



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Green Spill
Sale 341-13-59

District: West Oregon

Date: August 08, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$159,667.87	\$0.00	\$159,667.87
		Project Work:	\$(79,677.00)
		Advertised Value:	\$79,990.87



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timber description

Location: Portions of Section 34, T9S, R8W, W.M., and portions of Sections 1, 2, 12, 13, and 24, T10S, R8W, W.M., and portions of Sections 6, 18, and 19, T10S, R7W, W.M., Benton, Lincoln, and Polk Counties, Oregon.

Stand Stocking: 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	11	0	96

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	17	845	537	1,399
Total	17	845	537	1,399



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comments: Pond Values Used: 2nd Quarter Calendar Year 2012.

WEIGHT SCALE CONVERSION = 8 TONS/MBF

Western Hemlock and Other conifers Stumpage Price: Use Douglas-fir bid price.

Western redcedar and Other Cedars Stumpage Price: Price per MBF divided by conversion factor (8 tons per MBF).
\$25/Ton = \$200/MBF divided by 8.

Red Alder and Other Hardwoods Stumpage Price: Use Douglas-fir bid price.

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

LOG HAUL:
Conifer costed to Philomath.

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

Other Costs (with Profit & Risk to be added):
None.

Other Costs (No Profit & Risk added):
Invasive Species Equipment Cleaning: \$2,000
Non-project Road Construction: \$647
Additional On-Site Move for Logging Equipment: \$1,380
TOTAL Other Costs (No Profit & Risk added) = \$4,027

SLASH DISPOSAL
None.



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logging conditions

combination#: 1	Douglas - Fir	88.27%
yarding distance:	Medium (800 ft)	downhill yarding: No
logging system:	Cable: Small Tower <=40	Process: Stroke Delimber
tree size:	Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF	
loads / day:	3.2	bd. ft / load: 3,500
cost / mbf:	\$253.06	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Small)	
combination#: 2	Douglas - Fir	11.73%
yarding distance:	Short (400 ft)	downhill yarding: No
logging system:	Wheel Skidder	Process: Stroke Delimber
tree size:	Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF	
loads / day:	3.0	bd. ft / load: 3,500
cost / mbf:	\$136.97	
machines:	Stroke Delimber (B)	



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District: West Oregon

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logging costs

Operating Seasons:	2.00	Profit Risk:	14.00%
Project Costs:	\$79,677.00	Other Costs (P/R):	\$0.00
Slash Disposal:	\$0.00	Other Costs:	\$4,027.00

Miles of Road

Road Maintenance: \$14.47

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	3.5

Local Pond Values

Date	Specie	Grade	Value
8/8/12	Douglas - Fir	2S	\$530.00
8/8/12	Douglas - Fir	3S	\$500.00
8/8/12	Douglas - Fir	4S	\$490.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Green Spill
Sale 341-13-59

District: West Oregon

Date: August 08, 2012

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$239.44	\$15.05	\$6.27	\$67.77	\$0.00	\$45.99	\$0.00	\$5.00	\$2.88	\$382.40

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$496.53	\$114.13	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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District: West Oregon

Date: August 08, 2012

summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,399	\$114.13	\$159,667.87

Gross Timber Sale Value

Recovery: \$159,667.87

Prepared by: Dave Wiger

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Green Spill

Date: August 9, 2012
Time: 9:36

Project #1 - Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>		
A2 to A3	6.2 sta	\$ 2,697		
E3 to E4	4.1 sta	\$ 5,261		
F2 to F3 (Sta. 8+20 to 11+40)	3.2 sta	\$ 618		
TOTALS	13.5 sta		\$	8,576

Project #2 - Improvement

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>		
A to A1	89.2 sta	\$ 1,439		
B to D	239.4 sta	\$ 1,917		
B1 to B2	105.4 sta	\$ 1,872		
B3 to B4	11.7 sta	\$ 103		
C to C1	92.8 sta	\$ 17,055		
C2 to C3	8.6 sta	\$ 5,349		
D to D1	116.2 sta	\$ 17,434		
D2 to D3	3.6 sta	\$ 2,942		
D4 to D5	2.0 sta	\$ 1,928		
E to E1	311.3 sta	\$ 2,170		
E1 to E2	7.6 sta	\$ 989		
F to F1	145.6 sta	\$ 3,424		
F2 to F3 (Sta. 0+00 to 8+20)	8.2 sta	\$ 449		
F4 to F5	32.2 sta	\$ 752		
F6 to F7	9.6 sta	\$ 524		
TOTALS	1183.4 sta		\$	58,347

Project #3 - Post Harvest Activities

Turnaround rock		\$	9,220
Landing patch rock			
Remove temp crossing			
Tank trap			

