Bassett Creek Watershed Management Commission

Regular Meeting
Thursday, June 15, 2023
8:30 a.m.
Council Conference Room
Golden Valley City Hall @ 7800 Golden Valley Rd.

MEETING AGENDA

1. **CALL TO ORDER and ROLL CALL**

2. **PUBLIC FORUM ON NON-AGENDA ITEMS –** *Members of the public may address the Commission about any item not contained on the regular agenda. A maximum of 15 minutes is allowed for the Forum. If the full 15 minutes are not needed for the Forum, the Commission will continue with the agenda. The Commission will take no official action on items discussed at the Forum, except for referral to staff or a Commissions Committee for a recommendation to be brought back to the Commission for discussion/action.*

3. **APPROVAL OF AGENDA**

4. **CONSENT AGENDA (10 minutes)**
   - A. Approval of Minutes – May 18, 2023 Commission Meeting
   - B. Acceptance of June 2023 Financial Report
   - C. Approval of Payment of Invoices
     - i. Keystone Waters, LLC – May 2023 Administration
     - ii. Keystone Waters, LLC – May 2023 Administrative Expenses
     - iii. Barr Engineering – May 2023 Engineering Services
     - iv. Kennedy & Graven – April 2023 Legal Services
     - v. Redpath – May 2023 Accounting Services
     - vi. Triple D Espresso – Meeting Catering
     - vii. MMKR – 2022 Financial Audit
     - viii. ECM Publishers – Public Hearing Notice Publication
     - ix. LCMIT – Insurance Renewal
   - D. Approval to Support Ȟaȟa Wakpadaŋ Pronunciation Video
   - E. Approval of Funding Support for Metro Blooms Programs

5. **BUSINESS**
   - A. Review Final Feasibility Study and Choose Option for Main Stem Restoration Project (2024 CR-M) (20 min)
   - B. Review Additional Information and Choose Option for Ponderosa Woods Stream Restoration Project (ML-22) (20 min)
   - C. Receive Update on Sochacki Park Water Quality Improvement Project and Feasibility Study (15 min)
   - D. Set Maximum 2024 Levy (10 min)
   - E. Consider Adopting Fiscal Policy Regarding Investment Income (20 min)
     - i. Review Recommendation from Technical Advisory Committee
     - ii. Review Recommendation from Budget Committee
   - F. Set Proposed 2024 Operating Budget and City Assessments (15 min)
   - G. Receive Information on Plymouth Regional Treatment Planning (15 min)
   - H. Receive Information on Proposed Transition of Commission Engineer (10 min)

I. Receive Update on Main Stem Lagoon Dredging Project (10 min)
J. Review Status of 2023 Annual Operating Budget (5 min)

6. COMMUNICATIONS (10 minutes)

A. Administrator's Report
B. Engineer
   i. Update on 2023 Water Monitoring Activities
C. Legal Counsel
D. Chair
E. Commissioners
F. TAC Members
   i. Update on SEA School – Wildwood Park Flood Reduction Project
   ii. Update on Medley Park Water Quality Improvement Project
G. Committees

7. INFORMATION ONLY (Information online only)

A. BCWMC Administrative Calendar
B. CIP Project Updates www.bassettcreekwmo.org/projects
C. Grant Tracking Summary and Spreadsheet
D. WCA Notices – Plymouth
E. Annual Salt Symposium
F. MN Watersheds May Newsletter
G. BWSR Legislative Summary

8. ADJOURNMENT

Upcoming Meetings & Events

- BCWMC Plan Steering Committee Meeting: Tuesday July 11th, 10:30 – 12:30, GV City Hall
- Metro Watershed Quarterly Meeting: Tuesday, July 18th, 7:00 – 9:00 p.m., via Zoom
- BCWMC Regular Meeting: Thursday July 20th, 8:30 a.m., Golden Valley City Hall
- Annual Salt Symposium: August 1 & 1, 7:30 a.m. – 3:00 p.m., livestream https://www.bolton-menk.com/salt-symposium/.

Bassett Creek Watershed Management Commission

AGENDA MEMO
Date: June 8, 2023
To: BCWMC Commissioners
From: Laura Jester, Administrator
RE: Background Information for 6/15/23 BCWMC Meeting

1. **CALL TO ORDER and ROLL CALL**
2. **PUBLIC FORUM ON NON-AGENDA ITEMS**
3. **APPROVAL OF AGENDA – ACTION ITEM with attachment**

4. **CONSENT AGENDA**
   A. Approval of Minutes – May 18, 2023 Commission Meeting- **ACTION ITEM with attachment**

   B. Acceptance of June Financial Report - **ACTION ITEM with attachment**

   C. Approval of Payment of Invoices **- ACTION ITEM with attachments (online) –** *I reviewed the following invoices and recommend payment.*
      i. Keystone Waters, LLC – May 2023 Administration
      ii. Keystone Waters, LLC – May 2023 Administrative Expenses
      iii. Barr Engineering – May 2023 Engineering Services
      iv. Kennedy & Graven – April 2023 Legal Services
      v. Redpath – May 2023 Accounting Services
      vi. Triple D Espresso – Meeting Catering
      vii. MMKR – 2022 Financial Audit
      viii. ECM Publishers – Public Hearing Notice Publication
      ix. LCMIT – Insurance Renewal

   D. Approval to Support Ȟaȟa Wakpadaŋ Pronunciation Video – **ACTION ITEM with attachment** – *A subset of the Ȟaȟa Wakpadaŋ / Bassett Creek Oral History Project is underway: the production of a short video describing the pronunciation of "Ȟaȟa Wakpadaŋ." Organizers are seeking BWCMC support of the project. See the attached memo for more information. Staff recommends approval of providing non-monetary support to the project.*

   E. Approval of Funding Support for Metro Blooms Programs – **ACTION ITEM with attachment** – *Metro Blooms is seeking funding support for programs in Minneapolis neighborhoods including the $4,000 budgeted support + $2,000 additional support for their Sustainable Landcare Training Program. See the attached memo for more information. Staff recommends approval of the funding request.*

5. **BUSINESS**

   A. Review Final Feasibility Study and Choose Option for Main Stem Restoration Project (2024 CR-M) (20 min) - **ACTION ITEM with attachment (full document online)** – *At the April meeting the Commission reviewed the draft feasibility study for this project. Based on comments at that meeting, scoring for prioritizing stream sections for restoration changed slightly to prioritize restoration on public land higher than privately owned parcels. This shifted some outcomes and estimated project costs for the each alternative slightly. The Commission Engineer, city, and I recommend implementing option 1.*

B. Review Additional Information and Choose Option for Ponderosa Woods Stream Restoration Project (ML-22) (20 min) - **ACTION ITEM with attachment (see report from Item 6A from May meeting)** – *At the May meeting, the Commission reviewed the draft feasibility study for this project and requested additional information regarding parcel ownership, easements, and impacts of buckthorn removal on water quality. The attached memo includes the additional information requested. The Commission Engineer, city, and I recommend implementing Alternative 1.5. See this article from St. Croix 360 for additional reading on buckthorn and water quality.*

C. Receive Update on Sochacki Park WQ Project and Feasibility Study (15 min) – **INFORMATION ITEM with attachment** – *This project is proposed to be added to the CIP through a minor plan amendment as approved at the March Commission meeting with CIP funding set at $600,000. The project involves a suite of projects totaling an estimated $2.3M aimed improving the water quality in three ponds and Bassett Creek based on a subwatershed analysis by Three Rivers Park District (TRPD). A feasibility study is now underway for the project and is being funded by TRPD. Information on the project and a memo on the status of the feasibility study are attached here*.

D. Set Maximum 2024 Levy (15 min) - **ACTION ITEM with attachment** – *A maximum 2024 levy amount for collection by Hennepin County on behalf of the Commission must be set at this meeting. 2024 projects and their associated costs (along with costs for different alternatives for projects in 5A and 5B above) are shown in the attached levy table and updated 5-year CIP table. Assuming Alternative 1.5 is chosen for Ponderosa Woods and Alternative 1 is chosen for the Main Stem Project, the recommended maximum 2024 levy is $1,931,000. If different alternatives are chosen, levy amounts in 2024 and/or 2025 would change accordingly. In September the Commission can lower the levy request for its final levy, but it cannot request a higher levy.*

E. Consider Adopting Fiscal Policy Regarding Investment Income (20 min) - **ACTION ITEM with attachments** – *At the May meeting, the Commission reviewed the Budget Committee's recommendation for a new fiscal policy related to investment income. At that meeting the TAC requested the ability to review and discuss which they did at their meeting on June 7th. The recommendations from each committee are included here. The Commission could adopt a policy now or continue to discuss at a future meeting. Adopting a policy now may have implications on the 2024 proposed budget (Item 5F).*

   i. Review Recommendation from Technical Advisory Committee
   ii. Review Recommendation from Budget Committee

F. Set Proposed 2024 Operating Budget and City Assessments (15 min) - **ACTION ITEM with attachment** – *At the May meeting, the Budget Committee reviewed information it was considering regarding the 2024 budget. At this meeting, the Commission must approve a 2024 proposed budget that will be sent to member cities for review. The attached budget is recommended by the Budget Committee. Page 3 shows two options for revenues and city assessments based on the fiscal policies in 5E above.*

G. Receive Information on Plymouth Regional Treatment Planning (15 min) – **INFORMATION ITEM with attachment** – *The City of Plymouth plans to study the feasibility of building regional stormwater treatment facilities in conjunction with a 2024 city pavement rehabilitation project. The facilities would be built to meet requirements for the pavement rehabilitation project and would have extra treatment capacity for future redevelopment. Plymouth staff recently discussed their ideas with me, Commission engineers and the Technical Advisory Committee. Please see the attached memo for additional information.*

H. Receive Information on Proposed Transition of Commission Engineer (10 min) - **DISCUSSION ITEM with**

no attachment – *For over 10 years, Commission Engineer Chandler has been the principal contact between the Commission and Barr, and she is retiring at the end of 2025. At this meeting she will discuss the transition to a different primary contact over the coming months and requests feedback from the Commission.*

I. Receive Update on Main Stem Lagoon Dredging Project (10 min) - **INFORMATION ITEM with no attachment** – *The project site has been restored by the contractor. The Commission Engineer will provide an update on the project status at this meeting*.

J. Review Status of 2023 Annual Operating Budget (5 min) - **INFORMATION ITEM with no attachment (see Item 4B)** – *We are one third of the way through the fiscal year and it's a good time to review the operating budget status. The budget is currently on track or slightly under budget in most categories. I am happy to answer questions or address concerns.*

6. COMMUNICATIONS (10 minutes)

A. Administrator's Report – **INFORMATION ITEM with attachment**
B. Engineer
   i. Update on 2023 Water Monitoring Activities
C. Legal Counsel
D. Chair
E. Commissioners
F. TAC Members
   i. Update on SEA School – Wildwood Park Flood Reduction Project
   ii. Update on Medley Park Water Quality Improvement Project
G. Committees

7. INFORMATION ONLY (Information online only)

A. BCWMC Administrative Calendar
B. CIP Project Updates www.bassettcreekwmo.org/projects
C. Grant Tracking Summary and Spreadsheet
D. WCA Notices – Plymouth
E. Annual Salt Symposium
F. MN Watersheds May Newsletter
G. BWSR Legislative Summary

8. ADJOURNMENT

Upcoming Meetings & Events

- BCWMC Plan Steering Committee Meeting: Tuesday July 11th, 10:30 – 12:30, GV City Hall
- Metro Watershed Quarterly Meeting: Tuesday, July 18th, 7:00 – 9:00 p.m., via Zoom
- BCWMC Regular Meeting: Thursday July 20th, 8:30 a.m., Golden Valley City Hall
- Annual Salt Symposium: August 1 & 1, 7:30 a.m. – 3:00 p.m., livestream https://www.bolton-menk.com/salt-symposium/.

Item 4A.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

DRAFT Minutes of Regular Meeting & Public Hearing
Thursday, May 18, 2023
8:30 a.m.
Golden Valley City Hall, 7800 Golden Valley Road

1. CALL TO ORDER and ROLL CALL

On Thursday, May 18, 2023 at 8:33 a.m. Chair Cesnik brought the Bassett Creek Watershed Management Commission (Commission) to order.

Commissioners, city staff, and others present

City	Commissioner	Alternate Commissioner	Technical Advisory Committee Members (City Staff)
Crystal	Dave Anderson	Joan Hauer	*Absent*
Golden Valley	Paula Pentel	*Vacant*	Eric Eckman, Drew Chirpich
Medicine Lake	Clint Carlson	Shaun Kennedy	*Absent*
Minneapolis	Michael Welch	Jodi Polzin	Liz Stout
Minnetonka	*Absent*	*Vacant Position*	Leslie Yetka
New Hope	Jere Gwin-Lenth	Jen Leonardson	Nick Macklem
Plymouth	Catherine Cesnik	Monika Vadali	Ben Scharenbroich
Robbinsdale	Wayne Sicora	*Absent*	Mike Sorensen, Richard McCoy
St. Louis Park	RJ Twiford	*Vacant*	Erick Francis
Administrator	Laura Jester, Keystone Waters, LLC		
Engineers	Karen Chandler, Kallie Doeden, Patrick Brockamp - Barr Engineering		
Recording Secretary	*Vacant Position*		
Legal Counsel	Dave Anderson, Kennedy & Graven		
Presenters/ Guests/Public	Pam Hove, Plymouth Resident; David Phillips, Don Kovacovich, Paul Deis – Golden Valley Country Club		

2. PUBLIC FORUM ON NON-AGENDA ITEMS

Pam Hove, a Plymouth resident, and graduate student at University of Wisconsin – Stevens Point, presented preliminary information on a study of aquatic trash in Parkers Lake. She noted the U.S. Environmental Protection Agency now has a uniform tool for monitoring trash and she would like to see it named as an actual pollutant by the MN Pollution Control Agency. She noted the high number of tennis balls in Parkers Lake and unstable trash cans in the park at Parkers Lake. Plymouth staff are working on correcting these items. Ms. Hove may be asked to present her final report at a future meeting.

3. APPROVAL OF AGENDA

Administrator Jester requested the addition of two agenda items: 1) Consider appointing Linda Loomis to the Plan Steering Committee; and 2) Consider approving registrations for the MN Watersheds Summer Tour.

MOTION: Commissioner Gwin-Lenth moved to approve the agenda as amended. Commissioner Carlson seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

4. CONSENT AGENDA

Items 4A and 4F were removed from the consent agenda.

MOTION: Commissioner Carlson moved to approve the consent agenda as amended. Commissioner Gwin-Lenth seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

The following items were approved as part of the consent agenda.

- Acceptance of May 2023 Financial Report
- Approval of Payment of Invoices
- Approval of Agreement with Metropolitan Council for 2023 Citizen Assisted Monitoring Program
- Approval of Resolution 23-05 to Not Waive Monetary Limits on Municipal Tort Liability
- Approval of Golden Valley Country Club Improvements
- Approval of Waiver of Conflict for Commission Attorney

4A. Approval of Minutes - April 20, 2023 Commission Meeting

Commissioner Welch requested that additional information outlining his comments on Item 4J. Approval of Memorandum of Understanding for Sochacki Water Quality Improvement Project CIP Process be added to the minutes. Administrator Jester read his requested additions aloud.

MOTION: Commissioner Welch moved to approve the minutes from the April 20th meeting as amended. Commissioner Carlson seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

4F. Approval of 2022 Annual Report

Commissioner Pentel commented that the annual report provides an excellent overview of the Commission's work and appreciated the level of detail and clarity.

MOTION: Commissioner Pentel moved to approve the 2022 Annual Report. Commissioner Carlson seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

5. PUBLIC HEARING

A. Receive Comments from Cities and Public on Proposed Minor Plan Amendment

Chair Cesnik opened the public hearing at 8:46 a.m. Administrator Jester noted the minor plan amendment was proposed in order to update the Capital Improvement Program (CIP) to include the Sochacki Park Water Quality Improvement Project. She reported that several state agencies had sent comments during the 30-day comment period including the MN Board of Water and Soil Resources, MN Pollution Control Agency, MN Department of Natural Resources, MN Department of Agriculture, and the Metropolitan Council. She noted that each agency commended the Commission for keeping an up-to-date CIP and no agencies presented an issue with the proposed amendment. Chair Cesnik called for comments from members of the public or city staff. Hearing none, Chair Cesnik closed the public hearing at 8:50 a.m.

i. Consider Extending Comment Period to August 8, 2023 per Hennepin County Request

Administrator Jester reported that Hennepin County needed additional time to review and provide comments on the proposed plan amendment due to their administrative calendar. She recommended approval to extend

the comment period to August 8, 2023.

MOTION: Commissioner Gwin-Lenth moved to extend the comment period for the minor plan amendment until August 8, 2023. Commissioner Twiford seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

6. BUSINESS

Added Agenda Items:

Consider Appointing Linda Loomis to the Plan Steering Committee

Administrator Jester reported that Linda Loomis, Golden Valley resident, former Golden Valley Mayor, and former BCWMC Commissioner, requested to be appointed to the Plan Steering Committee. She noted that Ms. Loomis was very involved in the development of the 2015 Watershed Plan and works as the administrator of the Lower Minnesota River Watershed District. Administrator Jester recommended her appointment as an at-large community member.

There was some discussion acknowledging that the committee is advisory to the Commission and there was consensus that each official members of the committee would have an equal vote on the committee in the event a vote was needed.

MOTION: Commissioner Pentel moved to appoint Linda Loomis to the Plan Steering Committee. Commissioner Gwin-Lenth seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

Consider Approving Registrations for the MN Watersheds Summer Tour

Administrator Jester reported that the Minnesota Watersheds Summer Tour is in Albert Lea with a meeting and information sessions on June 20 and a field tour on June 21. She requested the ability to attend the event on June 20th with registration costs of $100 and mileage reimbursement. She also noted that the Commission's budget includes funding for registration for commissioners and alternates to attend. Chair Cesnik and Commissioner Carlson expressed interest in attending.

MOTION: Commissioner Anderson moved approval for Administrator Jester and any commissioners or alternates to attend the MN Watershed Summer Tour. Commissioner Twiford seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

A. Review Draft Feasibility Study for Ponderosa Woods Stream Restoration Project (ML-22)

Commission Engineer Chandler introduced Kallie Doeden with Barr Engineering, noting she was the project manager and primary engineer for this project. Engineer Doeden gave a presentation of the feasibility study including the following:

- Project would stabilize and restore 1,100 linear feet of streambanks along an intermittent, non-public stream that flows from a neighborhood area west of Medicine Lake and into the lake through the West Medicine Lake ponds and Plymouth Creek.
- Area includes much buckthorn which shades out understory vegetation, allows for erosion of the bare ground, and spreads buckthorn seeds to other areas.
- Various levels of erosion and channel widening throughout the stretch along with a significant amount of woody debris present within the channel. Project area includes stormwater side channels that funnel water from surrounding streets into the stream.

- Most of the project area is on private property but the city has a drainage and utility easement.
- Stakeholder input from residents shows support for Alternatives 2 and 3, especially buckthorn removal.

Engineer Doeden reviewed the alternatives studied and their estimated costs including:

Alternative 1 – Small Footprint Design: Stream stabilization using bio-engineering techniques, bank and channel grading, and in-channel controls. This alternative also includes installation of and reinforcement of existing riprap. Buckthorn removal occurs at or near streambanks and tributary stormwater channels. Tributary stormwater channels are regraded and stabilized with riprap. Alternative 1 prioritizes minimal land disturbance and tree removal. Estimated project cost of $252,000

Alternative 1.5 – Small Footprint Design + Additional buckthorn removal: Includes the features of Alternative 1 but expands buckthorn removal to two acres (as in Alternative 2). Estimated project cost of $297,000

Alternative 2 – Medium Footprint Design: Alternative 1 techniques but with more hard armoring; plus two additional acres of buckthorn removal and additional overbank grading. Estimated project cost of $429,000

Alternative 3 – Large Footprint Design: Alternative 1 and 2 techniques plus a stream channel re-meander in the downstream reach. The re-meandered section includes grading and bioengineering stabilization throughout. Estimated project cost of $506,000

Engineer Doeden reported the Commission Engineer recommends implementing Alternative 1 or 1.5 because it will achieve the water quality goals and result in the stabilization of targeted sections of the stream reach, provide significant habitat enhancement and restore floodplain connectivity. She noted Alternatives 1 and 1.5 are cost-effective options that improve stabilization of priority areas of the stream reach (minimizing erosion potential) while minimizing healthy tree removal.

Commissioner Carlson voiced his support for the project. Other commissioners asked about outreach to homeowners who did not attend the open house, wondered about public vs. private property, and asked if there was a way to measure the water quality benefits of removing buckthorn. Plymouth staff noted they will be working with landowners and that a public drainage and utility easement exists through the whole project area (with actual public property at the downstream portion of the project). Engineer Doeden acknowledged there was not a known metric for determining water quality improvements from buckthorn control, but the professional opinion is that a benefit exists (in addition to improving habitat for native species of plants and trees).

Commissioner Welch asked how the pollutant load reduction expected from the project compares to the load reduction required in the Medicine Lake Total Maximum Daily Load (TMDL). Commission Engineers indicated they would work on that calculation and bring it to the next meeting. It was also noted that buckthorn management is a long term commitment. Plymouth staff indicated the city is committed to maintaining CIP projects, including vegetation management.

There was a question about why the city and not the Commission should construct the project. It was noted that on-going maintenance would be needed by the city which is built into the typical CIP agreement with the host city to design, construct, and maintain the project.

