	2,958	2,895	716	716
INC CED-L				1		2.1	24.0	89		6.7	642	642	211	211
SUG.PINE-L				1		.6	26.0	94		2.2	243	243	70	70
TOTAL				43		148.7	15.1	84		183.7	24,925	24,148	6,117	6,117
CONFIDENCE LIMITS OF THE SAMPLE														
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR														
CL	68.1	COEFF		SAMPLE TREES - BF						# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%		S.E.%	LOW	AVG	HIGH			5	10	15		
DOUG FIR-L		88.4		25.5	160		215	269						
DOUG FIR-T		77.0		34.3	153		233	313						
GR FIR-L		61.4		17.0	238		287	336						
GR FIR-T		65.8		26.8	149		203	257						
INC CED-L														
SUG.PINE-L														
TOTAL		69.0		10.6	220		246	272		190	48	21		
CL	68.1	COEFF		SAMPLE TREES - CF						# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%		S.E.%	LOW	AVG	HIGH			5	10	15		
DOUG FIR-L		74.1		21.3	42		53	64						
DOUG FIR-T		67.6		30.1	39		56	73						
GR FIR-L		56.2		15.6	60		71	82						
GR FIR-T		59.7		24.3	37		49	61						
INC CED-L														
SUG.PINE-L														
TOTAL		62.0		9.6	55		61	67		154	38	17		
CL	68.1	COEFF		TREES/ACRE						# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%		S.E.%	LOW	AVG	HIGH			5	10	15		
DOUG FIR-L		76.6		20.5	45		56	68						
DOUG FIR-T		78.1		20.9	16		21	25						
GR FIR-L		81.5		21.8	40		51	62						
GR FIR-T		146.9		39.2	11		18	25						
INC CED-L		207.0		55.3	1		2	3						
SUG.PINE-L		387.3		103.4	1		1	1						
TOTAL		38.7		10.3	133		149	164		64	16	7		
CL	68.1	COEFF		BASAL AREA/ACRE						# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%		S.E.%	LOW	AVG	HIGH			5	10	15		
DOUG FIR-L		78.1		20.9	50		63	76						
DOUG FIR-T		73.8		19.7	23		29	35						
GR FIR-L		66.7		17.8	52		63	74						
GR FIR-T		151.7		40.5	12		20	28						

TC PSTATS

PROJECT STATISTICS

PROJECT WNDYBEAR

PAGE 34-13-087

DATE 3/1/2013

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
032	005	05	MIDWINBEAR	<i>Area</i> 2-3	39.00	15	83	S	W
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.	INF. POP.	
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
INC CED-L		207.0	55.3	3	7	10			
SUG.PINE-L		387.3	103.4		2	5			
TOTAL		39.0	10.4	165	184	203	65	16	7
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		90.9	24.3	5,739	7,578	9,418			
DOUG FIR-T		74.9	20.0	3,074	3,843	4,612			
GR FIR-L		72.8	19.4	7,207	8,947	10,686			
GR FIR-T		168.2	44.9	1,595	2,895	4,196			
INC CED-L		207.0	55.3	287	642	997			
SUG.PINE-L		387.3	103.4		243	495			
TOTAL		54.3	14.5	20,649	24,148	27,648	126	32	14
CL	68.1	COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		83.6	22.3	1,487	1,915	2,343			
DOUG FIR-T		75.1	20.0	753	942	1,130			
GR FIR-L		70.8	18.9	1,836	2,263	2,691			
GR FIR-T		164.0	43.8	402	716	1,030			
INC CED-L		207.0	55.3	94	211	328			
SUG.PINE-L		387.3	103.4		70	142			
TOTAL		48.3	12.9	5,327	6,117	6,907	100	25	11

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TC PSCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
T032 R005 S05 Ty2-339.00							Project:		WNDYBEAR						Page1				
							Acres		39.00						Date3/1/2013				
															Time9:22:47AM				
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				
GF	L	DO2M	43	2.1	4,019	3,934	153			100			14	86	39	307	1.78	12.8	
GF	L	DO3M	48	3.7	4,392	4,227	165	8	70	22			12	76	12	33	82	0.69	51.5
GF	L	DO4M	9		786	786	31	100				62	22	16	19	20	0.29	40.0	
GF Totals			37	2.7	9,196	8,947	349	13	33	54		5	7	42	45	28	86	0.77	104.3
GF	T	DO2M	10		317	317	12			100				100	40	240	1.55	1.3	
GF	T	DO3M	73	2.9	2,164	2,102	82		67	33				88	12	34	97	0.70	21.7
GF	T	DO4M	17		477	477	19	74	26			26	48	26	24	28	0.28	16.9	
GF Totals			12	2.1	2,958	2,895	113	12	53	35		4	8	64	24	30	73	0.60	39.9
IC	L	DO3M	100		642	642	25	13		87				100	37	150	1.33	4.3	
IC Totals			3		642	642	25	13		87				100	37	150	1.33	4.3	
DF	L	DO2M	7		605	605	24			100				100	40	460	2.36	1.3	
DF	L	DO3M	66	7.5	5,354	4,951	193		68	20	12			100	33	88	0.70	56.3	
DF	L	DO4M	27		2,022	2,022	79	73	11	16		7	49	34	10	28	41	0.35	49.9
DF Totals			31	5.1	7,981	7,578	296	19	47	18	16	2	13	74	11	31	70	0.58	107.5
DF	T	DO2M	17		673	673	26			100				100	40	400	2.02	1.7	
DF	T	DO3M	68	2.3	2,657	2,595	101	2	81	17			8	92	30	97	0.78	26.8	
DF	T	DO4M	15		575	575	22	71	29				72	28	30	38	0.38	15.1	
DF Totals			16	1.6	3,905	3,843	150	12	59	29			16	66	18	30	88	0.71	43.6
SP	L	DO2M	90		219	219	9			100				100	40	360	2.18	.6	
SP	L	DO4M	10		24	24	1	100						100	40	40	0.68	.6	
SP Totals			1		243	243	9	10		90				100	40	200	1.43	1.2	
Totals				3.1	24,925	24,148	942	15	43	38	5	3	10	57	29	30	80	0.68	300.9

