



## Memorandum

**To:** Bassett Creek Watershed Management Commission  
**From:** Barr Engineering Co.  
**Subject:** Item 4E – Consider Approval of Proposal for Engineering Services for the Bryn Mawr Meadows Water Quality Improvement Project (2020 CIP Project BC-5) Conditioned on Fully Executed Bryn Mawr Design Agreement  
BCWMC June 17, 2021 Meeting Agenda  
**Date:** June 9, 2021

### **4E. Consider Approval of Proposal for Engineering Services for the Bryn Mawr Meadows Water Quality Improvement Project (2020 CIP Project BC-5) Conditioned on Fully Executed Bryn Mawr Design Agreement**

#### **Recommendations:**

1. Consider approving the scope of work and \$183,000 budget presented in this memorandum and direct the Commission Engineer to prepare final design, develop plans and specifications, and provide permitting assistance, bidding assistance and construction services for the Bryn Mawr Meadows Water Quality Improvement Project (2020 CIP Project BC-5), scheduled for construction in 2022. This approval is conditioned on the full execution of the cooperative agreement between the Bassett Creek Watershed Management Commission, Minneapolis Park and Recreation Board and the City of Minneapolis regarding design of this project.

#### **Background**

At the September 19, 2019 meeting, the Commission passed resolution 19-09 officially ordering the Bryn Mawr Meadows Water Quality Improvement Project (2020 CIP Project BC-5), at an estimated cost of \$912,000, to be funded through CIP levies in 2019 for collection in 2020 (\$100,000) and in 2020, for collection in 2021 (\$412,000), and a BWSR Clean Water Fund Grant (\$400,000). Unlike most CIP projects where the Commission has an agreement with a member city to design and construct the project, the Commission will design this project on its own, in close coordination with the Minneapolis Park and Recreation Board (MPRB) and the City of Minneapolis. At their November 18, 2020 meeting, the Commission requested a scope of work from the Commission Engineer to provide project engineering for an amount not to exceed \$183,000.

The project will be implemented within Bryn Mawr Meadows Park and adjacent city streets and will be designed and constructed in conjunction with the MPRB's design and reconstruction of Bryn Mawr Meadows Park. This CIP project will treat stormwater runoff from a 45.1-acre residential area that currently flows untreated into Bassett Creek in Minneapolis and low flows from MnDOT's Penn Pond (see Figure 1).

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The BCWMC will enter into two agreements with MPRB and the City of Minneapolis: one assigning design responsibilities to the BCWMC (to be considered at the June BCWMC meeting) and another designating construction and maintenance responsibilities. The MPRB and the City of Minneapolis will be responsible for constructing the portions of the CIP project on their respective properties. The CIP project will provide an estimated total phosphorus reduction of 30 pounds per year above and beyond the stormwater treatment required by MPRB's park reconstruction project. The project is slated for design in 2021 and construction in 2022.

The feasibility report for the project (Feasibility Report for Bryn Mawr Meadows Water Quality Improvement Project, January 2019, Barr) will form the basis for the CIP project design. The feasibility report and further project information can be found online at <https://www.bassettcreekwmo.org/projects/all-projects/bryn-mawr-meadows-water-quality-improvement-project>.

## **Proposed Scope of Work**

Below is a summary of the work scope components for this project:

### **1) Project Coordination and Project Meetings**

- a) Pre-design coordination meeting with BCWMC staff, MPRB staff, MPRB design consultants, City of Minneapolis staff, and MnDOT staff and preparation of meeting notes. This meeting would take place before design work gets underway to get all parties on the same page about overall features, scheduling, etc.
- b) Project coordination meeting with BCWMC staff, commissioners, MPRB staff, City of Minneapolis staff, and MnDOT staff, and preparation of meeting notes. This meeting would take place after 50% draft plans are developed.
- c) BCWMC Meeting #1: Commission meeting to present 50% design plans, including memo and presentation
- d) BCWMC Meeting #2: Commission meeting to present 90% design plans, including memo and presentation
- e) BCWMC Meeting #3: Commission meeting to present revised 90% design plans, including memo and presentation (if needed)
- f) Other coordination meetings

Meetings related to bidding and construction are incorporated under other tasks.