<u>Move in</u>	<u>Cost</u>	<u>On-site move</u>		
Excavator, Cat-225 or equiv.	\$ 672	\$ 200		
Crawler tractor, D-7 or equiv.	\$ 488	\$ 200		
Grader, Cat 14-G or equiv.	\$ 304	\$ 80		
Vibratory Roller	\$ 304	\$ 75		
Water Truck	\$ 199			
Backhoe x 3	\$ 912	\$ 100		
TOTAL			\$	3,534

GRAND TOTAL \$ 79,677

Compiled by D. Wiger

Date 08/09/2012

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #2		LENGTH	89.2 sta
ROAD	A to A1	Mixed	(Yaquina Road-WOYAQ00; WOYAQ100)	Surfaced	78.9 sta
				Unsurfaced	10.3 sta

IMPROVEMENT

Shape surface (with road grader 0+00 to 78+90)	78.9 sta.	@	\$12.28 /sta	=	\$969
Re-open with Dozer (78+90 to 89+20)	3 hrs.	@	\$121.25 /hr	=	\$364
Shape surface (78+90 to 89+20)	10.3 sta.	@	\$10.31 /sta	=	\$106

TOTAL IMPROVEMENT \$1,439

Compiled by:
Date:

D. Wiger
Aug 9, 2012

GRAND TOTAL =====>

\$1,439

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #1	LENGTH	6.2 sta
ROAD	A2 to A3	Dirt, Outsloped	(WOYAQ150)	

CLEARING AND GRUBBING

0.15 road acres	@	\$902.00 /acre	=	\$135
0.10 landing acres	@	\$902.00 /acre	=	\$90

TOTAL CLEARING AND GRUBBING = \$225

EXCAVATION

With Excavator or backhoe & D7 dozer or equivalent

Re-construct road (3+50 to 6+20)	2.7 sta.	@	\$66.32 /sta.	=	\$179
Reopen landing	0.5 hr.	@	\$121.25 /hr	=	\$61
Shape subgrade (with road grader)	6.2 sta.	@	\$10.31 /sta	=	\$64
Backfill culvert (4+90)	3 hr.	@	\$121.25 /hr	=	\$364

TOTAL EXCAVATION = \$668

CULVERT - temporary

Pipe - provided by STATE transported by PURCHASER

Transport, place, labor, and band \$350

SURFACING

		Size	Cost/yd		
Patch Rock (2 locations) (0+60; 2+40)	54 cy of	Jaw run	\$26.93	=	\$1,454

TOTAL ROCK COST = \$1,454

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$2,697

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 239.4 sta
ROAD B to D Surfaced, Ditched Green Mountain Road (WOGMT00)

IMPROVEMENT

Shape surface 0.0 sta. @ \$12.28 /hr = \$0
ODF to grade prior to operations, two interim gradings planned in maintenance for 0+00 to 52+80

TOTAL IMPROVEMENT \$0

SURFACING

Spot rock (25 CY/Mi) 108 cy of 1½-0" \$17.75 = \$1,917

TOTAL ROCK COST = \$1,917

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$1,917

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Green Spill B1 to B2	- Project #2 Surfaced, Ditched	LENGTH Harmsen Road	105.4 sta (WOHARM00) (WOHARM100) (WOHARM140)
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IMPROVEMENT

Shape surface (with road grader)	105.4 sta	@	\$12.28 /sta	=	\$1,294
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TOTAL IMPROVEMENT	\$1,294
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SURFACING

			Size	Cost/yd		
Landing Rock (B2)	36	cy of	Jaw run	\$16.06	=	\$578

TOTAL ROCK COST =	\$578
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Compiled by:
Date:

D. Wiger
Aug 9, 2012

GRAND TOTAL =====>

\$1,872

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 11.7 sta
ROAD B3 to B4 Surfaced, Outsloped (WOHARM145)

IMPROVEMENT

Shape surface 11.7 sta. @ \$8.84 /sta = \$103
(with road grader)

TOTAL IMPROVEMENT \$103

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$103

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #2	LENGTH	92.8 sta
ROAD	C to C1	Surfaced/Ditched	Bradish Blvd/Steere Creek (WOBBV00 / WOSTR00)	

IMPROVEMENT

Shape surface (with road grader)	92.8 sta.	@	\$12.28 /sta	=	\$1,140
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TOTAL IMPROVEMENT	\$1,140
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SURFACING

		Size	Cost/yd		
Spot rock (0+00 - 49+30) (25 CY/Mile)	27 cy of	1½-0"	\$19.86	=	\$536
3" Lift (49+30 - 92+80)	720 cy of	1½-0"	\$21.36	=	\$15,379

TOTAL ROCK COST =	\$15,915
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Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====>	\$17,055
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SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 8.6 sta
 ROAD C2 to C3 Surfaced/Outsloped (WOSTR170)
 Rebuild junction and improve grade to junction.

