

**ENGINEERS ESTIMATE OF PROBABLE REPLACEMENT COSTS  
FOR LELAND DAM (LELAND RIVER)  
LELAND - LEELANAU COUNTY, MICHIGAN  
June 22, 2022  
DRAFT**

Item No.	Estimated Quantity	Unit	Description	Unit Price	Total Amount
<b>MISCELANEOUS ITEMS</b>					
1.	1	Lsum	Mobilization	\$ 300,000	\$ 300,000
2.	1	Lsum	Dewatering/Water bypass control/ Temporaray Cofferdams	\$ 380,000	\$ 380,000
3.	1	Lsum	Soil Erosion & Sedimentation Control	\$ 40,000	\$ 40,000
Sub-Total Miscellaneous Items -----					\$ 720,000
<b>DAM STRUCTURE AND CONTROLS</b>					
4.	1,400	SFT	Steel Sheetting Cutoff Wall	\$ 60	\$ 84,000
5.	500	SYD	Subgrade Preparation and Compaction	\$ 30	\$ 15,000
6.	900	Cu. Yds.	Concrete - Bay 1-4 Complete (Formed & Placed w/ Steel Reinf,	\$ 2,000	\$ 1,800,000
7.	1	Lump Sum	Hydraulic Actuator System w/ Controls - Complete (Bay #4)	\$ 150,000	\$ 150,000
8.	1	Lump Sum	Adjustable Weir Crest - Complete (Bay #2&3)	\$ 160,000	\$ 160,000
9.	1	Lump Sum	4 Stop Logs and Guides (Aluminum, 12.5' x 3"x 6" +/-) (Bay #1)	\$ 25,000	\$ 25,000
10.	1	Lump Sum	Monitoring, Controls, Communication, SCADA, Sensors, Etc.	\$ 15,000	\$ 15,000
11.	1	Lump Sum	General Electrical/ Lighting/ Power to Site	\$ 10,000	\$ 10,000
12.	500	Sq. Ft.	Walkway (Includes Grating, Structural Support, Railing)	\$ 80	\$ 40,000
13.	300	Ton	Heavy Riprap at Toe of Spillways	\$ 150	\$ 45,000
14.	1	Lump Sum	Marker Bouys and Cable with Anchors	\$ 2,000	\$ 2,000
Sub-Total Dam Structure and Controls -----					\$ 3,066,000
Total Construction Cost (Appurtenant Works) -----					\$ 3,786,000
Contingency (+/- 10%) -----					\$ 364,000
<b>Total Construction Cost with Contingency (Appurtenant Works) -----</b>					<b>\$ 4,150,000</b>
Engineering - Survey, Design, and Permitting (+/- 10%) -----					\$ 380,000
Engineering - Bidding, Staking, Inspection, and Construction Oversight (+/- 10%) -----					\$ 380,000
Administrative - Legal, Financing, etc. -----					\$ 190,000
<b>TOTAL PROJECT ESTIMATE (APPURTENANT WORKS) -----</b>					<b>\$ 5,100,000</b>

**NOTE:** ENGINEERS ESTIMATE OF PROBABLE COSTS WAS PREPARED FOR REPLACEMENT OF APPURTANENT WORKS PER MMRMA'S DAM VALUE INSTRUCTIONS. QUANTITIES WERE ESTIMATED BASED ON AVAILABLE PLANS FROM PREVIOUS CONSTRUCTION PROJECTS ON THE DAM WITH ASSUMPTIONS FOR ITEMS NOT SHOWN ON THE PLANS . UNIT PRICES WERE ESTIMATED BASED ON RECENT BIDS COLLECTED FOR SIMILAR WORK COMPLETED ON OTHER PROJECTS AND ENGINEERING JUDGEMENT. THIS ESTIMATE DOES NOT ACCOUNT FOR ANY DEFICIENCIES THAT MAY BE PRESENT FOR THE SPILLWAY CAPACITY OR DESIGN AS A RESULT OF UPDATED REGULATIONS AND HYDROLOGY DATA.