APPRAISAL REPORT

SW Teepee

Last updated 11/14/2012

Prepared by: Tony Saba — 11/14/2012

Tony Saba, Forester — Date

Reviewed by: Chris Thomas — 11/14/2012

Chris Thomas, Timber Program Leader — Date

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2400-17

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Timber Sale Report

Timber Sale Name		SW Teepee	
Timber Sale Appriser		Saba	
Bulletin	Month	11	Latest Bulletin: BU211112
	Year	2012	

Dist. No	State No.	County No.
Powder River	Wy 56	Washakie 043

Type of Appraisal:	
Original	Yes
Rate Redetermination	
Region	2
Forest	2
District	1
Sale Number	6
Quarter	1
Fiscal Year	2013
Stars Number	22106
State	56
County	43
Legal	T48N, R87W, SEC 24
	T48N, R86W, SEC 16,17,18,19,20,21,22,28,29,30,31,32,33
Compartment	2810 & 2811

Roads				
Construction	no	$ -	0.00	mi
Reconstruction	no	$ -	0.00	mi
		$ -	Road Costs	
		$ -	Engineering Reconstruction Services Deposits	
Total Specified Road Cost		$ -		
$/CCF		$ -	Total	

Operating Season:		
Normal Season	Seasons	3
	Start	6/30/2013
	End	3/31/2017
	Midpoint	5/16/2015
Bid Date		N/A
Award Date		
Termination Date		3/31/2017
Road Completion Date		N/A
Initial Payment Date		
Additional Payment Date		
Contributed Funds		$0.00 (Normally Zero)

1. Additional time may be added to a sale that is of an unusual complex nature, contains a restricted operating season due to various restrictions.
2. The termination date shown in A(T)19 shall be the last day of the quarter in which the bid opening was held, unless unique circumstances or objectives of the sale would require a different termination date.
3. The operating season shall contain a least 6 (six) months of time with the normal operating season to counted as full operating seasons.

Timber Sale Report

General Information:

Sale Acres:	3071
Cutting Acres	714
Appraisal point	Livingston, MT

Total Volume - CCF	12902
CCF/Acre	18.04
CF/Tree	23.93
Sale QMD	15.3

Tree Density

No. of Trees	53925
Average # Trees /Acre	75
Average sbpe	16%
Average skid distance	743
Net BF/CF Ratio	0.518
Slash Costs	$13,475.00

Adjustments (Yes or No):

Burned Timber	no
Deteriorating "Live" Timber	yes
Unusual Species and Form	no
Move In	no
Sorting & Handling	no
Skid Distance	no
Low Stump	no
High Risk	no
Hauling Fuel Cost	yes
Logging Fuel Cost	yes

Appraisal Narrative

No seeding will be needed in this project. Site visits to a percentage of landings will be needed.

Landings should remain on the haulside of the creeks, so that the skidding is perpendicular to stream channels.

Areas 22C have limited skid trail locations. This unit has been partially logged.

Units 15, 161, and 18 are unsuited timber, volume is OVM.

Appendix A - Sale Appraisal Factsheet

Timber Sale Name	SW Teepee

Sale Road Maintenance Costs

From Road Maintenace Worksheet, Appendix F

Volume CCF	12902
Pre-haul	$1,207.93
During	$6,916.82
Post Use	$3,825.79
Total	$11,950.55
Cost	$0.93

Surface Rock Replacement

From Road Maintenace Worksheet, Appendix F

Volume CCF	12902
Cost	$23,610.66
Cost/CCF	$1.83

Summary

	CCF	Total
System road maintenance (CONTRACTOR OBLIGATION)	$0.93	$11,950.55
Rock replacement (DEPOSIT)	$1.83	$23,610.66
Dust abatement	$0.00	
Stabilization	$0.00	
Chip seal or asphalt	$0.00	
Snow removal	$0.00	
Total Road Maintenance	$2.76	

Sale Slash Disposal

From Slash Treatment Plan Worksheet, Appx I

Volume CCF	12902
Total Cost	$13,475.00
cost per	$1.04

Sale Unusual Adjustments

From Unusual Adjustments Worksheet, Appx J

	DF&O	ES
Burned Timber	$0.00	$0.00
Deteriorating Live Timber	$9.25	$0.00
Deteriorating Live Timber	$0.00	$0.00
Adverse Skid	$0.00	$0.00
Skid Distance Adjustment	$0.00	$0.00
Spruce	$0.00	$0.00
Risk	$0.00	$0.00
Hauling Fuel Cost	$1.58	$1.58
Logging Fuel Cost	$2.12	$2.12
Total Credit	-$12.95	-$3.70

Purchaser Obligation for Fire

1.) Wage rate (AD-2) firefighter	$15.64	
2.) Rate x 12 hours x 3 days	$563.04	
3.) Item 2 x No. of firefighters (6 persons)	$3,378.24	
Total Obligation	$3,400.00	(rounded to nearest $100)

Appendix A - Sale Appraisal Factsheet

Temporary Roads	From Temporary Roads Worksheet, Appendix G
Volume	12902
Temporary Road Cost	$ 10,602.17
Cost/CCF	$ 0.82

Bid Guarantee	From 2400-17 Appraisal, run 03/01/2011
Advertised Rates, LP & DF & O	
LP & DF& O	$3.00
ES	$5.00
Indicated Advertised Rates	
LP & DF& O	-$6.67
ES	$57.56
Total Volume (CCF)	12,902
Contract Timber Value from 2400-17	$39,636.00
Ten Percent of Value	$3,963.60
Rounded to nearest $100	$4,000.00

Minimum Performance Bond	
Road Maintenance	$11,950.55
Timber Contractor Costs	
Temp Road Decommission	$4,436.01
Total	$16,386.56
Contract Work Bond Value	$5,462.19
Contract Timber Value from 2400-17	$39,636.00
	$40,000.00
10% Contract Value	$4,000.00
Minimum Bond	$6,000.00