TC		PLOGSTVB		Log Stock Table - MBF																	
T032 R005 S05 Ty2-3				39.00		Project:		WNDYBEAR		Page		1									
						Acres		39.00		Date		3/1/2013									
										Time		9:23:57AM									
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
GF	L	DO	2M	34	22		22	6.2					22								
GF	L	DO	2M	40	135	2.5	132	37.7						107	24						
GF	L	DO	3M	28	13		13	3.8			13										
GF	L	DO	3M	29	6		6	1.6		6											
GF	L	DO	3M	32	61	10.5	54	15.6		4	10	13	28								
GF	L	DO	3M	34	71		71	20.4				24	28	19							
GF	L	DO	3M	38	17		17	4.8						17							
GF	L	DO	3M	39	4		4	1.0		4											
GF	L	DO	4M	12	4		4	1.1		4											
GF	L	DO	4M	14	1		1	.4		1											
GF	L	DO	4M	15	2		2	.6		2											
GF	L	DO	4M	18	10		10	2.9		10											
GF	L	DO	4M	19	1		1	.4		1											
GF	L	DO	4M	26	4		4	1.2		4											
GF	L	DO	4M	28	2		2	.7		2											
GF	L	DO	4M	37	5		5	1.4		5											
GF		Totals			359	2.7	349	37.0		44	10	50	56	36	129	24					
GF	T	DO	2M	40	12		12	10.9					12								
GF	T	DO	3M	32	35	6.9	33	29.3			27	6									
GF	T	DO	3M	34	39		39	34.3			11		14	14							
GF	T	DO	3M	40	10		10	9.0			10										
GF	T	DO	4M	17	2		2	1.9		2											
GF	T	DO	4M	18	1		1	1.0		1											
GF	T	DO	4M	19	2		2	1.4		2											
GF	T	DO	4M	22	5		5	4.3			5										
GF	T	DO	4M	23	2		2	2.2		2											
GF	T	DO	4M	28	2		2	1.4		2											
GF	T	DO	4M	36	5		5	4.3		5											
GF		Totals			115	2.1	113	12.0		14	15	38	6	26	14						
IC	L	DO	3M	36	22		22	86.7					22								
IC	L	DO	3M	38	3		3	13.3		3											
IC		Totals			25		25	2.7		3				22							
DF	L	DO	2M	40	24		24	8.0						24							
DF	L	DO	3M	32	151	4.5	144	48.8			32	11	39	39		22					

TC PLOGSTVB				Log Stock Table - MBF															
T032 R005 S05 Ty2-3				39.00		Project: WNDYBEAR		Acres 39.00		Page 2		Date 3/1/2013		Time 9:23:57AM					
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	L	DO	3M 34	58	15.4	49	16.5			13	36								
DF	L	DO	4M 19	5		5	1.8		5										
DF	L	DO	4M 24	10		10	3.5		2			9							
DF	L	DO	4M 25	4		4	1.3		4										
DF	L	DO	4M 26	3		3	1.0		3										
DF	L	DO	4M 27	13		13	4.5		13										
DF	L	DO	4M 28	8		8	2.7		8										
DF	L	DO	4M 31	4		4	1.4		4										
DF	L	DO	4M 34	13		13	4.3					13							
DF	L	DO	4M 35	10		10	3.4		10										
DF	L	DO	4M 36	2		2	.8		2										
DF	L	DO	4M 41	6		6	1.9		6										
DF		Totals		311	5.1	296	31.4		57	45	47	48	52	46					
DF	T	DO	2M 40	26		26	17.5							26					
DF	T	DO	3M 21	6		6	4.0			6									
DF	T	DO	3M 22	2		2	1.6		2										
DF	T	DO	3M 32	71	3.4	69	45.8					51	17						
DF	T	DO	3M 34	24		24	16.2			14		10							
DF	T	DO	4M 26	6		6	4.3			6									
DF	T	DO	4M 27	3		3	2.1		3										
DF	T	DO	4M 28	2		2	1.3		2										
DF	T	DO	4M 30	5		5	3.1		5										
DF	T	DO	4M 35	6		6	4.1		6										
DF		Totals		152	1.6	150	15.9		18	27		61	17	26					
SP	L	DO	2M 40	9		9	90.0					9							
SP	L	DO	4M 40	1		1	10.0		1										
SP		Totals		9		9	1.0		1			9							
Total		All Species		972	3.1	942	100.0		138	70	162	172	131	173	96				

