

**Lake Mitchell Advisory Committee
Meeting Agenda
Monday, July 30, 2018
4:00 - 5:00 pm - Rec Center Conference Room**

1. Call To Order

2. Roll Call

3. Public Input

4. Old Items

5. Agenda Items

- A. Review The Previously Adopted Development Strategy With Updates That Includes An Internal Load Project, Near-Lake Solutions And Firesteel Watershed Improvements

Documents:

[COPY OF DEVELOPMENT STRATEGY D.PDF](#)

- B. Seeking A Recommendation From The Lake Committee To Proceed With The Step 1 And Step 2 Engineering Design Based On Available Funding From The City
- C. Request For Lake Committee To Prioritize Design And Construction Projects

Documents:

[DRAWDOWN REQUIREMENTS.PDF](#)
[NEAR LAKE COST BREAKDOWN.PDF](#)

- D. Discuss Presentation For City Council Based On The Recommendation And Priority List

6. Adjourn

Lake Mitchell Development Strategy

(Step 1 Cost Breakdown from Page 26 of Phase 2 TM/Step 2-4 on Page 55 & 58 of Phase 1 TM)

	Step 1	Step 2	Step 3	Step 4
Description	Internal Load Control/Dam Drawdown	Retention Pond, Wetlands, Alum Injection System, Funding Pursuits, Hotspot Identification	By-Pass System	Watershed Improvements
Timeline	1-2 Years	2-3 Years	3-5 Years	On-Going
Is this a Requirement to Meet Water Quality Goals?	Yes	Yes, this is a requirement to meet long-term water quality goals	Unknown Until Completion of Step 1 and final design of step 2	This will help reduce phosphorus levels below our water quality goals in Steps 1-3
Initial Investment	\$8,860,000.00	\$6,036,420.00	\$8,535,000	\$76,193.00
Contingency	\$1,702,000.00	\$1,203,000.00	\$1,707,000	\$0
Engineering Fee	\$683,280.00	\$721,800.00	\$1,024,200 (10%) - \$2,048,400 (20%)	\$0
Project Total	\$11,245,280.00	\$7,961,220	\$11,266,200 - \$12,290,400	\$76,193
Grant Funded	Unavailable	Potentially 60% Grant Funded 40% City Match	Potentially 60% Grant Funded 40% City Match	100% Grant Funded (State & Federal Programs Only)
Long-Term Investment to the City of Mitchell	Step 2	\$176k a year plus \$225k every 4-5 years		\$0
Description of Long-Term Costs	Long-term alum treatments should be explored as part of Step 2	Annual alum injection cost, optimize final design to minimize annual cost. Whole lake alum treatments if/when flood events overtop retention structure. Estimated once every 4-5 years		Implementation of watershed conservation practices over a period of time, dependent upon landowner participation.

Step 1 Investment	Engineering	Project Cost	Contingency	Total
Outside Funding Pursuits	\$ -	\$ 21,420.00	\$ -	\$ 21,420.00
Identify Watershed Hotspots	\$ -	\$ 11,460.00	\$ -	\$ 11,460.00
Watershed Sampling	\$ -	\$ 64,733.00	\$ -	\$ 64,733.00
Drawdown	\$ 100,800.00	\$ 470,000.00	\$ 84,000.00	\$ 654,800.00
Mechanical Dredging Project	\$ 582,480.00	\$ 8,390,000.00	\$ 1,618,000.00	\$ 10,590,480.00
Step 2 Investment				
On-Line Impoundment	\$ 654,000.00	\$ 5,450,000.00	\$ 1,090,000.00	\$ 7,194,000.00
Wetland Complex	\$ 67,800.00	\$ 565,000.00	\$ 113,000.00	\$ 745,800.00
Cost to Restore Lake Mitchell				
Subtotal	\$ 1,405,080.00	\$ 14,972,613.00	\$ 2,905,000.00	\$ 19,282,693.00
Grants	\$ (433,080.00)	\$ (3,609,000.00)	n/a	\$ (4,042,080.00)
Total	\$ 972,000.00	\$ 11,363,613.00	\$ 2,905,000.00	\$ 15,240,613.00

Subject:

FW: Mitchell

74:02:08:08. Additional design requirements. In addition to the minimum spillway design flood requirements of § 74:02:08:07, all new category 1 and 2 dams must have low-level drawdown facilities. If an existing category 1 or 2 dam undergoes extensive repairs which require complete drawing down of the reservoir or is being repaired after the dam has failed, a low-level drawdown facility must be installed. A low-level drawdown facility may be either a gated pipe through the embankment that would allow the release of water below the primary spillway or sufficient available pumping capacity to draw down the reservoir. A breach analysis report must be completed by the owner for the proposed dam if a preliminary risk assessment indicates that the dam is a category 1 or 2 dam and must be submitted to the chief engineer with the plans and specifications required by § 74:02:08:09. A breach analysis, if required, must be performed with a simulated water surface at or above the top of the dam.

On-Line Impoundment				
Description	Quantity	Unit	Unit Cost	Extension
Embankment	200,000	CY	\$3	\$600,000
Primary Outlet Works	1	EA	\$100,000	\$100,000
Auxiliary Outlet Works	1	EA	\$600,000	\$600,000
Seepage Control	1	EA	\$400,000	\$400,000
Land Rights	1,000	ACRES	\$3,750	\$3,750,000
Total				\$5,450,000
Wetland Complex				
Description	Quantity	Unit	Unit Cost	Extension
Earthwork	80,000	CY	\$3	\$240,000
Outlet/Drawdown Controls	1	EA	\$100,000	\$100,000
Land Rights	60	ACRES	\$3,750	\$225,000
Total				\$565,000

Total.....\$6,015,000.00
Contingency.....\$1,203,000.00
10% Engineering Fee.....\$754,680.00
TOTAL NEAR LAKE.....\$7,972,680.00