Greater of Bond Value or 10% of Contract Value

Round up to next $100 if contract bid value is less than or equal to $10,000

Round up to nearest $1000 when bid value exceeds $10,000

Appendix B - 2400-17 Information Sheet

Timber Sale Name	SW Teepee	
Bulletin BU211112	Nov-12	

General Information

Region	2	
Forest	2	
District	1	
Sale Number	6	
Quarter	1	
Fiscal Year	2013	
Sale Name	SW Teepee	
Stars Number	22106	
State	56	
County	43	
Sale Acres	3071	
Harvested Acres	714	
Legal	T48N, R87W, SEC 24	
	T48N, R86W, SEC 16,17,18,19,20,21,22,28,29,30,31,32,33	
Compartment	2810 & 2811	
Roads		
Construction	0.0	mi
Reconstruction	0.0	mi
Specified Road Cost	$0.00	
Contributed Funds	$0.00	
Quad Mean Diameter	15.3	

Contractual Information

Sale Size Class	7	
SBA "Set-Aside" Codes	N	(Y-yes or N-no)
App. Base Period	612	(From current bulletin)
Zone	1	(Constant-Intermountain Region)
Salvage	Y	(N-Not Salvage, Y-Salvage w/other funds, Z-Financed w/ssf)
Pricing method	3	(1 Flat Rate, 3 - Quarterly Escalation)
Planned SAB Collection	$21,000.00	
Contract Form	6	(13, 13T, 6, 6T, 3, 3T)
Contracting Officer Codes	S	(S-Supervisor or D-District)
Method of Sale	S	(A - Auction, S - Sealed Bid, D - Direct, Unadvertised)
Regulation	6	(6 - Commercial)
Essential KV	$10,329.00	
Competitive Area	N	(Y or N) (Competitive Area)
Bulletin Current Year	2012	
Bulletin Month	11	

Appendix B - 2400-17 Information Sheet

Timber Sale Name		SW Teepee
Bulletin	BU211112	Nov-12

Species Level Information

Product		01	(Sawtimber 01)
Appraised to		Livingston, MT	
Weighted Haul Miles		300	
Round trip minutes		943	
Haulcost	Sawtimber	$106.58	
Road Maintenance cost/ccf		$2.76	
Slash costs		$1.04	
Temp roads		$0.82	(cost/CCF)
Timber property		0	(infrequently used)
Unit of Measure		03	(01 MBF, 03 CCF)

Species	Species Code	Volume	MBF:CCF		Avg DBH
DF & O	204	12437	0.5181		14.4
ES	93	465	0.5023		16
Total		12902			

Unusual Adjustments	DF&O	ES	
	-$9.25	$0.00	deterioration of timber
	-$1.58	-$1.58	hauling fuel cost
	-$2.12	-$2.12	logging fuel cost
	-$12.95	-$3.70	total adjustments

Logging Systems

Ground Base Volume (ccf)	12902		
Ground Base Costs	0.00	($/ccf)	(Do not enter data here)
Ground Base (ccf/acre)	18.04		
Ground Base (cf/tree)	23.93		
Ground Base Skid Distance (ft)	744		

Appendix C - Appraisal Volume and Skidding Summary

Sale Name SW Teepee

cruise number	cruise run date	cruise run time	sale error	mbf/ccf (net)	Quad Mean	Avg. DBH	Cut Acres	Num of Trees	Sale Area	Defect Volume
22106	03/27/12	9:51:29AM	10.83	0.51807	15.5	14.4	714	53925	3071	262556
			DF&O	0.51807		15.3				
			ES	0.5023		16				

Cutting Unit	DF & O Volume	ES Volume	Total Volume	Cruise Strata	Unit Acres	Subdivision Unit	Subdivision Unit Volume
15	287.27	10.75	298.03	1	16.47		
16	1711.48	64.03	1775.51	1	98.28		
161	417.86	15.63	433.49	1	24.07		
17	3160.06	118.22	3278.28	1	181.51		
171	644.20	24.10	668.30	1	37.23		
18	1706.26	63.83	1770.09	1	97.82		
19	2089.30	78.16	2167.46	1	120.33		
21	522.32	19.54	541.86	1	30.40		
22	1897.77	71.00	1968.77	1	108.17		
					714		
	DF & O	12437		Douglas-fir and Subalpine Fir			97%
	ES	465		Engelmann spruce			3%
CONTRACT VOLUME:		12902					100%

Landings and Skid Trails

Unit	Average Skid Dist.	Length of Skid Trail	Number of Landings	Acres of Landings	Acres of Skid Trails	Total Acres	Total Net Volume per Unit (ccf)
15	547	1093	2	1.5	0.25	1.8	298.03
161	813	1627	2	1.5	0.37	1.87	1775.51
16	619	1238	8	6.0	0.28	6.28	433.49
171	550	1100	3	2.3	0.25	2.5	3278.28
17	695	1390	14	10.5	0.32	10.82	668.30
18	650	1300	7	5.3	0.3	5.55	1770.09
19	704	1408	7	5.3	0.32	5.57	2167.46
21	308	616	12	9.0	0.14	9.14	541.86
22	515	1030	14	10.5	0.24	10.74	1968.77
TOTALS	5402	10803	69	51.8	2.47	54.00	12902

