

Appendix C

Long Valley Creek Potential Project Costs

30% Opinion of Probable Construction Costs

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. Opinion of probable construction costs prepared by J-U-B Engineers, Inc.

	Project/Project Combo No.	Project/Project Combo Description	Subtotal (Project Only)	Total (Includes Engineering, Permitting, Management, and Contingency)	Benefit to System
Alternative 1	1	SCW Bridge Removal, NCW PRR CDC ADLC Bridge Modifications, and Channel Expansion	\$ 7,949,578	\$ 12,720,000	
Alternative 2	2	SCW Bridge Removal, PRR CDC Bridge Modifications, and Channel Expansion	\$ 4,032,588	\$ 6,453,000	
Alternative 3	3	SCW Bridge Removal, CDC Bridge Modifications, and Channel Expansion	\$ 2,684,478	\$ 4,296,000	
Alternative 4	4	CDC Bridge Modifications, and Channel Expansion	\$ 1,870,004	\$ 2,993,000	
Alternative 5	5	SCW Bridge Bridge Removal and Channel Expansion	\$ 540,808	\$ 867,000	

Legend
less than \$5,000,000
less than \$10,000,000
greater than \$10,000,000

Long Valley Creek - Alternative 1					Date:	1/12/2024
30% Bid Schedule Opinion of Probable Cost - Concrete Lined Channel						
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 281,545	\$ 281,545	
2	Environmental Protection	LS	1	\$ 12,500	\$ 12,500	
3	Removal and Control of Water	LS	1	\$ 12,500	\$ 12,500	
4	Clearing, Grubbing, and Stripping	AC	2	\$ 15,000	\$ 30,941	
5	Dust Abatement	LS	1	\$ 5,000	\$ 5,000	
6	Unclassified Excavation and Stockpile	CY	13407	\$ 30	\$ 402,204	
7	Installation of 8" Concrete Channel Lining	CY	2219	\$ 1,250	\$ 2,773,210	
8	Placement and Compaction of Crushed Aggregate Base	CY	832	\$ 65	\$ 54,080	
9	Earthfill Zone IV Fill	CY	709	\$ 38	\$ 26,928	
10	Furnish and Install Class 400 Riprap	CY	1905	\$ 300	\$ 571,440	
11	Furnish and Install Pavement	SY	769	\$ 117	\$ 89,973	
12	Furnish and Install Chain Link Fence	LF	92	\$ 150	\$ 13,800	
13	Remove Existing Chain Link Fence	LF	150	\$ 20	\$ 3,000	
14	Remove Existing Tree	EA	3	\$ 500	\$ 1,500	
15	Remove and Reinstall Pedestrian Ramp	LS	1	\$ 10,000	\$ 10,000	
16	Site Restoration and Rehabilitation	LS	1	\$ 15,000	\$ 15,000	
Subtotal					\$ 4,303,621	
10% Engineering					\$ 430,362	
10 % Permitting					\$ 430,362	
10% Construction Management					\$ 430,362	
30% Contingency					\$ 1,291,086	
TOTAL					\$ 6,886,000	

Long Valley Creek - Alternative 1 30% Bid Schedule Opinion of Probable Cost - Bridge					Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 238,521	\$ 238,521	
2	Remove SCW Bridge	LS	1	\$ 89,800	\$ 89,800	
3	Relocate Existing SCW Overhead Power	LS	1	\$ 200,000	\$ 200,000	
4	Remove and Replace NCW Bridge	LS	1	\$ 755,100	\$ 755,100	
5	Relocate Existing NCW Utilities	LS	1	\$ 5,000	\$ 5,000	
6	Relocate Existing NCW Overhead Power	LS	1	\$ 100,000	\$ 100,000	
7	Remove and Replace PRR Bridge	LS	1	\$ 444,000	\$ 444,000	
8	Protect/Repipe Domestic Water Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099	
9	Protect/Repipe Sanitary Sewer Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099	
10	Protect/Repipe Reclaimed Water Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099	
11	Relocate Existing PRR Utilities	LS	1	\$ 5,000	\$ 5,000	
12	Relocate Existing PRR Overhead Power	LS	1	\$ 100,000	\$ 100,000	
13	Remove and Replace CDC Bridge	LS	1	\$ 658,100	\$ 658,100	
14	Protect/Repipe Gas Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
15	Protect/Repipe Domestic Water Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
16	Relocate Existing CDC Utilities	LS	1	\$ 5,000	\$ 5,000	
17	Relocate Existing CDC Overhead Power	LS	1	\$ 100,000	\$ 100,000	
18	Remove and Replace ADLC Bridge	LS	1	\$ 859,100	\$ 859,100	
19	Protect/Repipe Sanitary Sewer Utility Crossing ADLC Bridge	LF	156	\$ 95	\$ 14,784	
20	Protect/Repipe Domestic Water Utility Crossing ADLC Bridge	LF	156	\$ 95	\$ 14,784	
21	Relocate Existing ADLC Utilities	LS	1	\$ 10,000	\$ 10,000	
Subtotal					\$ 3,645,957	
10% Engineering					\$ 364,596	
10 % Permitting					\$ 364,596	
10% Construction Management					\$ 364,596	
30% Contingency					\$ 1,093,787	
TOTAL					\$ 5,834,000	