There was discussion about pros and cons of Alternative 3. Administrator Jester noted that the alternative requires removal of many more mature trees and the mobilization of more heavy equipment – both of which have climate impacts. She noted that in her experience, stream re-meandering is typically considered for improving in-stream habitat. She wondered how much habitat this stream really offers since it is often dry. It was also acknowledged that Alternative 3 would require additional easements and there would be more impact on private property.

Staff noted they would bring additional information to the June Commission meeting including relative pollutant removal figures and pros/cons to each alternative.

B. Receive Update on Main Stem Lagoon Dredging Project

Commission Engineer Chandler reviewed the update memo with the Commission indicating that the contractor reported that dredging was complete and demobilized from the site in early March. The project was to remove 39,600 cubic yards (cy) of sediment from Lagoons D, E, and F in Theodore Wirth Park. She also reminded the Commission that pay applications #1 and #2 from the contractor had been paid. She reported that the Contractor submitted progress pay application #3 for work completed through March 31, 2023 and upon review of the pay application Commission Engineers determined that post-construction surveys would be needed to confirm dredge amounts reported by the contractor.

Commission Engineer Chandler reported that two different surveys were conducted: a bathymetric survey of the bottoms of each lagoon and a traditional verification survey of cross-sections with grade rod measurements to confirm the bathymetric results. The surveys determined that the actual dredged quantity was only 25,650 cy. She showed before and after photos of the dredged areas. Engineer Chandler noted that pay application #2 included total dredged quantities of 33,660, indicating that the Commission had overpaid the contractor. Assuming site restoration is completed by the contractor as planned, it is estimated that the Commission overpaid the contractor by $127,947. Engineer Chandler and Commission Attorney Anderson recommended the Commission send a Notification of Claim letter to the contractor to cover the overpaid funds while retaining the Commission's rights and obligations under the contract. Attorney Anderson noted the limited window of 30 days from the date of the survey to file the claim. He reported the claim notice should be sent no later than tomorrow (May 19th).

Administrator Jester noted that at a future meeting the Commission would discuss and decide how or if to proceed with the project given that it was not completed according to plans.

MOTION: Commissioner Welch moved to authorize the Commission Attorney to send the Notice of Claim to Fitzgerald Excavating and Trucking. Commissioner Pentel seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

[Chair Cesnik called a 5-minute break.]
[Commissioner Welch and Alternate Commissioner Hauer depart the meeting.]

C. Consider Recommendations from Budget Committee

- **i. Review Memo with Notes on 2024 Operating Budget Development**
- **ii. Consider Adopting Fiscal Policy Regarding Investment Income**

Budget Committee Chair Wayne Sicora reported on the committee's discussions to date on the 2024 operating budget. He noted that the final audit figures and action on the proposed policy on investment income are needed to make a recommendation to the Commission at the June meeting. He reported that right now, the draft proposed budget has a 5.8% increase in city assessments. He noted some of the higher budget is due to monitoring three lakes in 2024 rather than the typical two lakes – which follows the approved monitoring plan.

Committee Chair Sicora also reviewed the proposed fiscal policy to allocate investment income evenly between the general fund (operating budget) and the CIP fund. He noted that in 2022 and project income for 2023 is significantly higher than previous years and there is much fluctuation in investment income year to year. He reported that in the past, investment income was allocated on a pro-rated basis depending on the amount in each fund (general vs. CIP).

Plymouth TAC member Scharenbroich asked why the TAC input wasn't sought. He noted that allocating more investment income to the general fund could lower city assessments. Robbinsdale TAC member McCoy advocated for investment income being allocated to the CIP fund so that more funding is available for projects.

Administrator Jester reported the investment income policy could be discussed at the June 7th TAC meeting.

Committee Chair Sicora also reported that Commission staff is discussing with Plymouth staff the possibility of moving financial services to the City of Plymouth. He also noted the desire to change the beginning of the fiscal year to January 1st rather than February 1st.

7. COMMUNICATIONS

A. Administrator's Report – Administrator Jester reported that the Minneapolis Park and Rec Board is planning a shoreline and slope restoration/stabilization project on Twin Lake. Project plans will be reviewed by the city and BCWMC. She also reported that Hennepin County recently hired the Education Coordinator position that will be shared with the West Metro Water Alliance. She also reported that she and Alternate Commissioner Polzin will attend the Harrison Neighborhood Association meeting that night and that Friends of Bassett Creek is looking for volunteers for plantings and invasive species removal.

B. Chair – No report

C. Commissioners

i. Report on Loppet Sustainability Fair – Commissioner Twiford and Alternate Commissioner Polzin attended along with Administrator Jester. They interacted with many event attendees.
Commissioner Pentel noted that she regularly runs the trails near Twin Lake and hopes for a good shoreline restoration plan.

D. TAC Members

i. Appoint Liaison for June 7th TAC Meeting – Commissioner Pentel volunteered to be the liaison for the TAC meeting.

E. Committees – Many meetings coming up. See online calendar and list in agenda.

F. Legal Counsel – No report

G. Engineer

i. Update on Parkers Lake Chloride Reduction Project – Engineer Chandler reported that the Commission Engineers are working with Met Council on the request to discharge lake water to the sanitary sewer and are investigating reverse osmosis. A report to the Commission is expected this summer.

8. INFORMATION ONLY (Information online only)

A. BCWMC Administrative Calendar
B. CIP Project Updates www.bassettcreekwmo.org/projects
C. Grant Tracking Summary and Spreadsheet
D. WCA Notices – Plymouth
E. Wakes, Waves, Propeller Wash Webinar
F. CCX News Story on Sochacki Park Water Quality Improvement Project

8. ADJOURNMENT - The meeting adjourned at 10:58 a.m.

Item 4B.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission
Statement of Financial Position

	Capital Improvement Projects	General Fund	TOTAL
ASSETS			
Current Assets			
Checking/Savings			
101 · Wells Fargo Checking	-780,402.41	982,231.28	201,828.87
102 · 4MP Fund Investment	3,501,986.62	121,154.81	3,623,141.43
103 · 4M Fund Investment	2,483,650.36	-14,986.14	2,468,664.22
Total Checking/Savings	5,205,234.57	1,088,399.95	6,293,634.52
111 · Accounts Receivable	0.00	600.67	600.67
112 · Due from Other Governments	52,806.40	-0.26	52,806.14
113 · Delinquent Taxes Receivable	11,396.55	0.00	11,396.55
Total Accounts Receivable	64,202.95	600.41	64,803.36
Other Current Assets			
114 · Prepaids	0.00	2,978.75	2,978.75
116 · Undeposited Funds	0.00	1,500.00	1,500.00
Total Other Current Assets	0.00	4,478.75	4,478.75
Total Current Assets	5,269,437.52	1,093,479.11	6,362,916.63
TOTAL ASSETS	**5,269,437.52**	**1,093,479.11**	**6,362,916.63**
LIABILITIES & EQUITY			
Liabilities			
Current Liabilities			
Accounts Payable			
211 · Accounts Payable	17,901.15	96,976.50	114,877.65
Total Accounts Payable	17,901.15	96,976.50	114,877.65
Other Current Liabilities			
212 · Unearned Revenue	438,823.00	0.00	438,823.00
251 · Unavailable Rev - property tax	11,396.55	0.00	11,396.55
Total Other Current Liabilities	450,219.55	0.00	450,219.55
Total Current Liabilities	468,120.70	96,976.50	565,097.20
Total Liabilities	468,120.70	96,976.50	565,097.20
Equity			
311 · Nonspendable prepaids	0.00	2,978.75	2,978.75
312 · Restricted for improvements	4,562,582.00	0.00	4,562,582.00
315 · Unassigned Funds	0.00	375,424.57	375,424.57
32000 · Retained Earnings	1,198,999.33	108,188.52	1,307,187.85
Net Income	-994,264.77	543,911.03	-450,353.74
Total Equity	4,767,316.56	1,030,502.87	5,797,819.43
TOTAL LIABILITIES & EQUITY	**5,235,437.26**	**1,127,479.37**	**6,362,916.63**
UNBALANCED CLASSES	34,000.26	-34,000.26	0.00

Bassett Creek Watershed Management Commission

Statement of Revenues, Expenditures and Changes in Fund Balances - General

	Annual Budget	May 18 - Jun 15, 23	Feb 1 - Jun 15, 23	Budget Balance
Ordinary Income/Expense				
Income				
411 · Assessments to Cities	617,430.00	0.00	617,430.00	0.00
412 · Project Review Fees	80,000.00	18,000.00	48,000.00	32,000.00
413 · WOMP Reimbursement	5,000.00	0.00	0.00	5,000.00
414 · State of MN Grants		0.00	11,402.43	-11,402.43
415 · Investment earnings		26,239.54	96,168.13	-96,168.13
416 · TRPD Reimbursement	5,000.00	0.00	0.00	5,000.00
417 · Transfer from LT & CIP	68,000.00	0.00	0.00	68,000.00
Total Income	775,430.00	44,239.54	773,000.56	2,429.44
Expense				
1000 · Engineering				
1010 · Technical Services	145,000.00	10,521.50	56,601.00	88,399.00
1020 · Development/Project Reviews	80,000.00	12,152.50	31,813.50	48,186.50
1030 · Non-fee and Preliminary Reviews	30,000.00	645.00	5,967.50	24,032.50
1040 · Commission and TAC Meetings	15,000.00	1,075.00	5,719.00	9,281.00
1050 · Surveys and Studies	15,000.00	0.00	0.00	15,000.00
1060 · Water Quality / Monitoring	105,000.00	7,823.35	16,629.09	88,370.91
1070 · Water Quantity	9,000.00	505.25	2,607.21	6,392.79
1080 · Annual Flood Control Inspection	15,000.00	1,996.50	3,609.00	11,391.00
1090 · Municipal Plan Review	2,000.00	0.00	0.00	2,000.00
1100 · Watershed Monitoring Program	27,000.00	0.00	8,991.76	18,008.24
1110 · Annual XP-SWMM Model Updates	3,000.00	187.00	187.00	2,813.00
1120 · TMDL Implementation Reporting	0.00	0.00	0.00	0.00
1130 · APM/AIS Work	40,000.00	0.00	0.00	40,000.00
1140 · Erosion Control Inspections	0.00	0.00	0.00	0.00
1000 · Engineering - Other		0.00	0.00	0.00
Total 1000 · Engineering	486,000.00	34,906.10	132,125.06	353,874.94
2000 · Plan Development				
2010 · Next Gen Plan Development	53,250.00	8,867.50	31,288.61	21,961.39
2000 · Plan Development - Other		0.00	0.00	0.00
Total 2000 · Plan Development	53,250.00	8,867.50	31,288.61	21,961.39
3000 · Administration				
3010 · Administrator	78,750.00	6,918.75	25,931.25	52,818.75
3020 · MAWD Dues	7,500.00	0.00	0.00	7,500.00
3030 · Legal	17,000.00	1,439.58	7,016.87	9,983.13
3040 · Financial Management	14,540.00	1,075.00	5,140.00	9,400.00
3050 · Audit, Insurance & Bond	18,700.00	11,055.00	11,055.00	7,645.00
3060 · Meeeting Catering	2,400.00	161.23	806.15	1,593.85
3070 · Administrative Services	7,240.00	345.09	994.86	6,245.14
3000 · Administration - Other		0.00	0.00	0.00
Total 3000 · Administration	146,130.00	20,994.65	50,944.13	95,185.87
4000 · Education				
4010 · Publications / Annual Report	1,000.00	714.50	1,338.00	-338.00
4020 · Website	1,600.00	0.00	0.00	1,600.00
4030 · Watershed Education Partnership	18,350.00	0.00	3,500.00	14,850.00
4040 · Education and Public Outreach	28,000.00	0.00	9,480.29	18,519.71
4050 · Public Communications	1,100.00	384.00	413.44	686.56
4000 · Education - Other		0.00	0.00	0.00
Total 4000 · Education	50,050.00	1,098.50	14,731.73	35,318.27
5000 · Maintenance				
5010 · Channel Maintenance Fund	25,000.00	0.00	0.00	25,000.00
5020 · Flood Control Project Long-Term	35,000.00	0.00	0.00	35,000.00
5000 · Maintenance - Other		0.00	0.00	0.00
Total 5000 · Maintenance	60,000.00	0.00	0.00	60,000.00
Total Expense	795,430.00	65,866.75	229,089.53	566,340.47
Net Ordinary Income	-20,000.00	-21,627.21	543,911.03	-563,911.03
Net Income	**-20,000.00**	**-21,627.21**	**543,911.03**	**-563,911.03**

Bassett Creek Watershed Management Commission

Statement of Revenues, Expenditures and Changes in Fund Balances - Construction in Progress

	Project Budget	May 18 - Jun 15, 23	Year to Date	Inception to Date Expense	Remaining Budget
Ordinary Income/Expense					
Income					
418 · Property Taxes		0.00	0.00		
BC2,3,8 · DeCola Ponds B&C Improve		0.00	0.00		
BC23810 · Decola Ponds/Wildwood Park		0.00	0.00		
BC5 · Bryn Mawr Meadows		2,934.00	2,934.00		
BC7 · Main Stem Dredging Project		0.00	0.00		
BCP2 · Bassett Creek Park & Winnetka		0.00	0.00		
CRM · Main Stem Cedar Lk Rd-Dupont		0.00	0.00		
ML12 · Medley Park Stormwater Treament		0.00	0.00		
ML21 · Jevne Park Stormwater Mgmt		0.00	0.00		
NL2 · Four Seasons Mall Area		0.00	0.00		
SL1,3 · Schaper Pond Enhancement		0.00	0.00		
SL8 · Sweeny Lake Water Quality		0.00	29,815.50		
TW2 · Twin Lake Alum Treatment		0.00	0.00		
Total Income		2,934.00	32,749.50		
Expense					
2017CRM · CIP-Main Stem Cedar Lk Rd-Dupon	0.00	0.00	0.00	768,478.47	-768,478.47
2024CRM · CIP-BS Main Stem Restore	85,500.00	0.00	45,239.64	85,121.39	378.61
BC-238 · CIP-DeCola Ponds B&C	1,600,000.00	0.00	0.00	1,507,985.31	92,014.69
BC-2381 · CIP-DeCola Ponds/Wildwood Pk	1,300,000.00	0.00	0.00	62,789.39	1,237,210.61
BC-5 · CIP-Bryn Mawr Meadows	1,835,000.00	2,179.82	20,748.32	304,684.65	1,530,315.35
BC-7 · CIP-Main Stem Lagoon Dredging	2,759,000.00	13,131.33	937,125.10	1,524,583.52	1,234,416.48
ML-12 · CIP-Medley Park Stormwater	1,500,000.00	0.00	0.00	95,218.61	1,404,781.39
ML-20 · CIP-Mount Olive Stream Restore	178,100.00	0.00	0.00	43,157.42	134,942.58
ML-21 · CIP-Jevne Park Stormwater Mgmt	500,000.00	0.00	0.00	56,390.75	443,609.25
ML-22 · CIP-Ponderosa Wood Strm Restora	43,800.00	0.00	9,280.43	43,373.81	426.19
NL-2 · CIP-Four Seasons Mall	990,000.00	0.00	0.00	196,448.06	793,551.94
PL-7 · CIP-Parkers Lake Stream Restore	485,000.00	2,497.50	10,606.28	86,370.62	398,629.38
SL-1,3 · CIP-Schaper Pond	612,000.00	92.50	4,014.50	473,742.85	138,257.15
SL-8 · CIP-Sweeney Lake WQ Improvement	568,080.00	0.00	0.00	568,064.13	15.87
TMDL1 · TMDL Studies Revenue		0.00	0.00	0.00	0.00
TW-2 · CIP-Twin Lake Alum Treatment	163,000.00	0.00	0.00	91,037.82	71,962.18
Total Expense	12,619,480.00	17,901.15	1,027,014.27	5,907,446.80	6,712,033.20
Net Ordinary Income	-12,619,480.00	-14,967.15	-994,264.77	-5,907,446.80	
Net Income	**-12,619,480.00**	**-14,967.15**	**-994,264.77**		

Bassett Creek Watershed Management Commission
Long Term Fund Schedule

		Total Budget	April 20, 23 May 18, 23	Year to-Date	Inception to Date	Remaining Budget
Income						
	Fld1 · Flood Control Long Term Maint		0.00	0.00	154,421.90	
	Fld2 · Flood Control Long Term Exp	699,980.00	0.00	0.00	462,976.41	
Total		699,980.00	0.00	0.00	-308,554.51	308,554.51
	Flood1 · Emergency FCP Income		0.00		0.00	
	Flood2 · Emergency FCP Expense	500,000.00	0.00	0.00	0.00	
Total		500,000.00	0.00	0.00	0.00	500,000.00
	Gen · Next gen Plan Development Income		0.00	0.00	38,000.00	
	Gen1 · Next gen Plan Development Exp	0.00	0.00	0.00	11,000.00	
Total		0.00	0.00	0.00	27,000.00	27,000.00
	Qual · Channel Maintenance Fund		0.00	0.00	545,000.00	
	Qual1 · Channel Maintenance Expense	0.00	0.00	0.00	275,738.70	
Total		0.00	0.00	0.00	269,261.30	269,261.30
	TMDL1 · TMDL Studies Income		0.00			
	TMDL2 · TMDL Studies Expense	135,000.00	0.00		107,850.15	
Total		135,000.00	0.00	0.00	-107,850.15	0.00

Item 4D.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: June 5, 2023

Recommendation: Provide (non-monetary) support for creation of Ȟaȟa Wakpadaŋ pronunciation video

Last summer, the BCWMC participated in the Ȟaȟa Wakpadaŋ Community Celebration at Valley Presbyterian Church in Golden Valley. (Ȟaȟa Wakpadaŋ is the Dakota name for Bassett Creek.) A subset of the Ȟaȟa Wakpadaŋ / Bassett Creek Oral History Project is now underway: the production of a short video describing the pronunciation of "Ȟaȟa Wakpadaŋ." The oral history project is funded by UW-Madison and the Golden Valley Diversity, Equity, Inclusion Commission, with additional support from Valley Community Presbyterian Church.

Participants in the oral history project identified one of their priorities as increasing awareness of Indigenous place names. The intended audience for the short pronunciation video is anyone who would like to learn how to pronounce the Dakota name of Bassett Creek, including people living in the Bassett Creek watershed and people interacting with the oral history materials.

The video is intended to serve multiple purposes, including:

- Teach people how to pronounce Ȟaȟa Wakpadaŋ
- Increase awareness of the Dakota name for Bassett Creek
- Show that Dakota people and the Dakota language are alive and thriving today (they are not relics of the past)
- Gather community support for Native-produced media
- Engage Native vendors and speakers through paid opportunities

The video will be about 2 minutes long, with a focus is how to pronounce Ȟaȟa Wakpadaŋ and it will be comprised almost entirely of short clips of people saying the creek's name, very similar to the video for how to pronounce Wakaŋ Tipi. Partner logos will be placed at the end of the video. See the attached flyer for more information.

Last week I met at the creek with the oral history project lead, Crystal Boyd, along with the videographer (Tiana LaPointe); Joelle Allen, Chair of Golden Valley's Diversity, Equity, and Inclusion (DEI) Commission; and Jennifer Biggs, Chair of the Land Acknowledgement Task Force at Valley Community Presbyterian Church to discuss the project and shoot clips of the creek.

I believe this is project is in line with BCWMC goals to educate the public about all aspects of the creek. I recommend that the BCWMC officially support the pronunciation video and provide a logo for inclusion.

Photo courtesy of Bassett Creek Watershed Management Commission

Ȟaȟa Wakpadaŋ / Bassett Creek Pronunciation Video

In the Dakota language, Ȟaȟa Wakpadaŋ is the name for Bassett Creek. American Indians have lived, worked, and played in areas surrounding the creek for thousands of years.

In 2021, Valley Community Presbyterian Church (VCPC) received a grant to conduct oral history interviews with American Indians who are connected to the creek's watershed. The interviews explored how Native people experience the area as part of their historic and contemporary cultures.

VCPC developed the project in partnership with cultural advisors, the Hennepin History Museum, and Dr. Kasey Keeler, a scholar of American Indian history from the University of Wisconsin—Madison.

What is the next step?
VCPC has hired Tiana LaPointe (Sicangu Lakota) to produce a short video that teaches people how to pronounce "Ȟaȟa Wakpadaŋ." Tiana will record up to 12 Dakota speakers saying the creek's name.

When will the recordings take place?
Tiana will meet with the speakers in late May and early June 2023.

How much time will it take?
Recordings usually take less than 30 minutes.

Will speakers be compensated?
Yes! Each speaker will receive $25. VCPC and its partners are grateful for your time and expertise.

How will the video be shared?
The video will be shared online through webpages, YouTube channels, and social media platforms. It will be shared broadly by VCPC, the Hennepin History Museum, the project partners.

Where can I learn more?
www.valleychurch.net/land-acknowledgement

For more information, please contact project manager Crystal Boyd at crystalboydconsulting@gmail.com

Land Acknowledgement STATEMENT

*As a faith congregation opening hearts, opening minds, and opening lives to God, Valley Community Presbyterian Church (VCPC) seeks to honor the important stories and lived experiences of its members and neighbors. VCPC sits on the ancestral and contemporary land of the Dakota people, for whom the land holds historical, spiritual, political, and cultural significance.

We acknowledge the ongoing injustices that we have committed against the Dakota people and pledge to interrupt this legacy. We will educate ourselves about Indigenous history and recognize, support, and advocate for our Native neighbors.