Appendix C - Appraisal Volume and Skidding Summary

Unit/Skid Area	Acres	(A) % Vol	(B) Volume	(C) Avg Skid	(D) Avg Slope	Avg Slope Calculations — Favorable B	Favorable B x D	Adverse B	Adverse B x D	Avg Skid Calc B x C
15A	16.47	2.31%	298.00	546.69	34.15%	298.00	101.76	0.00	0.00	162915
161A	24.07	3.37%	435.50	813.37	16.39%	435.50	71.39	0.00	0.00	354228
16A	25.33	3.55%	458.34	633.37	16.84%	458.34	77.19	0.00	0.00	290294
16B	17.07	2.39%	307.17	426.69	18.75%	307.17	57.59	0.00	0.00	131067
16C	19.83	2.78%	358.22	633.37	12.63%	358.22	45.25	0.00	0.00	226886
16D	36.04	5.05%	650.98	783.37	23.83%	650.98	155.13	0.00	0.00	509961
171A	17.51	2.45%	316.32	466.69	11.43%	316.32	36.15	0.00	0.00	147621
171B	19.63	2.75%	354.48	633.37	16.84%	354.48	59.70	0.00	0.00	224513
17A	31.21	4.37%	563.77	626.70	24.47%	563.77	137.94	0.00	0.00	353314
17B	30.20	4.23%	545.32	766.71	24.35%	545.32	132.77	0.00	0.00	418098
17C	42.85	6.00%	773.94	433.36	-12.31%	0.00	0.00	773.94	-95.25	335392
17D	25.59	3.58%	459.21	676.70	19.70%	459.21	90.49	0.00	0.00	310750
17E	23.42	3.28%	420.14	900.05	17.78%	420.14	74.69	0.00	0.00	378141
17F	28.33	3.97%	512.66	766.71	17.39%	512.66	89.16	0.00	0.00	393056
18A	18.16	2.54%	328.50	766.71	13.91%	328.50	45.70	0.00	0.00	251859
18B	31.99	4.48%	578.81	716.70	21.40%	578.81	123.84	0.00	0.00	414831
18C	27.51	3.85%	497.79	583.36	32.00%	497.79	159.29	0.00	0.00	290389
18D	20.17	2.82%	364.92	533.36	30.00%	364.92	109.48	0.00	0.00	194632
19A	22.37	3.13%	404.74	683.37	-4.21%	0.00	0.00	404.74	-17.04	276583
19B	31.42	4.40%	568.55	783.37	1.70%	568.55	9.68	0.00	0.00	445384
19C	37.68	5.28%	681.76	683.37	19.51%	681.76	133.03	0.00	0.00	465892
19D	28.86	4.04%	522.23	666.70	16.00%	522.23	83.56	0.00	0.00	348169
21A	18.39	2.58%	325.12	566.70	-15.38%	0.00	0.00	325.12	-50.02	184244
21B	12.01	1.68%	216.74	266.68	10.67%	216.74	23.12	0.00	0.00	57800.22
22A	44.58	6.24%	804.20	516.69	20.65%	804.20	166.03	0.00	0.00	415524.11
22B	8.06	1.13%	157.50	600.03	22.86%	157.50	36.00	0.00	0.00	94504.73
22C	55.53	7.78%	998.07	666.70	16.67%	998.07	166.35	0.00	0.00	665413.27
Total	714.00	100.0%	12902.95	17140.86						
						11399.15	2185.3	1503.80	-162.3	8341461

Volume & Skid Calculations

Sale Weighted Average Skidding Distance = 646
x1.15 (weave factor)
743

Weighted Average % slope and associated volume

		Volume			Acres	
Adverse	-11%	1503.80	CCF	12%	83.61	12%
Favorable	19%	11399.15	CCF	88%	630.67	88%
		12902.95	CCF		714.00	

Weighted average slope = (favorable slope) (weighted vol/total weighted vol) + (adverse) (weighted vol/total weighted vol)
16%

Average Volume/Acre = 18.07

Appendix C - Appraisal Volume and Skidding Summary

Average Skid & Slope

Skid Unit	Long skid dist	Adv. Skid Dist.	Adv. Change Elevation	Slope	Fav. Skid Dist	Fav. Change Elevation	Slope	total Distance	Avg. Wt. Slope
15A	820	0	0	0%	820	280	34%	820	34%
161A	1220	0	0	0%	1220	200	16%	1220	16%
16A	950	0	0	0%	950	160	17%	950	17%
16B	640	0	0	0%	640	120	19%	640	19%
16C	950	0	0	0%	950	120	13%	950	13%
16D	1175	0	0	0%	1175	280	24%	1175	24%
171A	700	0	0	0%	700	80	11%	700	11%
171B	950	0	0	0%	950	160	17%	950	17%
17A	940	0	0	0%	940	230	24%	940	24%
17B	1150	0	0	0%	1150	280	24%	1150	24%
17C	650	650	-80	-12%	0	0	0%	650	-12%
17D	1015	0	0-	0%	1015	200	20%	1015	20%
17E	1350	0	0	0%	1350	240	18%	1350	18%
17F	1150	0	0	0%	1150	200	17%	1150	17%
18A	1150	0	0	0%	1150	160	14%	1150	14%
18B	1075	0	0	0%	1075	230	21%	1075	21%
18C	875	0	0	0%	875	280	32%	875	32%
18D	800	0	0	0%	800	240	30%	800	30%
19A	1025	1025	-180	-18%	875	100	11%	1900	-4%
19B	1175	1175	-160	-14%	1175	200	17%	2350	2%
19C	1025	0	0	0%	1025	200	20%	1025	20%
19D	1000	0	0	0%	1000	160	16%	1000	16%
21A	850	650	-100	-15%	0	0	0%	650	-15%
21B	400	0	0	0%	750	80	11%	750	11%
22A	775	0	0	0%	775	160	21%	775	21%
22B	900	0	0	0%	1050	240	23%	1050	23%
22C	1000	0	0	0%	1200	200	17%	1200	17%

Appendix E - Haul Calculations

Timber Sale Name: SW Teepee
Sale Haul FSH 2409.22 Chapter 44 & 71.71
APPRAISED TO: Livingston, MT
Volume = 12902 CCF

