

Appendix C

Final Environmental Impact Statement

Tripod Fire Salvage Project

Economics

CHANGES BETWEEN DRAFT EIS AND FINAL EIS

The description and table of management scenarios has been replaced with details of the Transaction Evidence Appraisal.

The following four tables include the details of sawtimber values and logging costs used to derive stumpage estimates and sale values for each action alternative. The estimates are based on the Transaction Evidence Appraisal (TEA) system used for Forest Service timber sale appraisals. The transaction evidence appraisal method is designed to estimate fair market value of timber based on bid rates of past timber sale transactions. The base data is compiled from sales sold competitively over a period of time known as the base period. The predicted stumpage rate is the volume-weighted average of the bid values of the competitively sold timber sales during the base period. When appraising an individual timber sale, the predicted stumpage value (indicated advertised rate) is adjusted based on the differences in sale conditions, values, and costs between base period sales and the conditions of the sale being appraised. The values and costs and adjustments used are defined as follows:

Base Period: The time period (usually preceding 6 months to a year) used for identifying competitive sales for determining the base period price

Base Period Index: Index of delivered sawtimber (mill) prices during the preceding base period

Base Period Price: The value that is representative of the volume-weighted average bid price of the competitively sold timber sales in the base period. It reflects the average sale characteristics of the base period sales and is the starting point of the appraisal.

Base Rates: The lowest rates of payment for timber that are authorized by the contract

Deterioration Adjustment: Increased deterioration of log quality due to worm wood and checking defects

Grade Adjustment: Decreased log value because of limited blue-stained wood product market

Indicated Advertised Rates: The estimated value of the timber after accounting for all differences between the sale and the sales in the base period and any market adjustments. If this rate is found to be negative, this value is adjusted to increase it to base rates

Logging Cost Adjustment: Adjustments to the base period price to reflect operating cost differences between the base period sales and the sale being appraised. These adjustments

are for differences in logging cost, specified road construction cost, haul cost, and other costs that significantly affect value differences between timber sales.

Minimum Rates: The lowest rate at which the Forest Service may ordinarily sell timber and used to set base rates for a timber sale contract if advertised rates are found to be negative

Product Quality Adjustment: An adjustment to appraisal data to reflect differences in timber quality between the base period sales and the sale being appraised.

Premium Log Size Adjustment: Increased value of large diameter logs due to increased logging and processing efficiency

Stumpage Value: The value of uncut (standing) timber

Tree Size Efficiency Cost Reduction: Decreased cost of logging larger diameter trees due to harvesting efficiencies

Woods Net Cost Allowance: Additional cost due to inefficiencies in processing higher levels of defect and deterioration

Zone Logging Cost: The average cost of timber harvest (logging costs, transportation costs, and related soil restoration and erosion control, slash disposal, and noxious weed prevention costs) for all sales within the appraisal zone. Zone logging cost breakdown for this project is as follows:

Stump-to-truck (felling and skidding)	95.43
Log haul	30.56
Road maintenance	4.49
Brush disposal	8.94
Erosion control and other	0.65
Zone logging cost per CCF	140.07

Transaction evidence appraisals that predict deficit species or products must be adjusted because a positive bid value is required when a sale is advertised and sold. The total appraised value must reflect all operating costs and values for a sale, unless downward adjustments in appraised price are limited by base rates. Thus, negative species or products must be subsidized by high-valued species and products or low cost logging systems in order to have an overall positive bid value. The timber sale offering should consider the feasibility of including low value species or products or high cost logging systems that are not financially viable.

