

Memorandum

To: Bassett Creek Watershed Management Commission (BCWMC)
From: Barr Engineering Co. (Jessica Olson, P.E., Karen Chandler, P.E.)
Subject: Item 6Ci – Consider Approval to Increase Budget for Engineering Services for the Bassett Creek Main Stem Restoration Project, Regent Avenue to Golden Valley Road (CR-M 2024)
BCWMC December 18, 2025 Meeting Agenda
Date: December 11, 2025

6Ci. Consider Approval to Increase Budget for Engineering Services for the Bassett Creek Main Stem Restoration Project, Regent Avenue to Golden Valley Road (CR-M 2024)

Recommendations:

1. Consider amending the engineering services scope to increase the approved budget by \$77,000 to \$711,400 for the Commission Engineer for additional needed services for the Bassett Creek Main Stem Restoration, Regent Avenue to Golden Valley Road (CR-M 2024).

Background

At their March 2025 meeting, the Commission approved the \$603,000 total project budget (\$530,000 base project budget and \$73,000 contingency budget) for the Commission Engineer to prepare final design, develop plans and specifications, and provide permitting assistance, bidding assistance and construction services for the Bassett Creek Main Stem Restoration, Regent Avenue to Golden Valley Road project (CR-M 2024).

Per a June 2025 Commission-approved amendment to the engineering services scope, the Commission Engineer's services also included performing a field wetland delineation, an architectural survey, and corresponding reports. This June budget amendment increased the engineering services budget by \$31,400 to \$634,400. Also in June, the Commission Administrator administratively approved the scope for a Phase I archeological survey that was included within the engineering services' contingency budget.

At the July 2025 meeting, the Commission Engineer presented the 50% design plans and reported on additional and expanded areas of erosion since the feasibility study, potential plans for an expansion of restored riparian areas, and increases to construction costs. The Commission approved the 50% designs and directed a reprioritization of eroded sites and budgeting options.

At the August 2025 meeting, the Commission Engineer presented reprioritized restoration sites and associated budget options. The Commission approved moving forward with restoring all low, medium, and high priority areas plus vegetation restoration on public and private property adjacent to the creek. The Commission approved an updated budget of \$2,592,000 for construction plus contingency.

Additional engineering services needed since the June budget amendment and future anticipated work that is necessary for project completion has a combined estimated (additional) budget of \$87,000. The Commission Engineer is contributing \$10,000 toward this total amount, so the total additional budget request to the Commission is \$77,000. The remainder of this memo describes reasons behind the additional budget request.

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The additional engineering services budget request is tied to eight general areas: wetland boundary delineation and report; archeological survey and report; August 2025 memo to the Commission and attendance at the BCWMC meeting; weekly check-in meetings with Golden Valley staff and BCWMC administrator; easement support; permitting support; design effort; and staff transitions.

1. Wetland Boundary Delineation and Report

After submittal and approval of our wetland delineation scope, Golden Valley staff requested that the Commission Engineer complete Minnesota Routine Assessment Method (MNRAM) wetland boundary assessments in addition to a routine Level 2 field wetland delineation and associated agency coordination within the approximate project work area (within roughly 50 feet of the channel centerline, or 100 feet total width), as well as within proposed access routes to the site. The desktop wetland delineation completed during the feasibility study identified four wetlands within the project footprint. At an assumed rate of two additional hours of field and reporting work for each MNRAM assessment, this would have been an additional 8 hours of work which was assumed to “fit into” the original budget for the wetland delineation task. However, during field assessments for the 50% designs, 19 wetlands were identified in the field, which resulted in substantially more field time and reporting time than originally budgeted.

In addition to the MNRAM assessment, the United States Army Corps of Engineers (USACE) provided guidance that an assessment of the Ordinary High Water Mark (OHWM) using USACE guidelines along the edge of the creek would be needed for the Joint Permit Application. The OHWM assessment resulted in additional time required for the field work and reporting efforts for the wetland boundary delineation and report.

Total estimated additional budget amount = \$10,500

2. Archeological Survey and Report

In the original project scope, up to 80 shovel tests were anticipated for the archeological survey, based on a total project area of four acres and a general rule of 16-17 shovel tests per acre. This increased to 20 shovel tests per acre at the scoping stage, knowing that the areas identified along the stream where disturbance could occur were irregular in shape. Once field maps were prepared in the days leading up to the survey, the need for several additional shovel tests was identified based on the irregularity of the project area and Minnesota State Historic Preservation Office’s (SHPO) requirement to test every 15 meters. Moving forward, field maps will be generated at the scoping phase for projects with irregular boundaries to better anticipate actual shovel test needs.

184 shovel tests were plotted within the 60 project areas, and each shovel test was visited and examined prior to excavation. Of the 184 total plotted shovel tests, 139 were excavated. We typically average an excavation rate of 3 shovel tests per hour per person (20 minutes per shovel test). This rate assumes an average depth of 50 centimeters per shovel test. However, after submittal of our scope, the Office of the State Archaeologist (OSA) notified the Commission Engineer that for projects receiving a license from the OSA (which was required for Bassett Creek due to location of the project on non-federal public land), we are required to excavate to a depth of 100 centimeters or the C soil horizon, whichever comes first. The majority of shovel tests within the Bassett Creek project area were excavated to a depth between 70 and 80 centimeters. On average, each shovel test within the Bassett Creek Project area took roughly 30

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minutes to excavate as opposed to 20 minutes, resulting in roughly 65 more hours of field time and associated increases in reporting time.