Cutting Unit	Unit Acres	Skid Area	Skid Area Acres	Main Haul Road**	Haul Group	Haul Volume	Haul % Vol
15	16.47	15A	16.47	18	1	298.00	2.31%
161	24.07	161A	24.07	434	4	435.50	3.37%
		16A	25.33	434	5	458.34	3.55%
		16B	17.07	434	5	307.17	2.38%
		16C	19.83	434	11	358.22	2.78%
16	98.28	16D	36.04	434	4	650.98	5.05%
		171A	17.51	434	4	316.32	2.45%
171	37.23	171B	19.63	434	4	354.48	2.75%
		17A	31.21	434	9	563.77	4.37%
		17B	30.20	434	4	545.32	4.23%
		17C	42.85	434	10	773.94	6.00%
		17D	25.59	574115	9	459.21	3.56%
		17E	23.42	574115	2	420.14	3.26%
17	181.51	17F	28.33	574115	3	512.66	3.97%
		18A	18.16	574116	2	328.50	2.55%
		18B	31.99	574116	2	578.81	4.49%
		18C	27.51	574115	3	497.79	3.86%
18	97.82	18D	20.17	574115	3	364.92	2.83%
		19A	22.37	574115	9	404.74	3.14%
		19B	31.42	574115	10	568.55	4.41%
		19C	37.68	434	10	681.76	5.28%
19	120.33	19D	28.86	434	10	522.23	4.05%
		21A	18.39	574113	6	325.12	2.52%
21	30.40	21B	12.01	434	11	216.74	1.68%
		22A	44.58	574111	8	804.20	6.23%
		22B	8.06	574111	8	157.50	1.22%
22	108.17	22C	55.53	574111	8	998.07	7.74%
	714.27		714.28			12902.95	99.99%

** First road where 100% of volume will travel

Appendix E - Haul Calculations

Timber Sale Name: SW Teepee
Sale Haul FSH 2409.22 Chapter 44 & 71.71
APPRAISED TO: Livingston, MT
Volume = 12902 CCF
Haul To Sheridan, WY

Road	Termini	Class	Change Elevation	Grade	Min/Mile	Volume	% Volume	Feet (length)	Miles	Weighted Miles	RTM	Unit/Skid Area
Unit 15	Jct Rd 18 - HWY 16	5C3	490	5%	6.9	298.00	2.31%	10694	2.03	0.05	0.32	15
Jct Rd 18 - HWY 16	Jct 429 - HWY 16	2B1	1350	4%	4.8	298.00	2.31%	36432	6.90	0.16	0.77	15
Rd 574116	Jct Rd 574116 - 574115	5C3	-240	-6%	6.5	1327.44	10.29%	3998	0.76	0.08	0.51	18A, 18B, 17E
Rd 574115	Jct Rd 574116 - 574115	5C3	200	5%	6.9	1375.36	10.66%	3912	0.74	0.08	0.54	18C, 18D, 17F
end Rd T434C	Jct T434C - 434	5D3	-320	-8%	6.5	2302.60	17.84%	4039	0.76	0.14	0.89	171, 161, 17B, 16D
end Unit 16 at Rd T434B	Jct T434B - 434	5D3	540	12%	11.3	765.51	5.93%	4593	0.87	0.05	0.58	16A, 16B
end 574113	Jct 574113 - 434	5B3	240	5%	6.4	325.12	2.52%	4632	0.88	0.02	0.14	21A
end 574111	Jct 574111 - 574412	5C3	-200	-13%	7.0	998.07	7.74%	1570	0.30	0.02	0.16	22C
end 574412	Jct 574111 - 574412	5C3	200	5%	6.9	812.04	6.23%	4086	0.77	0.05	0.33	22A
Jct 574111 - 574412	Jct 574411 - 574111	5C3	120	10%	9.7	157.50	1.22%	1168	0.22	0.00	0.03	22B
Jct 574411 - 574111	Jct 574111 - 434	5C3	240	4%	6.5	1967.61	15.19%	6665	1.26	0.19	1.25	22
Jct Rd 574116 - 574115	Jct Rd 574115 - 434	5C3	-120	-2%	6.5	4130.51	32.01%	5668	1.07	0.34	2.23	19A, 17A, 17D, (18, 17E-F)
Road 434 at end Unit 18	Jct Rd 574115 - 434	5C3	440	5%	6.9	2546.48	19.74%	8372	1.57	0.31	2.33	19B-19D, 17C
Jct Rd 574115 - 434	Jct T434C - 434	5C3	40	6%	7.4	6676.99	51.75%	644	0.12	0.06	0.47	17A, 17C-F, 18, 19
Jct T434C - 434	Jct T434B - 434	5C3	80	3%	6.5	9337.81	72.36%	2666	0.50	0.37	2.37	16C, 16D, 161, 17, 171, 18, 19)
Jct T434B - 434	Jct 434 - 574113	5C3	-120	-6%	6.5	10309.87	79.91%	1948	0.37	0.29	1.92	21E-G, 16 A-B, (16 C-D, 161, 17, 171, 18, 19)
Jct 434 - 574113	Jct 574111 - 434	4B2	200	5%	5.9	10634.99	82.43%	4282	0.81	0.67	3.94	21, 16, 161, 17, 171, 18, 19
Jct 574111 - 434	Jct 434 - 429	4B2	680	5%	5.9	12602.60	97.62%	12603	2.39	2.33	13.75	16-22
Jct 434 - 429	Jct 429 - HWY 16	4B2	-280	-6%	5.1	12602.60	97.62%	4955	0.94	0.92	4.67	16-22
Jct 429 - HWY 16	Tensleep, WY	1A1	-4782	-4%	3.8	12902.95	100.00%	118800	22.50	22.50	85.50	all
Tensleep, WY	Laurel, MT	1A1	-1143	0%	2.8	12902.95	100.00%	905520	171.50	171.50	480.20	
Laurel, MT	Livingston, MT	1A1	1204	0%	2.8	12902.95	100.00%	508464	96.30	96.30	269.64	
Livingston, MT	Mill	2B1	0	0%	3.2	12902.95	100.00%	135168	3.40	3.40	10.88	
	SUB TOTALS							1790778	316.96	299.83	883.22	
	DELAY TIME	USE 60 MINUTES AS NORMAL DELAY TIME, FSH 2409.22-44.1									60.00	
	GRAND TOTAL							1790778	316.96	299.83	943.22	

Appraising Sawtimber, FSH 2409.22-44

Cost/CCF = (Grand Total Haul Minutes) X (0.1130/CCF/min)
Cost/CCF = (707.17) X (0.1130/CCF/min)
106.58386
Cost/CCF = $106.58

Upon review of haul points, due to the current economic situation and the high volume of beetle kill coming from the Black Hills it was decided that Hulett, WY is not currently the most economical haul destination from the Bighorns. The wood from the Bighorns is not currently in their working circle and this is just a temporary resolution until market conditions improve or when the mill in Hulett has a significant reduction in wood that they are processing from the beetle infested stands on the Black Hills.