Long Valley Creek - Alternative 2 30% Bid Schedule Opinion of Probable Cost - Concrete Lined Channel					Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 148,407	\$ 148,407	
2	Environmental Protection	LS	1	\$ 12,500	\$ 12,500	
3	Removal and Control of Water	LS	1	\$ 12,500	\$ 12,500	
4	Clearing, Grubbing, and Stripping	AC	1	\$ 15,000	\$ 13,363	
5	Dust Abatement	LS	1	\$ 5,000	\$ 5,000	
6	Unclassified Excavation and Stockpile	CY	8386	\$ 30	\$ 251,591	
7	Installation of 8" Concrete Channel Lining	CY	958	\$ 1,250	\$ 1,197,747	
8	Placement and Compaction of Crushed Aggregate Base	CY	359	\$ 65	\$ 23,357	
9	Earthfill Zone IV Fill	CY	615	\$ 38	\$ 23,377	
10	Furnish and Install Class 400 Riprap	CY	1665	\$ 300	\$ 499,400	
11	Furnish and Install Pavement	SY	410	\$ 117	\$ 47,970	
12	Furnish and Install Chain Link Fence	LF	92	\$ 150	\$ 13,800	
13	Remove Existing Chain Link Fence	LF	150	\$ 20	\$ 3,000	
14	Remove Existing Tree	EA	3	\$ 500	\$ 1,500	
15	Site Restoration and Rehabilitation	LS	1	\$ 15,000	\$ 15,000	
Subtotal					\$ 2,268,513	
10% Engineering					\$ 226,851	
10 % Permitting					\$ 226,851	
10% Construction Management					\$ 226,851	
30% Contingency					\$ 680,554	
TOTAL					\$ 3,630,000	

Long Valley Creek - Alternative 2 30% Bid Schedule Opinion of Probable Cost - Bridge				Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total
1	Mobilization/Demobilization (7%)	LS	1	\$ 115,407	\$ 115,407
2	Remove SCW Bridge	LS	1	\$ 89,800	\$ 89,800
3	Relocate Existing SCW Overhead Power	LS	1	\$ 200,000	\$ 200,000
4	Remove and Replace PRR Bridge	LS	1	\$ 444,000	\$ 444,000
5	Protect/Repipe Domestic Water Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099
6	Protect/Repipe Sanitary Sewer Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099
7	Protect/Repipe Reclaimed Water Utility Crossing PRR Bridge	LF	96	\$ 95	\$ 9,099
8	Relocate Existing PRR Utilities	LS	1	\$ 5,000	\$ 5,000
9	Relocate Existing PRR Overhead Power	LS	1	\$ 100,000	\$ 100,000
10	Remove and Replace CDC Bridge	LS	1	\$ 658,100	\$ 658,100
11	Protect/Repipe Gas Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736
12	Protect/Repipe Domestic Water Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736
13	Relocate Existing CDC Utilities	LS	1	\$ 5,000	\$ 5,000
14	Relocate Existing CDC Overhead Power	LS	1	\$ 100,000	\$ 100,000
				Subtotal	\$ 1,764,075
				10% Engineering	\$ 176,408
				10 % Permitting	\$ 176,408
				10% Construction Management	\$ 176,408
				30% Contingency	\$ 529,223
				TOTAL	\$ 2,823,000