IMPROVEMENT

Shape subgrade 8.6 sta. @ \$8.84 /sta = \$76
 (with road grader)

TOTAL IMPROVEMENT = \$76

SURFACING

		Size	Cost/yd		
4" lift (0+00 to 8+10)	180 cy of	3-0"	\$23.08	=	\$4,154
Curve widening rock	18 cy of	3-0"	\$21.73	=	\$391
Landing Rock (C3)	36 cy of	Jaw run	\$20.23	=	\$728

TOTAL ROCK COST = \$5,273

Compiled by: D. Wiger
 Date: Aug 9, 2012

GRAND TOTAL =====> \$5,349

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #2	LENGTH	116.2 sta
ROAD	D to D1	Surfaced/Ditched	Little Grass (WOLTG00)	85.3 sta
		Surfaced/Outsloped	(WOLTG400)	30.9 sta

IMPROVEMENT

Shape surface	85.3 sta.	@	\$12.28 /sta	=	\$1,047
Shape surface (with road grader)	30.9 sta.	@	\$8.84 /sta	=	\$273

TOTAL IMPROVEMENT \$1,320

SURFACING

			Size	Cost/yd		
Spot rock (0+00 - 85+30) (25 CY/Mile)	45	cy of	1½-0"	\$19.86	=	\$894
4" Lift (85+30 - 115+70)	669	cy of	3-0"	\$21.02	=	\$14,062
Curve widening	24	cy of	3-0"	\$21.02	=	\$504
Landing rock (D1)	36	cy of	Jaw run	\$18.17	=	\$654

TOTAL ROCK COST = \$16,114

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$17,434

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #2	LENGTH	3.6 sta
ROAD	D2 to D3	Surfaced/Outsloped	(WOLTG405)	

IMPROVEMENT

Re-open road (with Dozer)	1 hr.	@	\$121.25 /hr	=	\$121
Shape surface (with road grader)	3.6 sta.	@	\$8.84 /sta	=	\$32

TOTAL IMPROVEMENT	\$153
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SURFACING

			Size	Cost/yd		
6" Lift (0+00-3+10)	99 cy of		3-0"	\$21.02	=	\$2,081
Landing rock D3)	36 cy of		Jaw run	\$19.67	=	\$708

TOTAL ROCK COST =	\$2,789
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Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====>	\$2,942
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SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 2.0 sta
ROAD D4 to D5 Surfaced, Outsloped (WOLTG410)

IMPROVEMENT

Re-open road 1 hr. @ \$121.25 /hr = \$121
(with Dozer)
Shape surface 2.0 sta. @ \$8.84 /sta = \$18
(with road grader)

TOTAL IMPROVEMENT \$139

SURFACING

		Size	Cost/yd		
6" Lift (0+00 - 1+50)	54 cy of	3-0"	\$21.02	=	\$1,135
Landing rock (D5)	36 cy of	Jaw run	\$18.17	=	\$654

TOTAL ROCK COST = \$1,789

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$1,928

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 7.6 sta
ROAD E1 to E2 Surfaced, Outsloped (WOHFC400)

IMPROVEMENT

Shape surface 7.6 sta. @ \$8.84 /sta = \$67
(with road grader)

TOTAL IMPROVEMENT \$67

SURFACING

		Size	Cost/yd		
Spot rock (0+00 - 7+10) (25 CY/Mile)	9 cy of	3-0"	\$21.58	=	\$194
Landing rock (E2)	36 cy of	Jaw run	\$20.23	=	\$728

TOTAL ROCK COST = \$922

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$989

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #1		LENGTH	4.1 sta
ROAD	E3 to E4	Surfaced, Outsloped	(WOHFC490)		

CLEARING AND GRUBBING

0.26 road acres	@	\$902.00 /acre	=	\$235
0.10 landing acres	@	\$902.00 /acre	=	\$90

TOTAL CLEARING AND GRUBBING = \$325

EXCAVATION With D-7 dozer or equivalent

Construct road	4.1 sta.	@	\$66.32 /sta.	=	\$272
Construct landing	1 hr.	@	\$121.25 /hr	=	\$121
Shape subgrade (with road grader)	4.1 sta.	@	\$10.31 /sta	=	\$42
Compact subgrade with a roller	4.1 sta.	@	\$8.31 /sta.	=	\$34

TOTAL EXCAVATION = \$469

SURFACING

			Size	Cost/yd		
8" Lift	162 cy of		3-0"	\$23.08	=	\$3,739
Landing rock (E4)	36 cy of		Jaw run	\$20.23	=	\$728

TOTAL ROCK COST = \$4,467

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$5,261

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 145.6 sta
ROAD F to F1 Surfaced, Mixed South Fork Rock Crk (WOSFR00)

IMPROVEMENT

Shape surface 145.6 sta. @ \$12.28 /sta = \$1,788
(with road grader)
Clean ditch & road 3.0 hrs. @ \$68.75 /hr = \$206
(with backhoe 11+15 to 12+15)