Figure C-1: Tripod Fire Salvage Project Economics - Alternative B

Base Period: April to June 2007	ALTERNATIVE B			
Species Mix	DF	PP	WW	Average
Species Ratio	51%	39%	10%	100%
Base Period Index (TEA)	169.56	149.21	152.61	160.00
Base Period Price (TEA)	80.51	70.85	81.18	76.81
Product Quality Adjustment	-12.76	-15.43	-16.66	-14.17
Deterioration Adjustment	-5.78	-4.54	-5.45	-5.26
Grade Adjustment (blue stain)		-12.86		-5.01
Premium Log Size Adjustment	1.11	1.20	1.03	1.14
Adjusted Price	63.09	39.23	60.10	53.50
Adjusted Mill Value (MBF)	\$384	\$342	\$379	\$367
Predicted Stumpage	21.69	-2.18	18.69	12.10
Competition Adjustment	2.17	0.22	1.87	1.38
Indicated Advertised Rate (Stumpage)	19.52	-2.39	16.82	10.72
Indicated Stumpage (MBF)	\$37	(\$5)	\$32	\$20
Volume (MBF)	9,182	6,963	1,721	17,866
Total Value by Species	\$342,167	(\$31,815)	\$55,274	\$365,625
Adjustment for negative value				
Value if sold at minimum rates				
Minimum rate stumpage (MBF)				
Logging Mix	TRAC	SKYL	HELI	Average
Logging Ratio	74%	26%	0%	100%
Zone Logging Cost (TEA)				140.07
Woods Net Cost Allowance	5.00	6.56	0.00	5.41
Tree Size Efficiency Cost Reduction	-5.42	-7.15	0.00	-5.87
Logging Cost Adjustment (to Base Price)	-27.67	-79.88	0.00	-41.40
Estimated Logging Cost	167.74	219.95	0.00	181.47
Estimated Logging Cost (MBF)	\$320	\$420	\$0	\$346
Indicated Stumpage (MBF)	\$43	(\$43)	\$0	\$20
Volume (MBF)	13,166	4,700	0	17,866
Value by Logging System	\$569,830	(\$204,205)	\$0	\$365,625
Adjustment for negative value		\$213,178		
Value if sold at minimum rates		\$8,972		
Minimum rate stumpage (MBF)		\$2		
Acres	2156	591	0	2748
Volume per Acre (MBF)	6.1	7.9	0.0	6.5
Value per Acre (MBF)	\$264	(\$345)	\$0	\$133

Values are dollars per CCF (hundred cubic feet) unless indicated as per MBF (thousand board feet). Negative numbers are denoted by parentheses.

Figure C-2: Tripod Fire Salvage Project Economics - Alternative C

Base Period: April to June 2007	ALTERNATIVE C			
Species Mix	DF	PP	WW	Average
Species Ratio	48%	49%	4%	100%
Base Period Index (TEA)	169.56	149.21	152.61	159.03
Base Period Price (TEA)	80.51	70.85	81.18	75.85
Product Quality Adjustment	-12.76	-15.43	-16.66	-14.20
Deterioration Adjustment	-5.78	-4.54	-5.45	-5.16
Grade Adjustment (blue stain)		-12.86		-6.24
Premium Log Size Adjustment	1.08	1.20	0.82	1.13
Adjusted Price	63.06	39.23	59.89	51.38
Adjusted Mill Value (MBF)	\$383	\$342	\$378	\$363
Predicted Stumpage	25.05	1.22	21.88	13.37
Competition Adjustment	2.51	0.12	2.19	1.34
Indicated Advertised Rate (Stumpage)	22.55	1.10	19.69	12.03
Indicated Stumpage (MBF)	\$43	\$2	\$38	\$23
Volume (MBF)	6,664	6,787	541	13,992
Total Value by Species	\$286,859	\$14,244	\$20,349	\$321,452
Adjustment for negative value				
Value if sold at minimum rates				
Minimum rate stumpage (MBF)				
Logging Mix	TRAC	SKYL	HELI	Average
Logging Ratio	80%	20%	0%	100%
Zone Logging Cost (TEA)				140.07
Woods Net Cost Allowance	5.00	6.56	0.00	5.31
Tree Size Efficiency Cost Reduction	-5.48	-6.41	0.00	-5.66
Logging Cost Adjustment (to Base Price)	-27.61	-80.61	0.00	-38.01
Estimated Logging Cost	167.68	220.68	0.00	178.08
Estimated Logging Cost (MBF)	\$320	\$421	\$0	\$340
Indicated Stumpage (MBF)	\$40	(\$48)	\$0	\$23
Volume (MBF)	11,247	2,745	0	13,992
Value by Logging System	\$452,969	(\$131,517)	\$0	\$321,452
Adjustment for negative value		\$136,757		
Value if sold at minimum rates		\$5,240		
Minimum rate stumpage (MBF)		\$2		
Acres	1896	351	0	2247
Volume per Acre (MBF)	5.9	7.8	0.0	6.2
Value per Acre (MBF)	\$239	(\$375)	\$0	\$143

Values are dollars per CCF (hundred cubic feet) unless indicated as per MBF (thousand board feet). Negative numbers are denoted by parentheses.