TC TSTATS				STATISTICS				PAGE 1					
				PROJECT WNDYBEAR				DATE 1/29/2013					
TWP	RGE	SECT	TRACT	TYPE	ACRES	22	PLOTS	TREES	CuFt	BdFt			
032	005	05	CLEARCUT				23	160	S	W			
Area IV STRATA 3													
				TREES	ESTIMATED TOTAL		PERCENT SAMPLE						
				PER PLOT	TREES		TREES						
PLOTS				TREES									
TOTAL				23	160		7.0						
CRUISE				12	82		6.8						
DBH COUNT													
REFOREST													
COUNT				11	78		7.1						
BLANKS													
100 %													
STAND SUMMARY													
SAMPLE TREES				TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
DOUG FIR-L				3	6.7	25.2	133	5	23.4	5,027	5,027	1,075	1,075
DOUG FIR-T				63	119.8	16.2	86	43	171.0	24,888	24,569	5,778	5,777
INC CED-L				9	2.4	36.3	110		17.5	2,419	2,401	598	598
INC CED-T				6	3.4	21.9	77		8.8	985	985	269	269
GR FIR-T				1	2.0	26.0	109	2	7.3	1,387	1,387	314	314
TOTAL				82	134.3	17.6	89		228.0	34,707	34,370	8,033	8,032
CONFIDENCE LIMITS OF THE SAMPLE													
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR													
CL: 68.1 %				COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD: 1.0				VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L				21.9	15.2	645	760	875					
DOUG FIR-T				92.1	11.6	338	382	427					
INC CED-L				36.1	12.7	922	1,057	1,191					
INC CED-T				106.4	47.4	361	687	1,012					
GR FIR-T													
TOTAL				88.7	9.8	448	496	545	314	78	35		
CL: 68.1 %				COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD: 1.0				VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L				16.3	11.3	144	162	180					
DOUG FIR-T				81.4	10.2	79	88	97					
INC CED-L				28.4	10.0	234	261	287					
INC CED-T				95.5	42.5	99	172	245					
GR FIR-T													
TOTAL				83.3	9.2	106	117	127	277	69	31		
CL: 68.1 %				COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0				VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L				246.8	52.6	3	7	10					
DOUG FIR-T				57.0	12.1	105	120	134					
INC CED-L				156.4	33.3	2	2	3					
INC CED-T				226.8	48.3	2	3	5					
GR FIR-T				238.5	50.8	1	2	3					
TOTAL				48.5	10.3	120	134	148	98	25	11		
CL: 68.1 %				COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0				VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L				246.8	52.6	11	23	36					
DOUG FIR-T				48.5	10.3	153	171	189					
INC CED-L				151.5	32.3	12	18	23					
INC CED-T				172.1	36.7	6	9	12					
GR FIR-T				238.5	50.8	4	7	11					
TOTAL				34.7	7.4	211	228	245	50	13	6		
CL: 68.1 %				COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0				VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		

TC TSTATS				STATISTICS			PAGE 341-13-087		
				PROJECT WNDYBEAR			DATE 1/29/2013		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
032	005	05	CLEARCUT	TR	0.00 22	23	160	S	W
CL: 68.1 %		COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		246.8	52.6	2,384	5,027	7,671			
DOUG FIR-T		48.3	10.3	22,043	24,569	27,095			
INC CED-L		154.8	33.0	1,609	2,401	3,193			
INC CED-T		187.7	40.0	591	985	1,379			
GR FIR-T		238.5	50.8	682	1,387	2,092			
TOTAL		39.7	8.5	31,465	34,370	37,274	66	16	7
CL: 68.1 %		COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		246.8	52.6	510	1,075	1,640			
DOUG FIR-T		48.0	10.2	5,186	5,777	6,367			
INC CED-L		152.4	32.5	404	598	792			
INC CED-T		177.1	37.7	168	269	371			
GR FIR-T		238.5	50.8	154	314	473			
TOTAL		38.0	8.1	7,382	8,032	8,683	60	15	7

Species, Sort Grade - Board Foot Volumes (Type)										Page 1											
Project: WNDYBEAR										Date 1/30/2013											
										Time 4:18:17PM											
T032 R005 S05 TA2										T032 R005 S05 TA2											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
032	005	05	CLEARCUT	52	24.00	23	82	S	W												
S		So	Gr	%	Bd. Ft. per Acre		Total	Percent Net Board Foot Volume				Average Log		Logs Per /Acre							
Spp	T	rt	ad	Net BdFt	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF	T	DO	CU																0.00	2.2	
DF	T	DO	2M	31	.3	7,824	7,797	187				58	42			65	35	36	359	2.16	21.7
DF	T	DO	3M	50	2.3	12,570	12,278	295	3	48	32	17			16	69	14	32	122	0.91	100.4
DF	T	DO	4M	19		4,494	4,494	108	43	52	5			18	35	38	8	23	35	0.37	130.0
DF	T	Totals		71	1.3	24,888	24,569	590	9	33	36	22		3	14	62	20	28	97	0.82	254.3
DF	L	DO	2M	68		3,447	3,447	83				17	83			100		34	397	2.36	8.7
DF	L	DO	3M	25		1,276	1,276	31	5	17	78				22	78		31	147	1.02	8.7
DF	L	DO	4M	7		305	305	7	48	52				52	15		33	28	43	0.53	7.1
DF	L	Totals		15		5,027	5,027	121	4	7	32	57		3	6	88	2	31	206	1.41	24.4
IC	L	DO	CU														20		0.00	.3	
IC	L	DO	2M	8		208	208	5				100				100	34	980	6.51	.2	
IC	L	DO	3M	23		540	540	13				100		30	70		29	687	5.59	.8	
IC	L	DO	4M	34	2.1	840	822	20	1		8	91		1	99		33	452	3.45	1.8	
IC	L	DO	1S	34		820	820	20	6		51	43		47	51	2	29	202	1.77	4.1	
IC	L	DO	1P	1		10	10	0	100							100	40	40	0.77	.3	
IC	L	Totals		7	.7	2,419	2,401	58	3		20	77		23	76	1	30	324	2.66	7.4	
IC	T	DO	4M	17		173	4 173	4				100				100	40	1370	8.01	.1	
IC	T	DO	3M	37		365	5 365	9				100		16	46	38	35	588	3.75	.6	
IC	T	DO	4M	36		355	6 355	9	16	29	34	20		9	86	5	32	104	0.96	3.4	
IC	T	DO	1S	8		80	3 80	2	25	75				75		25	31	47	0.72	1.7	
IC	T	DO	1P	2		12	2 12	0	100				100				13	10	0.24	1.2	
IC	T	Totals		3		985	985	24	9	17	12	62		1	15	48	35	29	140	1.32	7.1
GF	T	DO	2M	75		1,050	1,050	25				100				100	40	530	2.73	2.0	
GF	T	DO	3M	22		297	297	7		100						100	34	150	1.21	2.0	
GF	T	DO	4M	3		40	40	1	100				100				20	20	0.40	2.0	
GF	T	Totals		4		1,387	1,387	33	3	21		76		3		21	76	31	233	1.68	5.9
Type Totals					1.0	34,707	34,370	825	8	26	32	34		3	13	65	19	28	115	0.95	299.1

