



## Memorandum

**To:** Bassett Creek Watershed Management Commission  
**From:** Barr Engineering Co. and Laura Jester, BCWMC Administrator  
**Subject:** Item 5C– Consider Approval to Construct Bryn Mawr Meadows Water Quality Project (2020 CIP Project BC-5) and to Increase Budget for Engineering Services  
BCWMC August 18, 2022 Meeting Agenda  
**Date:** August 10, 2022

### **5C. Consider Approval to Construct Bryn Mawr Meadows Water Quality Project (2020 CIP Project BC-5) and to Increase Budget for Engineering Services**

#### **Recommendations:**

1. Consider moving forward with the Bryn Mawr Meadows Water Quality Project construction despite bids being higher than approved budget.
2. Consider amending the June 2021 engineering services scope to increase the approved budget by \$82,000.
3. Direct staff to develop options for closing the funding gaps.

#### **Background**

The BCWMC's [Bryn Mawr Meadows Water Quality Improvement Project](#) will treat stormwater runoff from 45-acres of residential land that currently flows untreated into Bassett Creek. The project was designed and will be constructed in conjunction with the redevelopment of Bryn Mawr Meadows Park by the Minneapolis Park and Recreation Board (MPRB). The City of Minneapolis (City) is also involved in this project as some improvements to stormwater infrastructure will be constructed within city right-of-way.

At their March 2022 meeting, the BCWMC approved the 90% plans for the project and entered an agreement with MPRB and the City for construction and reimbursement of construction costs. Following that approval, the Commission Engineer worked with the MPRB and the City to complete the final project design and incorporate the design documents into a combined bid package for the Bryn Mawr Park Reconstruction Project, including the BCWMC's water quality project.

The MPRB posted the Bryn Mawr Park Reconstruction Project for bids in late June 2022. Project bids were received on August 1, 2022. MPRB received six bids for the combined park reconstruction and water quality project. MPRB staff shared the project bids with the Commission Engineer. Applicable bid items for the BCWMC portion of the project were summarized and reviewed by the Commission Engineer and compared to the final plans and specifications of the Water Quality project.

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## **BCWMC-Approved Project Budgets**

### **Construction Funding**

The agreement among BCWMC, MPRB, and the City approved a total construction budget of \$1,593,000 (excluding engineering services) for the Bryn Mawr Meadows Water Quality project and provided a general breakdown of reimbursement amounts to the MPRB and the City for costs incurred for project components within their jurisdictions.

Bids were recently returned and the MPRB is in the process of evaluating the apparent low bidder. For construction related to the BCWMC CIP project, the low bid was approximately \$1,470,000. However, the bid does not include:

- Construction contingency of 10% (standard level for this type of project)
- Work needed in the city's right of way to be completed by city crews
- Some additional seeding that was erroneously left out of the bid documents
- Environmental contingency held to cover additional costs associated with the hauling and disposal of contaminated materials and/or disposal of project dewatering water, if required.

These items bring the total construction cost to an estimated range of \$1,725,000 to \$1,755,000. This represents up to a \$162,000 budget shortfall for the construction of the project.

The agreement with MPRB and City notes that in the event that actual costs are higher than the approved \$1,593,000, the Commission shall be given an opportunity to review the Project and either (i) direct the parties to proceed and elect to reimburse the Park Board and/or the City for any additional costs, as relevant to the cause of the overage; (ii) direct that the scope of the Project be reduced such that the costs will not exceed the amounts allocated above; or (iii) eliminate the Project from the scope of the Park Project altogether.

Staff recommends that the Commission proceed with the project and work with MPRB and the City to determine appropriate reimbursement amounts per entity in accordance with design plans previously approved by the Commission. We believe that while expensive, this project continues to offer a cost-effective method to treat currently untreated stormwater from 45 acres of residential land and takes advantage of concurrent construction planned in the park.

It is important to note that although the construction bids for the MPRB's park redevelopment plans are also higher than their budget, MPRB staff will recommend that their Board approve awarding the bid, moving forward with project construction, and using alternative funding sources and mechanisms to bridge the MPRB's funding gap. Further, MPRB staff will recommend to their board that their project's construction is contingent on the BCWMC CIP project also being approved for construction because the two projects' designs are so closely linked.

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## **Engineering Services**

At their June 2021 meeting, the Commission approved a scope of work and associated budget of \$183,000 for engineering services for the Bryn Mawr Meadows Water Quality Improvement Project. Engineering services to-date have extended beyond what was originally planned for the project, including additional time and budget required for project coordination, project management, and engineering design work. Extensions within the overall project timeline and additional information on environmental considerations at the site have also resulted in a change of scope and associated budget for the remainder of the project. Additional details on the change in scope and budget for the project's engineering services are provided below. We request amending the June 2021 approved engineering services budget to include an additional \$82,000, resulting in a total project engineering services budget of \$265,000.