CLEAN WATER LAND & LEGACY AMENDMENT

This project is made possible through funding from Valley Community Presbyterian Church, the University of Wisconsin—Madison, and the people of Minnesota through a grant funded by the Minnesota Arts and Cultural Heritage Fund.

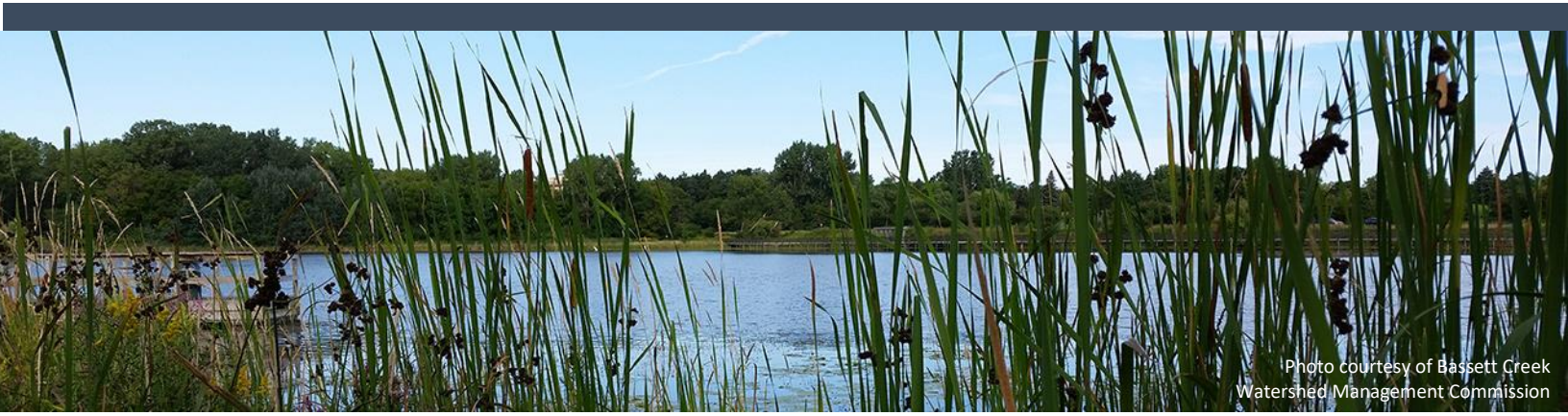


Photo courtesy of Bassett Creek Watershed Management Commission

To everyone who has been involved so far: Thank You!

Narrators

Sydney Beane
Ben Blackhawk
Brad Blackhawk
Eric Buffalohead
Roxanne Gould
Sam Majhor
Jim Rock
Tawnya Stewart
Grant Two Bulls
Cathee Vick
Debbi Williams
David Wilson
Diane Wilson
Ben Yawakie

Project Personnel

Kasey Keeler, project lead
Sarah Lundquist, transcriptionist
Margo Mandel, transcriptionist

VCPC Land Acknowledgment Task Force

Rev. Richard Buller
Mariah Messer, VCPC staff
Jen Biggs, task force lead
Crystal Boyd, project manager
Lyn Boyd
Jan Fedora
Jeanine Miakotina
Julie Westerlund

Cultural Advisors

Brenda Child
Darlene St. Clair

VCPC Staff

William Glasper
Hunter Sheldon
Sheila Sheldon

Project Partners

John Crippen, Hennepin History Museum
Larry Johnson, photographer
Michele Pollard, Hennepin History Museum
Teresa Martin, GV Historical Society
Kyle Scott, GV Historical Society
Stan Waldhauser, photographer

Photo credit: Stan Waldhauser

Valley Community Presbyterian Church
Open Hearts • Open Minds • Opening Lives to God

HENNEPIN HISTORY MUSEUM

Center for Community and Nonprofit Studies
SCHOOL OF HUMAN ECOLOGY
UNIVERSITY OF WISCONSIN-MADISON

CLEAN WATER LAND & LEGACY AMENDMENT

This project was made possible in part by the people of Minnesota through a grant funded by an appropriation to the Minnesota Historical Society from the Minnesota Arts and Cultural Heritage Fund.

Additional funding and support was provided by
Valley Community Presbyterian Church, the University of Wisconsin, Hennepin History Museum, the Golden Valley Historical Society, and photographer Stan Waldhauser.

Item 4E.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: June 5, 2023

Recommendation: Provide $6,000 to Metro Blooms to Support Sustainable Landcare Training Program

The BCWMC 2023 operating budget includes $4,000 for Metro Blooms resident engagement in Minneapolis Neighborhoods (from the Water Education Partnerships budget line). The BCWMC has partnered with Metro Blooms on multiple grant-funded outreach and implementation projects in Minneapolis since 2016 totaling nearly $295,000 in grant funding. Since 2016, the BCWMC has annually provided local matching dollars of $4,000 for these projects. Metro Blooms does exceptional work in Minneapolis to build relationships and engage with diverse communities around water and sustainable environments.

In addition to the $4,000 already allocated in the 2023 budget to support Metro Blooms programs, Metro Blooms is requesting an additional $2,000 to fill a funding gap to implement their Sustainable Landcare Training Program. This training program is implemented with the ANYCAP cohort from All Nations congregation (one of the sites from a grant funded project in 2021). Following training Metro Blooms plans to employ a crew from this cohort to install and care for boulevard raingardens in Near North and continue working with the ANYCAP mentors to lead conversations around environmental and community care. Funding from the City of Minneapolis is already leveraged for this work. See the attached funding request for additional information.

The BCWMC has $2,000 unallocated education funding available in its 2023 “Water Education Partnership” budget line. $2,000 was slated for the River Watch Program coordinate by Hennepin County. However, the county is not currently supporting this program and will not be seeking partner funding.

I recommend the Commission approve the funding request from Metro Blooms for $6,000 in 2023.

Metro Blooms

3747 Cedar Ave S
Minneapolis, MN 55407
651-699-2426
metroblooms.org

June 1, 2023

Bassett Creek Watershed Management Commission
Request for Funding
Request Amount: $6,000

Metro Blooms has been partnering with the BCWMC closely over the past 6 years, striving to create accessible resources and community led projects to expand clean water practices and pollinator habitat across the watershed. Our partnership has been focused with communities that experience environmental injustices, particularly communities of color, low income communities, and renters in the near north neighborhoods of Minneapolis. It has led to hundreds of thousands of dollars of investment with these communities, resulting in strong, supportive relationships, over 50,000 square feet of pollinator habitat and stormwater management practices, 100+ young adults and local contractors trained, and the expansion of our programming to meet community needs for training, employment, and connection to each other and nature.

This year, we're focusing on the following activities within the Bassett Creek Watershed:

- Supporting residents impacted by ash tree removals in north Minneapolis. We co-hosted two listening sessions with Amoke Kubat for North Minneapolis residents who have been burdened financially and otherwise by the requirements to remove Ash Trees, are raising money to provide economic relief to these residents, and are doorknocking to connect folks with information and opportunities for re-planting.
- Co-hosted a winter seed sowing program in partnership with Heritage Park, 20 youth and residents attended. Our hope is to support these new growers and be able to purchase plants for north Minneapolis projects directly from them.
- Planning for continued paid Sustainable Landcare Training with the All Nations Youth and Community Assistance Program (cohort of youth, young adults and elders).
- Partnering with Jordan Area Community Council (JACC) on events at the Jordan community garden to reduce barriers for folks to plan in their own space and Redeemer Center for Life on Glenwood to care for native plantings and raingardens.
- Working with the Eloise Butler Wildflower garden to install a huge (10,000 square foot!) new demonstration pollinator garden through partnership with Wilderness in the City
- Our online resilient yard workshop content is now free to all MN residents, with nearly 3,000 folks registering for the online learning platform and Lawns to Legumes continues to be very popular.
- Continuing the boulevard raingarden project in north, promoting long term investment in community amenities, pollinator habitat and clean water
- Continuing to work with JACC and the BEAM multi family housing property - this summer we'll be hiring residents to plant the new park space!

Our partnership with BCWMC supports all of these activities. One space we could use additional support is the Sustainable Landcare Training with the ANYCAP cohort from All Nations congregation (one of the business sites from our 2021 commercial clean water fund partnership). Following training we're hoping to employ a crew from this cohort to install and care for boulevard raingardens in near north and continue working with their mentors, Bendu and Lenda, to lead conversations around environmental and community care. Young folks will be paid to attend the training. Funding from the City of Minneapolis supports this work as well. Additional support from Bassett Creek would allow us to fully compensate Bendu and Lenda for their mentorship.

After training, there are several next-step opportunities. We are able to hire some youth as environmental and social justice advocates. Other youth are contracted to install and care for green infrastructure projects. Last year, 25 North Minneapolis residents attended the paid training and a group of 9 teens/young adults from this cohort became a paid crew for Metro Blooms to plant boulevard gardens in their community. This year, youth leaders will coordinate the crew work in partnership with Metro Blooms' environmental and social justice advocate team, and we are piloting Care Crews, providing youths members time and support to engage around self-care, affirmation of identity, community-care, and building relationships. Youth and adult mentors will have conversation in circle, complete social and emotional learning activities, and complete self-care planning, expanding the safe space of ANYCAP through supporting youth in navigating emotions, moving through conflict, mental health, leadership opportunities, and connecting to each other and our earth. Bendu and Lenda, community mentors, will co-facilitate this space with Metro Blooms. In addition, the Blue Thumb partnership, which we manage, has long-term relationships with 50+ state and local government agency partners, landscape and native plant nursery partners, and nonprofits, providing potential employers to young green job seekers. We're working with employment partners and job readiness organizations to create clear connections to immediate next-step jobs in the green economy.

The training is an integral part of our community-centered work together. It's what allows us to not only work with residents to bring their vision for their outdoor spaces to reality, but to hire them to do the work and benefit economically from clean water and habitat investments. So much is possible within the context of clean water projects, and we appreciate your continued partnership in supporting the needs of all of our communities.

Thank you for your consideration,

Laura Scholl

Laura Scholl, Metro Blooms, Executive Director

Item 5A.
BCWMC 6-15-23
Full Report and
Appendices Online

Feasibility Report for Bassett Creek Main Stem Restoration, Regent Avenue to Golden Valley Road (2024 CR-M)

Golden Valley, Minnesota

Prepared for
Bassett Creek Watershed Management Commission

June 2023

4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
952.832.2600
www.barr.com

Feasibility Report for the 2024 Bassett Creek Main Stem Restoration Regent Avenue to Golden Valley Road

June 2023

Contents

List of Tables

List of Figures

List of Appendices, Attachments, or Exhibits

Abbreviations

BANCS	Bank Assessment for Non-Point Source Consequences of Sediment
BCWMC	Bassett Creek Watershed Management Commission
BWSR	Minnesota Board of Water and Soil Resources
BEHI	Bank Erosion Hazard Index
CIP	capital improvement program
CSW	construction stormwater
CWA	Clean Waters Act
EAW	Environmental Assessment Worksheet
EQB	Environmental Quality Board
FAA	Federal Aviation Administration
IPaC	Information, Planning, and Conservation System
LGU	local government unit
LUST	leaking underground storage tank
MCBS	Minnesota County Biological Sites
METC	Metropolitan Council
MnDNR	Minnesota Department of Natural Resources
MPCA	Minnesota Pollution Control Agency
NBS	near bank stress
NHIS	Natural Heritage Information System
NRCS	Natural Resources Conservation Act
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
OSA	Office of the State Archaeologist
ROW	right-of-way
PWI	public water inventory
RMP	resource management plan
SHPO	State Historic Preservation Office
SNA	scientific natural areas
TP	total phosphorus
TRPD	Three Rivers Park District
TSS	total suspended solids
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WCA	Wetland Conservation Act
WMA	Wildlife Management Areas

1 Executive Summary

1.1 Background

The Bassett Creek Watershed Management Commission's (BCWMC) current Capital Improvement Program (CIP) (Table 5-3 in the 2015-2025 Bassett Creek Watershed Management Plan, as revised) includes the Bassett Creek Main Stem Channel Restoration from Regent Avenue North to Golden Valley Road (CIP 2024-CR-M). At their August 2022 meeting, the Commission approved the BCWMC Engineer's proposal to conduct a feasibility study for the Main Stem Channel Restoration.

As is required for BCWMC CIP projects, a feasibility study must be completed prior to the BCWMC holding a hearing and ordering the project. This feasibility study examines methods to stabilize and restore areas of erosion within the corridor, as well as improve aquatic and riparian habitats. The Commission Engineer investigated three options during this feasibility study. The three options developed were based on restoring areas ranked low to high using prioritization metrics provided by the City of Golden Valley and the Commission Engineer.

If ordered, the BCWMC will utilize the BCWMC CIP funds to implement the proposed project. The source of these funds is an ad valorem tax levied by Hennepin County over the entire Bassett Creek watershed on behalf of the BCWMC. In addition to BCWMC CIP funds, Golden Valley plans to contribute channel maintenance funds ($200,000) and Capital Improvement Program funds ($100,000) toward project implementation.

1.2 General Project Description and Site Characteristics

The Bassett Creek Main Stem Restoration project area is located along Bassett Creek between Regent Avenue North and Golden Valley Road. The project will focus on restoring eroding stream banks and improving aquatic and riparian habitats (Figure 1-1).

The approximately 7,000-foot reach is located on a combination of privately owned and publicly owned properties, including portions of land owned by Golden Valley, and operated in partnership with Three Rivers Park (TRPD) through the Sochacki Park Joint Powers Agreement. The creek maintains a steady base flow year-round and meanders through neighborhoods and wooded backyards and alongside a wooded reach of Sochacki Park. Erosion of the stream banks varies along the reach from mild to severe, with eroding bank heights varying from 2.5 to approximately 8 feet.

The 7,000-foot reach was broken into four separate reaches for mapping purposes. Reach 1 is located between Regent Avenue North and Noble Avenue, Reach 2 is between Noble Avenue and Bassett Creek Drive, Reach 3 is between Bassett Creek Drive and Station 56+00, and Reach 4 is between Station 56+00 and Golden Valley Road (Figure 5-1).

Bassett Creek
5-Foot Contour
Lakes and Ponds
Parcel Boundary
Park Boundary

Project Location

New Hope
Crystal
Hennepin
St Louis Park
Plymouth Creek
North Branch Bassett Creek
Medicine Lake
Bassett Creek
South Branch Bassett Creek
Bassett Creek Tunnel
169
55
12
394
494
94
100
52

Briarwood Bird Sanctuary
Sochacki Park
Sochacki Park (Rice Lake Nature Area)
Sochacki Park (Mary Hills Nature Area)
Glenview Terrace/Valley View Park
Scheid Park
Sweeney Lake Park
Sweeney Lake
Theodore Wirth Park / Parkway

Dawnview Ter
Dona La
W Marie La
E Marie La
Scott Ave N
Quail Ave N
Perry Ave N
Noble Ave N
Major Ave N
June Ave N
Hampton Rd
Merribee Dr
Kyle Ave N
Lee Ave N
Dresden La
Unity Ave N
Minnaqua Dr
Minnaqua DR
Markay Rdg
Bassett Creek Dr
Legend La
Indiana Ave N
Kewaunee Way
Byrd Ave N
Nair Dr
Terrace La
Crestview Ave
Manor Dr
Wasatch La
Mary Hills Dr
Bonnie La
Windsor Way
Orchard Ave N
Spruce Ln
Ordway
West Bend Rd
Greenview La
Golden Valley RD
Valley Rd
Major CIR
Kyle Pl
Sorell Ave
Regent Ave N
Duluth ST
Toledo Ave N
Quail Ave
Spring Valley Cir
Major Dr
Frontenac Ave
St Croix AVE N
Spring Valley Rd
St Croix Cir
Noble DR
Bridgewater RD
Waterford CT
Hidden Lakes PKWY
Theodore Wirth PKWY

880' 875' 885' 850' 865' 860' 855' 870' 845' 840' 835' 825' 830' 820' 890' 895' 910' 905' 900'

66

0 300 600
Feet

Bassett Creek Watershed Management Commission

PROJECT LOCATION
Main Stem
Restoration Feasibility Study
BCWMC

FIGURE 1-1

BARR

Imagery: Hennepin Co. 2021

Barr Footer: ArcGISPro 3.1, 2023-04-11 12:17 File: I:\Client\BassettCreek\Work_Orders\2022\Main_Stem_Restoration_Feas\Maps\Reports\Feasability Study March 2023\Feasability Study March 2023.aprx Layout: Fig1-1 Project Location User: MRQ

The measures identified for potential implementation consist of the following:

- Stream bank grading and vegetation establishment
- Removal of trees and invasive vegetation (e.g., buckthorn)
- Stabilizing channels that carry parking lot runoff
- Installing a variety of stream stabilization measures to reduce erosion, including riprap, root wads and toe wood, coir logs, rock or log j-hook vanes and cross vanes, fascines, and live stakes
- Further investigation of degraded pipe outfalls and repairing/replacing outfalls and associated pipes as needed
- Identifying opportunities to install small structural BMPs upstream of outfalls
- Establishing new vegetation in areas disturbed by construction
- Protecting existing utility infrastructure

This study identifies 79 unique locations for stabilization, which were grouped into 40 restoration areas within the approximate 7,000-foot assessed reach. The restoration areas are ranked from low to high priority (Table 5-3) depending on the severity of erosion, protection of existing infrastructure, streambank ownership, etc.. Figure 5-1 shows the potential restoration areas, and Table 5-4 details the proposed restoration methods for each area.

Water quality improvements resulting from the project range from 54.4 to 82.4 pounds per year of total phosphorus reductions and 109,618 to 164,820 pounds per year of total suspended solids reduction (Section 6). Tree removals also vary by option (Table 1-1).

Table 1-1 Total TP and TSS Reductions and Tree Removals

Option Description	Project Cost Estimate[1,4]	Annualized Cost[2]	TP Loading		TSS Loading		Tree Loss[5]
			Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]	Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]	
Option 1. High-ranked restoration areas	$1,124,000 ($956,000–$1,462,000)	$72,000	54.4	$1,323	109,618	$0.66	42
Option 2. High- and medium-ranked restoration areas	$1,727,000 ($1,468,000–$2,246,000)	$110,000	67.0	$1,642	136,695	$0.80	73

Option Description	Project Cost Estimate[1,4]	Annualized Cost[2]	TP Loading		TSS Loading		Tree Loss[5]
			Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]	Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]	
Option 3. All proposed restoration areas	$2,118,000 ($1,801,000–$2,754,000)	$136,000	82.4	$1,650	164,820	$0.83	88

(1) A Class 4 screening-level opinion of probable cost, as defined by the American Association of Cost Engineers International (AACE International), has been prepared for these options. The opinion of probable construction cost provided in this table is based on the Commission Engineer's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. The cost opinion is based on project-related information available to the Commission Engineer at this time and includes a conceptual-level design of the project. It includes 20% project contingency and 30% for planning, engineering, design, and construction administration. The lower bound is assumed at -15%, and the upper bound is assumed at +30%.

(2) Assumed to be 15% of the total project cost for annual maintenance, plus replacement cost associated with major repairs and the initial project cost distributed evenly over a 30-year project lifespan.

(3) Annualized cost divided by estimated annual pollution load reduction.

(4) Costs do not include easements or construction access routes

(5) Tree loss is defined as the loss of healthy hardwood deciduous trees that are 6 inches or greater in diameter, softwood deciduous trees that are 12 inches or greater in diameter, and coniferous trees that are 4 inches or greater in diameter

1.3 Recommendations

The Bassett Creek Main Stem Restoration Project (CIP 2024-CR-M) will provide water quality improvement by: (1) repairing actively eroding sites, and (2) preventing erosion at other sites by installing preemptive measures to protect existing stream banks. Overall, this project will reduce erosion, total suspended solids, and phosphorous loading. The project is consistent with the goals (Section 4.1) and policies (Section 4.2.5) for stream restoration and protection in the 2015-2025 BCWMC Watershed Management Plan.

As part of the feasibility study, the Commission Engineer evaluated three restoration options for eroding areas ranked from low to high throughout the creek corridor. If funding allows, we recommend implementing option 3—completing all proposed restoration areas of high, medium, and low priority—but this option comes at a higher cost. Therefore, if a lower-cost project is desired, we recommend implementing (at a minimum) option 1—completing high-priority areas—and completing medium-to-low-ranked areas as the budget allows. Once an option is selected, we recommend that the opinion of cost identified in this study be used to develop a levy request for this project and that it proceed to the design and construction phase.