TC TLOGSTVB				Log Stock Table - MBF																	
				Project: WNDYBEAR																	
T032 R005 S05 TA2				Area IV				STRATA 3				T032 R005 S05 TA2									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1												
032	005	05	CLEARCUT	A2	24.00	23	82	Date	1/30/2013												
									Time	4:25:28PM											
S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches													
Spp	T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DF	L	DO	2M	34	83		83	11.6							14	69					
DF	L	DO	3M	27	5		5	.7					5								
DF	L	DO	3M	28	1		1	.2		1											
DF	L	DO	3M	34	24		24	3.4						24							
DF	L	DO	4M	20	4		4	.5					4								
DF	L	DO	4M	22	1		1	.2		1											
DF	L	DO	4M	40	2		2	.3		2											
DF	T	DO	CU																		
DF	T	DO	2M	34	122	.5	122	17.1					16		28	33	44				
DF	T	DO	2M	40	66		66	9.2							40	25					
DF	T	DO	3M	22	1		1	.1		1											
DF	T	DO	3M	24	2		2	.3		0			2								
DF	T	DO	3M	26	2		2	.3					2								
DF	T	DO	3M	27	38		38	5.4		1		3	30	2	3						
DF	T	DO	3M	28	4		4	.6			4										
DF	T	DO	3M	31	4		4	.6				4									
DF	T	DO	3M	32	10		10	1.5		5		6									
DF	T	DO	3M	34	197	3.6	190	26.7			5	41	36	62	15	23	8				
DF	T	DO	3M	36	3		3	.5						3							
DF	T	DO	3M	37	1		1	.1		1											
DF	T	DO	3M	40	38		38	5.4			1	6		6		24					
DF	T	DO	4M																		
DF	T	DO	4M	10																	
DF	T	DO	4M	11																	
DF	T	DO	4M	12	0		0	.1		0											
DF	T	DO	4M	13	1		1	.1		1											
DF	T	DO	4M	14	1		1	.1		1											
DF	T	DO	4M	15	1		1	.1		1											
DF	T	DO	4M	16	5		5	.7		0	4										
DF	T	DO	4M	17	2		2	.3		2											
DF	T	DO	4M	19	8		8	1.1		8											
DF	T	DO	4M	20	2		2	.3				2									
DF	T	DO	4M	21	3		3	.5		1			2								
DF	T	DO	4M	22	6		6	.8		3		2		1							
DF	T	DO	4M	23	5		5	.7		1			2		2						
DF	T	DO	4M	24	6		6	.8		6											
DF	T	DO	4M	25	1		1	.1		1											
DF	T	DO	4M	26	0		0	.1		0											
DF	T	DO	4M	27	5		5	.7		2	1			2							
DF	T	DO	4M	28	5		5	.7		2			3								
DF	T	DO	4M	29	5		5	.7		5											
DF	T	DO	4M	30	2		2	.3		2											
DF	T	DO	4M	31	1		1	.2		1											
DF	T	DO	4M	32	0		0	.1		0											
DF	T	DO	4M	34	40		40	5.6			22	11	7								
DF	T	DO	4M	37	2		2	.3		2											
DF	T	DO	4M	38	3		3	.4		3											
DF	T	DO	4M	40	2		2	.3		2											
DF	T	DO	4M	41	1		1	.2		1											

TC TLOGSTVB

Log Stock Table - MBF
Project: WNDYBEAR

T032 R005 S05 TA2

Area IV STRATA 3

T032 R005 S05 TA2

Twp Rge Sec Tract
032 005 05 CLEARCUTType Acres Plots Sample Trees
A2 22 23 82Page 2
Date 1/30/2013
Time 4:25:28PM

S So Gr Log Spp T rt de 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		Totals			718	1.1	710	86.1	59		37	76	93	118	102	174	52			
IC	L	DO	CU	20																
IC	L	DO	2M	34	5		5	6.2									5			
IC	L	DO	3M	22	4		4	4.7									4			
IC	L	DO	3M	34	9		9	11.2									4	5		
IC	L	DO	4M	26	0		0	.2	0											
IC	L	DO	4M	34	20	2.1	20	24.0					2		5	9	5			
IC	L	DO	1S	22	1		1	.9					1							
IC	L	DO	1S	24	0		0	.2	0											
IC	L	DO	1S	26	5		5	6.1	0								4			
IC	L	DO	1S	28	3		3	4.1	0				1							
IC	L	DO	1S	34	7		7	8.6					1		2		7			
IC	L	DO	1S	35	3		3	3.8									3			
IC	L	DO	1S	36	0		0	.4	0											
IC	L	DO	1P	40	0		0	.3	0											
IC	T	DO	2M	40	4		4	5.1									4			
IC	T	DO	3M	27	1		1	1.8									1			
IC	T	DO	3M	34	4		4	5.0										4		
IC	T	DO	3M	40	3		3	4.0							3					
IC	T	DO	4M	27	1		1	.9	1											
IC	T	DO	4M	32	2		2	2.1							2					
IC	T	DO	4M	33	0		0	.2	0											
IC	T	DO	4M	34	5		5	6.7			3				3					
IC	T	DO	4M	36	0		0	.1	0											
IC	T	DO	4M	38	0		0	.4	0											
IC	T	DO	1S	28	1		1	1.8			1									
IC	T	DO	1S	37	0		0	.6	0											
IC	T	DO	1P	13	0		0	.4	0											
IC		Totals			82		81	9.9	4		4		3		6		20	22	23	
GF	T	DO	2M	40	25		25	75.7							25					
GF	T	DO	3M	34	7		7	21.4					7							
GF	T	DO	4M	20	1		1	2.9	1											
GF		Totals			33		33	4.0	1				7		25					
Total All Species					833		825	100.0	63		37		80	100	121	108	219	74	23	