### **Additional Engineering Services Required To-Date**

The required scope and budget for engineering services for the Bryn Mawr Meadows Water Quality Project to-date has exceeded what was originally expected. The overall park project timelines and deliverable milestones have shifted several times throughout the course of the project, making coordination amongst and between the project partners and their design teams more challenging and less efficient than was originally expected, resulting in significantly more time spent on the project.

In addition, the overall design work for the Water Quality project was more complex than originally expected and scoped. Between the 50% and 90% design milestones, the Commission Engineer discovered that the Water Quality project would need to include the relocation of a 12-inch storm sewer that drains runoff from the southern portion of the park and extends through the footprint of the water quality stormwater ponds. This pipe relocation was not included in the original work scope and budget, as we originally anticipated that this pipe would be addressed by the MPRB as part of their park reconstruction project. The incorporation of this pipe into the Water Quality project design resulted in the Commission Engineers spending additional time and budget on civil and geotechnical design work, stormwater modeling, and coordination with the city, MPRB and their consultants on questions related to stormwater flow patterns in the southern portion of the park and in/around the area near the Minnesota Department of Transportation's Penn Pond.

Elevated construction costs resulted in increases in capital costs for the project (beyond what was planned for in the project feasibility study) and the need for the Commission Engineer to develop and consider potential cost-saving strategies. This resulted in additional work leading up to the 50% design and Commission approval of the 50% design plans.

Lastly, the MPRB's final grading plan for the park project included areas of elevated fill above Water Quality project storm sewer pipes that increased loads and raised geotechnical and pipe settlement

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concerns. We assessed design alternatives to address the concerns about the potential for ground settlement underneath the project storm sewer pipes resulting from the increased fill over the pipes. We also met with the MPRB and City staff to review options since the City would be responsible for maintaining the new storm sewer pipes. As a result, late in the design process, we updated the final project design to modify the project pipe materials.

We estimate these additional engineering services cost \$50,000.

#### Request to Modify MH-14 to Concrete Structure

The City of Minneapolis requested a design modification to the final plan set to modify the material of a maintenance access manhole located on the stormwater pond equalizer pipe, changing the material from high density polyethylene (HDPE) to concrete. Given the poor soils at this site, a concrete manhole structure at this location would require the installation of piles to support its weight. The requested change would require additional engineering to re-design the structure and piles, update the final plan sheets, and administer the change through a construction change order. We estimate these additional engineering services cost \$5,000.

#### Additional Environmental Services

We estimate that an additional \$20,000 is needed for environmental services for the BCWMC Water Quality project. Part of this additional budget request addresses environmental assistance performed to-date that was outside of the original scope of work, including the collection and laboratory analysis of a groundwater dewatering sample during construction of the Irving Avenue Sewer. We used the sample results to inform the development of environmental response actions for the Bryn Mawr Meadows Response Action Plan (RAP) and provide documentation related to planned actions for the management of groundwater during construction.

The remaining additional budget will allow the Commission Engineer to provide environmental services associated with response actions identified in the project RAP, and to address the MPCA's comments on the project RAP, including additional recommended environmental oversight for the Water Quality project. This includes laboratory analysis for soil sampling and test pits to be completed as part of the project construction. Sampling prior to initiation of construction will save oversight time and decrease uncertainty as excavation proceeds. The Commission Engineer's field staff will provide up to 70 hours of environmental oversight during project construction (increased from 50 hours in the original work scope). We will also assist the contractor with providing information to the landfill for waste disposal acceptance.

Finally, Barr will prepare a Response Action Implementation Report to document that the work was completed in accordance with the RAP and submit the report to the MPCA for review and approval. We assume up to one round of report revisions to address Commission comments. The report will be a

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combined report prepared on behalf of the BCWMC and the MPRB, and time will be billed to each entity accordingly.

### Project Management

The project timeline for the Bryn Mawr Meadows Water Quality Project has extended beyond what was originally planned. We request additional project management budget to account for the extension of the project timeline through fall of 2023. We estimate these additional project management services will cost \$7,000.

### **Next Steps**

After discussions on final reimbursement needs and amounts with MPRB and City, Commission staff will bring options for closing the funding gap to a future meeting. These could include more use of BCWMC Closed Project funds or additional levy funds allocated to this project (and away from other projects) with the final 2023 levy request.

If approved, construction is anticipated to begin in September.