

No.	Description	GZA Full Dam Reab	Pro-Rated Low Hazard Rehab	Comments
1	Mob/DeMob	60,000	17,411	Prorate Based on Items 4 - 13d
2	Sediment & Erosion Control	25,000	7,254	Prorate Based on Items 4 - 13d
3	Traffic Control	10,000	2,902	Prorate Based on Items 4 - 13d
4	Temporary Access to Spillway	7,450	7,450	GZA Estimate
5	Temporary Access to Dike			
5a	Clear & Grub	25,000	25,000	GZA Estimate
5b	Crushed Stone	38,500	38,500	GZA Estimate
6	Temporary Siphon	93,000		Not Required
7	Spillway Demolition	21,500		Not Required
8	Downstream Stabilization	5,250	5,250	GZA Estimate
9	Spillway Rehabilitation			
9a	Abutment Grouting	54,000		Not Required
9b	Anchors	118,000		Not Required
9c	Cap Beam	30,000		Not Required
9d	Masonry Repointing	30,225	30,225	GZA Estimate
10	Embankment Rehabilitation			
10a	Excavation & Stockpile	7,800	7,800	GZA Estimate
10b	Re-point masonry corewall	19,500	19,500	GZA Estimate
10c	Re-point masonry training walls	8,250	8,250	GZA Estimate
10d	Place & Compact embankment fill	9,750	9,750	GZA Estimate
10e	Off-site fill	3,000	3,000	GZA Estimate
10f	Rip-rap	3,400	3,400	GZA Estimate
10g	Crushed Stone	525	525	GZA Estimate
10h	Loam & Seed	1,750	1,750	GZA Estimate
11	Dike Rehabilitation			
11a	Cut and Remove Trees & Stumps	1,500	1,500	GZA Estimate
11b	Excavation & Stockpile	5,600	5,600	GZA Estimate
11c	Place & Compact embankment fill	7,000	7,000	GZA Estimate
11d	Off-site fill			Not Required
11e	Rip-rap		7,225	GZA - Reduced Crest
11f	Crushed Stone		1,400	GZA - Reduced Crest
11g	Loam & Seed		1,400	GZA - Reduced Crest
12	Dike Overflow Protection			Not Required
12a	Filter Fabric	14,500		
12b	Crushed Stone	4,699		
12c	Articulated Concrete mat	108,750		
13	Overflow Channel			Not Required
13a	Clear & Grub	750		
13b	Excavation & Stockpile	1,200		
13c	Rock Excavation	15,000		
13d	Rip-rap	10,625		
14	Site Restoration & Stream Stabilization	30,000	8,705	Prorate Based on Items 4 - 13d
15	Total Directs	771,524	220,797	GZA Total: \$712,000
16	20% Contingency	154,305	44,159	
17	10% Contractors' Overhead & Profit	92,583	26,496	
18	Grand Total, Rehabilitation Cost	1,018,412	291,453	

No.	Description	GZA Full Dam Reab	Pro-Rated Low Hazard Rehab	GZA Removal	Comments
1	Short Term Costs				
1a	Construction	1,018,412	291,453	425,000	GZA Full Rehab: \$939,840
1b	Design/Permitting	125,000	125,000	125,000	GZA Estimate
1c	Sediment Mitigation			500,000	
Total, Short Term Costs		1,143,412	416,453	1,050,000	
2	Long Term Costs (50-Year Plan)				
2a	Dam Safety Inspections, every 2 years	125,000	25,000		Low Hazard Inspections every 10 years
2b	Routine Annual maintenance	75,000	75,000	50,000	GZA Estimate
2c	Masonry repointing, every 25 years	50,000	50,000		GZA Estimate
2d	Reservoir Dredging	500,000		100,000	Not Required with Hydro
2e	Total, Long Term Costs	750,000	150,000	150,000	
3	Total estimated Costs, 50 Years	1,893,412	566,453	1,200,000	

Notes

- 1 Design/Permitting for Low Hazard Rehabilitation includes cost to reclassify dam.
- 2 Reservoir dredging would not be required for hydroelectric project. Localized excavation around intake would be performed during construction of the hydroelectric project.
- 3 Low Hazard Rehabilitation is perceived to have the lowest risk of construction cost overruns.