TOTAL IMPROVEMENT \$1,994

SURFACING

Spot rock (0+00 - 145+60) 72 cy of Size Cost/yd
(25 CY/Mile) 1½-0" \$19.86 = \$1,430

TOTAL ROCK COST = \$1,430

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$3,424

SUMMARY OF CONSTRUCTION COST

SALE	Green Spill	- Project #1 & 2		LENGTH	11.4 sta
ROAD	F2 to F3	Unsurfaced, Outsloped	(WOHFC400)	Improve	8.2
				Construct	3.2

Project 1:

CLEARING AND GRUBBING

(8+20 to 11+40)

0.18 road acres	@	\$902.00 /acre		=	\$162
0.10 landing acres	@	\$902.00 /acre		=	\$90

TOTAL CLEARING AND GRUBBING = \$252

EXCAVATION

With D-7 dozer or equivalent

Construct road (8+20 to 11+40)	3.2 sta.	@	\$66.32 /sta.		\$212
Construct landing	1 hr.	@	\$121.25 /hr		\$121
Shape subgrade (with road grader)	3.2 sta.	@	\$10.31 /sta		\$33

TOTAL EXCAVATION = \$366

Project 2:

IMPROVEMENT

Re-open road (with Dozer)	3 hr.	@	\$121.25 /hr		\$364
Shape surface (with road grader)	8.2 sta.	@	\$10.31 /sta		\$85

TOTAL IMPROVEMENT \$449

Compiled by:
Date:

D. Wiger
Aug 9, 2012

GRAND TOTAL =====>

\$1,067

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 32.2 sta
ROAD F4 to F5 Surfaced, Ditched (WOSFR100)

IMPROVEMENT

Shape surface 32.2 sta. @ \$12.28 /sta = \$395
(with road grader)

TOTAL IMPROVEMENT \$395

SURFACING

Spot rock 18 cy of Size Cost/yd
(25 CY/Mile) 3-0" \$19.86 = \$357

TOTAL ROCK COST = \$357

Compiled by:
Date:

D. Wiger
Aug 9, 2012

GRAND TOTAL =====>

\$752

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #2 LENGTH 9.6 sta
ROAD F6 to F7 Dirt, Outsloped (WOSFR160)

IMPROVEMENT

Re-open road (with dozer)	3 hr.	@	\$121.25 /hr	=	\$364
Construct landing	0.5 hr.	@	\$121.25 /hr	=	\$61
Shape surface (with road grader)	9.6 sta.	@	\$10.31 /sta	=	\$99

TOTAL IMPROVEMENT \$524

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====> \$524

SUMMARY OF CONSTRUCTION COST

SALE Green Spill - Project #3 Post Harvest
ROAD

SURFACING

		Size	Cost/yd		
Turnaround rock					
A-A1 78+50	27 cy of	3-0"	\$17.41	=	\$470
B2	27 cy of	3-0"	\$17.41	=	\$470
B4	27 cy of	3-0"	\$17.41	=	\$470
C3	27 cy of	3-0"	\$19.52	=	\$527
D1	27 cy of	3-0"	\$19.52	=	\$527
D3	27 cy of	3-0"	\$19.52	=	\$527
E2	27 cy of	3-0"	\$21.58	=	\$583
E4	27 cy of	3-0"	\$21.58	=	\$583
Landing patch rock					
B1-B2 (10)	90 cy of	3-0"	\$17.41	=	\$1,567
C -C1 (5)	45 cy of	1½-0"	\$19.86	=	\$894
D - D1 (2)	18 cy of	3-0"	\$19.52	=	\$351
F-F1 (10)	90 cy of	1½-0"	\$17.75	=	\$1,598

TOTAL ROCK COST = \$8,567

MISCELLANEOUS PROJECTS

Tank traps at Pts. F2, F6, A-A1 sta 78+90	1.5 hr.	@	\$68.75 /hr. =	\$103
Remove temporary culvert at A2-A3 Station 4+90	8.0 hr.	@	\$68.75 /hr. =	\$550

TOTAL MISCELLANEOUS PROJECTS = \$653

Compiled by:
Date:

D. Wiger
Aug 9, 2012

GRAND TOTAL =====>

\$9,220

SUMMARY OF CONSTRUCTION COST FOR NON-PROJECT ROAD(S)

SALE	Green Spill	- Project #1	LENGTH	2.5 sta
ROAD	Non-project	Unsurfaced, outsloped		
	2 short spurs to access the west side of Area I			

CLEARING AND GRUBBING

0.11 road acres	@	\$902.00 /acre	=	\$99
0.10 landing acres	@	\$902.00 /acre	=	\$90
TOTAL CLEARING AND GRUBBING =				\$189

EXCAVATION

D7 dozer or equivalent

Construct road	2.5 sta.	@	\$66.32 /sta.	=	\$166
Landings (2)	1 hr.	@	\$121.25 /hr	=	\$121
Shape subgrade (with road grader)	6.6 sta.	@	\$10.31 /sta	=	\$68
TOTAL EXCAVATION =				\$355	

POST HARVEST ROAD CLOSURE

Waterbar and block	1.5 hr.	@	\$68.75 /hr	=	\$103
TOTAL ROAD CLOSURE =				\$103	

If non-project roads are not built, it is assumed that the logging costs increase at least as much as the cost of constructing the roads. These two spurs would access the western half of Area I. Logs would need to be hot decked and swung out to the Hatchery-Fall Creek Road for loading (125' average).