Long Valley Creek - Alternative 3 30% Bid Schedule Opinion of Probable Cost - Concrete Lined Channel					Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 107,554	\$ 107,554	
2	Environmental Protection	LS	1	\$ 12,500	\$ 12,500	
3	Removal and Control of Water	LS	1	\$ 12,500	\$ 12,500	
4	Clearing, Grubbing, and Stripping	AC	1	\$ 15,000	\$ 8,551	
5	Dust Abatement	LS	1	\$ 5,000	\$ 5,000	
6	Unclassified Excavation and Stockpile	CY	5523	\$ 30	\$ 165,676	
7	Installation of 8" Concrete Channel Lining	CY	613	\$ 1,250	\$ 766,451	
8	Placement and Compaction of Crushed Aggregate Base	CY	230	\$ 65	\$ 14,947	
9	Earthfill Zone IV Fill	CY	23	\$ 38	\$ 871	
10	Furnish and Install Class 400 Riprap	CY	1562	\$ 300	\$ 468,722	
11	Furnish and Install Pavement	SY	410	\$ 117	\$ 47,970	
12	Furnish and Install Chain Link Fence	LF	92	\$ 150	\$ 13,800	
13	Remove Existing Chain Link Fence	LF	150	\$ 20	\$ 3,000	
14	Remove Existing Tree	EA	3	\$ 500	\$ 1,500	
15	Site Restoration and Rehabilitation	LS	1	\$ 15,000	\$ 15,000	
Subtotal					\$ 1,644,041	
10% Engineering					\$ 164,404	
10 % Permitting					\$ 164,404	
10% Construction Management					\$ 164,404	
30% Contingency					\$ 493,212	
TOTAL					\$ 2,631,000	

Long Valley Creek - Alternative 3 30% Bid Schedule Opinion of Probable Cost - Bridge					Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 68,066	\$ 68,066	
2	Remove SCW Bridge	LS	1	\$ 89,800	\$ 89,800	
3	Relocate Existing SCW Overhead Power	LS	1	\$ 100,000	\$ 100,000	
4	Remove and Replace CDC Bridge	LS	1	\$ 658,100	\$ 658,100	
5	Protect/Repipe Gas Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
6	Protect/Repipe Domestic Water Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
7	Relocate Existing CDC Utilities	LS	1	\$ 5,000	\$ 5,000	
8	Relocate Existing CDC Overhead Power	LS	1	\$ 100,000	\$ 100,000	
Subtotal					\$ 1,040,437	
10% Engineering					\$ 104,044	
10 % Permitting					\$ 104,044	
10% Construction Management					\$ 104,044	
30% Contingency					\$ 312,131	
TOTAL					\$ 1,665,000	

Long Valley Creek - Alternative 4					Date:	1/12/2024
30% Bid Schedule Opinion of Probable Cost - Concrete Lined Channel						
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 67,557	\$ 67,557	
2	Environmental Protection	LS	1	\$ 12,500	\$ 12,500	
3	Removal and Control of Water	LS	1	\$ 12,500	\$ 12,500	
4	Clearing, Grubbing, and Stripping	AC	1	\$ 15,000	\$ 8,551	
5	Dust Abatement	LS	1	\$ 5,000	\$ 5,000	
6	Unclassified Excavation and Stockpile	CY	3604	\$ 30	\$ 108,132	
7	Installation of 8" Concrete Channel Lining	CY	613	\$ 1,250	\$ 766,451	
8	Placement and Compaction of Crushed Aggregate Base	CY	230	\$ 65	\$ 14,947	
9	Earthfill Zone IV Fill	CY	23	\$ 38	\$ 871	
10	Furnish and Install Class 400 Riprap	CY	70	\$ 300	\$ 21,144	
11	Site Restoration and Rehabilitation	LS	1	\$ 15,000	\$ 15,000	
Subtotal					\$ 1,032,653	
10% Engineering					\$ 103,265	
10 % Permitting					\$ 103,265	
10% Construction Management					\$ 103,265	
30% Contingency					\$ 309,796	
TOTAL					\$ 1,653,000	