### **2) Public Engagement**

- a) Coordinate with BCWMC Administrator, MPRB staff, and City of Minneapolis staff to gather public input on project plans. Primary group for public engagement will be the park users, nearby

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residents, and property owners. MPRB staff or their consultant will take the lead and facilitate the public engagement efforts, but some coordination will be required. The budget for this task includes time to prepare for and attend one public meeting, including preparing handouts, boards, and/or presentation related to the BCWMC's above-and-beyond water quality improvement work. This task also includes assisting with updates to the project partners through the MPRB and BCWMC website project pages and responding to public questions and comments. MPRB staff or their consultant will take the lead in meeting set-up, coordination, and expenses, with assistance from the BCWMC Administrator.

## 2) Permitting

Because the CIP project features will be constructed as part of a larger park reconstruction project, MPRB or their consultant will lead permitting efforts and the BCWMC will not obtain individual permits for the above-and-beyond water quality improvement work. Below is a list of anticipated permitting and approvals required for the larger park reconstruction project that include the BCWMC's above-and-beyond water quality improvement work.

- a) *Minnesota Pollution Control Agency (MPCA) permitting* – Because the CIP project features will be constructed as part of a larger park reconstruction project, which is anticipated to result in more than one (1) acre of land disturbance, a stormwater pollution prevention plan (SWPPP) will be required. MPRB staff or their consultant will develop and prepare a SWPPP that will incorporate the BCWMC's above-and-beyond water quality improvement work. However, we are including some budget for coordination with MPRB staff or their consultant and incorporation of the BCWMC's above-and-beyond water quality improvement work into the SWPPP.
- b) *Minneapolis Park and Recreation Board (MPRB) construction permit* – Minneapolis and MPRB staff or their consultant will prepare the MPRB permit application as part of the larger park reconstruction project and it will incorporate the BCWMC's above-and-beyond water quality improvement work. However, we are including some budget for coordination with MPRB staff or their consultant and incorporation of the BCWMC's above-and-beyond water quality improvement work into the permit application.
- c) *City of Minneapolis soil erosion permits* – MPRB staff or their consultant will prepare a City of Minneapolis permit application as part of the larger park reconstruction project and it will incorporate the BCWMC's above-and-beyond water quality improvement work. However, we are including some budget for coordination with MPRB staff or their consultant and City of Minneapolis staff.

## 4) Design

We will build upon the feasibility study concepts to design the CIP project features. MPRB staff or their consultant will prepare the plans and specifications for the larger park reconstruction project. We will

work closely with the MPRB, their design consultants, and City of Minneapolis staff throughout the design process to ensure all components will work seamlessly into the Park reconstruction project and existing city infrastructure. We will prepare supplemental documents for the BCWMC's above-and-beyond water quality improvement work to be used for bidding and construction.

- a) *Construction Drawings:* We will develop the following in collaboration with MPRB and the City of Minneapolis and will seek review and approvals in accordance with the tri-party agreement:
  - i. 30% plans
    - a. MPRB Board review and approval: We will use the concept developed for the feasibility study to develop 30% drawings showing general layout, features, landscape types, conceptual system functionality, and overall integration within the larger park project, including drawings and cost estimates. We will submit the 30% drawings to MPRB staff who will submit the plans to the MPRB Board for its review and approval in conjunction with the larger park project's conceptual design approval
  - ii. 50% plans
    - a. BCWMC review and approval: upon MPRB approval of 30% plans and further design to reach 50%, we will submit the 50% plans and a cover memo to the Commission for review at a Commission meeting.
  - iii. 90% plans
    - a. MPRB and City of Minneapolis review and approval: Per the agreement between the BCWMC, MPRB and City of Minneapolis, we will submit 90% Plans, including all specifications and engineering cost estimates, to the MPRB and City staff for review and written approval. The MPRB and City of Minneapolis staff will complete their review within 30 days and either approve the plans or request adjustments to any project components they will own or have responsibility to maintain. Following a determination by the Commission Engineer regarding requested adjustments, we will submit revised 90% plans to MPRB and Minneapolis staff for review and written approval.
    - b. BCWMC review and approval: Following MPRB and Minneapolis staff approval of the revised 90% plans, we will submit the plans and a cover memo to the Commission for finalization and approval at a Commission meeting.
    - c. Additional MPRB, City of Minneapolis and BCWMC review and approval: If Commission comments/suggested revisions or MPRB/Minneapolis revisions result in material changes to the 90% plans, we will resubmit the revised 90% plans to MPRB and Minneapolis staff for subsequent 30-day review and written approval or requested adjustments. We will submit the revised 90% plans to the Commission for finalization and approval at a Commission meeting.
  - iv. 100% plans for bidding and construction

Anticipated drawings include:

- Existing conditions
  - Removals and erosion control plan
  - Site access & traffic control plan, if necessary
  - Grading plan and sections
  - Stormwater utility plan
  - Stormwater utility profiles
  - Stormwater structure details
  - Paving plan and details
  - Project details
  - Restoration plan(s)
- b) *Specifications:* MPRB staff or their consultant (as part of the park reconstruction project) will prepare the front-end documents using CSI format; these documents include instructions to bidders, bid form, contract (form of agreement), performance and payment bonds, general and supplementary conditions, prevailing wages, etc., and technical specifications. We will develop supplemental technical specifications for the BCWMC's above-and-beyond water quality improvement work as part of the 90% and 100% submittals. We will also coordinate with MPRB staff or their consultant and the Commission attorney regarding the technical specifications.
- If required, we will provide supplemental technical specifications for the portion of the BCWMC's above-and-beyond water quality improvement work located in City of Minneapolis right-of-way, as part of the 90% and 100% submittals.
- c) *Engineer's opinion of cost:* We will prepare an engineer's opinion of probable construction costs for the BCWMC's above-and-beyond water quality improvement work for the 50%, 90% & 100% submittals. We will report the opinion of costs to the Commission in a unit price format.
- d) *Water quality modeling updates:* The scope includes additional refinements to the water quality modeling for the BCWMC's above-and-beyond water quality improvement work as the design components are finalized and incorporation of the constructed improvements into the model after completion of the project. We will incorporate the modeling results into the 50% & 90% design submittal memos to the Commission.

## 5) Bidding Services

The proposed water quality improvement project will be bid as part of the larger park reconstruction project to obtain the most competitive construction price. Therefore, the scope includes the following bidding services:

- a) Prepare supplemental bidding documents for the BCWMC's above-and-beyond water quality improvement work for incorporation into the MPRB bid set.
- b) Attend a pre-bid meeting, as necessary

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- c) Coordinate with MPRB staff or their consultant to respond to questions from bidders and prepare any required addenda. MPRB staff or their consultant will post the bid via QuestCDN online bidding and administer the bidding process.
- d) MPRB staff or their consultant will prepare the bid tabulation, review bids, and select, or recommend selection of, a Contractor. We will coordinate with MPRB staff or their consultant to assist with these tasks as needed.

## **6) Construction Services**

The scope includes the following construction services:

- a) *Pre-construction meeting:* MPRB staff or their consultant and the City of Minneapolis or their consultant will hold pre-construction meetings. We will attend the pre-construction meetings on behalf of the BCWMC for the BCWMC's above-and-beyond water quality improvement work.
- b) *Construction Progress Meetings and Observation:* The scope includes budget for up to 120 hours for attending weekly construction progress meetings and observation of CIP project features during the construction phase of the project (15 hours per week for up to 8 weeks). We can re-evaluate these assumptions when the agreement for construction and maintenance responsibilities is developed.
- c) *Survey and Construction Staking:* The Contractor will provide all survey and construction staking for both the park reconstruction project and the BCWMC CIP project. Therefore, no survey or construction staking is included in this scope.
- d) *Construction Administration:* We will provide the following services:
  - i. *Submittals:* We will coordinate with the MPRB, the City of Minneapolis, and their consultant(s) to manage submittals related to the BCWMC's above and beyond water quality improvement project (any products or documentation requiring the engineer's review and/or approval) including tracking, review, resubmittals and approvals.
  - ii. *Pay applications:* We will coordinate with the MPRB, the City of Minneapolis, and their consultant(s) to manage and review pay applications that include work related to the BCWMC's above-and-beyond water quality improvement work, including verification of pay quantities.
  - iii. *Change orders:* We will coordinate with the MPRB, the City of Minneapolis, and their consultant(s) to review contractor's change order requests and prepare all change orders related to the BCWMC's above-and-beyond water quality improvement work.
  - iv. *Updates and modifications:* We will coordinate with the MPRB, the City of Minneapolis, and their consultant(s) to prepare and distribute updated construction documents for any changes made during construction related to the BCWMC's above-and-beyond water quality improvement work. This assumes the changes are small adjustments to the design and not substantial changes in construction scope or duration.

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- v. Contractor communication: We will coordinate with the MPRB, the City of Minneapolis, and their consultant(s) to communicate with the contractor to clarify plans and specifications and answer questions that arise during construction related to the BCWMC's above-and-beyond water quality improvement work.
- e) *Record drawings:* We will receive record survey information from the Contractor. We will then prepare record drawings for the BCWMC's above-and-beyond water quality improvement features, following completion of the work. We will provide the record drawings to both the BCWMC and MPRB.