TC TSTATS					STATISTICS			PAGE 1		
					PROJECT WNDYBEAR			DATE 3/1/2013		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
032	005	05	SOUTHEAST	THN	71 + (2 Row) 69.00	38	245	S	W	
AREA V, VI, VII, VIII					TREES	ESTIMATED TOTAL	PERCENT SAMPLE			
PLOTS		TREES		PER PLOT	TREES	TREES				
TOTAL		38	245	6.4						
CRUISE		19	120	6.3	12,865	.9				
DBH COUNT										
REFOREST										
COUNT		19	125	6.6						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	70	90.4	15.7	80	31	122.1	16,854	16,726	4,056	4,056
DOUG FIR-T	33	67.8	13.3	82	18	65.5	7,564	7,488	1,871	1,871
GR FIR-L	7	15.4	12.6	77	4	13.3	1,779	1,779	433	433
GR FIR-T	4	5.2	12.5	71	1	4.4	418	418	106	106
INC CED-L	5	7.0	15.3	76		8.8	696	696	219	219
INC CED-T	1	.7	15.0	57		.9	43	43	18	18
TOTAL	120	186.4	14.5	80		214.9	27,354	27,152	6,703	6,703
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
DOUG FIR-L	93.2	11.1	356	401	446					
DOUG FIR-T	56.0	9.7	118	130	143					
GR FIR-L	82.6	33.6	128	193	258					
GR FIR-T	83.2	47.5	55	105	155					
INC CED-L	117.6	58.4	111	268	425					
INC CED-T										
TOTAL	108.8	9.9	267	296	326	472	118	52		
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
DOUG FIR-L	84.1	10.0	85	94	104					
DOUG FIR-T	51.3	8.9	29	32	35					
GR FIR-L	79.0	32.1	32	47	62					
GR FIR-T	81.3	46.5	14	26	38					
INC CED-L	105.1	52.2	38	80	122					
INC CED-T										
TOTAL	98.5	9.0	65	71	77	387	97	43		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
DOUG FIR-L	60.5	9.8	81	90	99					
DOUG FIR-T	79.5	12.9	59	68	77					
GR FIR-L	176.9	28.7	11	15	20					
GR FIR-T	321.6	52.1	2	5	8					
INC CED-L	220.7	35.8	4	7	9					
INC CED-T	616.4	99.9	0	1	1					
TOTAL	50.5	8.2	171	186	202	102	25	11		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
DOUG FIR-L	38.1	6.2	115	122	130					
DOUG FIR-T	77.3	12.5	57	65	74					
GR FIR-L	161.7	26.2	10	13	17					
GR FIR-T	314.7	51.0	2	4	7					

TC TSTATS

STATISTICS
PROJECT WNDYBEAR

PAGE 241-13-087

DATE 3/1/2013

TWP	RGE	SECT	TRACT	TYPE	ACRES	71 ⁷¹⁺² PLOTS	TREES	CuFt	BdFt
032	005	05	SOUTHEAST	THN	69.00	row 38	245	S	W
CL:	68.1 %	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
INC CED-L		210.6	34.1	6	9	12			
INC CED-T		616.4	99.9	0	1	2			
TOTAL		37.9	6.1	202	215	228	57	14	6
CL:	68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		43.1	7.0	15,558	16,726	17,894			
DOUG FIR-T		78.7	12.8	6,534	7,488	8,443			
GR FIR-L		160.6	26.0	1,316	1,779	2,242			
GR FIR-T		340.8	55.2	187	418	649			
INC CED-L		223.1	36.2	444	696	948			
INC CED-T		616.4	99.9	0	43	86			
TOTAL		41.0	6.6	25,346	27,152	28,957	67	17	7
CL:	68.1 %	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L		42.3	6.9	3,778	4,056	4,334			
DOUG FIR-T		78.1	12.7	1,634	1,871	2,108			
GR FIR-L		160.0	25.9	321	433	545			
GR FIR-T		347.3	56.3	46	106	165			
INC CED-L		220.9	35.8	141	219	298			
INC CED-T		616.4	99.9	0	18	36			
TOTAL		39.9	6.5	6,270	6,703	7,137	64	16	7