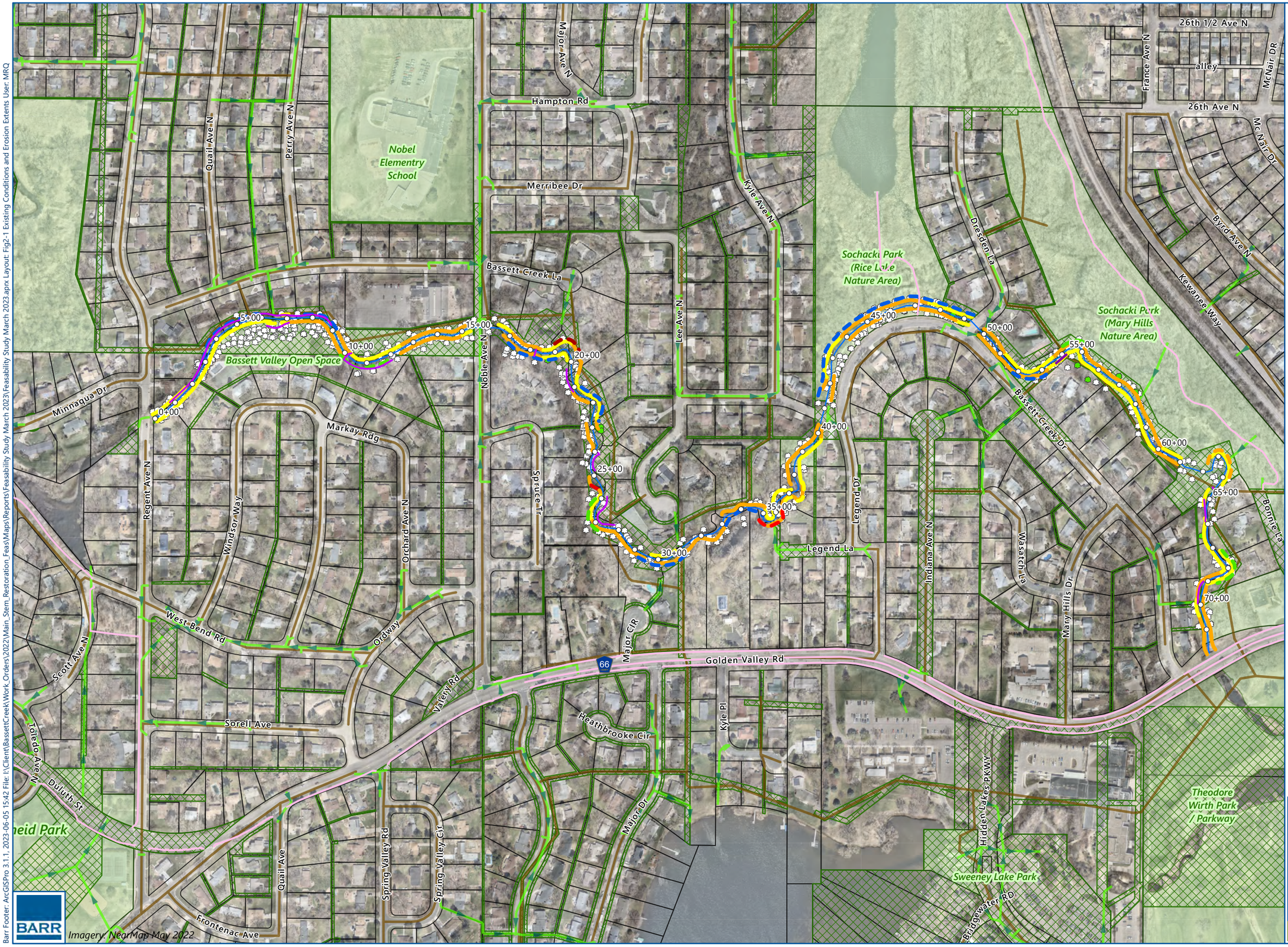
2 Background and Objectives

The BCWMC 2015 Watershed Management Plan (Plan) addresses restoring stream reaches damaged by erosion or affected by sedimentation (1). Section 3.4 of the BCWMC Plan describes the issue and the benefits of stream restoration, and Section 4.2.5 describes the Commission's policies related to streambank restoration and stabilization. The Plan's 10-year Capital Improvement Program (CIP) includes streambank restoration and stabilization projects.

This feasibility study follows the protocols developed by the U.S. Army Corps of Engineers (USACE) and the BCWMC for projects included in the 2009 BCWMC Resource Management Plan (RMP) (2) Although this project is not included in the RMP, it is in close proximity and similar to other RMP projects.

This study examines the feasibility of restoring sites along the Main Stem of Bassett Creek in Golden Valley from Regent Avenue North to Golden Valley Road (see Figure 2-1). The City of Golden Valley conducts annual creek inventories and determined that this 7,000-foot-long reach of the creek has significant erosion. This project is included in the BCWMC current CIP (2024-CR-M).

Restoration of sites along this reach is proposed to be included as a group for design and construction in the BCWMC's 2024 CIP.



Project Stationing
Legacy Trees
Significant Trees
Bassett Creek
Existing Bank Stabilization
Bike and/or Pedestrian Trail System
Private Parcel
Public Parcel
Easement

Near Bank Stress Rating (NBS)
- Extreme
- Very High
- High
- Moderate
- Low
- Very Low

Bank Erosion Hazard Index (BEHI)
- Very High
- High
- Moderate

Utilities
- Gravity Storm Sewer
- Sanitary Main

0 350
Feet

Bassett Creek Watershed Management Commission

EXISTING CONDITIONS AND EROSION EXTENTS
Main Stem
Restoration Feasibility Study
BCWMC

FIGURE 2-1

BARR

2.1 Goals and Objectives

The objective of this study is to review the feasibility of implementing measures to protect and improve Bassett Creek, including stabilizing eroding stream banks and re-establishing desirable vegetation on this reach of Bassett Creek and to provide conceptual designs and opinions of costs of measures that could potentially be used at each of the selected erosion sites.

2.1.1 Scope

The City of Golden Valley conducts an annual creek inventory, which identified significant erosion in the 7,000-foot reach between Regent Avenue and Golden Valley Road. The eroded reach is scheduled to be repaired in the winter of 2024-2025 as part of the BCWMC CIP (2024-CR-M). Prior to the BCWMC holding a hearing and ordering a CIP project, a feasibility study must be completed. The purpose of this work is to complete a feasibility study to identify potential stream restoration concepts along the reach.

The first major component of the feasibility study was to complete field investigations to evaluate and prioritize unstable segments of the creek within the 7,000-foot reach. The Commission Engineer conducted field investigations in the Fall of 2022, including a creek walk, tree survey, and drone flight. During the same time frame, we also performed desktop analyses that included wetland delineations, cultural and historical assessments, and environmental review.

The Commission Engineer utilized data gathered from the field and desktop analyses to develop concept stream restoration options. This report presents the options, including an evaluation of erosion prevention; the advantages and disadvantages of each option; cost estimates; life expectancy analysis; pollutant removals and annualized pollutant reduction cost estimates; and permitting requirements.

2.1.2 Stream Stabilization

The goals of the stream stabilization project include the following:

- Reducing sediment loading and associated nutrient and contaminant loading to Bassett Creek and improving downstream water quality by stabilizing eroding banks
- Preserving natural features along Bassett Creek and contributing to natural habitat quality and species diversity by planting native vegetation in eroded areas and areas disturbed by project construction activities
- Preventing future channel erosion along the creek and subsequent degradation of water quality downstream by establishing a stable channel cross section and profile

2.1.3 Considerations

- Avoid floodplain impacts; several residences are located near the creek, so it is critical that the proposed project does not increase flood elevations that impact these properties.
- Maintain existing floodplain storage by ensuring that project features do not increase flood elevations.

- Seek opportunities to enhance vegetation and habitat within the reach, including in riparian areas adjacent to stream bank restoration areas.
- Utilize soft armoring (bioengineering) techniques as much as possible and where feasible.
- Protect adjacent utilities (sanitary and storm) and infrastructure (streets, trails, bridges).
- Minimizing tree removals

2.2 Background

2.2.1 Reach Description

This reach of the Bassett Creek Main Stem (Figure 2-1) extends approximately 7,000 feet from Regent Avenue North to Golden Valley Road. The reach flows through a combination of privately owned properties and publicly owned properties, including portions of land owned by Golden Valley, and operated in partnership with Three Rivers Park District (TRPD) through the Sochacki Park Joint Powers Agreement. Land use immediately adjacent to most of the reach is residential.

The Commission Engineer and Golden Valley staff walked the reach in October 2022 and identified 40 eroding segments. The total length of the streambank identified for restoration and stabilization is approximately 3,975 feet on the right bank (looking downstream) and 3,395 feet on the left bank (looking downstream). Photos of each of the erosion sites are found in Appendix A. The Commission Engineer selected the restoration areas based on those deemed to be the most critical for meeting the BCWMC goals and objectives while providing a cost-effective benefit.

Stream bank erosion is a natural process that occurs at some rate on all stream channels. However, the natural erosion rate can be accelerated by local and regional changes in land use and hydrology. The bank erosion and bank failures present throughout the project area appear to be caused by a combination of natural stream erosion processes, problems associated with changing watershed hydrology, direct historical impacts on the stream channel, and effects of riparian land use. The sediment load from the erosion and scour increases phosphorus loads to downstream water bodies, decreases the clarity of water in the stream, destroys aquatic habitats, increases sedimentation in downstream wetlands and lagoons in Theodore Wirth Park, and reduces the flow capacity of the channel.

Stable stream channels are often said to be in a state of "dynamic equilibrium" with their watersheds, adjusting to changes in the watershed hydrology. It may take many years or decades for a stream to fully adjust to a rapid change in watershed hydrology. The use of stormwater best management practices (BMPs) helps reduce the impact of development projects on streams. Nonetheless, development and land-use alterations fundamentally change the hydrology of the watershed. These changes to hydrology often include increased magnitude and frequency of high-flow events, which subsequently increase erosion rates.

5 Potential Improvements

5.1 Description of Potential Improvements

As described in Section 1.2, the project along the 2024 Bassett Creek Main Stem Restoration reach would consist of a variety of stream stabilization measures to address erosion problems. Figure 2-1 shows the identified potential stream restoration areas, and Table 5-1 lists the potential stream stabilization measures for each area. There are several stream restoration techniques that can be used, although not all of them would be practicable or applicable to the stream erosion problems on Bassett Creek. The techniques discussed below and included in the conceptual design are among commonly used techniques. Those included in the concept design were selected for their functionality and the expectation that most contractors have had experience with the installation of the technique. The final design will determine the most appropriate measures to use at each individual site to meet the objectives of all parties involved. The final design could include techniques not included in these concept designs.

5.1.1 Hard Armoring and Bioengineering Stream Stabilization Techniques

Techniques for stream stabilization generally fall into two categories: hard armoring and bioengineering (also known as soft armoring). Hard armoring techniques include the use of engineered materials such as stone (riprap or boulders), gabions, and concrete to stabilize slopes and prevent erosion. Bioengineering techniques employ biological and ecological concepts to control erosion, using vegetation or a combination of vegetation and construction materials, including logs and boulders. Techniques that do not use vegetative material but are intended to achieve stabilization of natural flow patterns and create in-stream habitat, such as boulder or log vanes, are generally included under the umbrella of bioengineering.

Hard armoring and bioengineering techniques present different challenges, costs, and benefits for stream stabilization design. Hard armoring methods are viewed as standard and time-tested and typically have a longer life span due to the permanence of the materials used. Hard armoring is usually effective in preventing erosion where it is installed; however, placement must consider downstream impacts, understanding that the armoring may push the erosive stresses downstream. Hard armoring typically requires little maintenance; however, if the armoring fails, maintenance or replacement can be expensive, particularly if the armoring materials need to be removed from the site.

Bioengineering techniques maintain more of a stream's natural function and provide better habitat and a more natural appearance than hard armoring. With bioengineering, if vegetation is well-established, this approach can also be self-maintaining. Due to the biodegradation of construction materials and variable vegetation establishment success, it is typically assumed that bioengineering installations have a shorter life span and may need more frequent (if less expensive) maintenance, particularly as the vegetation is becoming established. Compared to hard armoring, the success of bioengineering techniques is more dependent on the skill of the designer and installer and the unique site and stream characteristics—sometimes making bioengineering construction more expensive. In some instances, bioengineering is not appropriate due to anticipated high velocities, proximity to infrastructure, and/or site conditions that are not conducive to vegetation establishment.

Technical stakeholders for this feasibility study, including the USACE, expressed a preference for bioengineering over hard armoring for stream stabilization where possible. In addition, the current BCWMC Watershed Management Plan (see Section 4.2.5 of Reference (1) states: "recognizing their benefits to biodiversity and more natural appearance, the BCWMC will strive to implement stream and streambank restoration and stabilization projects that use soft armoring techniques (e.g., plants, logs, vegetative mats) as much as possible and wherever feasible." The BCWMC also recognizes that in some cases, soft armoring techniques can require significant tree removal, which can have negative consequences, depending on the type and condition of trees in the project area. Therefore, the BCWMC seeks to balance soft armoring with preserving desirable tree species**.**

5.1.2 Stream Stabilization Techniques Evaluated

We evaluated several techniques for stabilizing the streams within the project area. J-hook vanes or boulder cross vanes could be used to stabilize the channel bed and introduce flow variability and an improved riffle/pool sequence. The use of grading, root wads, toe wood, fascines, coir logs, and the establishment of vegetation on eroding banks will stabilize these areas from further sediment loss and improve habitat within the pools that have become overly shallow. The deeper pools will improve habitat, especially during winter months. Vegetation establishment in the stream banks will include enhanced buffers with native vegetation that have deeper roots to reduce erosion and improve riparian habitat. Table 5-1 summarizes the stream stabilization techniques evaluated for this feasibility study. Additional stabilization techniques may be reviewed and implemented as part of the design phase.

Table 5-1 Potential Stream Stabilization Measures

Design Element	Purpose	Ecological Benefit
J-hook Vanes 	Logs and/or boulders installed in the stream bed to route flows away from outer banks and toward the center of the channel	Scour pools develop downstream of the low end of the vane near the center of the channel, while sediment and debris build up near the high end of the vane, protecting the bank and providing habitat diversity for aquatic species.
Cross Vanes 	Boulders buried in the stream bed and extending entirely across the stream ("cross vanes") to achieve one or more of the following goals: re-direct flows away from banks, encourage sediment deposition in selected areas, and control stream bed elevations	Scour pools develop over time downstream of the center of the vane, which provide habitat diversity for species that prefer pools to faster flowing in-channel habitat.

Design Element	Purpose	Ecological Benefit
Root Wads 	Tree trunks with the root ball attached, installed either singly (root wads) or in conjunction with additional large woody debris and/or riprap to increase bank roughness and resistance to erosion, re-direct flows away from banks, and provide a bench for the establishment of riparian vegetation	Creates undercut/overhanging bank habitat features
VRSS/Toe Wood Bank Stabilization 	Soil lifts created with a combination of root wads and long-lasting, biodegradable fabric and vegetated to stabilize steep slopes and encourage the establishment of root systems for further stabilization	Creates undercut/overhanging bank habitat features and vegetated floodplain bench/riparian habitat
Riprap Toe with Bank Grading and Vegetation Establishment 	Riprap placed along the toe of the streambank prevents undermining of the bank. Vegetating the bank provides surface protection while establishing root systems, and grading to a flatter slope makes the streambank less susceptible to erosion.	Vegetation placed above the riprap enhances riparian habitat and provides shading of the creek.
Vegetated Riprap 	Vegetated riprap incorporates habitat enhancement with hard armoring to stabilize steep slopes.	Creates vegetated riparian habitat and enhances biological connectivity between the channel and riparian area.

Design Element	Purpose	Ecological Benefit
Fascines and Coir Logs 	Fascines and coir logs can be placed along the toe of a stream bank in low-velocity areas to help establish vegetation and associated rooting systems to stabilize the stream bank.	Creates vegetated riparian habitat and adds roughness to dissipate energy at the toe of the slope.
Vegetated Buffer 	Established along a stream bank or overbank area to stabilize bare soils and increase resistance to fluvial erosion	Using trees, shrubs, and a seed mix of grass and forbs provides a diverse array of vegetation strata and habitat types. Allows for more naturalized aesthetics, with emphasis on native species.

5.2 Concepts Evaluated

Three design alternatives were presented at a public open house on March 1, 2023 (Table 5-2).

Table 5-2 Open House Concept Alternatives Summary

Alternative	Description
Alternative 1—In-Stream Structures	Stream stabilization using primarily in-channel structures with minimal grading, riprap, and vegetation establishment. Alternative 1 prioritizes minimal land disturbance and tree removal.
Alternative 2—Toe Stabilization with Bioengineering Methods	Stream stabilization using bioengineering techniques with minimal in-stream structures and riprap; it also includes moderate grading and vegetation establishment. Alternative 2 differs from Alternative 1 with additional overbank grading and few in-stream structures.
Alternative 3—Bank Grading with Riprap and Vegetation Establishment	Stream stabilization using bank grading, riprap, and vegetation establishment with minimal in-stream structures and bioengineering. Alternative 3 differs from Alternative 2 and 1 with more land disturbance, fewer in-stream structures, less bioengineering, and more hard armoring.

Further details of each alternative and other materials used at the public open house are presented in Appendix C.

Utilizing feedback obtained from residents during the open house, the Commission Engineer developed a recommended restoration concept that incorporates elements of all three alternatives. Recommended restoration measures along the reach include in-stream structures, toe stabilization, bioengineering methods, bank grading, riprap, and vegetation establishment.

The recommended restoration concept includes 79 unique stabilization locations to address varying erosion concerns, including bank sloughing, toe erosion, streambank undercutting, tributary erosion, and scour associated with existing infrastructure. Each individual proposed stream repair reach varies from 50 to 300 feet in length. The individual proposed repair segments were grouped together into 40 restoration areas shown in Figure 5-1 through Figure 5-4. Restoration areas are made of multiple individual stream stabilization locations that are grouped together based on proximity and methods of stabilization. To better organize the various stream restoration areas, they are labeled based on one of four broader reaches:

- Reach 1 is from Regent Avenue North to Noble Avenue
- Reach 2 is from Noble Avenue to the intersection of Bassett Creek Drive and Legend Drive
- Reach 3 is from the intersection of Bassett Creek Drive and Legend Drive to stream station 56+00 (southeast of the intersection of Dresden Lane and Bassett Creek Drive)
- Reach 4 is from stream station 56+00 to Golden Valley Road. The recommended restoration concept would result in approximately 7,370 linear feet of bank stabilization, which includes approximately 3,395 feet of stabilization on the left bank (looking downstream) and 3,975 feet of stabilization on the right bank (looking downstream).

Quail Ave N
Perry Ave N
Bassett Creek Dr
Bassett Creek La
Regent Ave N
Minnaqua Dr
Markay Rdg
Windsor Way
Orchard Ave N
Spruce Tr
Bassett Valley Open Space

0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00

1a. Right bank and left bank stabilization with j hooks (Sta. 0+00 to 2+50)

1b. Right bank stabilization with vegetated riprap toe and j hooks (Sta. 2+40 to 5-20)

1c. Right bank stabilization with toe wood, j hooks and fascines (Sta. 5+20 to 9+25)

1d. Right and left bank stabilization with toe wood and j hooks (Sta. 7+75 to 10+20)

1e. Left bank stabilization with grading, vegetation, and section of toe wood (Sta. 12+20 to 14+00)

1f. Right bank stabilization with grading, vegetation, and j hooks (Sta. 12+30 to 14+90)

2a. Bank stabilizatio and cross vane (Sta

2b. Right a grading an (Sta. 18+20

Imagery: NearMap May 2022

- Project Stationing
- Bassett Creek
- Legacy Trees
- Significant Trees
- Existing Bank Stabilization
- Private Parcel
- Public Parcel
- Easement

Utilities
- Gravity Storm Sewer
- Sanitary Main

Proposed Restoration
- Cross Vane
- Fascines
- J Hooks
- Toe Wood
- Proposed Construction Access
- Rip Rap
- Root Wad and RipRap Combination
- Bank & Channel Grading and Erosion Control Blanket

Priority Level
- Low
- Medium
- High

Note:
Number in priority site restoration area callouts refer to the Bassett Creek subreach.

N

0 100
Feet

PROPOSED STREAM RESTORATION SITE AREAS
Main Stem
Restoration Feasibility Study
BCWMC

FIGURE 5-1

16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
29+00
30+00
31+00
34+00
35+00
36+00
33+00
32+00
39+00
38+00
37+00
45+00
44+00
43+00
42+00
41+00
40+00

2a. Bank stabilization with riprap and cross vane (Sta 16+50 to 16+80)

2b. Right and left bank stabilization with grading and vegetated riprap toe protection (Sta. 18+20 to 19+00)

2c. Left bank stabilization with riprap toe and right bank grading to keep cross sectional area (Sta. 19+00 to 20+50)

2d. Right and left bank stabilization with j hooks (Sta. 20+50 to 21+80)

2e. Left bank stabilization with grading and vegetation (Sta. 21+80 to 22+50)

2f. Right and left bank stabilization with j hooks and section of toe wood (Sta. 22+75 to 27+75)

2g. Bank stabilization with cross vane (Sta. 27+70)

2h. Right bank stabilization with grading, vegetation, and floodplain bench (Sta. 28+00 to 29+50)

2i. Right and left bank stabilization with j hooks (Sta. 29+70 to 30+90)

2j. Bank stabilization with cross vane (Sta. 31+00)

2k. Right bank stabilization with grading, vegetation, riprap toe protection, and j hooks (Sta. 31+00 to 33+10)

2l. Left bank stabilization with j hooks, grading, vegetation, and riprap (Sta. 33+30 to 35+10)

2m. Right and left bank stabilization with j hooks, grading, vegetation, and section of toe wood (Sta. 35+50 to 37+50)

2n. Right and left bank stabilization with j hooks and cross vane (Sta 37+50 to 39+60)

3a. Bank stabilizatio
cross vane (Sta. 41+

3b. Left bank
grading, vege
of root wads (

Kyle Ave N
Lee Ave N
Bassett Creek Dr
Noble Ave N
Spruce Tr
Legend Dr
Legend La

Project Stationing
Bassett Creek
Legacy Trees
Significant Trees
Existing Bank Stabilization
Private Parcel
Public Parcel
Easement

Utilities
Gravity Storm Sewer
Sanitary Main

Proposed Restoration
Cross Vane
Fascines
J Hooks
Toe Wood
Proposed Construction Access
Rip Rap
Root Wad and RipRap Combination
Bank & Channel Grading and Erosion Control Blanket

Priority Level
Low
Medium
High

Note:
Number in priority site restoration area callouts refer to the Bassett Creek subreach.