## **7) Project Management**

We will manage project scheduling and budgeting, in close coordination with MPRB staff and the Commission Administrator, provide grant administration assistance and reporting, and prepare and send project email updates (bi-weekly during design, weekly during construction) that briefly summarize:

- a) Work completed since the previous updates
- b) Upcoming work
- c) Information, data or actions we need from others

## **8) Environmental Assistance (as needed)**

We will prepare a Response Action Plan (RAP) to address soil and groundwater contamination during construction of the CIP project based on Barr Engineering Company's (Barr) previous investigation results (from Irving Avenue Sewer Replacement project). The RAP may be an addendum/addition to the MPRB's RAP, or a standalone document, depending on the MPRB's schedule and environmental scope. Because of the previous investigation work, we do not anticipate additional soil or groundwater testing will be required before construction, but data gaps will be evaluated based on the designed location of the stormwater features. Therefore, the budget includes \$5,000 for equipment expenses and possible environmental lab testing prior to construction or in the event the contractor encounters additional contamination during construction. If the Commission enrolls the site in the MPCA Voluntary Remediation Program, the budget includes up to 5 hours of time for the Commission Engineer's assistance with MPCA program enrollment and agency communications. Similar to our work on the Irving Avenue Sewer Replacement project on behalf of the City of Minneapolis, we will prepare a brief Phase I update letter in lieu of a Phase I Environmental Site Assessment for submittal to the MPCA as part of the program enrollment. We will evaluate whether grant funds may be available from Hennepin County for RAP preparation or environmental cleanup, in which case RAP preparation costs could be covered by the County. This task also includes up to 50 hours of field oversight and coordination with the contractor during construction.

## Deliverables

We will provide the Commission with the following deliverables during the proposed work:

- a) 50%, 90% and 100% supplemental construction drawings for incorporation into MPRB plans
- b) 90% and 100% supplemental specifications for incorporation into MPRB specifications
- c) 50%, 90% and 100% opinions of cost for the BCWMC's above-and-beyond water quality improvement work
- d) Memos accompanying the 50% & 90% construction plans. The memos will describe the CIP project features, comments from MPRB and city of Minneapolis on the plans, how the CIP project features follow or depart from the feasibility study, and the water quality impacts
- e) Presentations for the Commission meetings to present the 50% and 90% construction plans
- f) Record drawings
- g) Project meetings (including Commission meetings), pre-bid meeting, and pre-construction meeting
- h) Project email updates

## Cost Estimate

The table below summarizes our cost estimate for the scope of work outlined above.

Tasks	Estimated Total
1) Project Coordination and Project Meetings	\$19,400
2) Public Engagement	\$8,200
3) Permitting	\$10,000
4) Design	\$87,100
5) Bidding Services	\$6,000
6) Construction Services	\$22,100
7) Project Management	\$8,700
8) Environmental Assistance (as needed)	\$21,500
<b>Total</b>	<b>\$183,000</b>