Cost for these roads is included in the Other projects: No P&R portion of the contract

Compiled by: D. Wiger
Date: Aug 9, 2012

GRAND TOTAL =====>

\$647

SUMMARY OF MAINTENANCE COST

SALE Green Spill - Final Maintenance Cost Estimate
ROAD

Grading

Move-in Grader, plus on-site move \$ 384.00

Road Segment	Length	Cost/Sta	Cost	Mileage
A to A1	78.9	\$12.28	\$968.89	1.49
A to A1	10.3	\$10.31	\$106.19	0.20
A2 to A3	6.2	\$10.31	\$63.92	0.12
B to D	239.4	\$12.28	\$2,939.83	4.53
B-D 0+00 to 52+80	105.6	\$12.28	\$1,296.77	2.00 Two interim gradings
B1 to B2	105.4	\$12.28	\$1,294.31	2.00
B3 to B4	11.7	\$8.84	\$103.43	0.22
C to C1	92.8	\$12.28	\$1,139.58	1.76
C2 to C3	8.6	\$12.28	\$105.61	0.16
D to D1	85.3	\$12.28	\$1,047.48	1.62
D to D1	30.9	\$8.84	\$273.16	0.59
D2 to D3	3.6	\$8.84	\$31.82	0.07
D4 to D5	2.0	\$8.84	\$17.68	0.04
E to E1	311.3	\$12.28	\$3,822.76	5.90
E to E1 0+00 to 15+50	15.5	\$12.28	\$190.34	0.29 One interim grading
E1 to E2	7.6	\$8.84	\$67.18	0.14
F to F1	145.6	\$12.28	\$1,787.97	2.76
F2 to F3	11.4	\$10.31	\$117.53	0.22
F4 to F5	32.2	\$12.28	\$395.42	0.61
F6 to F7	9.6	\$10.31	\$98.98	0.18
Totals	1313.9		\$16,252.85	24.88

Maintenance Rock

Rock Size	Volume (CY)	Cost/CY	Cost
1½-0"	171	\$19.86	\$3,396.06

Grand Total \$20,032.91

TS Volume 1,424 MBF

Cost / MBF = \$14.07
D. Wiger

NOTES:

1. Rock to be spread prior to final grading.
2. Most rock will be placed on A-A1 or B-B1.
3. All culverts within the sale area will be inspected at inlets and outlets and have logging debris within 10' cleared.
- 4 Rock calc. = 2.426mmbf X 25 cy/mile/mmbf X 2.12 miles
5. Grading is one grading at completion of haul. Move-in is included.

Compiled by: D. Wiger

TIMBER CRUISE SUMMARY

Sale Name: Green Spill 341-13-59

Sale Type: Areas I, II, III, IV, and V are automark thinnings.

Sale Area: The sale is located in the Section 34, T9S, R8W, W.M.; Sections 1, 2, 12, 13, and 24, T10S, R8W, W.M.; and Sections 6, 18, and 19, T10S, R7W, WM, Benton, Lincoln, and Polk Counties, Oregon.

Preface: Small wood thins are considered to be a silvicultural treatment. Approximately 96 plots (20 per area for Areas II through V and 16 for Area I) were taken to estimate volume and grade. Half of the plots were basal area only (count) plots. The majority of the take trees were in the 10 to 13" DBH range with bole heights in the 45 to 60 foot range. Pulp grade in the cruise is primary because of sinuosity in the upper portion of the tree bole. Typically trees will have a 32 to 40 foot saw log with a 4 saw or pulp log at the top of the bole.

Cruise Summary:

MBF Volume								
Area	Gross Acres	Net Acres	Species	Gross Volume	Net Volume	% Hidden D & B	Final Adjusted Volume	Pulp
I	24	22	Douglas-fir	117	104	0	104	10
II	55	52	Douglas-fir	209	174	0	174	28
III	71	70	Douglas-fir	548	334	0	334	2
IV	85	81	Douglas-fir	410	386	0	386	20
V	85	79	Douglas-fir	432	401	0	401	31
Totals	320	304			1399		1399	91

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

Grade by Percent					
Area	Species	2-Saw	3-Saw	4-Saw	Pulp
I	Douglas-fir	--	39%	53%	9%
II	Douglas-fir	--	38%	49%	14%
III	Douglas-fir	--	68%	32%	1%
IV	Douglas-fir	--	54%	41%	5%
V	Douglas-fir	4%	64%	25%	7%
Combined	Douglas-fir	1%	57%	36%	6%

NOTE: Rounding may result in totals being more or less than 100%

Cruise Methods: Timber Sale Area – Data was taken using variable radius plots using a 20 BAF plot factor for basal area. All take trees on measure plots were measured and graded. One-half of the plots were basal area only plots. Volumes are based on a gross acre cruise, biased to miss areas of low stocking, with leave trees and take trees tallied. Gross acres were reduced to net acres for the cruise using a dot grid on aerial photos to estimate ratio of stocked to low stocked areas in the units.