N
0
100
Feet

Bassett Creek Watershed Management Commission

PROPOSED STREAM RESTORATION SITE AREAS
Main Stem
Restoration Feasibility Study
BCWMC

FIGURE 5-2

BARR

Imagery: NearMap May 2022

3d. Left bank stabilization with grading and vegetation (Sta. 47+20 to 48+20)

3c. Right and left bank stabilization with j hooks and cross vanes (Sta. 45+20 to 47+00)

3g. Left bank stabilization with grading, vegetation, j hooks, and section of toe wood (Sta. 48+50 to 51+00)

3h. Left bank stabilization with grading, vegetation, and tree preservation (Sta. 51+00 to 52+50)

3j. Left bank stabilization with toe wood and floodplain bench (Sta. 54+20 to 55+20)

3e. Right bank stabilization cross vane, grading, and riprap (Sta. 47+70 to 49+20)

3b. Left bank stabilization with grading, vegetation, and section of root wads (Sta. 42+20 to 44+50)

3f. Right bank stabilization with grading, vegetation, rock toe, and bankfull bench (Sta. 48+50 to 52+00)

3a. Bank stabilization with cross vane (Sta. 41+40)

3i. Right and left bank stabilization with j hooks, cross vanes, and section of root wads (Sta 52+10 to 54+15)

4a. Right and left bank stabilization with j hooks (Sta. 56+00 to 59+50)

4b. Right and left bank stabilization with grading, vegetation, and riprap floodplain bench with toewood on right bank (Sta. 59+60 to 61+00)

39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00

Sochacki Park (Rice Lake Nature Area)

Sochacki Park (Mary Hills Nature Area)

Dresden La

Kewanee Way

Bassett Creek Dr

Legend Dr

Indiana Ave N

Wasatch La

Imagery: NearMap May 2022

- Project Stationing
- Bassett Creek
- Legacy Trees
- Significant Trees
- Existing Bank Stabilization
- Private Parcel
- Public Parcel
- Easement

Utilities
- Gravity Storm Sewer
- Sanitary Main

Proposed Restoration
- Cross Vane
- Fascines
- J Hooks
- Toe Wood
- Proposed Construction Access
- Rip Rap
- Root Wad and RipRap Combination
- Bank & Channel Grading and Erosion Control Blanket

Priority Level
- Low
- Medium
- High

Note:
Number in priority site restoration area callouts refer to the Bassett Creek subreach.

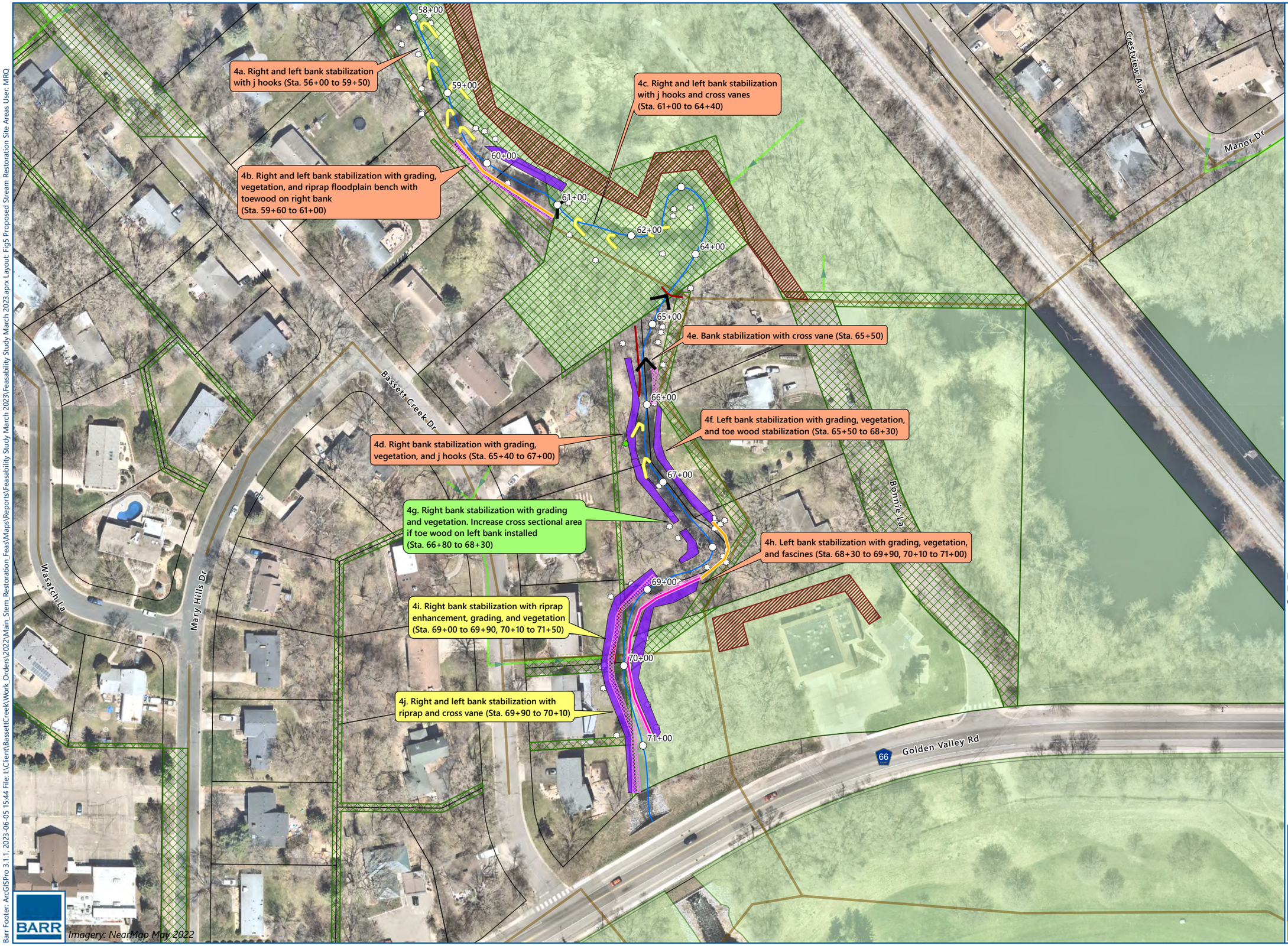
N

0 100
Feet

Bassett Creek Watershed Management Commission

PROPOSED STREAM RESTORATION SITE AREAS
Main Stem
Restoration Feasibility Study
BCWMC

FIGURE 5-3



Due to the extensive length of recommended stabilization measures, the Commission Engineer assigned a numeric score for the various restoration locations based on the prioritization metrics noted below. The metrics are a combination of elements provided by Golden Valley staff and further developed by the Commission Engineer. Table 5-3 summarizes the scoring system used for this feasibility analysis.

Table 5-3 Scoring Methodology for Stream Restoration Areas

Golden Valley Prioritization Metric	Weight for Scoring
Severity of existing erosion	Varied based on Bank Erosion Hazard Index (BEHI) score. Moderate=1, High=2, Very high= 3
Public ownership	4 points if construction occurs on public land
Public easement	2 points if construction occurs on public easement
Protection of existing structures/infrastructure (within 25 feet of streambank)	15 points if protecting sanitary sewer structures and 5 points if protecting other infrastructure or structures (storm sewer and other utilities, streets, trails, bridges, driveways)
Impact on surrounding areas	1 point if the site requires minimal to no channel or bank grading
Potential for future erosion	Varied, based on summing BEHI and NBS values as described below. Moderate BEHI=1, High BEHI=2, Very high BEHI= 3, Very low NBS=1, Low NBS=2, Moderate NBS=3, High NBS= 4, Very high NBS=5
Opportunity for habitat creation or restoration	1 point if upland or stream habitat creation, based on stream restoration technique
Maintaining healthy trees, native significant trees	1 point if protecting significant trees
Vegetation establishment	1 point if vegetation establishment is part of stream restoration
Ease of construction access	2 points if construction access is primarily through public property and 1 point if accessed via public easements. Points apply only if construction access is feasible based on site conditions (i.e. no overly steep slopes, extensive tree removal, etc.).
Consider proximity/possibility for other improvements	1 point if near flood control project inspection areas

Specific details related to the exact locations of restoration and prioritization rankings are presented in Appendix D. Using the scoring criteria described above, each restoration area was given a ranking value of low, medium, or high based on the average score of the individual stream reaches within each restoration area. The rankings were typically determined as follows:

- Low: Average score below 10.4
- Medium: Average score between 10.5 and 13.9
- High: Average score of 14 and above

After determining the scores and rankings, the Commission Engineer used engineering judgment and City staff input to manually adjust rankings. As a result of scoring and prioritization, the recommended restoration concept includes 22 high, 11 medium, and 7 low-priority restoration areas. If funding is available, the Commission Engineer recommends restoring all identified erosion areas. However, if costs for completing all of the restoration areas are prohibitive, the Commission Engineer recommends restoring areas based on their priority ranking. While the Commission Engineer developed a numeric ranking score for this report, City staff and the Commission Engineer may substitute lower ranked sites for higher ranked sites during the design, bidding, and/or construction phases based on changed site conditions, site access/permissions, project bids, and/or other appropriate decision-making criteria and site conditions/constraints.

Estimated construction costs are presented in Section 7.1. Table 5-4 summarizes the restoration areas and proposed stabilization measures, the priority rankings for each restoration area, and the photo numbers for each restoration area (photos are in Appendix A).

Table 5-4 Proposed Restoration Areas (areas shown in Figure 5-1 through Figure 5-4)

Restoration Areas and Proposed Stabilization Measures	Priority	Photo numbers[1]
1a. Right bank and left bank stabilization with j hooks (Sta. 0+00 to 2+50)	Low	1, 2
1b. Right bank stabilization with grading, vegetated riprap toe, and j hooks (Sta. 2+40 to 5+20) [3]	Medium	3
1c. Right bank stabilization with toe wood, j hooks, and fascines (Sta. 5+20 to 9+25)	High	4
1d. Right and left bank stabilization with toe wood and j hooks (Sta. 7+75 to 10+20)	High	5, 6
1e. Left bank stabilization with grading, vegetation, and section of toe wood (Sta. 12+20 to 14+00)	High	7, 8
1f. Right bank stabilization with grading, vegetation, and j hooks (Sta. 12+30 to 14+90)	High	9
2a. Bank stabilization with riprap and cross vane (16-50 to 16+80)	Low	10
2b. Right and left bank stabilization with grading and vegetated riprap toe protection (Sta. 18+20 to 19+00)	Medium	11
2c. Left bank stabilization with riprap toe and right bank grading to keep cross-sectional area (Sta. 19+00 to 20+50)	High	12, 13
2d. Right and left bank stabilization with j hooks (Sta. 20+50 to 21+80)	Medium	14, 15
2e. Left bank stabilization with grading and vegetation (Sta. 21+80 to 22+50)	High	16
2f. Right and left bank stabilization with j hooks and section of toe wood (Sta. 22+75 to 27+75)	Low	17, 18
2g. Bank stabilization with cross vane (Sta. 27+70)	High	19

Restoration Areas and Proposed Stabilization Measures	Priority	Photo numbers[1]
2h. Right bank stabilization with grading, vegetation, and floodplain bench (Sta. 28+00 to 29+50)	Low	20
2i. Right and left bank stabilization with j hooks (Sta. 29+70 to 30+90)	High	21, 22
2j. Bank stabilization with cross vane (Sta. 31+00)	High	23
2k. Right bank stabilization with grading, vegetation, riprap toe protection, and j hooks (Sta. 31+00 to 33+10)	Medium	24
2l. Left bank stabilization with j hooks, grading, vegetation, and riprap (Sta. 33+30 to 35+10)	High	25
2m. Right and left bank stabilization with j hooks, grading, vegetation, and section of toe wood (Sta. 35+50 to 37+50)	Medium	26, 27
2n. Right and left bank stabilization with j hooks and cross vane (Sta 37+50 to 39+60) [3]	Low	28, 29
3a. Bank stabilization with cross vane (Sta. 41+40)	High	
3b. Left bank stabilization with grading, vegetation, and section of root wads (Sta. 42+20 to 44+50)	High	30
3c. Right and left bank stabilization with j hooks and cross vanes (Sta. 45+20 to 47+00)	High	31
3d. Left bank stabilization with grading and vegetation (Sta. 47+20 to 48+20) [3]	High	32
3e. Bank stabilization with cross vanes (Sta. 47+70 to 48+70) [3]	Medium	33
3f. Right bank stabilization with grading, vegetation, rock toe, and bankfull bench (Sta. 48+50 to 52+00)	Medium	34
3g. Left bank stabilization with grading, vegetation, j hooks, and section of toe wood (Sta. 48+50 to 51+00)	Medium	35
3h. Left bank stabilization with grading, vegetation, and tree preservation (Sta. 51+00 to 52+50) [3]	Low	36
3i. Right and left bank stabilization with j hooks, cross vanes, and section of root wads (Sta 52+10 to 54+15)	High	37, 38, 39
3j. Left bank stabilization with toe wood and floodplain bench (Sta. 54+20 to 55+20)	High	40
4a. Right and left bank stabilization with j hooks (Sta. 56+00 to 59+50) [3]	High	41
4b. Right and left bank stabilization with grading, vegetation, and riprap floodplain bench (Sta. 59+60 to 61+00)	High	42
4c. Right and left bank stabilization with j hooks and cross vanes (Sta. 61+00 to 64+40)	High	43
4d. Right bank stabilization with grading, vegetation, and j hooks (Sta. 65+40 to 67+00)	High	44

Restoration Areas and Proposed Stabilization Measures	Priority	Photo numbers[1]
4e. Bank stabilization with cross vane (Sta. 65+50)	High	45
4f. Left bank stabilization with grading, vegetation, and toe wood stabilization (Sta. 65+50 to 68+30)	High	46, 47
4g. Right bank stabilization with grading and vegetation. Increase cross-sectional area if toe wood on left bank installed (Sta. 66+80 to 68+30)	Low	48
4h. Left bank stabilization with grading, vegetation, and fascines (Sta. 68+30 to 69+90, 70+10 to 71+00)	High	49, 50
4i. Right bank stabilization with riprap enhancement, grading, and vegetation (Sta. 69+00 to 69+90, 70+10 to 71+50) [3]	Medium	51
4j. Right and left bank stabilization with riprap and cross vane (Sta. 69+90 to 70+10) [3]	Medium	

1. Photos are located in Appendix A
2. Right and left bank refer to looking downstream
3. Proposed restoration on property that is partially publicly owned but grouped together for ecological reasons.

Using the summary above, three options were developed. The first option is completing stream restoration solely in areas that ranked high, the second option is completing stream restoration in high and medium-ranked areas, and the third option is completing stream restoration in all 40 ranked areas.

6.1.2 Anticipated Pollutant Removals

The Commission Engineer estimated the pollutant (total phosphorus (TP) and total suspended solids (TSS)) removals that would result from the proposed Bassett Creek Main Stem Restoration Project using approaches developed by Rosgen et al. (3) and Minnesota Board of Water and Soil Resources (BWSR) (9).

The proposed stabilization measures will result in reduced stream bank erosion and, therefore, reduced sediment and phosphorus loading to the Main Stem of Bassett Creek and all downstream water bodies, including the Mississippi River and Lake Pepin. The existing stream bank erosion rate (in units of feet per year) for each stabilization location was estimated based on a field assessment method known as the Bank Assessment for Non-Point Source Consequences of Sediment (BANCS) model (3).

The BANCS model uses two erosion-estimation tools to develop risk ratings: BEHI and NBS. The BEHI rating evaluates the susceptibility of a segment of stream bank to erosion as a result of multiple processes: surface erosion, fluvial entrainment (movement of material that becomes suspended in the channel during high flows), and mass erosion (wasting). The NBS rating characterizes the energy distribution against a segment of stream bank; disproportionate energy distribution in the near-bank region can accelerate bank erosion. The BEHI and NBS estimation tools are applied in a field assessment for each segment of stream bank potentially contributing sediment to the stream channel. The Commission Engineer performed BEHI assessments for multiple segments of the Main Stem project area during site visits in October 2022 and completed NBS ratings using aerial imagery from Google Earth dated 2022.

The field-determined BEHI and NBS ratings for the Main Stem project area are shown in Figure 2-1 and in tabular form in Appendix E. Approximately 42% of the eroding right banks (looking downstream) are in the moderate BEHI category, 56% are in the high BEHI category, and 1% are in the very high BEHI category. Approximately 46% of the left eroding banks (looking downstream) are in the moderate BEHI category, and 54% are in the high BEHI category. The majority of the right and left banks are either a very low or low NBS category, with four reaches rated higher than a low NBS category.

To convert BEHI and NBS ratings into a stream bank erosion rate estimate, the BANCS model relies on measured bank erosion data to develop relationships applicable to various hydrologic and geologic conditions. No such relationship is currently available for Minnesota; this feasibility study uses relationships developed from data collected in sedimentary and metamorphic geologic regions in North Carolina (Figure 5-34 of (3)). Appendix E shows the estimated bank erosion rate for each stabilization location; estimated erosion rates range from 0.008 to 0. 7 feet per year.

The estimated total sediment load from bank erosion is calculated using the approximate dimensions of the eroding stream banks at each restoration area. The effects of stabilization options on water quality are estimated based on the assumption that each stabilization measure successfully addresses erosion at the site and brings erosion to a low rate, representative of a stable stream in this geologic setting. For this analysis, we assumed a stable low erosion rate means there would be no change in NBS, and the BEHI erosion would be improved to half of the erosion rate of a moderate BEHI score. Appendix E shows the resulting estimated sediment load reduction for all proposed restoration areas. We calculated the

corresponding reduction of TSS and TP loads using an estimation tool developed by BWSR (9). The BWSR tool assumes that all eroded sediment becomes TSS, which is conservative because eroded sand and gravel are typically not suspended but transported as bedload. The BWSR tool also assumes that the TP load is equivalent to 1.0 pound of TP per ton of eroded sediment.

The total reduction in pollutant loading resulting from stabilization depends on the total linear feet of channel selected for stabilization. Table 6-2 summarizes the pollutant loading reductions based on the approximate length of restoration.

Table 6-2 Pollutant Reduction by Proposed Option

Restoration Length, by Option	Total Suspended Solids Reduction (lb/yr)	Total Phosphorus Reduction (lb/yr)
Option 1: 4,340 linear feet[1] – High priority areas only	109,618	54.4
Option 2: 5,425 linear feet[1] – High and medium priority areas	136,695	67.0
Option 3: 7,370 linear feet[1] – High, medium, and low priority areas	164,820	82.4

1. Linear feet = sum of right and left banks that are restored

6.2 Easement Acquisition

In general, most of the project reach is adjacent to easements or City of Golden Valley property that can be used for construction access. However, there is limited public access available between Noble Avenue and Bassett Creek Drive (Reach 2). Therefore, coordination with residents will be required for construction access and it will be especially important to acquire temporary construction easements in this reach. The proposed construction will occur on public property, private property, and easements as summarized in Table 6-3.

Table 6-3 Restoration Lengths on Property Types

Options	Length of Publicly Owned Restoration	Length of Privately Owned Restoration with Public Easements	Length of Privately Owned Restoration without Easements
Option 1: 4,340 linear feet[1] – High priority areas only	2,168	380	1,792
Option 2: 5,425 linear feet[1] – High and medium priority areas	2,431	687	2,307
Option 3: 7,370 linear feet[1] – High, medium, and low priority areas	3,150	1,220	3,000

6.3 Permits Required for Project

The proposed project is expected to require the following permits/approvals, regardless of the selected concept:

- Clean Water Act Section 404 and Section 401 Water Quality Certification

- Construction Stormwater General Permit from the MPCA
- Compliance with the Minnesota Wetland Conservation Act
- Environmental Assessment Worksheet (potentially required, see paragraph 6.3.4 for more detail)
- Public Waters Work Permit from the MnDNR
- Stormwater Management Permit from the City of Golden Valley
- Right-of-Way Management Permit from the City of Golden Valley

6.3.1 Section 404 Permit

The USACE regulates the placement of fill into wetlands if they are hydrologically connected to a Water of the United States in accordance with Section 404 of the Clean Water Act (CWA). In addition, the USACE may regulate all proposed wetland alterations if any wetland fill is proposed. The MPCA may be involved in wetland mitigation requirements as part of the CWA Section 401 water quality certification process for the 404 Permit.

The BCWMC developed its Resource Management Plan (RMP) with the goal of completing a conceptual-level USACE permitting process for proposed projects. The RMP was submitted to the USACE in April 2009 and revised in July 2009. This feasibility study follows the protocols for projects within the BCWMC RMP.

The USACE 404 permit requires a Section 106 review for historic and cultural resources. The results of the archeological reconnaissance study are included in Section 3.0. If the State Historic Preservation Office (SHPO) requests more detailed information, a Phase I Archaeological Survey may need to be completed. A Phase I Archaeological Survey can be completed in 45 days or less during a frost-free period. The USACE staff anticipates that the 404 permit review and approval process could require 120 days to complete. These projects may fit under the USACE Nationwide Permit 13 for bank stabilization or Nationwide Permit 27 for restoration, or a Regional General Permit. Verification of the USACE Nationwide Permit requirements and comparison to the proposed project features/impacts will be necessary during the project design phase to determine which permit is most applicable. Coordination with the USACE will help to confirm specific requirements related to the project.