Figure C-3: Tripod Fire Salvage Project Economics - Alternative D

Base Period: April to June 2007	ALTERNATIVE D			
Species Mix	DF	PP	WW	Average
Species Ratio	54%	33%	13%	100%
Base Period Index (TEA)	169.56	149.21	152.61	160.00
Base Period Price (TEA)	80.51	70.85	81.18	77.40
Product Quality Adjustment	-12.76	-15.43	-16.66	-14.13
Deterioration Adjustment	-5.78	-4.54	-5.45	-5.33
Grade Adjustment (blue stain)		-12.86		-4.26
Premium Log Size Adjustment	1.25	1.20	1.29	1.24
Adjusted Price	63.23	39.23	60.36	54.92
Adjusted Mill Value (MBF)	\$387	\$337	\$381	\$370
Predicted Stumpage	-3.18	-27.18	-6.05	-11.49
Competition Adjustment	0.32	2.72	0.60	1.15
Indicated Advertised Rate (Stumpage)	-3.50	-29.90	-6.65	-12.64
Indicated Stumpage (MBF)	(\$7)	(\$57)	(\$13)	(\$24)
Volume (MBF)	13,023	7,950	3,041	24,014
Total Value by Species	(\$86,921)	(\$453,774)	(\$38,622)	(\$579,317)
Adjustment for negative value	\$111,782	\$468,951	\$44,426	\$625,160
Value if sold at minimum rates	\$24,861	\$15,177	\$5,805	\$45,843
Minimum rate stumpage (MBF)				\$2
Logging Mix	TRAC	SKYL	HELI	Average
Logging Ratio	55%	25%	20%	100%
Zone Logging Cost (TEA)				140.07
Woods Net Cost Allowance	5.00	6.56	8.90	6.19
Tree Size Efficiency Cost Reduction	-5.42	-7.39	-13.62	-7.58
Logging Cost Adjustment (to Base Price)	-27.67	-79.64	-154.32	-66.41
Estimated Logging Cost	167.74	219.71	294.39	206.48
Estimated Logging Cost (MBF)	\$320	\$419	\$562	\$394
Indicated Stumpage (MBF)	\$43	(\$45)	(\$178)	(\$24)
Volume (MBF)	13,166	5,941	4,908	24,014
Value by Logging System	\$565,446	(\$269,205)	(\$875,557)	(\$579,317)
Adjustment for negative value		\$280,546	\$884,926	
Value if sold at minimum rates		\$11,341	\$9,369	
Minimum rate stumpage (MBF)		\$2	\$2	
Acres	2156	716	532	3404
Volume per Acre (MBF)	6.1	8.3	9.2	7.1
Value per Acre (MBF)	\$262	(\$376)	(\$1,645)	(\$170)

Values are dollars per CCF (hundred cubic feet) unless indicated as per MBF (thousand board feet). Negative numbers are denoted by parentheses.

Figure C-4: Tripod Fire Salvage Project Economics - Alternative E

Base Period: April to June 2007	ALTERNATIVE E			
Species Mix	DF	PP	WW	Average
Species Ratio	52%	38%	10%	100%
Base Period Index (TEA)	169.56	149.21	152.61	160.06
Base Period Price (TEA)	80.51	70.85	81.18	76.86
Product Quality Adjustment	-12.76	-15.43	-16.66	-14.17
Deterioration Adjustment	-5.78	-4.54	-5.45	-5.27
Grade Adjustment (blue stain)		-12.86		-4.95
Premium Log Size Adjustment	0.55	1.20	0.50	0.80
Adjusted Price	62.53	39.23	59.56	53.27
Adjusted Mill Value (MBF)	\$383	\$341	\$378	\$367
Predicted Stumpage	18.18	-5.12	15.22	8.93
Competition Adjustment	1.82	0.51	1.52	1.29
Indicated Advertised Rate (Stumpage)	16.36	-5.63	13.70	7.64
Indicated Stumpage (MBF)	\$31	(\$11)	\$26	\$15
Volume (MBF)	7,446	5,542	1,420	14,408
Total Value by Species	\$232,600	(\$59,572)	\$37,129	\$210,157
Adjustment for negative value				
Value if sold at minimum rates				
Minimum rate stumpage (MBF)				
Logging Mix	TRAC	SKYL	HELI	Average
Logging Ratio	74%	26%	0%	100%
Zone Logging Cost (TEA)				140.07
Woods Net Cost Allowance	5.00	6.56	0.00	5.41
Tree Size Efficiency Cost Reduction	-2.69	-3.55	0.00	-2.91
Logging Cost Adjustment (to Base Price)	-30.40	-83.48	0.00	-44.35
Estimated Logging Cost	170.47	223.55	0.00	184.42
Estimated Logging Cost (MBF)	\$325	\$427	\$0	\$352
Indicated Stumpage (MBF)	\$38	(\$51)	\$0	\$15
Volume (MBF)	10,622	3,786	0	14,408
Value by Logging System	\$402,843	(\$192,686)	\$0	\$210,157
Adjustment for negative value		\$199,913		
Value if sold at minimum rates		\$7,227		
Minimum rate stumpage (MBF)		\$2		
Acres	2156	591	0	2748
Volume per Acre (MBF)	4.9	6.4	0.0	5.2
Value per Acre (MBF)	\$187	(\$326)	\$0	\$76

Values are dollars per CCF (hundred cubic feet) unless indicated as per MBF (thousand board feet). Negative numbers are denoted by parentheses.