Tree Form: A form point of 16' was used for all species. A district average form factor (89) was used for volume estimates on this sale.

Measurement Standards: Heights were measured to the nearest foot to a top cruise diameter of 5 inches outside bark for Douglas-fir.

Grading System: All trees were graded in 40 foot segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.


Utilization Standards: The minimum log diameter for Douglas-fir was 5 inches. The minimum segment length was 13 feet (12 feet plus 1 foot of trim).

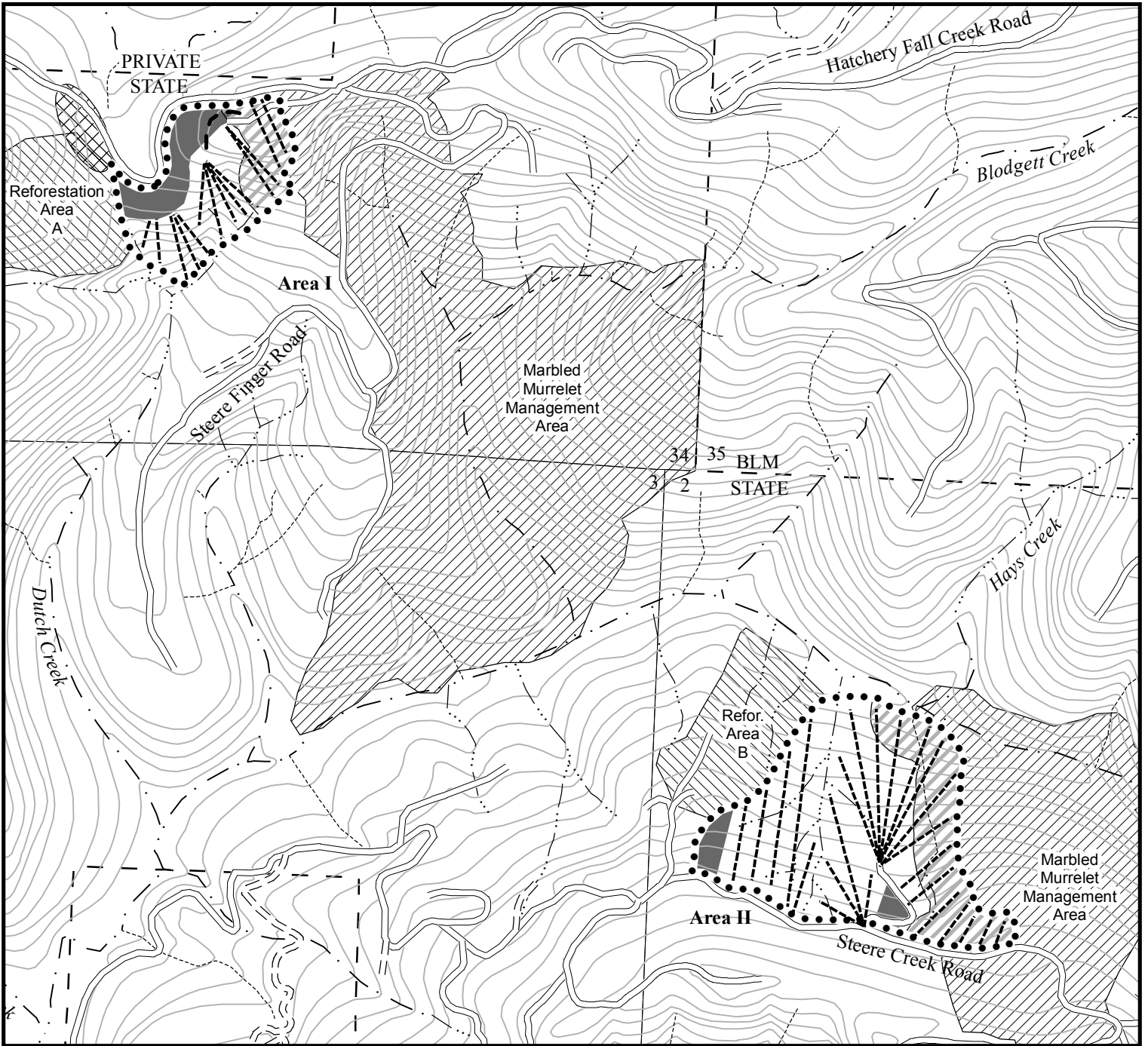
Hidden Defect and Breakage: No hidden defect and breakage was used.