6.3.2 Minnesota Pollution Control Agency (MPCA) Permits

Construction of the proposed project will require a National Pollutant Discharge Elimination System/State Disposal System Construction Stormwater (CSW) General Permit issued by the MPCA. The CSW permit will require the preparation of a SWPPP that explains how stormwater will be controlled within the project area during construction.

Based on the findings of the desktop review of the MPCA's "What's In My Neighborhood?" database (see Section 3.6), it is not anticipated that environmental impacts such as contaminated soil and debris will be encountered during stream restoration activities; therefore, it is not anticipated that the project will require minimization measures for disposing of contaminated soil. In the unlikely event that environmental impacts are encountered during the creek restoration earthwork, contaminated materials will need to be handled and managed appropriately. The response to the discovery of contamination typically includes entering the MPCA's voluntary program. A construction contingency plan could be

prepared for the project in accordance with MPCA guidance. This would include specifying Initial procedures for handling potentially impacted materials, collecting analytical samples, and working with the MPCA to determine a method for managing impacted materials.

6.3.3 Minnesota Wetland Conservation Act

The Minnesota Wetland Conservation Act (WCA) regulates the filling and draining of wetlands and excavation within Type 3, 4, and 5 wetlands—and may regulate any other wetland type if fill is proposed. The WCA is administered by local government units (LGUs), which include cities, counties, watershed management organizations, soil and water conservation districts, and townships. The City of Golden Valley is the LGU for the entire project area. The Minnesota Board of Water and Soil Resources (BWSR) oversees administration of the WCA statewide.

As described in Minnesota rules 8420, the WCA is applicable to the types of wetland impacts that could be a part of this project, and a permit related to wetland impacts may be required; however, the LGU will have the final determination.

6.3.4 Environmental Assessment Worksheet

The Minnesota Environmental Policy Act of 1973 (MEPA) established the Environmental Quality Board (EQB), which oversees the formal environmental review process for the state of Minnesota. An Environmental Assessment Worksheet (EAW) is a screening tool used to determine whether a full environmental impact statement is needed. Minnesota Rules 4410.4300 (Mandatory EAW Categories) identifies triggers that would require a project proposer to prepare an EAW. Minnesota Rules 4410.4300 Subp. 27A requires an EAW for projects that will change or diminish the course, current, or cross-section of one acre or more of any public water or public waters wetland. For this mandatory EAW category, the responsible government unit (RGU) would be the MnDNR or the LGU for the project. Since the project is primarily a stream restoration project, the MnDNR may be able to waive the requirement for an EAW. Further coordination with the MnDNR would be needed to determine if an EAW would be required before issuing a Public Waters Work Permit.

6.3.5 Public Waters Work Permit

The MnDNR regulates projects constructed below the ordinary high water level of public waters, watercourses, or wetlands, which alter the course, current, or cross-section of the water body. Public waters regulated by the MnDNR are identified on published PWI maps. Bassett Creek is a public watercourse, so the proposed work may require an MnDNR public waters work permit.

6.3.6 City of Golden Valley Permits

The City of Golden Valley requires Stormwater Management Permits for land-disturbing activities that remove soils or vegetation, including but not limited to clearing, digging, dredging, draining, or filling. This permit is also required for projects within floodplains or adjacent to water bodies. The City of Golden Valley will require a Stormwater Management Permit for the proposed project.

In addition, the City of Golden Valley requires a Right-of-Way (ROW) permit for excavations and obstructions within the public right-of-way, streets, easements, and parks. The City of Golden Valley requires a ROW permit for the proposed project.

6.4 Other Project Impacts

6.4.1 Tree Loss

The estimated tree removals resulting from the implementation of the proposed project depend on the proposed restoration length (i.e., which design option is selected). Appendix F includes a summary of the estimated healthy tree removal by species. Tree removal estimates for each estimate are:

- Option 1: 47 trees
- Option 2: 73 trees
- Option 3: 88 trees

The number of trees removed could be reduced by protecting trees during construction.

6.4.2 Water Quality Impacts

The proposed stabilization measures will result in a reduction of the sediment and phosphorus loading to Bassett Creek and all downstream water bodies, including the Mississippi River and Lake Pepin. We estimated total suspended sediment and total phosphorus loadings prior to and after stabilization using BEHI and NBS ratings from the field, described in further detail in Section 6.1.2.

6.4.3 Utility Considerations

An important consideration for implementing this stream restoration project is the stream's proximity to infrastructure, such as sanitary and storm sewer lines. Throughout the 7,000-foot reach, sanitary lines are present, crossing the creek channel and running along creek banks. If the sanitary line were to break, there is the potential for a release of sewage into the creek, which would drastically decrease the creek's water quality. Similarly, protecting existing storm sewer infrastructure reduces the potential for erosion from stormwater conveyance and helps maintain the integrity of the creek.

7 Project Cost Considerations

7.1 Opinion of Cost

The cost estimate is a Class 4 feasibility-level cost estimate as defined by the American Association of Cost Engineers International (AACE International) and uses the assumptions listed below and detailed in the following sections.

- The cost estimate assumes a 20% construction contingency.
- Costs associated with design, permitting, and construction observation (collectively "engineering") are assumed to be 30% of the estimated construction costs (excluding contingency).
- Construction easements may be necessary to construct the project; however, the costs were not estimated as part of this study
- Additional work may be required to determine if cultural and/or historical resources are present at any project site.

The Class 4 level cost estimates have an acceptable range of between -15% to -30% on the low range and +20% to +50% on the high range (10). Based on the development of concepts and initial vetting of the concepts by the City of Golden Valley, BCWMC, and MnDNR, it is not necessary to utilize the full range of the acceptable range for the cost estimate. We assume the final costs of construction may range between -15% and +30% of the estimated construction budget. The assumed contingency for the project (20%) incorporates the potential high end of the cost estimate range.

Table 7-1 summarizes the feasibility-level total construction cost estimates, the 30-year annualized total construction cost estimates, and the annualized costs per pound of TSS and TP removed for the Main Stem Restoration Project. Table 7-1 presents the cost for each of the prioritized preferred options described in Section 5.2. Appendix G provides detailed cost-estimate tables for all options.

Table 7-1 Bassett Creek Main Stem Stream Restoration Project Options Cost Summary

Option Description	Project Cost Estimate[1,4]	Annualized Cost[2]	TP Loading		TSS Loading	
			Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]	Load Reduction (lb/yr)	Cost/lb/yr Reduced[3]
Option 1. High-ranked restoration areas	$1,124,000 ($956,000–$1,462,000)	$72,000	54.4	$1,323	109,618	$0.66
Option 2. High- and medium-ranked restoration areas	$1,727,000 ($1,468,000–$2,246,000)	$110,000	67.0	$1,642	136,695	$0.80
Option 3. All proposed restoration areas	$2,118,000 ($1,801,000–$2,754,000)	$136,000	82.4	$1,650	163,820	$0.83

(1) A Class 4 screening-level opinion of probable cost, as defined by the American Association of Cost Engineers International (AACE International), has been prepared for these options. The opinion of probable construction cost provided in this table is based on the Commission Engineer's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. The cost opinion is based on project-related information available to the Commission Engineer at this time and includes a conceptual-level design of the project. It includes 20% project contingency and 30% for planning, engineering, design, and construction administration. The lower bound is assumed at -15%, and the upper bound is assumed at +30%.

(2) Assumed to be 15% of the total project cost for annual maintenance, plus replacement cost associated with major repairs and the initial project cost distributed evenly over a 30-year project lifespan.

(3) Annualized cost divided by estimated annual pollution load reduction.

(4) Costs do not include easements or construction access routes

7.2 Funding Sources

The BCWMC will utilize the BCWMC CIP funds to implement these projects. The source of these funds is an ad valorem tax levied by Hennepin County over the entire Bassett Creek watershed on behalf of the BCWMC. The current CIP earmarks $800,000 for this project over 2024 and 2025. In addition to BCWMC CIP funds, Golden Valley plans to contribute channel maintenance funds ($200,000) and capital improvement funds ($100,000) toward project implementation.

7.3 Project Schedule

The BCWMC will hold a public hearing in September 2023 on this project. Pending the outcome of the hearing, the BCWMC will consider officially ordering the project, entering into an agreement with the City of Golden Valley to design and construct the project, and certifying to Hennepin County a final 2024 tax levy for this project.

The construction work would likely begin in winter 2024/2025, as tree removal should occur in the period from October 15 to early April, outside of the northern long-eared bat's active season (mid-April –

October 14). Additionally, excavation during the winter would be appropriate to complete the major earthwork during periods with less frequent runoff events. Final construction and restoration will be completed in the spring/summer of 2025.

For project construction to occur in the winter of 2024/2025, project design should begin in the winter of 2023/2024 or spring of 2024. If project construction is scheduled for winter 2024/2025, summer 2024 bidding is recommended. This will give contractors adequate scheduling time to complete the project at a reasonable price. In the intervening time, the City would gather public input, prepare the final design, and obtain permits.

8 Recommended Option

The Commission Engineer and City staff recommend implementing option 1 with the level of funding that is currently available and option 2 or 3 – completing restoration in all high, medium, and low priority areas if additional funding is obtained through the BCWMC CIP, City CIP or grants. All three options propose using a combination of stream stabilization methods discussed in Section 5.2. The three options for restoration are based on a low, medium, and high prioritization ranking of restoration areas. The highest priority areas are included in the first option, the medium and high are included in the second, and all of the areas are included in the third. Restoration areas were prioritized based on criteria provided by the City of Golden Valley and additional criteria from the Commission Engineer (see Section 5.2). All three options would effectively stabilize eroding banks, preserve the natural beauty of Bassett Creek, contribute to habitat improvements, reduce the chance of potential future erosion, and protect existing infrastructure. If funding is available, the Commission Engineer and City staff recommend implementing option 2 or 3 for several reasons, including: economies of scale (larger projects can result in lower unit costs), efficiencies related to working with a single contractor for all site work, practicality of limiting site disturbance to a single project timeline, simplified permitting for a single project rather than multiple projects, and addressing all erosion that has been identified in the reach at the same time.

Section 7.1 summarizes the costs of the three prioritized recommended concepts. Option 3 comes at a higher cost than other options. Therefore, if funding is not available and a lower-cost project is desired, we recommend implementing (at a minimum) option 1—completing high-priority areas—and completing medium- to low-ranked areas as budget allows. In general, the Commission Engineer and City staff recommend completing additional projects in order of prioritization (medium first, then low). However, in some cases low-ranked sites could be completed ahead of a medium-ranked site if they include partial public segments that allow for easier site access and greater public benefit than privately-owned sites.

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co. (Kallie Doeden, Parker Brown, and Karen Chandler, PE)
Subject: Item 5B: Additional Information for Ponderosa Woods Stream Restoration Project Feasibility Study
BCWMC June 15, 2023 Meeting Agenda
Date: June 8, 2023

1.0 Background

At the May Commission meeting, the Commission Engineer presented the draft feasibility study for the Ponderosa Woods Stream Restoration Project (BCWMC CIP 2024 ML 22). The project would stabilize stream banks to reduce erosion along the existing stream, improve and restore in-stream and riparian habitat, and improve water quality and reduce sediment and phosphorus entering Medicine Lake. Additional stormwater features would also trap sediment from road runoff, decreasing the amount of sediment flowing into the stream reach. Four Alternatives (1, 1.5, 2 and 3) were presented at the meeting. The Commission Engineer and the City of Plymouth recommended Alternative 1.5; Alternative 1 would be the next recommended alternative if the Commission prefers a lower cost alternative or prefers less buckthorn removal.

At the meeting, the commissioners requested the following additional information:

- Comparison of Alternatives 1, 1.5, 2 and 3
- Comparison of proposed project pollutant load reductions to the pollutant load reduction required in the Medicine Lake TMDL
- Supplemental details on buckthorn removal and revegetation water quality benefits
- Further description of existing permanent easements and potential additional easements required

2.0 Additional information

The following paragraphs provide responses to the commissioners' request for additional information.

2.1 Comparison of Alternatives 1, 1.5, 2 and 3

At their May meeting, the Commission requested the following additional information:

- Drainage and utility easement location
- Location of desktop delineated wetland area within the project extents; this area would be considered part of the stream riparian area
- Comparison of the different project extents for Alternatives 1, 1.5, 2 and 3
- Identification of private versus public land parcels

Figure 1 (attached) shows the additional information.

The table below summarizes the pros and cons for Alternative 1, 1.5, 2 and 3.

Table 1 - Comparison of Alternatives 1, 1.5, 2 and 3

Alternative	Project Pros	Project Cons
Alternative 1 – Small Footprint Design	• Lowest overall construction cost • Lowest cost per pound for pollutant removal • Smallest project area (minimal habitat and vegetation disturbance) • Least number of trees removed • Significant bioengineering elements • Least amount of post-construction vegetation management • No additional easements are needed	• Least amount of stream bank pollutant load reductions (quantitative) • Least amount of riparian and floodplain pollutant load reductions (qualitative) • Smallest project area (least amount of improvements to stream channel, floodplain and riparian area) • Least amount of buckthorn removed • Least amount of floodplain access improvements in the upstream stream reach
Alternative 1.5 - Small Footprint Design (with added buckthorn removal)	• Low project cost • Low cost per pound for pollutant removal • Least number of trees removed • Most amount of buckthorn removed • Most amount of riparian and floodplain pollutant load reductions (qualitative) • Significant bioengineering elements • Lower amount of post-construction vegetation management than Alternative 3 • No additional easements are needed	• Higher project costs than Alternative 1 • Least amount of stream bank pollutant load reductions (quantitative) • Largest project area (significant habitat and vegetation disturbance) • Least amount of floodplain access improvements in the upstream stream reach • Higher amount of post-construction vegetation management than Alternative 1
Alternative 2 – Medium Footprint Design	• Moderate project cost • Moderate number of trees removed • Most amount of buckthorn removed • Most amount of riparian and floodplain pollutant load reductions (qualitative) • Most amount of hard armoring elements to protect stream banks and homes from bank erosion • Most amount of floodplain access improvements in the upstream stream reach (added resiliency) • Lower amount of post-construction vegetation management than Alternative 3 • No additional easements are needed	• Higher project costs than Alternative 1 and Alternative 1.5 • Highest cost per pound for pollutant removal • Least amount of stream bank pollutant load reductions (quantitative) • Largest project area (significant habitat and vegetation disturbance) • Most amount of hard armoring (minimizes biological, ecological, and hydrological benefits of bioengineering elements) • Higher amount of post-construction vegetation management than Alternative 1

Alternative	Project Pros	Project Cons
Alternative 3 – Large Footprint Design	• Lower cost per pound for pollutant removal than Alternative 2 • Most amount of stream bank pollutant load reductions (quantitative) • Most amount of buckthorn removed • Highest riparian and floodplain pollutant load reductions (qualitative) • Most amount of floodplain access improvements in the upstream reach (added resiliency) • Significant bioengineering elements • No additional easements are needed	• Highest project cost • Higher cost per pound for pollutant removal than Alternatives 1 and 1.5 • Largest project area (largest habitat and vegetation disturbance) • Most number of trees removed, which leads to additional stabilization measures that need time to establish • Highest amount of post-construction vegetation management • Increased stream length and sinuosity due to stream re-meander (may increase amount of stagnant water leading to poorer water quality habitat) • Highest level of construction impact to nearby homeowners (significant public support will be necessary)

2.2 Comparison of proposed project load reductions compared to the Medicine Lake TMDL

Below are the anticipated pollutant reductions and estimated costs for each of the Alternatives as presented at the May Commission meeting.

Table 2 - Ponderosa Woods Stream Restoration Project Alternatives Cost Summary

Alternative	Project Cost Estimate	Annualized Cost	TP Loading		TSS Loading	
			Load Reduction (lb/yr)	Cost/lb/yr Reduced	Load Reduction (lb/yr)	Cost/lb/yr Reduced
Alternative 1 – Small Footprint Design	$252,000 ($202,000–$328,000)	$17,000	7.4	$2,300	14,770	$1.15
Alternative 1.5 - Small Footprint Design (with added buckthorn removal)	$297,000 ($238,000-$387,000)	$20,000	7.4	$2,700	14,770	$1.35
Alternative 2 – Medium Footprint Design	$429,000 ($344,000-$558,000)	$27,000	7.4	$3,650	14,770	$1.83
Alternative 3 – Large Footprint Design	$506,000 ($405,000–$658,000)	$34,000	10.8	$3,150	21,580	$1.58

The Medicine Lake Total Maximum Daily Load (TMDL) Study estimates that a total phosphorus (TP) load reduction of 1,287 lbs/yr will be necessary to meet the TMDL requirements (References 1 and 2). The TMDL assessment represents reductions needed from watershed conditions that existed in 2007. The Ponderosa Woods project anticipates a TP load reduction of 7.4 to 10.8 lbs/yr, which would represent about 0.6 to 0.8% in TP load reductions compared to 2007 levels.

The Ponderosa Woods subwatershed area is not included as a separate watershed within the Medicine Lake TMDL. The Ponderosa Woods stream reach flows into Plymouth Creek, through the Plymouth Creek Water Quality Ponds, and into Medicine Lake. The TMDL estimated that 2,360 lbs/yr of TP annually entered Medicine Lake from the Plymouth Creek subwatershed (References 1 and 2). The total TP load to Medicine Lake in 2007 was 4,770 lbs/yr, so Plymouth Creek contributed approximately 49.5% of the entire TP load entering the lake (References 1 and 2). Many water quality improvement projects have been constructed within the Plymouth Creek subwatershed since 2007 to reduce TP loads. A calculation of current loading to Medicine Lake from the Plymouth Creek subwatershed is not currently available. (However, an estimate of TP loading through the creek will be available next year after analysis of the 2022/2023 Plymouth Creek monitoring effort.)

2.3 Supplemental details on buckthorn removal and revegetation benefits

The project area is in a heavily forested area, which is highly degraded and dominated by buckthorn on stream banks and in the riparian area (including the floodplain). Many trees are dead or dying (including green ash trees, which may be affected by Emerald Ash Borer). The buckthorn is extensive and dense, and there was little to no understory vegetation present during the November 2022 field visit. All of the design alternatives include a significant amount of buckthorn removal to help restore this project area – along the stream banks, and in the floodplain and riparian areas.

The riparian area extends from the stream channel to the edge of the floodplain as shown in Figure 2. Riparian areas include vegetation species that are more water-tolerant, whereas upland vegetation tends to prefer less water. In the case of buckthorn, it resides both in riparian and upland areas because it can tolerate both wetter and drier habitats. Because buckthorn grows well in both habitats, it can grow to be pervasive throughout a large area, degrading both riparian and upland areas. For the Ponderosa Woods project area, the riparian area may extend to the limits of the project area or beyond (especially in the downstream reaches with the easier access to the floodplain) as shown on the attached Figure 1; further field investigations would be necessary to determine the exact extents of the riparian area. The floodplain forest wetland area shown in Figure 1 is meant to approximate the riparian and floodplain area since there are no floodplain elevations included in the BCWMC model for this reach. Note, the riparian area may extend outside of the project area shown on the attached Figure 1.

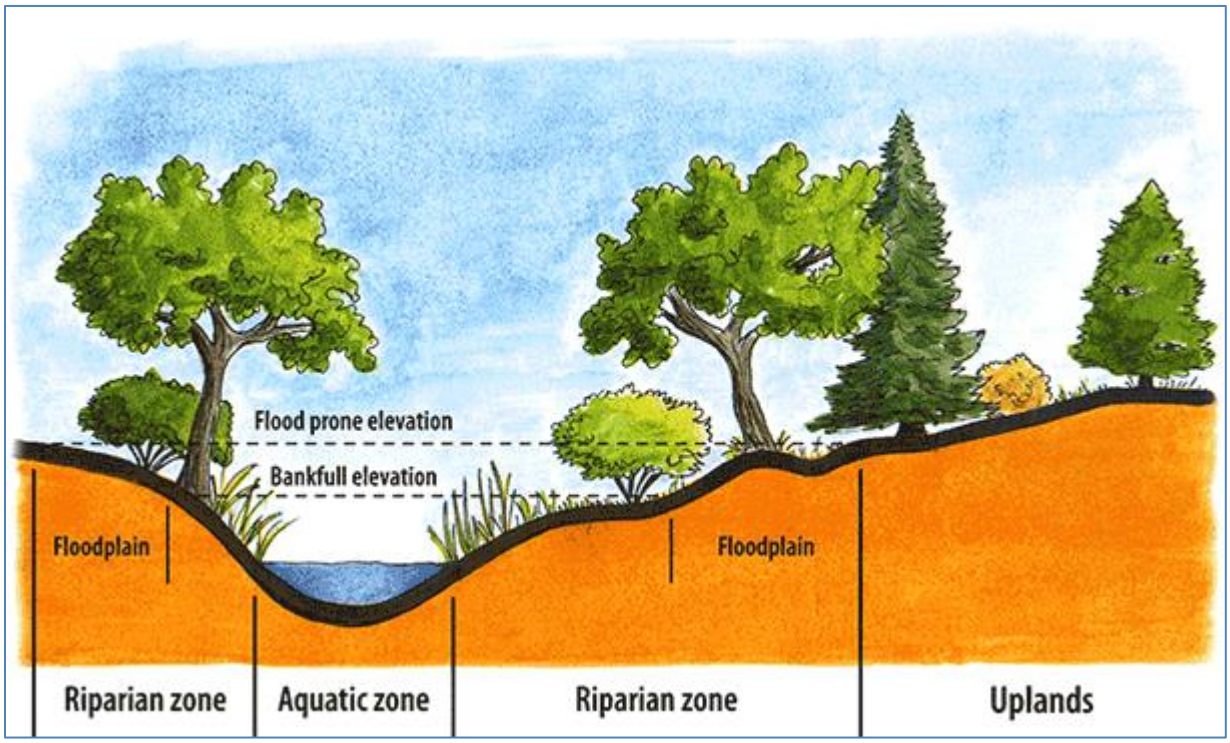


Figure 2– Riparian Versus Upland Areas (Reference 3)

The Commission Engineer presented the following qualitative benefits for buckthorn removal and revegetation of the understory vegetation at the May Commission meeting:

- Buckthorn shades out the understory vegetation, which leads to exposed soils and increased erosion potential (more sediment runoff) to the stream and downstream water bodies (including Plymouth Creek, Plymouth Creek Water Quality Ponds, and Medicine Lake).
- Removing buckthorn and other degraded trees opens up the tree canopy and allows sunlight to reach the ground to promote understory vegetation growth (including native plants). This decreases the amount of exposed soil, which can improve water quality by preventing sediment from entering the stream.
- Buckthorn will continue to re-seed the area if not removed.
- The more buckthorn that can be removed leads to more water quality and habitat improvements.