Appendix F - Road Maintenance

Last Update 11/14/2012

USER	DISTRICT:	Powder River 01	SALE NAME:	SW Teepee	
DEPOSIT	ESTIMATE BY:	Saba	VOLUME:	12902	CCF
SCHEDULE	COUNTY:	Washakie 043			

PRE-HAUL Traffic Generated Maintenance (Contractor's Responsibility)

Description	Road	Distance (Mi)	Maintenance Termini	Cost per Mile	Cost
Surface Blading Single Lane - Aggregate	429	0.9	HWY 16 to MP 0.9	$215.77	$ 202.48
Surface Blading Single Lane - Aggregate	434	3.2	FSR 429 to MP 3.2 @ Gate	$215.77	$ 690.00
Surface Blading Single Lane - Native	434	2.2	Gate at MP 3.2 to MP 5.4	$143.84	$ 315.46
				pre-haul subtotal	$ 1,207.93

DURING Traffic Generated Maintenance (Contractor's Responsibility)

Description	Road	Distance (Mi)	Maintenance Termini	Cost per Mile	Blading Schedule**	Cost
Surface Blading Single Lane-Aggregate	18	2.0	From HWY 16 to Mile Post 2.0	$215.77	2	$ 863.08
Drainage Structures		2.0		$50.00		$ 100.00
Surface Blading Single Lane-Native	T574111A	0.3	From termini 574411 to end of temp road	$143.84	1	$43.15
Drainage Structures		0.3		$50.00		$15.00
Surface Blading Single Lane-Native	T574116A	0.2	From 574116 to end of temp road	$143.84	1	$ 28.77
Drainage Structures		0.2		$50.00		$ 10.00
Surface Blading Single Lane-Native	T434A	0.3	From 434 east to end of T434A	$143.84	1	$43.15
Drainage Structures		0.3		$50.00		$ 15.00
Surface Blading Single Lane-Native	T434B	0.9	From 434 west to end of T434B	$143.84		$ 129.45
Drainage Structures		0.9		$50.00		$ 45.00
Surface Blading Single Lane-Native	T434C	0.8	From 434 east to end of T434C	$143.84		$ 115.07
Drainage Structures		0.8		$50.00		$ 40.00
Surface Blading Single Lane-Native	T434D	0.3	From 434 east to end of T434D	$143.84		$ 43.15
Drainage Structures		0.3		$50.00		$ 15.00
Surface Blading Single Lane-Aggregate	429	0.9	HWY 16 to Mile Post 0.9	$215.77	2	$ 404.95
Drainage Structures		0.9		$50.00		$ 46.92
Surface Blading Single Lane-Aggregate	434	3.2	FSR 429 to Mile Post 3.2 at Gate	$215.77	2	$ 1,379.99
Drainage Structures		3.2		$50.00		$ 319.78
Surface Blading Single Lane-Aggregate	574111	1.9	FSR 434 to Mile Post 1.9	$143.84		$ 546.59
Drainage Structures		1.9		$50.00		$ 190.00
Surface Blading Single Lane-Aggregate	574113	0.8	FSR 434 to Mile Post .8	$143.84		$ 230.14
Drainage Structures		0.8		$50.00		$ 80.00
Surface Blading	574411	0.2	Rd 574411	$143.84		$ 57.54

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Single Lane-Aggregate			to MilePost 2				
Drainage Structures		0.2		$50.00		$	20.00
Surface Blading	574412	0.7	Rd 574411	$143.84		$	201.38
Single Lane-Aggregate			to MilePost 7				
Drainage Structures		0.7		$50.00		$	70.00
Surface Blading	434	2.2	Gate at MP 3.2	$143.84	2	$	630.92
Single Lane-Native			to mile post 5.4				
Drainage Structures		2.2		$50.00		$	219.31
Surface Blading	574416	0.8	Gate at 574115	$143.84		$	230.14
SingleLane-Native			to MilePost 8				
Drainage Structures		0.8		$50.00		$	80.00
Surface Blading	574115	1.8	FSR 434	$143.84	1	$	521.91
Single Lane-Native			to Mile Post 1.8				
Drainage Structures		1.8		$50.00		$	181.42
						during subtotal	$ 6,916.82

**Blading Schedule is based on amount of CCF carried over road surface before the next blading is required. Schedule values are rounded up.

POST SALE Traffic Generated Maintenance (Contractor's Responsibility)