TC PSCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T032 R005 S05 TyTHN

69.00

Project: WNDYBEAR

Page 1

Acres

69.00 71 + 2 Row

Date 3/1/2013

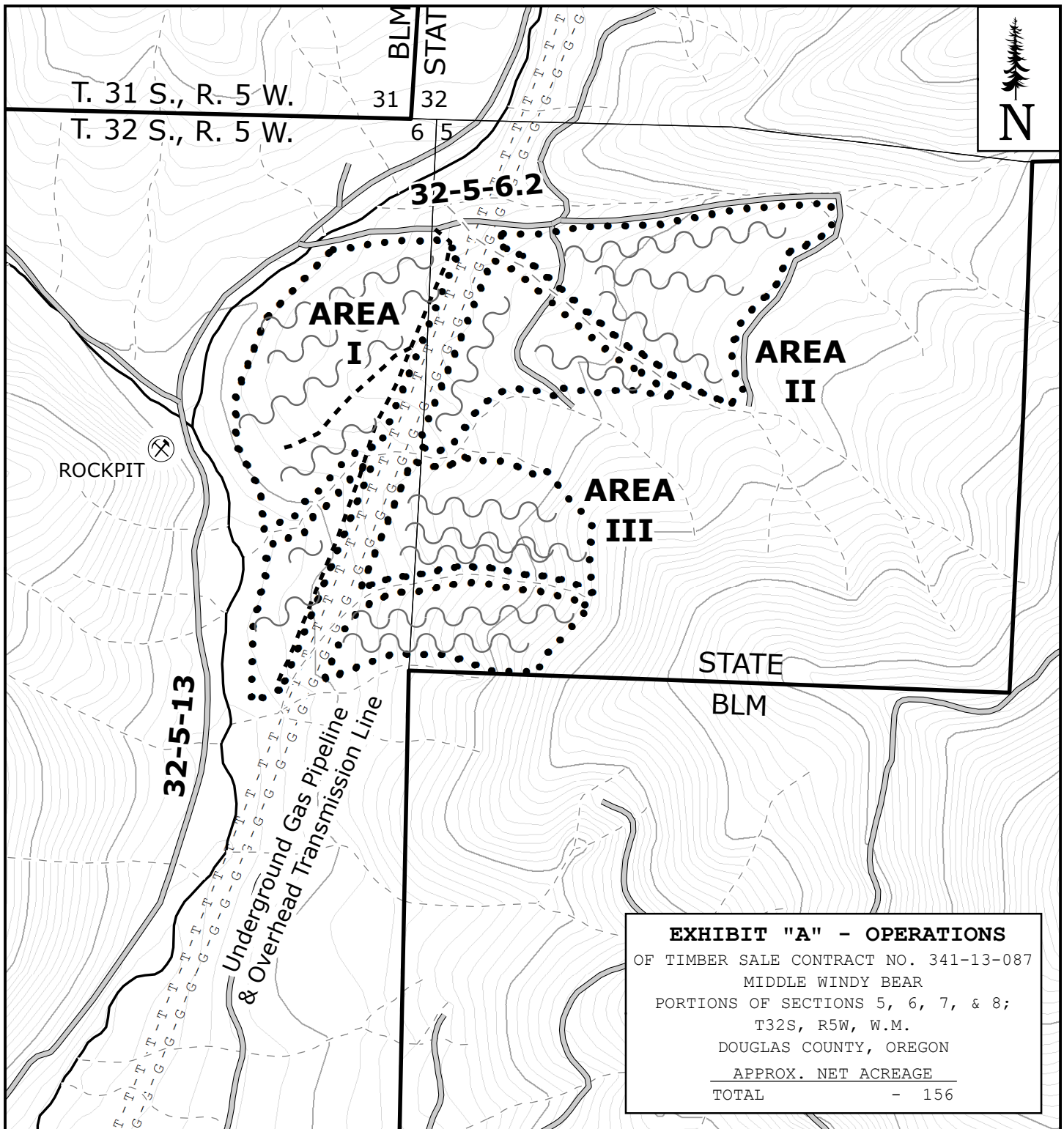
Time 8:31:59AM

S Spp			So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%GrossNet			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	
DF	L	DOCU															10		0.00	13.8	
DF	L	DO2M	46	.7	7,871	7,816	539			54	46	2	5	35	58	36	324	2.05	24.1		
DF	L	DO3M	39	1.1	6,595	6,523	450	3	60	33	4		17	57	26	33	113	0.86	57.7		
DF	L	DO4M	15		2,388	2,388	165	74	26			9	50	15	26	24	28	0.33	84.9		
DF Totals			62	.8	16,854	16,726	1,154	12	27	38	23	2	16	41	41	27	93	0.82	180.5		
DF	T	DOCU																0.00	2.5		
DF	T	DO2M	7		595	595	41			100			30	32	38	34	177	1.23	3.4		
DF	T	DO3M	63	1.6	4,784	4,708	325	2	90	8			25	73	3	32	81	0.65	58.0		
DF	T	DO4M	30		2,186	2,186	151	73	27			13	34	22	30	24	27	0.29	80.0		
DF Totals			28	1.0	7,564	7,488	517	22	65	13		4	28	55	13	27	52	0.49	143.9		
GF	L	DO2M	27		486	486	34			100				53	47	37	261	1.57	1.9		
GF	L	DO3M	42		747	747	52		79	21			21	79		33	109	0.81	6.8		
GF	L	DO4M	31		546	546	38	100					33	26	41	26	28	0.28	19.7		
GF Totals			7		1,779	1,779	123	31	33	36			19	56	26	29	63	0.53	28.4		
GF	T	DOCU														10		0.00	2.8		
GF	T	DO3M	77		326	326	22	9	91			9	59	32		25	55	0.57	5.9		
GF	T	DO4M	23		93	93	6	55	45			22	78			17	19	0.25	4.8		
GF Totals			2		418	418	29	19	81			12	63	25		19	31	0.41	13.5		
IC	L	DO3M	11		83	83	6			100			100			27	50	0.71	1.7		
IC	L	DO4M	26		179	179	12	100					28		72	22	22	0.31	8.1		
IC	L	DO1S	63		434	434	30	5	20	43	32		70	27	3	28	147	1.61	3.0		
IC Totals			3		696	696	48	29	24	27	20		62	17	21	24	55	0.72	12.8		
IC	T	DO1S	83		36	36	2			100			100			28	50	0.79	.7		
IC	T	DO1P	17		7	7	0	100				100				13	10	0.24	.7		
IC Totals			0		43	43	3	17	83			17	83			21	30	0.62	1.4		
Totals				0.7	27,354	27,152	1,873	16	39	30	15	3	22	45	31	27	71	0.66	380.4		