Long Valley Creek - Alternative 4					Date:	1/12/2024
30% Bid Schedule Opinion of Probable Cost - Bridge						
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 54,780	\$ 54,780	
2	Remove and Replace CDC Bridge	LS	1	\$ 658,100	\$ 658,100	
3	Protect/Repipe Gas Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
4	Protect/Repipe Domestic Water Utility Crossing CDC Bridge	LF	102	\$ 95	\$ 9,736	
5	Relocate Existing CDC Utilities	LS	1	\$ 5,000	\$ 5,000	
6	Relocate Existing CDC Overhead Power	LS	1	\$ 100,000	\$ 100,000	
Subtotal					\$ 837,351	
10% Engineering					\$ 83,735	
10 % Permitting					\$ 83,735	
10% Construction Management					\$ 83,735	
30% Contingency					\$ 251,205	
TOTAL					\$ 1,340,000	

Long Valley Creek - Alternative 5 30% Bid Schedule Opinion of Probable Cost - Concrete Lined Channel					Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total	
1	Mobilization/Demobilization (7%)	LS	1	\$ 15,094	\$ 15,094	
2	Environmental Protection	LS	1	\$ 12,500	\$ 12,500	
3	Removal and Control of Water	LS	1	\$ 12,500	\$ 12,500	
4	Clearing, Grubbing, and Stripping	AC	0.5	\$ 15,000	\$ 7,500	
5	Dust Abatement	LS	1	\$ 5,000	\$ 5,000	
6	Unclassified Excavation and Stockpile	CY	1918	\$ 30	\$ 57,543	
7	Installation of 8" Concrete Channel Lining	CY	0	\$ 1,250	\$ -	
8	Placement and Compaction of Crushed Aggregate Base	CY	0	\$ 65	\$ -	
9	Earthfill Zone IV Fill	CY	0	\$ 38	\$ -	
10	Furnish and Install Class 400 Riprap	CY	131	\$ 300	\$ 39,315	
11	Furnish and Install Pavement	SY	410	\$ 117	\$ 47,970	
12	Furnish and Install Chain Link Fence	LF	92	\$ 150	\$ 13,800	
13	Remove Existing Chain Link Fence	LF	150	\$ 20	\$ 3,000	
14	Remove Existing Tree	EA	3	\$ 500	\$ 1,500	
15	Site Restoration and Rehabilitation	LS	1	\$ 15,000	\$ 15,000	
Subtotal					\$ 230,722	
10% Engineering					\$ 23,072	
10 % Permitting					\$ 23,072	
10% Construction Management					\$ 23,072	
30% Contingency					\$ 69,217	
TOTAL					\$ 370,000	

Long Valley Creek - Alternative 5 30% Bid Schedule Opinion of Probable Cost - Bridge				Date:	1/12/2024
Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total
1	Mobilization/Demobilization (7%)	LS	1	\$ 20,286	\$ 20,286
2	Remove SCW Bridge	LS	1.00	\$ 89,800	\$ 89,800
3	Relocate Existing SCW Overhead Power	LS	1	\$ 200,000	\$ 200,000
Subtotal					\$ 310,086
10% Engineering					\$ 31,009
10 % Permitting					\$ 31,009
10% Construction Management					\$ 31,009
30% Contingency					\$ 93,026
TOTAL					\$ 497,000

Long Valley Creek Potential Project Costs

30% Opinion of Probable Construction Costs

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Project	Project/Project Combo Description	Subtotal (Project Only)	Total (Includes Engineering, Permitting, Management, and Contingency)	Benefit to System
SCW	SCW Bridge Removal and Channel Expansion	\$ 540,808	\$ 867,000	
NCW	NCW Bridge Modifications and Channel Expansion	\$ 1,898,377	\$ 3,037,491	
PRR	PRR Bridge Modifications, and Channel Expansion	\$ 1,378,907	\$ 2,104,621	
CDC	CDC Bridge Modifications and Channel Expansion	\$ 1,870,004	\$ 2,993,000	
ADLC	ADLC Bridge Modifications and Channel Expansion	\$ 2,535,075	\$ 4,056,519	

Notes:

The preliminary costs consider environmental protection; removal and control of water; clearing, grubbing, and stripping; and dust abatement for each project. If bridges are constructed jointly the cost considerations of these pay items will change. The costs for Alternatives 1-5 remove the duplicate costs when combined. The ADLC and NCW bridges were approximately seperated in indiidual volumes and costs.