Total estimated additional budget amount = \$8,500

3. August 2025 Memo and BCWMC Meeting

Following presentation of the 50% design to the Commission at the July 2025 meeting, the Commission directed the Commission Engineer to reprioritize eroding sites and associated budget options for consideration at their August meeting. The Commission Engineer assembled a presentation that included detailed explanations of increased costs between the feasibility and the 50% design opinions of probable costs, as well as an updated prioritization of sites and associated pollutant reduction potential for three different restoration options. Additionally, the Commission Engineer provided further detail on the proposed riparian vegetation enhancement component included in the 50% design, which included removal of invasive species (e.g., buckthorn) and the planting of new native species on both private and public land. The original engineering services scope included presentations to the Commission at the 50% and 90% design stages and did not include scope or budget for an extra meeting, additional prioritization activity, and development of a memo.

Total estimated additional budget amount = \$13,000

4. Weekly Check-in Meetings with Golden Valley Staff and BCWMC Administrator

At the suggestion of Golden Valley staff, weekly check-in meetings began in August 2025 to provide a regular touchpoint for the Commission Engineer, Golden Valley staff, and the BCWMC Administrator to discuss and collaborate on relevant project scope items including design, permitting, specifications, easements, outreach with residents, and public meetings. These meetings and follow-up notes with action items drafted by the Commission Engineer have been a valuable way for the teams to work together and stay on track with the variety of components of this complex project. The original project scope did not include these check-in meetings. For future design projects, we will recommend regular check-in meetings with partners.

Total estimated additional budget amount = \$12,500

5. Easement Acquisition and Other Property Access

Due to the complex nature of the project and multiple impacted private properties, the Commission Engineer's work on this task exceeded the original estimated hours for exhibit development and included development of draft exhibits to present at the October 2025 public meeting, meeting on site with homeowners to review and discuss access routes and reviewing draft text of mailings for impacted property owners.

Total estimated additional budget amount = \$3,000

6. Permitting Support

The Commission Engineer's work associated with permitting efforts exceeded the original hours estimated for this task and to-date included on-line meetings with representatives of Minnesota

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Department of Natural Resources, Minnesota Pollution Control Agency, and the United States Army Corps of Engineers. Additionally, development of figures and assessment of impacted wetlands has taken more time than originally planned due to the increased number of wetlands identified throughout the project area and additional regulatory requirements, including an individual Section 401 Water Quality Certification. It was initially anticipated that coverage under Section 401 of the Clean Water Act would be provided under the MPCA's Regional General Permits (RGP) 401 Water Quality Certification (WQC). The MPCA RGP 401 WQC generally includes coverage for projects approved under the USACE RGP for Bank Stabilization Habitat Improvement. However, through project coordination, the USACE informed Barr that the project will require an individual Section 401 WQC since the segments of stream repair will be treated as a combined length exceeding 300 linear feet of physical alterations to a stream, rather than individual stream segments that are each less than the RGP threshold of 300 linear feet.

The Commission Engineer's original project scope included payment of permit application fees with an understanding that the maximum fees associated with the Minnesota Work in Public Waters permit application fee was \$3,000. In preparing the draft permit application, we learned that the cost for the permit application has increased (as of July 2024) to a maximum fee of \$12,000 or 1% of the estimated project construction cost, whichever is lower.

Total estimated additional budget amount = \$13,000

7. Design Effort

The Commission Engineer's design time associated with this project exceeded original estimated hours, due primarily to modeling and CAD drawing time taking longer than planned.

The original scope assumed refining the existing XP-SWMM model to document no-rise flood elevations and to identify design velocities. The Commission Engineer determined that a two-dimensional Hydraulic Engineering Center River Analysis System hydraulic model (2D HEC-RAS) would provide more detailed and useful results for the no-rise evaluation and for evaluation of design velocities in the system, and the originally-budgeted modeling hours were anticipated to be adequate for the adjusted modeling effort. Modeling time has, however, exceeded the original budgeted hours.

Although the original work scope accounted for two separate sets of drawings and specifications, the work is more interconnected than it would be if there were two independent projects. There is a degree of coordination required between the two sets, particularly related to areas where work will be phased and overlap. Assembling detailed plans and specifications has proven more time-consuming than originally anticipated.

Total estimated additional budget amount = \$26,500

8. Staff Transitions

Woven throughout a number of these tasks are inefficiencies related to staff transitions with the Commission Engineer and at the City of Golden Valley. Since the beginning of the design project in March 2025, we have worked with four different project managers at Golden Valley. While they have all served their roles well, there is inherent extra time spent working with new staff and helping everyone on the team learn new roles and expectations. We also experienced some inefficiencies related to internal

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staff turnover when various key staff took extended leaves and their replacements needed to get oriented to the project and learn new roles.

Impact on Total Project Budget

The total estimated additional budget is \$87,000. Recognizing our own inefficiencies, scoping issues, and some delayed communications with the Commission and the Administrator, the Commission Engineer is willing to absorb \$10,000 of that amount, thus reducing the total additional budget request to \$77,000.

Recommendation: The Commission Engineer recommends the Commission consider amending the March 2025 engineering services scope and budget, and subsequent June 2025 budget amendment, to increase the budget by \$77,000 to \$711,400.