## Schedule

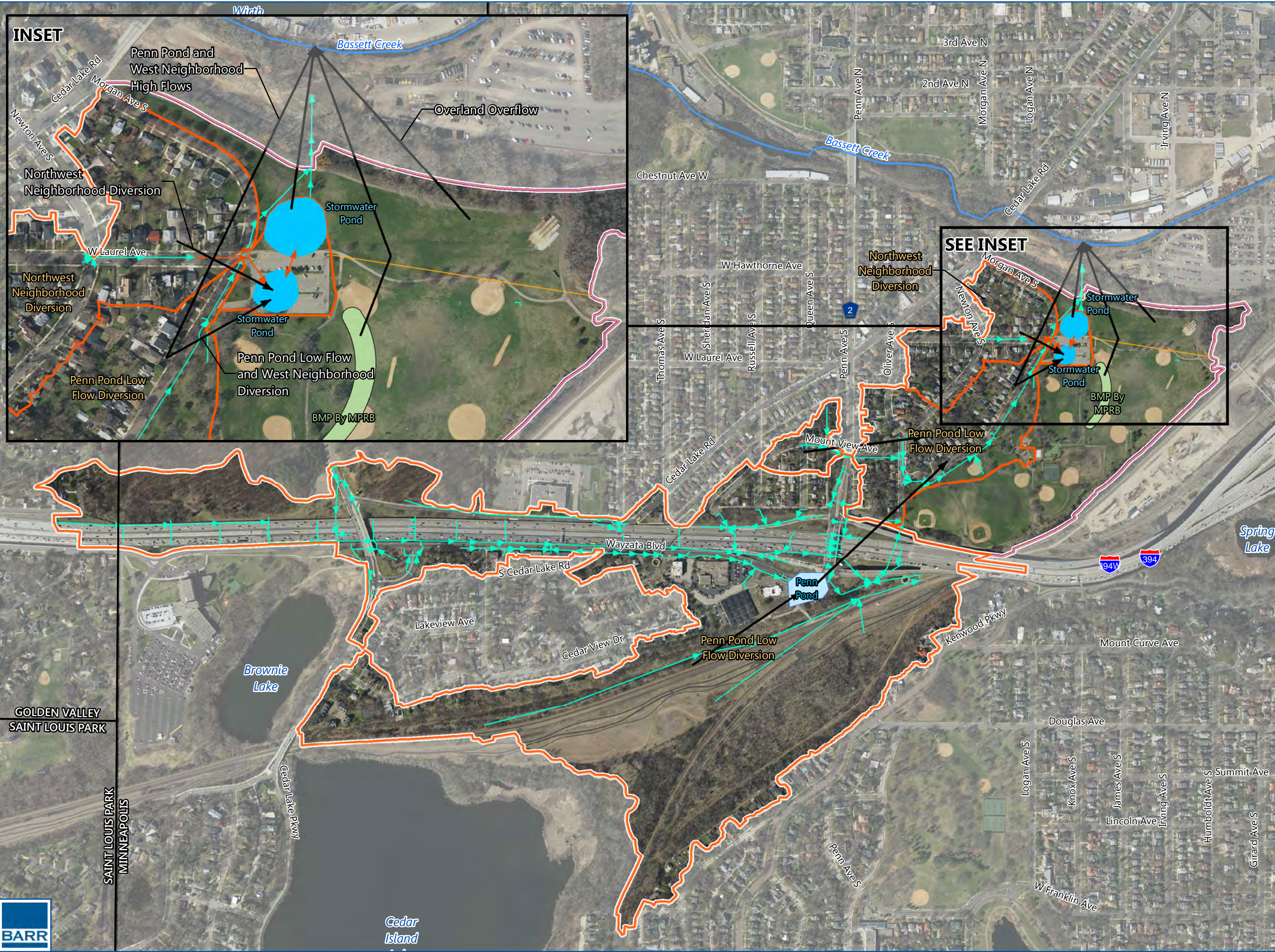
We will complete the tasks and milestones outlined in the scope of work as shown in schedule, which is based on the schedule provided by MPRB (and reflects the final design date noted in the agreement between the BCWMC, MPRB and City of Minneapolis). If the MPRB modifies the schedule, this schedule will be modified to match the MPRB revised schedule.



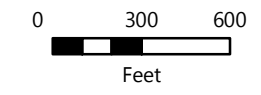
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<b>Tasks and milestones</b>	<b>Estimated Schedule</b>
Design – submit 30% drawings to MPRB staff for MPRB Board approval	August 2021
Design – submit 50% plans for Commission review	October 2021 Commission Meeting
Design – complete 90% plans and submit to MPRB and Minneapolis staff for 30-day review and approval	December 2021
Design – revise 90% plans per MPRB and Minneapolis staff comments, and submit 90% plans to Commission for review	January 2022 Commission Meeting
Design – revise 90% plans per Commission comments, and submit to MPRB and Minneapolis staff for 30-day review and approval	February 2022
Design – revise 90% plans per MPRB and Minneapolis staff comments, and submit 90% to Commission for finalization and approval	March 2022 Commission Meeting
Design – complete 100% plans	April 2022
Bidding	May 2022
Construction	Summer 2022
Record drawings, final restoration, project closeout	Fall 2022



- Creeks
- Flow Paths
- Proposed Storm Sewer
- Existing Storm Sewer
- Proposed MPRB BMP
- Proposed Stormwater Pond
- Existing Stormwater Pond
- Proposed Watersheds
- Northwest Neighborhood Diversion and Penn Pond Flow Flow Diversion
- Subwatershed
- Municipal Boundary



**CONCEPT 3**  
 Northwest Neighborhood  
 Diversion and Penn Pond  
 Low Flow Diversion  
 Bryn Mawr Meadows Park  
 Water Quality Project BC-5

**FIGURE 1**

