



Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: November 9, 2020
RE: **Main Stem Lagoon Dredging Project Implementation**

Recommendations:

1. Request that the Commission Engineer develop a proposal and cost estimate for the final design and development of plans and specifications, permitting assistance, bidding assistance and construction services for the project.
2. Begin project design and permitting summer 2021; dredge Lagoons D, E & F winter 2022/2023.

Background:

At the July 16th meeting, the Commission approved a plan to fund the Main Stem Lagoon Dredging Project with CIP levies in tax years 2021 – 2024, up to \$1.2M in Closed Project Account funds, and grant funds, if awarded (Table 1). At the September 17th meeting, the Commission passed [resolution 20-06](#) officially ordering the Main Stem Lagoon Dredging Project. Unlike most CIP projects where the Commission has an agreement with a member city to design and construct the project, the Commission will design and construct this project on its own, in close coordination with the MPRB, Minneapolis, and Golden Valley.

Project Engineering:

There are multiple engineering tasks related to this project including:

- Assisting with securing all necessary permits, including
 - Public Waters Work Permit (MDNR)
 - Section 404 Permit and Section 401 Certification (United States Army Corps of Engineers (USACE))
 - Construction Stormwater General Permit (MPCA)
 - Stormwater Management Permit (City of Golden Valley)
 - Construction Permit (MPRB)
 - Other permits identified during the project
- Assisting the city of Golden Valley with development of the required Environmental Assessment Worksheet (EAW)
- Final design of the project and developing drawings, specifications and bid documents
- Developing engineer's opinion of probable construction costs
- Administering/coordinating the bidding process
- Performing surveying to provide benchmarks and establish control for drawings
- Construction services including periodic construction observation and administration (review of submittals, pay applications, requests for information, etc.; processing change orders, communications with contractor, administrator, regulators and stakeholders)

- Developing plan for disposal of contaminated sediments
- Preparing record drawings
- Assisting administrator with grant administration

The cost estimate for this work as shown in the [feasibility study](#) is 30% of estimated construction costs, or \$806,000. While this is a typical method for estimating preliminary engineering budgets, the Commission Engineer has noted that actual engineering costs for this project are likely to be substantially lower. For budgeting purposes at this time, I am using a figure of \$300,000 for engineering.

The Commission can utilize the Commission Engineer for these tasks, or it can solicit requests for proposals from multiple consulting firms. At this time, I believe the most streamlined and cost-effective action is to request a proposal and cost estimate only from the Commission Engineer for the engineering tasks (similar to proposals they provide for feasibility studies). My recommendation is based on the following:

1. The Commission Engineer’s time would be needed to help me develop a request for proposals (RFP) to solicit proposals from multiple firms and to review proposals received to ensure all engineering functions are included and appropriate. (Alternatively, TAC members could be asked to assist with these tasks.)
2. Having prepared the feasibility study, the Commission Engineer is already very familiar with the site conditions, permitting needs, and necessary construction components.
3. The Commission Engineer understands the Commission’s goals, policies, objectives and methods of implementation; they would have the Commission’s best interests firmly in mind.
4. If the Commission hired a firm other than the Commission Engineer, project funds would be spent reviewing that firm’s designs and specifications, and may be spent answering questions, running the hydrologic model, and coordinating other aspects of the project before and during construction. Depending on the complexity of issues that arise, this could add several thousand dollars to project expenses.

Project Schedule:

Because the Commission is implementing this project, it is important to ensure that we will have enough cash on hand to pay contractors on time.

Table 1 shows the project funding over four years as approved in July. Grant funding and lower than budgeted engineering costs will reduce the total project costs, resulting in lower future levies and/or less use of Closed Project Account funds. So far, \$250,000 in Clean Water Funds has been secured; additional grant applications totaling \$350,000 are being submitted.

Table 1. Main Stem Lagoon Dredging Project Funding

Funding Source	2021	2022	2023	2024
Levy	\$100,000	\$1,100,000	\$459,000	\$400,000
Closed Project Account	\$500,000	\$300,000	\$200,000	\$200,000
Grant Funds	\$250,000	Unknown	Unknown	Unknown
TOTAL	\$850,000	\$1,400,000	\$659,000	\$600,000

The Commission collects 50% of levy funds in July and 50% in December each year. Closed project account funding levels fluctuate, depending on payments for other CIP projects under construction. Secured grant funding is available in early 2021 and expires at the end of 2023. Anticipated project costs for different aspects of the project include:

- Engineering: (up to) \$300,000
- Construction (mobilization, dredging, sediment disposal, contingency)
 - Lagoon D: \$577,000
 - Lagoon E: \$1,300,000
 - Lagoon F: \$833,500

Although the Commission would have funding available to dredge at least one lagoon in winter 2021/2022, it would not have funding to dredge all three lagoons until the following winter. In order to reduce mobilization costs, minimize longevity of park/trail disturbances, and reduce ecosystem impacts, the Commission Engineers and I recommend dredging all three lagoons in winter 2022/2023. While construction bids may be slightly lower next winter due to economic conditions, the savings from a single mobilization effort is likely to be similar.

Engineering design and permitting should begin at least 12 months prior to the construction bidding process.

- Summer 2021: Begin engineering design and permitting
 - Costs would be incurred monthly but are relatively low and would be covered easily by Commission cash on hand
 - Engineering design costs would be incurred in mid to late 2021 and into 2022; additional costs would be incurred during construction
- Winter 2022/2023: Construct Lagoons D, E and F (\$2,710,500)
 - Expected contractor invoicing as early as February 2023
 - Would have \$2,350,000 on hand February 2023
 - \$1,200,000 from 2021 and 2022 levies
 - \$1,200,000 from 2021 - 2024 Closed Project Account funding
 - \$250,000 from grant funding
 - Subtract engineering costs of \$300,000
 - Could fund remaining gap of \$360,500 with Commission cash on hand; the project fund would be reimbursed with the 2023 levy