In addition to these benefits, the Commission Engineer sought to find additional quantitative information on the benefits of buckthorn removal and revegetation of the understory vegetation on phosphorus and sediment load reductions to streams and other water bodies. However, there is limited quantitative information available; the following information is a summary of some of the additional information available from a recent literature review.

Preliminary research shows buckthorn's impact on carbon and nitrogen cycles and on increased areas of exposed soils (References 4, 5, and 6). Researchers have found that carbon and nitrogen can accumulate beneath buckthorn at a higher rate and will eventually accumulate within the carbon and nitrogen cycling

within the soil. This is potentially due to its higher productivity of leaf litter, which also has been shown to decompose at a faster rate than native plants. The quick decomposition of leaf litter that occurs beneath the buckthorn may also result in higher leaching rate of nitrogen. Though phosphorus was not evaluated in the research, it is possible to infer that there would also be a higher leaching rate of phosphorus. Researchers also found that the increase in carbon and nitrogen levels attract another invasive species, the earthworm, and together they can quickly demolish the leaf litter layer and expose the soil. Once the soil is exposed, it is more prone to erosion and can alter the structure of the forest floor.

As mentioned earlier, buckthorn is prevalent at the Ponderosa Woods site in both riparian and upland areas. Of special concern are exposed soils in the riparian area resulting from increased amounts of buckthorn. Loose soils may be eroded during higher flow events that reach the riparian areas (and therefore the floodplain).

2.4 Further description of available and potential easements

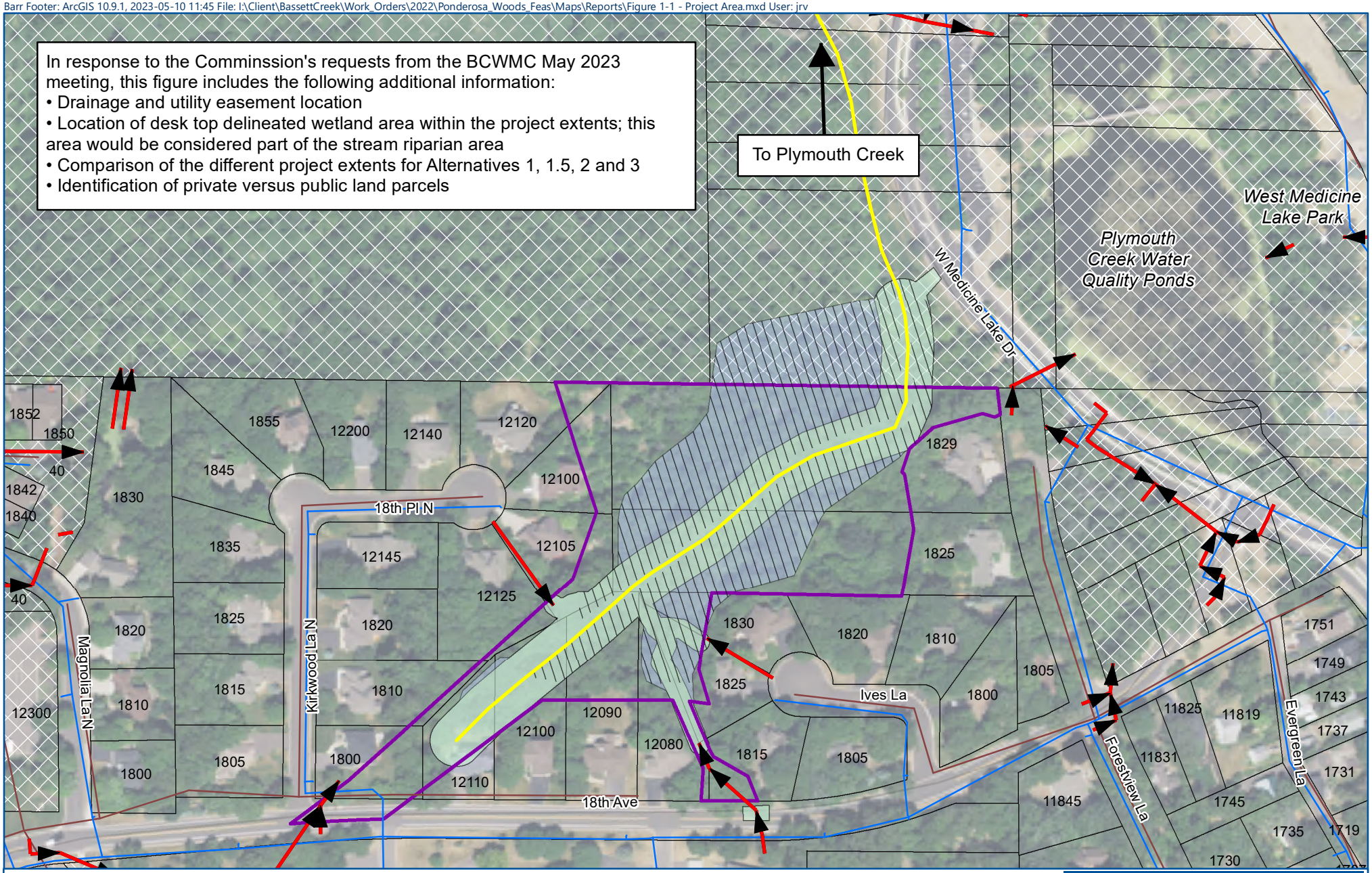
As presented at the May 2023 Commission meeting, the City has a permanent drainage and utility easement encompassing the entire project area as shown on Figure 1. Therefore, no additional point-of-entry agreements, vegetation management easements, or permanent easements are anticipated for any of the alternatives.

3.0 References

1. Medicine Lake Excess Nutrients Total Maximum Daily Load Implementation Plan. Prepared for the Minnesota Pollution Control Agency and the Bassett Creek Watershed Management Commission. Sep. 2010. https://www.pca.state.mn.us/sites/default/files/wq-iw8-19c.pdf
2. Medicine Lake Excess Nutrients Total Maximum Daily Load. Prepared for the Minnesota Pollution Control Agency and the Bassett Creek Watershed Management Commission. Nov. 2010. https://www.pca.state.mn.us/sites/default/files/wq-iw8-19e.pdf
3. "The Riparian Zone." Watershed Planning and Restoration: The Riparian Zone, 19 Aug. 2016, slco.org/watershed/streams-101/the-riparian-zone/.
4. Knight, K.S., Kurylo, J.S., Endress, A.G. *et al.* Ecology and ecosystem impacts of common buckthorn (*Rhamnus cathartica*): a review. *Biol Invasions* **9**, 925–937 (2007). https://doi.org/10.1007/s10530-007-9091-3
5. Liam Heneghan, Farrah Fatemi, Lauren Umek, Kevin Grady, Kristen Fagen, Margaret Workman. The invasive shrub European buckthorn (Rhamnus cathartica, L.) alters soil properties in Midwestern U.S. woodlands, *Applied Soil Ecology* **32**, 142-148 (2006). https://doi.org/10.1016/j.apsoil.2005.03.009
6. Goodfellow, John. *Invasive Buckthorn Can Cause Increased Erosion and Nutrient Runoff into Nearby Waters*, 30 Jan. 2019, www.stcroix360.com/2019/01/invasive-buckthorn-can-cause-increased-erosion-and-nutrient-runoff-into-nearby-waters/.

4.0 Attachments

- Figure 1 – Additional Project Information



Main Stream Path
Storm Sewer
Watermain
Sanitary Sewer
Floodplain Forest Wetland
Drainage and Utility Easement
Small Project Extents (Alternative 1)
Large Project Extents (Alternatives 1.5, 2, 3)
Private Parcel
Public Parcel

100 0 100
Feet

Note: The Commission Engineer performed a desktop evaluation for where the Floodplain Forest Wetland may exist within the project area. A field wetland delineation will be necessary to determine actual extents.

Imagery: USDA, 2021

Additional Project Information
Ponderosa Woods Stream Restoration Feasability Study
BCWMC

FIGURE 1

Item 5C.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: June 8, 2023

RE: Sochacki Park Water Quality Project Background, CIP Funding, and Feasibility Study

At the March meeting, the Commission approved the TAC recommendation to add the Sochacki Park Water Quality Project to the 5-year CIP and earmarked $600,000 in CIP funding. In order officially add the project to the CIP, a minor plan amendment was proposed. The comment period for the minor amendment was extended to August 8th to accommodate Hennepin County's process. Other state agencies reviewing the proposed amendment commended the Commission for keeping an updated CIP and had no concerns with adding the project to the CIP.

Because there are multiple partners on this project and because the timeline for the feasibility study, minor plan amendment, and setting the levy amount is not typical for BCWMC CIP projects, a memorandum of understanding (MOU) among BCWMC, Three Rivers Park District (TRPD), Golden Valley, and Robbinsdale was recently executed.

A feasibility study is underway and is being funded by TRPD (see the memo with feasibility study update attached). The kick off meeting for the study was held June 5th and was attended by me, Commissioner Sicora, Commissioner Pentel, and Chair Cesnik along with TRPD, Golden Valley, Robbinsdale, and Barr Engineering. Commission staff and commissioners will continue to be very involved as the study progresses. A draft feasibility study will be presented at the August meeting.

A BCWMC project webpage is now posted that describes the project and provides a link to the subwatershed analysis on which the project is based: https://www.bassettcreekwmo.org/projects/all-projects/sochacki-park-water-quality-improvement-project.

The original CIP project fact sheet is attached again here for additional reference.

Staff recommends that the Commission include $300,000 in its 2024 levy and $300,000 in its 2025 levy for this project. With the overall project cost estimated at $2.3M, the BCWMC funding represents about 25% of the total project costs. Additional project funding is expected from TRPD, the cities, and grants.

Project Category: Water Quality

Project Title: Sochacki Park Water Quality Improvements

Total Estimated Cost: $2,300,000 (multiple funding sources)

BCWMC Project Number: [Staff will assign number]

Description:
This project in the cities of Robbinsdale and Golden Valley will reduce total phosphorus by approximately 67 lbs/year, improving water quality within MnDNR protected wetlands and Bassett Creek, reducing chronic erosion and sedimentation, enhancing buffers and wildlife habitat, and improving recreation and educational opportunities. This is a joint project with multiple partners seeking grant funds from multiple sources. BMP recommendations are based on a subwatershed assessment completed in 2022.

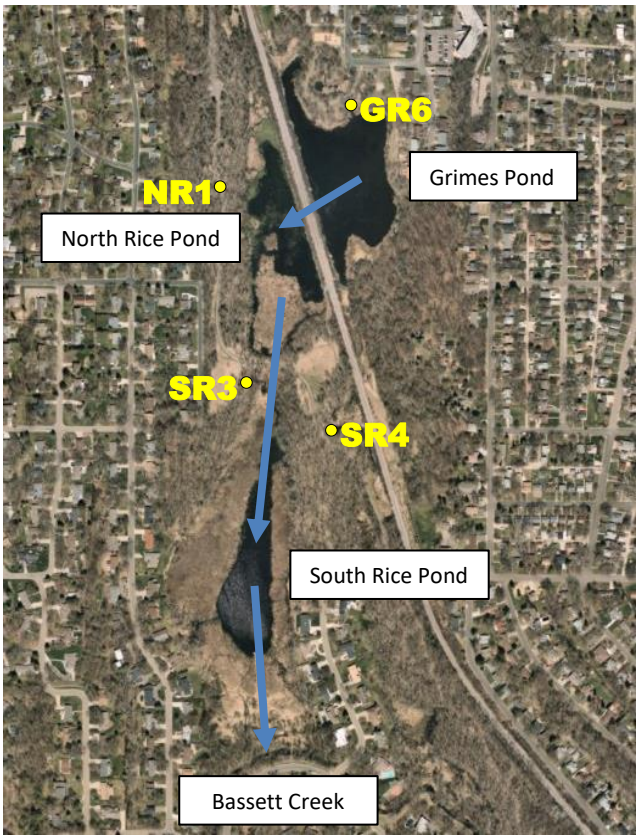
Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County	Staff will assign funding year.				

Justification:
Public wetlands within this highly-used regional park are ecologically degraded, negatively impacting Bassett Creek which is impaired for biota. Wetlands do not meet the subwatershed assessment study goals for total phosphorus (concentration of 75 µg/L), chlorophyll *a* (concentration of 40 µg/L), or secchi disk transparency (1 meter). This highly-collaborative project seeks to protect and improve DNR wetlands and Bassett Creek with a holistic approach while enhancing existing and planned nature-based programming in the park. Partners include the cities of Robbinsdale, Golden Valley, and Crystal, Three Rivers Park District (TRPD), MnDNR, and potentially others.

Scheduling and Project Status:
Subwatershed assessment completed by partners in 2022. TRPD is funding the engineering and permitting to a 90% design level in 2023, consistent with BCWMC feasibility study parameters, to improve and strengthen grant applications.

Relationship to BCWMC Plan and Other Projects:
Project is part of the BCWMC trunk system.
Project improves or protects water quality in a priority waterbody (Bassett Creek)
Project addresses erosion and sedimentation issues.
Project addresses multiple Commission goals (e.g., water quality, runoff volume, aesthetics, wildlife habitat, recreation, education)
Subwatershed draining to project includes more than one community (three cities)

Effect on Annual Operations Costs:
This project is anticipated to have no effect on BCWMC Annual Operations Costs.



Sochacki Park in Robbinsdale and Golden Valley, showing Grimes, North Rice, and South Rice Ponds. Yellow markers show proposed sites for pond creation and restoration activities. Bassett Creek is immediately downstream (south) of South Rice Pond.

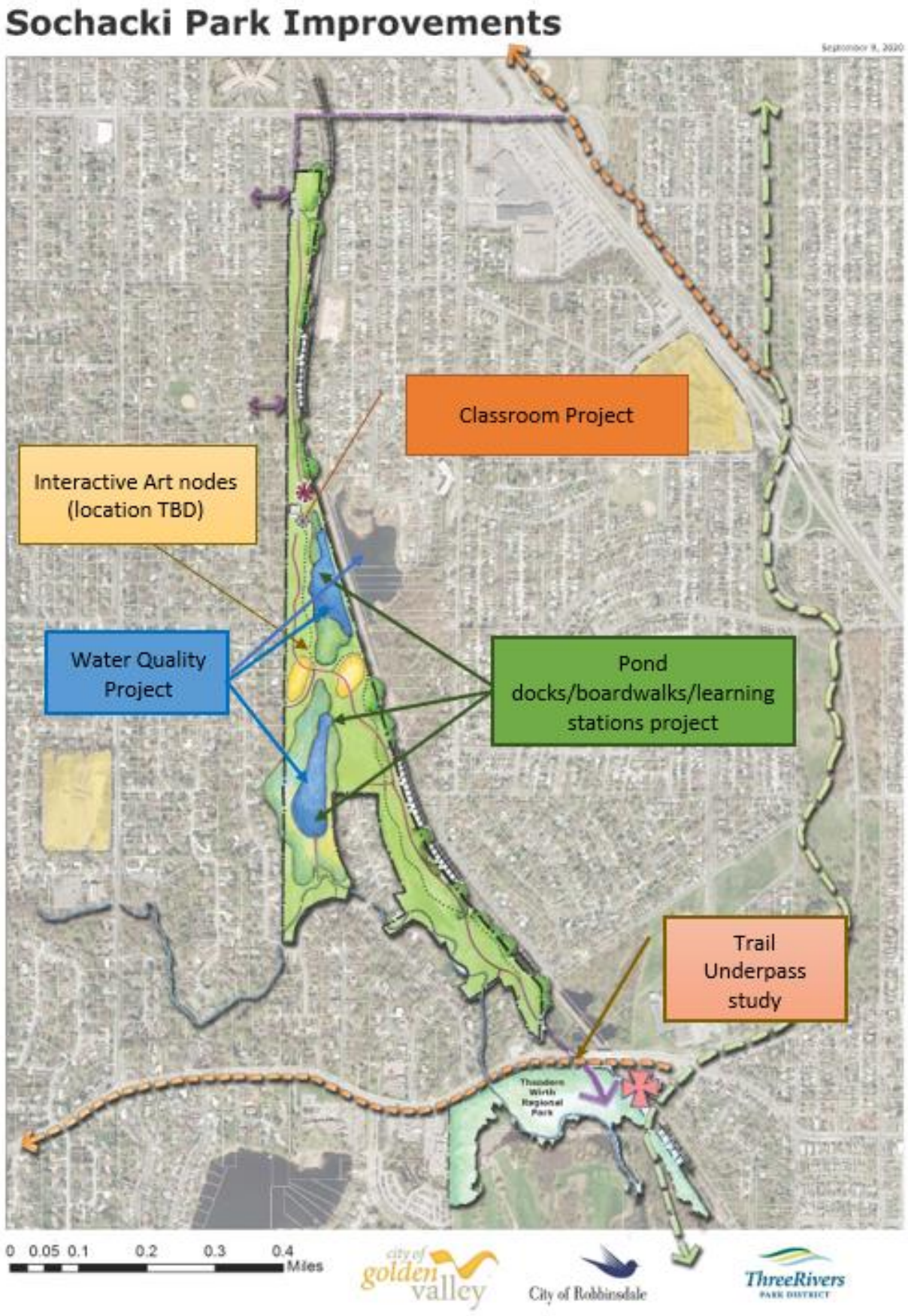
Summary and Planning Level Costs of Proposed Activities, February 17, 2023

BMP ID/ Location	Estimated Annual TP Removal (lbs/yr)	Planning Level Capital Cost Estimate	Recommended Sequence for Implementation
Revegetate/control upland soil erosion	NA	$ 10,000.00	1a
Increased Street Sweeping in untreated subwatersheds	NA	NA	1b
Clear inlet/outlet debris, remove sediment deltas and stabilize erosion	NA	$ 100,000.00	1c
Conduct pond water level drawdowns	NA	$ 154,000.00	1d
Dredge/expand existing SR4 pond (Basin J)	33.5	$ 456,000.00	2a
Construct stormwater pond at GR6	14.9	$ 684,000.00	2b
Construct stormwater pond at NR1	3.8	$ 287,000.00	2c
Construct stormwater pond at SR3	3.7	$ 392,000.00	2d
Alum Treatment of Grimes, North and South Rice Ponds	11.2	$ 217,000.00	3
TOTAL	**67.1**	**$ 2,300,000.00**	

Potential Funding Options

- BWSR Clean Water Funds
- Conservation Partners Legacy (for habitat components)
- Hennepin County Opportunity or Stewardship grants
- MPCA grants and MN Public Facilities Authority funds
- MnDNR short term action request grants
- Partner CIP funds (for potential grant match)

From Sochacki Park JPA 5-yr CIP



resourceful. naturally.
engineering and environmental consultants

BARR

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co. (Greg Wilson, PE, and Karen Chandler, PE)
Subject: Item 5C: Update on Sochacki Park Feasibility Study
BCWMC June 15, 2023 Meeting Agenda
Date: June 7, 2023

1.0 Project Update

At the March Commission meeting, the Commission approved adding the Sochacki Park Water Quality Treatment Project (BC-14) to the BCWMC's Capital Improvement Program (CIP) for construction in 2024 – 2025, with $600,000 of funding budgeted for the project. At the April meeting, the Commission approved a Memorandum of Understanding (MOU) with Three Rivers Park District (TRPD), and the cities of Golden Valley and Robbinsdale. The MOU has since been approved by all entities.

The proposed project includes components in Robbinsdale and Golden Valley and would provide stormwater treatment for areas in both cities, while improving water quality and habitat in Grimes, North Rice, and South Rice Ponds, and the downstream biotic integrity and water quality of Bassett Creek. Grimes, North Rice, and South Rice Ponds are classified as public water wetlands by the Minnesota Department of Natural Resources (MnDNR).

As is required for BCWMC CIP Projects, a feasibility study must be completed prior to BCWMC holding a hearing and ordering the project. Barr Engineering is preparing the feasibility study, which will meet the BCWMC feasibility study requirements, while incorporating and building on the work and information included in the Sochacki Park Subwatershed Assessment. The feasibility study process includes the involvement of BCWMC commissioners, BCWMC administrator, Golden Valley and Robbinsdale staff, and TRPD staff throughout the study process.

The schedule and status of each feasibility study step is described below.