Description	Road	Distance (Mi)	Maintenance Termini	Cost per Mile	Cost
Surface Blading	18	2.0	From HWY 16	$215.77	$ 437.00
Single Lane-Aggregate			to Mile Post 2.0		
Drainage Structures		2.0		$50.00	$ 100.00
Ditch Cleaning		2.0		$71.92	$ 143.84
Surface Blading	429	0.9	HWY 16	$215.77	$ 202.48
Single Lane-Aggregate			to Mile Post 0.9		
Drainage Structures		0.9		$50.00	$ 45.00
Ditch Cleaning		0.9		$71.92	$ 64.73
Surface Blading	434	3.2	FSR 429	$215.77	$ 690.00
Single Lane-Aggregate			to MP 3.2 at Gate		
Drainage Structures		3.2		$50.00	$ 160.00
Ditch Cleaning		3.2		$71.92	$ 230.14
Surface Blading	434	2.2	Gate at MP 3.2	$143.84	$ 315.46
Single Lane-Native			to mile post 5.4		
Drainage Structures		2.2		$50.00	$ 110.00
Surface Blading	574111	1.9	FSR 434	$143.84	$ 270.70
Single Lane-Native			to Mile Post 1.9		
Drainage Structures		1.9		$50.00	$ 94.10
Surface Blading	574113	0.8	Rd 434	$143.84	$ 115.07
Single Lane-Native			to Mile Post 0.9		
Drainage Structures		0.8		$50.00	$ 40.00
Surface Blading	574115	1.8	Rd 434	$143.84	$ 260.95
Single Lane-Native			to Mile Post 1.8		
Drainage Structures		1.8		$50.00	$ 90.71
Surface Blading	574116	0.8	Rd 574115	$143.84	$ 108.89
Single Lane-Native			to Mile Post 0.8		
Drainage Structures		0.8		$50.00	$ 37.85
Surface Blading	574411	0.2	Rd 574111	$143.84	$ 28.39
Single Lane-Native			to Mile Post 0.2		
Drainage Structures		0.2		$50.00	$ 9.87
Drainage Structures	T574111A	0.3	From termini 574411	$50.00	$ 15.00
			to end of temp road		

Appendix F - Road Maintenance

Last Update 11/14/2012

Drainage Structures	T574116A	0.2	From 574116 to end of temp road	$50.00	$ 10.00	
Drainage Structures	T434A	0.3	From 434 east to end of T434A	$50.00	$ 15.00	
Drainage Structures	T434B	0.9	From 434 west to end of T434B	$50.00	$ 45.00	
Drainage Structures	T434C	0.8	From 434 east to end of T434C	$50.00	$ 40.00	
Drainage Structures	T434D	0.3	From 434 east to T434D	$50.00	$ 15.00	
Surface Blading Single Lane-Native	574412	0.7	Rd 574111 to Mile Post 0.7	$143.84	$ 96.92	
Drainage Structures		0.7		$50.00	$ 33.69	
					post sale subtotal	$ 3,825.79

Subtotal Pre-use	$ 1,207.93
Subtotal During	$ 6,916.82
Subtotal Post Sale	$ 3,825.79
Total Costs for Traffic Generated Maintenance (Contractor's Responsibility) — Total Maintenance Cost	$ 11,950.55
Total Maintenance per CCF	$ 0.93

Traffic Generated Maintenance (Deposits)

Rock Replacement			Road	Distance (Mi)	Replacement Termini	Cost/CCF-mile	
C5.31#	Single Lane	Surface Rock Replacement	18	2.0	From mile post 2.0 To Jctw/Highway 16	$0.30	$ 7,741.20
	Single Lane	Surface Rock Replacement	429	0.9	From Jctw/HWY 434 To Jctw/Highway 16	$0.30	$ 3,483.54
	Single Lane	Surface Rock Replacement	434	3.2	From Loced Gate To Jctw/HWY 429	$0.30	$ 12,385.92
					Total Rock Replacement Deposits		$ 23,610.66
					Total Rock Replacement Deposits per CCF		$ 1.83

Total Road Maintenance

Total Maintenance Cost	$	11,950.55
Total Rock Replacement Deposits	$	23,610.66
Total Cost	$	35,561.21
Cost per CCF		**$2.76**

Pre-Haul Road Maintenance Log

Termini					Applicable Maintenance Specifications				
Road Number		From	To	Mile Pos	Miles	T800-Specs	T802 - Ditch Cleaning	T803 - Blading	T805 - Drainage	
429		HWY 16	to Mile Post 0.9		0.9	yes		yes		
434		FSR 429	to MP 3.2 at Gate		3.2	yes		yes		
434		Gate at MP 3.2	to mile post 5.4		2.2	yes		yes		

During Haul Road Maintenance Log

Termini					Applicable Maintenance Specifications				
Road Number		From	To	Mile Pos	Miles	T800-Specs	T802 - Ditch Cleaning	T803 - Blading	T805 - Drainage	
18		HWY 16	to Mile Post 2.0		2.0	yes		yes	yes	

Last Update 11/14/2012

429		HW Y 16	to Mile Post 0.9	0.9	yes		yes	yes	
434		FSR 429	to MP 3.2 at Gate	3.2	yes		yes	yes	
434		Gate at MP 3.2	to mile post 5.4	2.2	yes		yes	yes	
574115		Rd 434	to Mile Post 1.8	1.8	yes		yes	yes	

Post Haul Road Maintenance Log

Road Number	Termini From	To Mile Pos	Miles	Applicable Maintenance Specifications T800-Specs	T802 - Ditch Cleaning	T803 - Blading	T805 - Drainage	
18	From HW Y 16	to Mile Post 2.0	2.0	yes	yes	yes	yes	
429	HW Y 16	to Mile Post 0.9	0.9	yes	yes	yes	yes	
434	FSR 429	to MP 3.2 at Gate	3.2	yes	yes	yes	yes	
434	Gate at MP 3.2	to mile post 5.4	2.2	yes		yes	yes	
574111	FSR 434	to Mile Post 1.9	1.9	yes		yes	yes	
574113	Rd 434	to Mile Post 0.8	0.8	yes		yes	yes	
574115	Rd 434	to Mile Post 1.8	1.8	yes		yes	yes	
574116	Rd 574115	to Mile Post 0.8	0.8	yes		yes	yes	
574411	Rd 574111	to Mile Post 0.2	0.2	yes		yes	yes	
574412	Rd 574111	to Mile Post 0.7	0.7	yes		yes	yes	

Appendix G - Temporary Roads

Stand	Clearing/ mile	Excavation/ mile	Seeding	Obliteration/ mile	TOTAL UNIT COST per MILE
Timbered, inside cutunit	$1,331.43	$1,672.38	$0.00	$1,500.00	$4,503.81
Open	$0.00	$1,672.38	$0.00	$1,500.00	$3,172.38