Computation Procedures: The cruise volumes were computed using SuperAce 2004. The net acreage for the cruise was 304 acres.

Cruisers/Dates: All sale areas were cruised by Wiger. All areas cruised in August-November of 2011.

Signatures: Cruise Specialist: _____

Unit Forester:  _____



LEGEND

- Cable Corridors
- ▬ Tractor Yarding Area
- ◆ Monument
- Boundaries**
- Timber Sale Boundary
- County Line
- - State Forest Property Boundary
- Roads**
- ▬ Highway
- ▬ Paved Road
- ▬ Surfaced Road
- ▬ Unsurfaced Road
- ▬ New Road Construction
- Streams**
- · · Type F Stream
- · · Type N Stream
- · · Unknown Stream
- ▨ Reforestation Area
- ▨ Marbled Murrelet Management Area
- ▨ Seasonally Restricted Buffer
- ▨ Cultural Resource Site

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-13-59
GREEN SPILL

PORTIONS OF SECTION 34, T9S, R8W, W.M.;
SECTIONS 1, 2, 12, 13 & 24, T10S, R8W, W.M.;
& SECTIONS 6, 18 & 19, T10S, R7W, W.M.,
BENTON, LINCOLN AND POLK COUNTIES, OREGON

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sources to ascertain the usability of this information.

1 inch = 1,000 feet



	GROSS ACRES	NET ACRES
AREA I (PC)	24	22
AREA II (PC)	55	52
AREA III (PC)	71	70
AREA IV (PC)	85	81
AREA V (PC)	85	79
TOTAL	320	304