TC PLOGSTVB			Log Stock Table - MBF															
T032 R005 S05 TyTHN 69.00			Project: WNDYBEAR Acres 69.00 71 + 2 Rows										Page 1 Date 3/1/2013 Time 8:34:43AM					
S T Spp	So Gr rt	Log de 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	L	DO 2M 17	9		9	.8							9					
DF	L	DO 2M 27	15		15	1.3					15							
DF	L	DO 2M 28	13	11.9	11	1.0							11					
DF	L	DO 2M 34	191		191	16.5					116	11		64				
DF	L	DO 2M 40	316		314	27.2					13	123	77	83	17			
DF	L	DO 3M 22	6		6	.5		1			4							
DF	L	DO 3M 24	9		9	.7					5	4						
DF	L	DO 3M 25	1		1	.1		1										
DF	L	DO 3M 26	7		7	.6		2				6						
DF	L	DO 3M 27	37		37	3.2			7	17	14							
DF	L	DO 3M 28	9		9	.8		1		8								
DF	L	DO 3M 29	8		8	.7		3				4						
DF	L	DO 3M 30	1		1	.1		1										
DF	L	DO 3M 31	11		11	1.0					11							
DF	L	DO 3M 32	23		23	2.0		3		3	6	11						
DF	L	DO 3M 34	222		221	19.1		1	18	47	84	24	29	18				
DF	L	DO 3M 40	123	3.3	118	10.3			9	5	33	43	14	15				
DF	L	DO 4M 12	3		3	.2			3									
DF	L	DO 4M 13	1		1	.1		1										
DF	L	DO 4M 16	1		1	.1		1										
DF	L	DO 4M 18	1		1	.1		1										
DF	L	DO 4M 19	2		2	.2		2										
DF	L	DO 4M 20	7		7	.6		3		3								
DF	L	DO 4M 21	4		4	.3		4										
DF	L	DO 4M 22	2		2	.1		2										
DF	L	DO 4M 24	21		21	1.8		16		5								
DF	L	DO 4M 25	2		2	.2		2										
DF	L	DO 4M 26	2		2	.2		2										
DF	L	DO 4M 27	15		15	1.3		5	10									
DF	L	DO 4M 28	8		8	.7		2			6							
DF	L	DO 4M 29	16		16	1.4		5	11									
DF	L	DO 4M 30	13		13	1.2		13										
DF	L	DO 4M 31	4		4	.3		4										
DF	L	DO 4M 32	8		8	.7		8										
DF	L	DO 4M 33	3		3	.2		3										
DF	L	DO 4M 34	9		9	.8		3		6								
DF	L	DO 4M 35	1		1	.1		1										

TC PLOGSTVB				Log Stock Table - MBF															
T032 R005 S05 TyTHN 69.00				Project: WNDYBEAR Acres 69.00 71 + 2 Row										Page 2 Date 3/1/2013 Time 8:34:43AM					
Spp	S T	So Gr	Log 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
DF	L	DO	4M	36	1		1	.1		1									
DF	L	DO	4M	37	1		1	.1		1									
DF	L	DO	4M	38	3		3	.2		3									
DF	L	DO	4M	39	21		21	1.8		21									
DF	L	DO	4M	40	5		5	.5		5									
DF	L	DO	4M	41	13		13	1.1		13									
DF		Totals			1,163		1,154	61.6		134	58	93	163	230	183	130	147	17	
DF	T	DO	2M	27	12		12	2.4					12						
DF	T	DO	2M	34	13		13	2.5					13						
DF	T	DO	2M	40	15		15	3.0					15						
DF	T	DO	3M	27	80	8.8	80	15.5			50	30							
DF	T	DO	3M	32	59		54	10.4	5		36		12						
DF	T	DO	3M	34	182		182	35.2		23	90	55	15						
DF	T	DO	3M	40	9		9	1.7		9									
DF	T	DO	4M	15	2		2	.3		2									
DF	T	DO	4M	17	7		7	1.4		7									
DF	T	DO	4M	20	11		11	2.2			4	7							
DF	T	DO	4M	21	11		11	2.2	11										
DF	T	DO	4M	22	10		10	1.8		3	7								
DF	T	DO	4M	23	10		10	2.0		10									
DF	T	DO	4M	24	9		9	1.8		9									
DF	T	DO	4M	26	8		8	1.6		8									
DF	T	DO	4M	30	3		3	.6		3									
DF	T	DO	4M	31	4		4	.9		4									
DF	T	DO	4M	33	6		6	1.1		6									
DF	T	DO	4M	34	23		23	4.5	11	12									
DF	T	DO	4M	36	12		12	2.4		12									
DF	T	DO	4M	37	12		12	2.4		12									
DF	T	DO	4M	40	20		20	4.0		10	10								
DF		Totals			522	1.0	517	27.6		115	66	183	84	68					
GF	L	DO	2M	34	18		18	14.5					18						
GF	L	DO	2M	40	16		16	12.8					16						
GF	L	DO	3M	27	11		11	8.8				11							
GF	L	DO	3M	34	41		41	33.2			17	24							
GF	L	DO	4M	23	1		1	.9		1									