Road #	length (MI)	Unit Cost	Basic Cost	Mobilization	Mobilization Cost	Total Cost
T434A*	0.28	$1,500.00	$424.19	20%	$84.84	$509.02
T434B	0.87	$3,172.38	$2,759.37	20%	$551.87	$3,311.24
T434C	0.76	$3,172.38	$2,426.73	20%	$485.35	$2,912.08
T434C1	0.31	$3,172.38	$990.72	20%	$198.14	$1,188.87
T434D	0.27	$3,172.38	$847.71	20%	$169.54	$1,017.25
T574111A	0.26	$4,533.81	$1,167.04	20%	$233.41	$1,400.45
T574116A	0.20	$3,172.38	$643.56	20%	$128.71	$772.28
	2.96					$11,111.19

* road was constructed on original contract, so clearing and excavating costs are not included in SW Teepee

$10,602.17

Total CCF = 12902

Temp Road Cost per CCF = $0.82

USDA Forest Service FS-2400-50 (10/2007)

SALE AREA IMPROVEMENT AND K-V COLLECTION PLAN (Reference FSH 2409.19) (comment)			(1) Forest: Bighorn			(2) District/Unit: Powder River 01	
			(3) Sale Name: SW Teepee			(4) Contract Date	
(5) COMPARTMENTS or GIS Reference: 2810 & 2811	(6) Type of Plan: Original XX, Revision #		(7) Purchaser			(8) Contract Number	
List of Eligible/ Projects (in priority order) (9)	Work Activity (10)	Units of Work (11)	Cost Per Unit (12)	Cost of Eligible Projects) No. of Units (13a)	Cost (13b)	K-V Funded Projects No. of Units (14a)	Cost (14b)
Stocking Survey	RF	Acres	$ 12.73	302	$ 3,844.46	302	$ 3,844.00
Stocking Survey	RF	Acres	$ 13.24	302	$ 3,998.48	302	$ 3,998.00
Subtotal, Required Reforestation					$ 7,842.94		$ 7,842.00
Jackpot Burning - Scattered concentration	HF	Acres	$ 189.42	16	$ 3,031.00	16	$ 3,030.72
Piling of Fuels, Hand or Machine	HF	Acres	$312.12	16	$ 4,994.00	16	$ 4,993.92
Invasives - Pesticide Application	NW	Acres	$ 318.36	55	$ 17,510.00	0	$ -
Invasives - Pesticide Application	NW	Acres	$ 324.72	54	$ 17,535.00	0	$ -
Range Resource Inventory	RV	Acres	$ 5.41	16	$ 87.00	14.3	$ 77.36
Activity Review	CK	Acres	$ 5.41	889	$ 4,809.00	0	$ -
Thinning for Hazardous Fuels Reduction	HF	Acres	$193.13	16	$3,090	0	$ -
Timber Harvest Evaluation	TM	Acres	$12.73	790	$10,057	0	$ -
Thinning for Hazardous Fuels Reduction	HF	Acres	$302.44	98	$29,639	0	$ -
Invasives - Treatment Activity Monitoring	NW	Acres	$5.30	872	$4,622	0	$ -
Timber Harvest Evaluation	TM	Acres	$12.48	98	$1,223	0	$ -
Road Obliteration	WC	Miles	$2,122.41	0.3	$637	0	$ -
Road Decommissioning	WC	Miles	$3,714.22	1	$3,714	0	$ -
Thinning for Hazardous Fuels Reduction	HF	Acres	$302.44	389	$117,649	0	$ -
Thinning for Hazardous Fuels Reduction	HF	Acres	$308.49	385	$118,769	0	
Underburn - Low Intensity (Majority of Unit)	HF	Acres	$56.27	200	$10,824	0	$ -
(15) Total					$ 356,032.94		$ 15,944.00

(16) Regional Project Work (CWK2)	
(17) Total CWLK and CWK2 Funded Work	$ 15,944.00
(18) National Program Support	$5,055.00
(19) Total Cost of Funded Work	$20,999.00
(20) Stumpage Available for K-V Financing	$21,000.00

(17) Remarks:

*= Essential Reforestation Item $ 7,842.00

Composite Overhead Costs Included for cost per UOM is 31.7% 2470, 08/25/2010

	Refer to appraisal factsheet, and contract area maps for units and acres.
Stocking Survey	Planned for all final harvest acres 1st, and 3rd
Post Sale Survey	Planned for all intermediate harvest units to assess success of treatments/need for PCT
Spec Rd Decommission	To monitor needs for future treatments
Invasive Species Treatment	Treat landings and skid trails twice
#REF!	Close user created routes in unit 171
Piling of Fuels, Hand or Machine	Decommissioning specified roads by placing rock and slash on road surface for one sight distance into the timber where roads enter from meadows FDR 574111 (1), 574113 (1) after spring, 574115 (5 places), 574116 (2)
Monitor effectiveness of road closures to determine if additional actions are required.	
Precommercial Thinning	Thinning Residual Stand

PREPARED BY:	TITLE:	Forester	DATE:
REVIEWED BY:	TITLE:	Forest Silviculturist	DATE:
APPROVED BY:	TITLE:	District Ranger	DATE:

Appendix I - Slash Treatment Plan

Forest	District	Date	Sale Area Designation
BIGHORN	Powder River 01		SW Teepee

This form for use when planning to reduce fire danger, provide supplemental stream channel clearance, and control insects and disease on sale area. A Slash treating Plan will be prepared for each timber sale appraised and a copy attached to the appraisal.
Refer to FSM 2400, FSM 5150, FSH 6509.11G, FSH 2409.18, CH. 50 and FSH 2409.22, CH. 40.