LEGEND

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- Type N Stream
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- ▨▨▨▨▨ Marbled Murrelet Management Area
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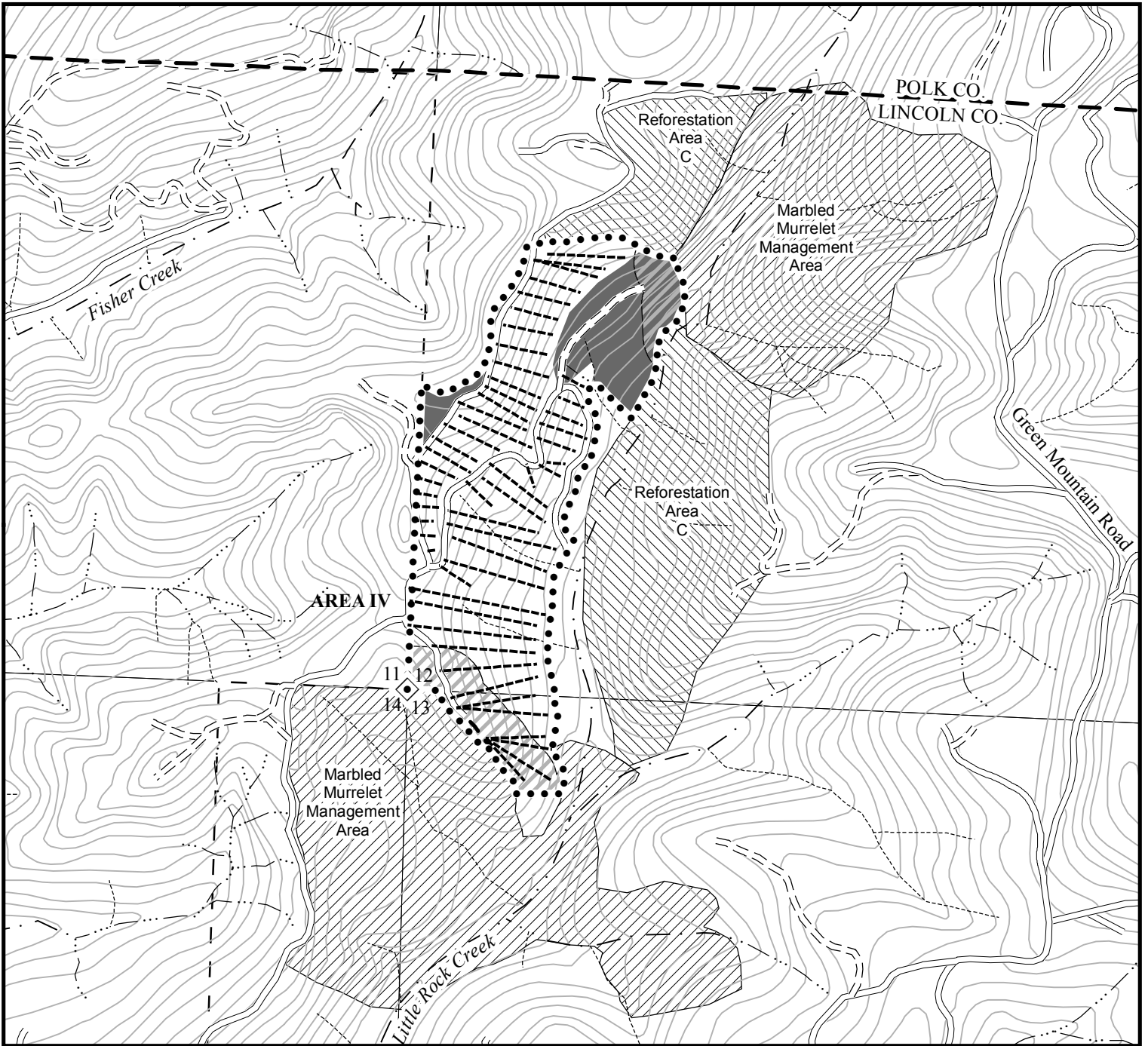
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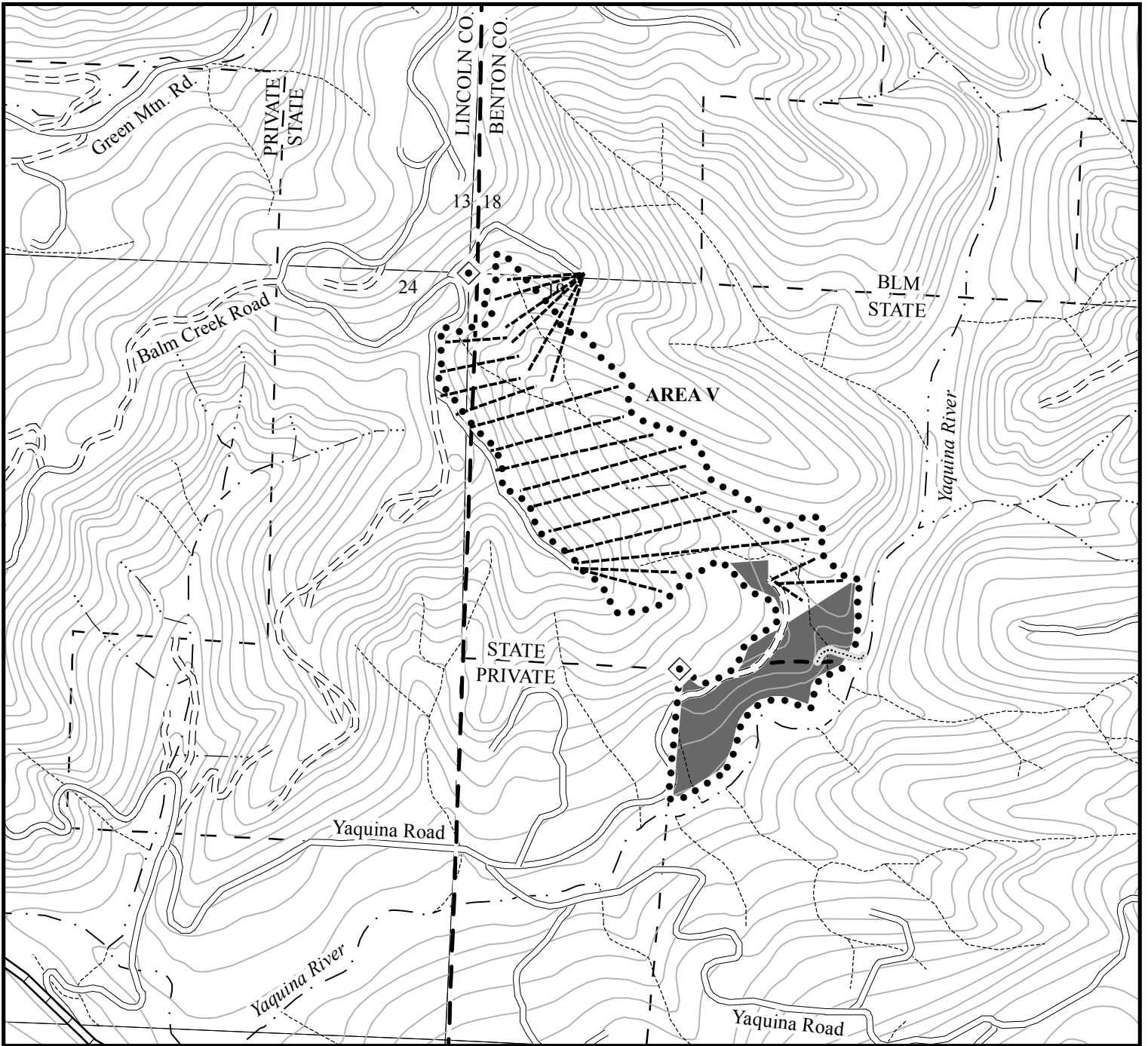
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