TC PLOGSTVB				Log Stock Table - MBF															
T032 R005 S05 TyTHN 69.00				Project: WNDYBEAR Acres 69.00 71 + 2 Row												Page 3 Date 3/1/2013 Time 8:34:43AM			
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+
GF	L	DO 4M	27	9		9	7.2		9										
GF	L	DO 4M	29	2		2	2.0		2										
GF	L	DO 4M	33	3		3	2.4		3										
GF	L	DO 4M	34	7		7	5.4		7										
GF	L	DO 4M	36	12		12	9.6		12										
GF	L	DO 4M	37	4		4	3.1		4										
GF		Totals		123		123	6.6	38	17	24	11	34							
GF	T	DO 3M	17	2		2	6.7	2											
GF	T	DO 3M	27	13		13	46.0		6	7									
GF	T	DO 3M	34	7		7	25.2			7									
GF	T	DO 4M	13	1		1	4.8	1											
GF	T	DO 4M	22	3		3	9.9			3									
GF	T	DO 4M	24	2		2	7.4	2											
GF		Totals		29		29	1.5	5	6	3	14								
IC	L	DO 3M	27	6		6	11.9			6									
IC	L	DO 4M	29	3		3	7.1	3											
IC	L	DO 4M	40	9		9	18.6	9											
IC	L	DO 1S	24	6		6	12.4			6									
IC	L	DO 1S	26	9		9	19.7										9		
IC	L	DO 1S	28	5		5	11.3	1					5						
IC	L	DO 1S	35	8		8	17.0							8					
IC	L	DO 1S	36	1		1	1.9	1											
IC		Totals		48		48	2.6	14	12			5	8		9				
IC	T	DO 1S	28	2		2	83.3		2										
IC	T	DO 1P	13	0		0	16.7	0											
IC		Totals		3		3	.2	0	2										
Total		All Species		1,887		1,873	100.0	306	130	310	285	309	221	138	156	17			

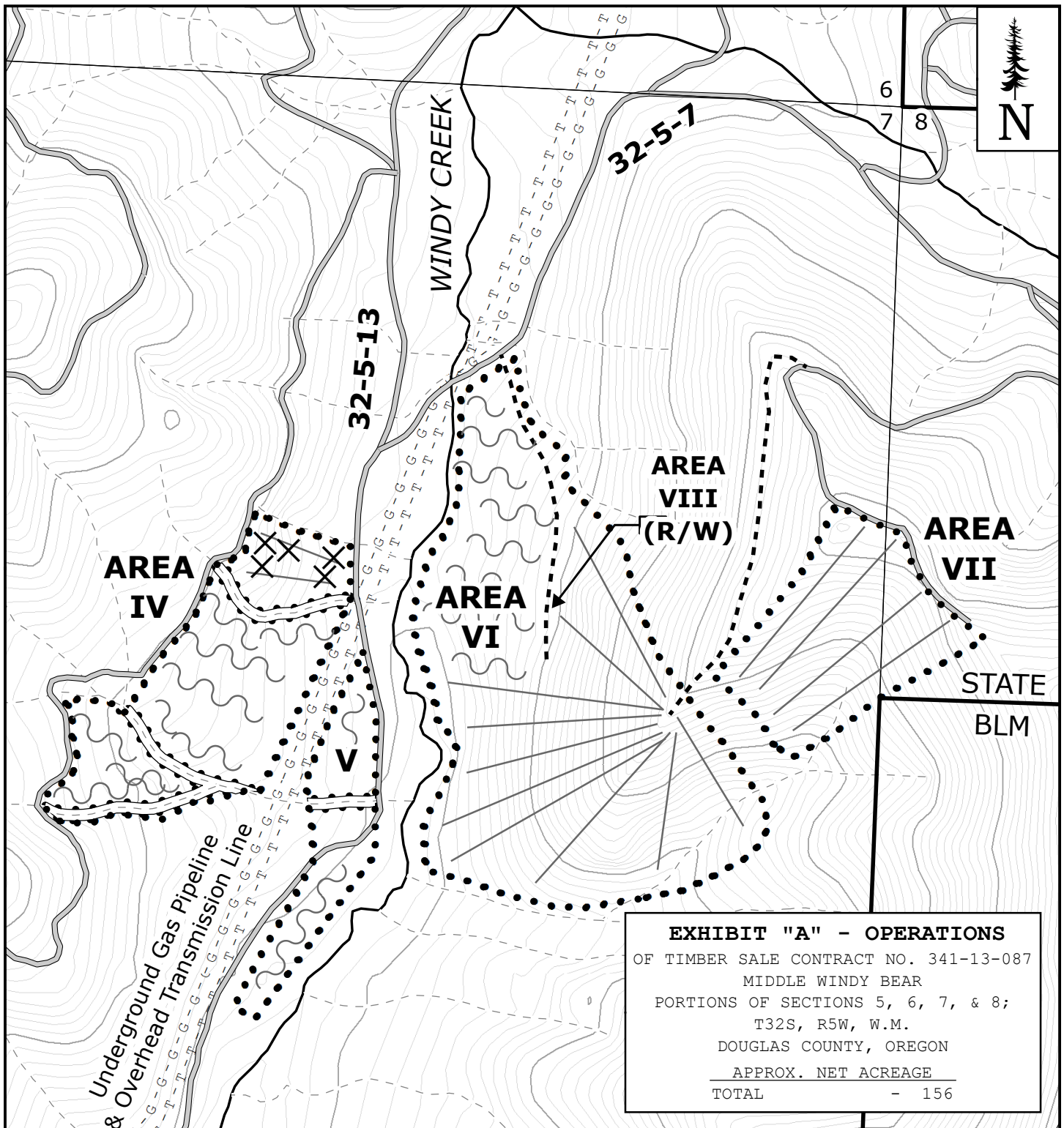


0 500 1,000 2,000 3,000 Feet

APPROX. SCALE 1:7,500 or 1 inch = 625 feet

40' contour interval

- | | | |
|-------------------------|-------------------------|------------------------|
| Timber Sale Boundary | Fish Stream | Existing Road |
| Ownership Boundary | Nonfish or Unknown Fish | Road Construction Req. |
| State Forests Ownership | Cable | Tractor |



0 500 1,000 2,000 3,000
Feet

APPROX. SCALE 1:7,500 or 1 inch = 625 feet

40' contour interval

- | | | |
|-------------------------|--------------------------|------------------------|
| Timber Sale Boundary | Fish Stream | Existing Road |
| Ownership Boundary | Nonfish or Unknown Fish | Road Construction Req. |
| State Forests Ownership | Stream Boundary (Posted) | Cable |
| Green Tree Retention | Tractor | |