Ac. Clearcut	0	Cut Volume/Ac CCF	18.04
Ac. Partial Cut	714	Cutting System	Even aged
Acres by Product		Total Vol. CCF	12,902
CCF	714	Total Vol. TONS	

Treatment	Unit	Number of Units	Cost Per Unit (A)	Forest Service Costs (Force Account & Contract, BD) (B)	Timber Purchaser Costs (C)	Total Costs (D)
Burning of Piled Material	ac.	52	$189.42		$9,850	$9,850
	ac.			$0		$0
	ac.					$0
	ac.					$0
	ac.	0		$0.00		$0
	ac.			$0.00		$0
	ac.	0	$0.00	$0.00		$0
	Chain	0	$0.00		$0.00	$0
	ft.					$0
	Ac.					$0
	ac.					$0
	ac.					$0
	ac.					
E. Total Direct Costs				$0	$9,850	$9,850
F. Indirect Costs:	2/F.S. Overhead		36.80%	$0		$3,625
	3/T.P. Overhead		0.00%		$0	$0
G. Total Costs		$13,475		$0	$9,850	$13,475

H. Total Appraised Costs.	$13,475
Ia. Total Appraised Cost/CCF	$1.04
Ib. Total Appraised Cost/Ton	$1.04
J. Required Deposit	$0
Ka. Required Deposit/CCF	$0.00
Kb. Required Deposit/Ton	#DIV/0!

Overhead Calculations (to line F):

FS Overhead:		
36.80%	$0	$0
FSOH %	Total Col. (B)	FSOH amt.
T.P. Overhead:		
0.00%	$9,850	$0
TPOH %	Total Col. (C)	TPOH amt.

Date Prepared	By	Title	Forester
Date Reviewed	By	Title	FMO
Date Approved	By	Title	District Ranger

Last line is for R.O. approval on R.F. and Chiefs sales
1/F.S. only. Adjust F&B in appraisal for T.P. felling
2/Refer to FSM 2481.21, R-2 Supplement (1909.13,37)
3/FSH 2409.22, 40.42
4/ Costs included in zone average
5/Cost included in appraised rate
See Reverse

R2-2480-1 (Rev. 9/93)

U.S.D.A. Forest Service

Forest	District	Sale Area Designation
Bighorn	Powder River 01	SW Teepee

DESCRIPTION OF WORK TO BE DONE

L. By Forest Service with Slash Deposits:

0
Burning of landing piles and unit 15 piles

M. By Purchaser as itemized on front:

Purchaser shall treat slash per K-G .71# - Slash Treatment

1. Machine Pile
Machine pile unit 15

3. Pile Landings
Landings will be piled
Included in zone average cost

12. 18" Lop
Units 15, 16, 161

13. 24" Lop
All units except 15, 16, and 161 have lop and scatter to 24"
Acres are included in zone average cost
All units require whole tree skidding

MAP - See Sale Area and Logging Plan Maps

Other:

Unusual Species and Form
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.3
No unusual species or form are present

Move-in Adjustment
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.4
Move-in adjustments are not calculated for sales over 200 CCF

Sorting & Handling
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.5
No sorting and handling are required

Skid Distance Adjustment
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.6
Skid distance adjustments are not calculated for average skid distances under 1000 feet.

Low Stump Requirement
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.7
Low stumps are not required

High Risk
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.8
High risk adjustments are calculated when a normal operating season is restricted by NEPA. The operating season for Southwest Fuels Project is not restricted by NEPA. 0

Hauling Fuel Cost Adjustment
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.61
Haul Miles: 316.96 Adjustment: -$0.005/mile/CCF
HCFA = 316.96 miles x -$0.005/mile/CCF = -$1.58 /CCF

Logging Fuel Cost Adjustment
R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.61; bulletin BU211110
Logging fuel cost adjustments are included for all ground based logging costs developed using the R2 TEA234 program; standard adjustment is -$2.12.
LFCA = -$2.12 /CCF

Appendix J - Unusual Adjustments Worksheet

Burned Timber

R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.1

No timber in the Southwest Fuels Project is considered burned.

Deteriorating Live Timber (accounted for in TEA program)

R2 Amendment 2409.22-96-5 to 2409.22,50 section 51.6.2

Volume at Time of Cruise		
Cutting Units	DF&O Vol	ES Vol
ALL	12436.52	465.26
totals	12901.78	

Current Volume						
Cutting Units	DF	DFR	DFD	ES	ESR	ESD
ALL	2114.21	1466.81	6685.44	465.26	0	0
by %	16.39%	11.37%	51.82%	3.61%	0.00%	0.00%
totals	live =	2579.47	RD =	1466.81	dead =	6685.44

Midpoint Volume (based on 3 operating seasons)						
Cutting Units	DF	DFR	DFD	ES	ESR	ESD
ALL	528.55	1952.36	7785.55	465.26	0	0
by %	4.10%	15.13%	60.34%	3.61%	0.00%	0.00%
	DF Volume	10266.46		ES Volume	465.26	
totals	live =	993.81	RD =	1952.36	dead =	7785.55

Calculations:

Dead Volume - Doug-fir & Other

Adjusted Base Period Price X constant X DFD volume =

(16.71)*(0.5)*(8152.25)= $68,112.05 adjustment

Recent Dead Volume - Doug-fir & Other

Base Index X % lumber reduction X mbf/ccf ratio X DFR =

(309.40)*(.15)*(0.5181)*(1952.36)= $46,944.54 adjustment

Total Adjustment for Doug-fir and Other

(Dead Adjustment + Recent Dead Adjustment)/Total Volume =

(68112.05+46944.54)/12436.52 = $9.25 /CCF credit

Dead Volume - Engelmann Spruce

Adjusted Base Period Price X constant X ESD volume =

(55.83)*(0.5)*(260.64)= $0.00 adjustment

Recent Dead Volume - Engelmann Spruce

Base Index X % lumber reduction X mbf/ccf ratio X ESR =

(280.30)*(.15)*(0.5494)*(684.18)= $0.00 adjustment

Total Adjustment for Engelmann Spruce

(Dead Adjustment + Recent Dead Adjustment)/Total Volume =

(8502.08+15804.23)/1053.89 = $0.00 /CCF credit