1. Project Meetings/Preliminary Review

This step includes two meetings:

a) A kickoff meeting held June 5 attended by Commissioners Pentel and Sicora, Chair Cesnik, the Commission administrator, Barr staff, Golden Valley and Robbinsdale staff, and TRPD staff.
b) A technical stakeholder meeting with BCWMC commissioners, BCWMC administrator, Golden Valley and Robbinsdale staff, TRPD staff, and USACE, MPCA, MnDNR and other agency staff as necessary to discuss concept alternatives and review permit requirements. This meeting will be scheduled soon.

2. Field Investigation

Barr will complete the following field investigations and desktop studies by mid June:

a) Sediment sampling of Grimes Pond and the SR4 basin (we expect lab results about two weeks after sampling).
b) Phase I Environmental Site Assessment (ESA). Because the MPCA's What's in my Neighborhood database indicates that other investigations of contamination have occurred, and due to the presence of demolition debris throughout much of the study area, Barr will perform a Phase I ESA to identify potential historical sources of contamination at the property. The ESA will provide our opinion as to whether evidence exists indicating the presence of recognized environmental conditions on the property.
c) Topographic and utility location survey.
d) Tree location, diameter, species, and condition survey.
e) Threatened and endangered species and cultural resources desktop reviews.

Another consultant hired by TRPD will perform wetland delineations; they expect to submit their wetland delineation report by June 30 to the BCWMC, which is the local government unit (LGU) responsible for administering the Wetland Conservation Act (WCA) in the area.

The proposed project is located on public land owned by the City of Robbinsdale and City Golden Valley. The property is managed under a joint-powers agreement with Three Rivers Park District, City of Robbinsdale, and Golden Valley. It is anticipated there will be no easement acquisition needed or required for the project.

3. Evaluation and Concept Plans

As part of the Sochacki Park subwatershed assessment, Barr developed rough concepts of each improvement option that allowed for estimating the costs and water quality benefits, but did not develop concept plans or other drawings. Barr will re-evaluate the water quality improvement options and create concept plans that build on the information from the Sochacki Park subwatershed assessment, using the new information generated from the field investigations. Barr will complete this work by mid-July.

4. Public Engagement

This step includes preparing information needed for the June Commission meeting (including this memorandum) and holding one public outreach meeting (to be scheduled soon).

5. Feasibility Report

Barr will prepare and present the draft feasibility study for Commission review at the August 17 meeting, and will prepare and present the final feasibility study for Commission review and approval at the September 21 meeting. Barr will provide drafts of both documents for review and comment by Golden Valley and Robbinsdale commissioners, the BCWMC administrator, Golden Valley and Robbinsdale staff, and TRPD staff prior to their inclusion in the Commission meeting packets.

Item 5D.
BCWMC 6-15-23

2024 Recommended Maximum Levy Request to Hennepin County

Attached CIP Table assumes Ponderosa Woods Alternative 1.5 and Main Stem Alternative 1 are implemented and $200,000 of Closed Project Funding is used for **total 2024 levy of $1,931,000**. If different alternatives are chosen, levies in 2024 and/or 2025 would be impacted.

Project Name	**City & Proj #**	**2022**	**2023**	**2024**	**2025**	**Other Funding**	**Total Project Cost**
SEA School - Wildwood Park Flood Reduction Project (Medicine Lake Rd & Winnetka Ave Long Term Flood Mitigation Plan Project)	Golden Valley BC-2,3,8, 10	$300,000	$748,000	$252,000		$1,800,000 (MnDNR and City Funds)	$3,100,000
Medley Park Stormwater Treatment Facility	Golden Valley ML-12	$400,000	$150,000	$800,000		$800,000 (Clean Water Fund Grant and City Funds)	$2,150,000
Sochacki Park Water Quality Treatment Project	Robbs Golden Valley BC-14			$300,000	$300,000	$1,700,000 (TRPD, cities, grants)	$2,300,000
Cost share purchase of high efficiency street sweeper	Golden Valley BC-12			$100,000	$50,000		$150,000
TOTAL				$1,452,000			
Use of BCWMC Closed Project Funds				-$200,000			
TOTAL BASE LEVY (add Ponderosa Woods and Main Stem costs from next page)				**$1,252,000**			

Ponderosa Woods Stream Restoration Project (ML-22)	**Alternative 1**	**Alternative 1.5**	**Alternative 2**
Feasibility Study	$43,500	$43,500	$43,500
Construction	$252,000	$297,000	$429,000
Administration and Engineering Review	$11,000	$12,000	$14,500
TOTAL	**$306,500** Subtract $45,500 from current CIP table in 2024	**$352,000 in 2024**	**$487,000** Add $135,000 in current CIP table in 2024

Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd (2024CR-M)	**Alternative 1**	**Alternative 2**	**Alternative 3**
Feasibility Study	$85,000	$85,000	$85,000
Construction	$1,124,000	$1,727,000	$2,118,000
Administration	$18,000	$30,000	$38,000
TOTAL	$1,227,000	$1,842,000	$1,641,000
City Funds	-$300,000	-$300,000	-$300,000
TOTAL Levy	**$927,000** **($327,000 in 2024 + $600,000 in 2025)**	**$1,542,000** Add $615,000 to current CIP table over 2024 and 2025	**$1,941,000** Add $1,014,000 to current CIP table over 2024 and 2025

BCWMC 5-year Capital Improvement Program: 2023 – 2028 CIP List (Approved March 2023; now with updated costs for 2024 projects)

Project Name	City	#	2020	2021	2022	2023	2024	2025	2026	2027	2028	Totals
Medicine Lake Rd & Winnetka Ave Long Term Flood Mitigation Plan Project (DeCola Ponds B&C Improvement Proj. + DeCola Pond F Flood Storage & Diversion Project + SEA School Flood Storage)[5]	GV, Crystal, New Hope	BC-2,3,8, 10	$500,000		$300,000	2,548,000[5]	$252,000 (SEA School)	$1,150,000	$450,000			
WQ improvements in Bryn Mawr Meadows, Main Stem Watershed[2]	MPLS	BC-5	$100,000	$812,000[2]		$1,175,000						$2,087,000
Medley Park Stormwater Treatment Facility[4]	GV	ML-12			$400,000	$950,000[4]	$800,000					$2,150,000
Mt. Olivet Stream Restoration Project	PLYM	ML-20		$178,100								$178,100
Dredging accumulated sediment in Main Stem Bassett Creek Lagoons, Wirth Park[3]	GV/MPLS	BC-7		$600,000	$1,425,000[3]	$334,000						$2,759,000
Stormwater Pond in Jevne Park to alleviate flooding/improve water quality	Medicine Lake	ML-21	$500,000									$500,000
Crane Lake Improvement Project @ Ridgedale Dr.	MTKA	CL-3	$380,000									$380,000
Parkers Lake Drainage Improvement Project	Plymouth	PL-7		$485,000								$485,000
Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd	Golden Valley	2024-CR-M				ALTERNATIVE 1	~~$200,000~~ $327,000	$900,000[7]				~~$800,000~~ $1,227,000
Ponderosa Woods Stream Restoration	Plymouth	ML-22				ALTERNATIVE 1.5	~~$475,000~~ $352,000					$352,000
Sweeney Lake Water Quality Improvement Project (alum + carp management) [1]	Golden Valley	SL-8	$350,000[1]	$218,080								$568,080
Cost share purchase of high efficiency street sweeper	Plymouth	ML-23		$81,600								$81,600
Crane Lake Chloride Reduction Demonstration Project at Ridgedale Mall	MTKA	CL-4							$300,000			$300,000
Plymouth Creek Restoration Project Dunkirk Lane to Plym Ice Center	Plymouth	2026CR-P							$1,000,000	$1,000,000		$2,000,000
Cost share purchase of high efficiency street sweeper	Golden Valley	BC-12					$100,000	$50,000				$150,000
Toledo Ave/Minnaqua Pond Stormwater Improvements & Flood Reduction	Golden Valley	BC-13								$400,000	$500,000	$900,000
Flood Control Project Double Box Culvert Repairs	MPLS	FCP-1								$250,000	$950,000	$1,200,000
Sochacki Water Quality Improvement Project	GV/Robbs	BC-14					$2,000,000[6]	$300,000				$2,300,000
Estimated Total Project Cost			**$1,830,000**	**$2,374,780**	**$2,125,000**	**$5,007,000**	**~~$3,827,000~~ $3,831,000**	**~~$2,100,000~~ $2,400,000**	**1,750,000**	**1,650,000**	**$1,450,000**	
Estimated Use of BCWMC Closed Project Account Funds			$0	$500,000	$100,000	$200,000	$200,000	$0	$0	$0	$0	
City and Grant Funding			$330,000[1]	$400,000[2]	$325,000[3]	$800,000[4] $1,800,000[5]	$1,700,000[6]	$300,000[7]				
Total Levy			**$1,500,000**	**$1,474,780**	**$1,700,000**	**$2,207,000**	**~~$1,927,000~~ $1,931,000**	**$2,100,000**	**1,750,000**	**1,650,000**	**$1,450,000**	

[1] Federal 319 grant
[2] Clean Water Fund grant ($400,000)
[3] Clean Water Funds (WBIF) ($250,000) + Hennepin County Opportunity grant ($75,000)
[4] Clean Water Fund Grant ($300,000) + Golden Valley funds ($500,000)
[5] MnDNR grant to city + city funds ($1,800,000)
[6] Funding partners = Robbinsdale, Golden Valley, TRPD, possible grants for BC-14
[7] Golden Valley funding of $300,000 for 2024CR-M

Item 5Ei.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: June 7, 2023

RE: Technical Advisory Committee Recommendation on Investment Income

The BWCMC Technical Advisory Committee (TAC) met on June 7, 2023 to review the City of Plymouth's plans for creating regional stormwater treatment (see Item 5G) and discuss options for allocating investment income. This memo focuses only on the recommendation on investment income.

Attendees at the TAC meeting included:

City/Partner	Technical Advisory Committee Members and Others
Crystal	Ben Perkey
Golden Valley	Drew Chirpich and Eric Eckman
Medicine Lake	Susan Wiese
Minneapolis	Katie Kowalczyk
Minnetonka	None
New Hope	Nick Macklem
Plymouth	Ben Scharenbroich
Robbinsdale	Richard McCoy and Mike Sorensen
St. Louis Park	Erick Francis
Others	Administrator Laura Jester, Commission Engineers Karen Chandler and Jim Herbert, Commissioner Pentel

INVESTMENT INCOME:

With a few years of significantly high investment income expected, the TAC discussed pros and cons to various methods of investment income allocations between the Commission's general fund and the CIP fund. Some of the points that were discussed include:

1. It is best to keep city assessments generally even without significant fluctuations because it's easier for cities to budget appropriately year to year. Because the investment income can vary so widely over the course of several years (see table below), allocations to the general fund might unduly swing the city assessments higher and lower, or may lead the Commission to count on the investment income when it could drop significantly the next year depending on the economy.

Investment earnings reported in annual audits				
Fiscal Year				
2014	$	9,171		
2015	$	10,133		
2016	$	14,328		
2017	$	8,052		
2018	$	44,343		
2019	$	51,828		
2020	$	8,115		
2021	$	3,135		
2022	$	110,001		
Average	$	28,790		

2. Most of the invested dollars come from CIP levies so it's prudent to allocate the income from those investments to the CIP fund.

3. The CIP levy has a larger financial impact on watershed residents than city assessments. Because the CIP tax burden is generally much higher than and fluctuates, it seems prudent to utilize these funds to lower the CIP tax burden rather than city assessments.

   Example: A property in Plymouth with an estimated value of $450,000 and 0.5 acres of land (General figures for illustration, not directly associated with a specific property.)

   Bassett Creek portion of the City of Plymouth's Assessment = $11.50
   Hennepin County Taxes (CIP Levy) = $48.75
   Total income to BCWMC from this example property in 2023 was $60.25
   (19% from City of Plymouth and 81 % from Hennepin County for BCWMC CIP Levy)

4. Building up unallocated funds within the CIP fund would provide available funds for unforeseen circumstances on CIP projects and may also help the CIP fund keep up with the market/inflation.

5. Building up unallocated funds within the CIP fund may allow for creation of a new program (that could be considered with development of the 2025 Watershed Management Plan) such as subwatershed analyses or cost share for public or private entities to install best management practices.

With these points in mind, the TAC made the following recommendation to the Commission.

Recommendation: The TAC recommends that the Commission adopt a fiscal policy that allocates 100% of investment income to the CIP fund.

Item 5Eii.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: BCWMC Budget Committee Chair Sicora and Committee Members
Date: June 8, 2023

Recommendation: Update Commission's Policy Manual regarding use of investment income

The BCWMC Budget Committee met April 3rd and May 1st to discuss BWCMC finances and to begin developing the 2024 operating budget. At the May Commission meeting, the committee reviewed notes regarding the 2024 operating budget and recommended the following update to fiscal policies.

INVESTMENT INCOME POLICY

Over the past nine years, income from BWCMC investments has averaged $28,800 (with 2022 income being significantly higher than previous years at over $110,000) (see table below). Until 2022, income from investments was allocated between the General Fund (i.e., operating budget) and the Capital Improvement Program (CIP) Fund based on the percentage of total dollars in each fund. Because the CIP Fund has the vast majority of BWCMC funding (in order to implement large, expensive CIP projects), most of the income was allocated to that fund.

Investment earnings reported in annual audits				
Fiscal Year				
2014	$	9,171		
2015	$	10,133		
2016	$	14,328		
2017	$	8,052		
2018	$	44,343		
2019	$	51,828		
2020	$	8,115		
2021	$	3,135		
2022	$	110,001		
Average	$	28,790		

The Budget Committee reviewed information related to allocating investment income including:

- BCWMC Deputy Treasurer Sue Virnig recommends the Commission develop a policy stating where investment income will be allocated.
- BCWMC Financial auditors, MMKR, noted that allocating income based on the percentage of total dollars in each fund is the typical accounting practice. However, there are no laws or accounting requirements that would prohibit allocating income in a different manner.
- Allocating a higher percentage of investment income to the General Fund would help keep city assessments lower while maintaining a robust portion as income to the CIP Fund

- A policy of allocating the income equally (50-50) between the two funds is simple
- A policy that includes flexibility to change the allocation rates would allow the Commission to adjust the allocation percentage if budgetary circumstances arise

Recommendation: Section 2.9 of the BWCMC Policy Manual includes policies and implementation strategies related to investments and the depository of funds. The Budget Committee recommends updating the policy with a new strategy shown underlined below.

2.9 Investment and Depository of Funds

Policy: The Commission adopts the following guidelines regarding investment of Commission funds.

Description: It is the responsibility of the Commission to invest Commission funds in order to attain a market rate of return while preserving and protecting the capital of the overall portfolio and to ensure compliance with statutory requirements applicable to the Commission's designation a depository financial institution. Investments will be made in compliance with statutory constraints and in safe, low-risk instruments.

Applicable funding: Operating budget and Capital Improvement Program budget

Adopted:

Citation: Minnesota Statute Chapter 118A

Strategies to implement policy:

1. **Scope.** This policy applies to all financial assets of the Commission including but not limited to:
    - General Fund
    - Construction Fund
2. **Designation of Depository and Collateralization.** The Commission annually will designate a financial institution or institutions in the State of Minnesota as the depository of Commission funds. In the event the Commission does not designate a depository in any particular year, the last-designated depository will continue in that capacity. Each depository will furnish collateral, as necessary, in the manner and to the extent required by Minnesota Statutes section 118A.03, as it may be amended, and other applicable law. Collateral will be held in safekeeping in compliance with Section 118A.03, as it may be amended.
3. **Delegation of Authority**. Minnesota Statutes section 118A.02 provides that the governing body may authorize the treasurer or chief financial officer to make investments of funds under Sections 118A.01 to 118A.06 or other applicable law. The Commission authorizes the Treasurer or Deputy Treasurer to invest Commission funds pursuant to this policy and state law for the Bassett Creek Watershed Management Commission.

    The Treasurer or Deputy Treasurer shall assure compliance with this policy and further develop and maintain adequate controls, procedures, and methods assuring security and accurate accounting on a day-to-day basis.
4. **Objectives**. At all times, the Commission's investments shall be made and maintained in accordance with Minnesota Statutes Chapter 118A as it may be amended. The primary objectives of the Commission investment activities shall be in the following order of priority:

    i. Security

    Security of principal is the foremost objective of the investment portfolio. Preserving capital and protecting investment principal shall be the primary objective of each investment transaction.

    ii. Liquidity

The investment portfolio shall remain sufficiently liquid to meet projected disbursement requirements.

iii. Return on Investment

The investment portfolio shall be designed to manage the funds to maximize returns consistent with items A and B above and within the requirements set forth in this policy.

5. **Prudence**. The "prudent person" standard shall be applied in managing Commission investments. All investment transactions shall be made in good faith with the degree of judgment and care, under the circumstances, that a person of prudence, discretion, and intelligence would exercise in the management of their own affairs, in accordance with this policy.

6. **Eligible Investments**. All investments will be considered eligible if they are made in accordance with Minnesota Statutes Section 118A.04.

7. **Investment Restrictions**. In addition to statutory prohibitions, investments specifically prohibited are derivative products, structured notes, inverse index bonds, repurchase agreements not authorized by statute, and other exotic products.

~~7.~~8. **Investment Income**. It is the intent of the Commission to divide the income from investments (dividends) equally between the General Fund and the Construction Fund (funds restricted for Capital Improvements). The Commission will have the flexibility to adjust allocations of income to each fund pending budgetary circumstances and upon review and input from the Deputy Treasurer and the BCWMC Budget Committee.

~~8.~~9. **Safekeeping**. Commission investments, contracts and agreements will be held in safekeeping in compliance with Minnesota Statutes Section 118A.06. In addition, before accepting any investment of Commission funds and annually thereafter, the supervising officer of the financial institution serving as a broker for the Commission shall submit a certification stating that the officer has reviewed the Commission Investment and Depository Policy and incorporated statement of investment restrictions, as well as applicable state law, and agrees to act in a manner consistent with the policy and law. The Commission will annually will provide the policy, as it may be amended. The certification shall also require the supervising officer to disclose potential conflicts of interest or risk to public funds that might arise out of business transactions between the firm and the Commission. All financial institutions shall agree to undertake reasonable efforts to preclude imprudent transactions involving the Commission funds.

~~9.~~10. **Conflict of Interest**. Any Commissioner or staff member involved in the investment process shall refrain from personal business activity that could conflict with proper execution of the investment program or which could impair his/her ability to make impartial investment decisions.

~~10.~~11. **Internal Controls and Reporting**. Internal controls are designed to prevent loss of public funds due to fraud, error, misrepresentation, unanticipated market changes, or imprudent actions. Before the Commission invests any surplus funds, competitive quotations shall be obtained. If a specific maturity date is required, either for cash flow purposes or for conformance to maturity guidelines, quotations will be requested for instruments that meet the maturity requirement. The Commission will accept the quotation that provides the highest rate of return within the maturity required and within the limits of this policy.

The Commission Treasurer or Deputy Treasurer shall be limited to investing funds for up to a maximum term of seven years. The Commission administrator shall request approval from the Commission to authorize investment of funds for terms exceeding seven years.

Monthly, the Commission Treasurer or Deputy Treasurer shall provide an investments report to the Commission. Investments shall be audited and reported with financial statement annually. It shall be the practice of the Commission to review and amend the investment policy from time to time as needed.

2024 Proposed Operating Budget

	2020 Budget	2020 Gross Expenses	2020 Revenue	2020 NET Expenses	2021 Budget	2021 Gross Expenses	2021 Revenue	2021 NET Expenses	2022 Budget	2022 Gross Expenses	2022 Revenue	2022 NET Expenses	2023 Budget	Proposed 2024 Budget	See Notes
ENGINEERING & MONITORING															
Technical Services	130,000	143,081	-	143,081	134,000	105,492	$ -	105,492	145,000	132,541		132,541	145,000	145,000	(A1)
Development/Project Reviews	75,000	94,267	63,000	31,267	68,000	89,507	$ 73,554.00	15,953	75,000	103,851	77,617	26,234	80,000	90,000	(A)
			Review fees				Review fees				Review fees				
Non-fee and Preliminary Reviews	20,000	16,851	-	16,851	24,000	38,406	$ 10,000.00	28,406	22,000	17,788	1,000	16,788	30,000	30,000	(B)
							Cost share w/ MPLS				Cost share w/ MPLS				
Commission and TAC Meetings	12,000	10,478	-	10,478	12,000	10,961	$ -	10,961	14,000	13,119		13,119	15,000	15,000	(C)
Surveys and Studies	10,000	3,745	-	3,745	9,000	7,683	$ -	7,683	10,000	14,283		14,283	15,000	15,000	(D)
Water Quality / Monitoring	102,600	119,397	-	119,397	129,000	132,432	$ -	132,432	110,000	109,478		109,478	105,000	160,500	(E)
Water Quantity	6,500	6,229	-	6,229	7,000	7,205	$ -	7,205	8,000	6,369		6,369	9,000	9,000	(F)
Annual Flood Control Project Inspections	12,000	69,149	69,149	0	12,000	14,999	$ 14,999.00	-	12,000	21,290	21,290	-	15,000	85,000	(G)
			Transfer from long term account				Transfer from long term account				Transfer from long term account				
Municipal Plan Review	2,000	1,548	-	1,548	2,000	-	$ -	-	2,000	1,464		1,464	2,000	2,000	(H)
Watershed Outlet Monitoring Program	20,500	20,837	4,500	16,337	23,000	18,257	$ 5,500.00	12,757	28,500	28,425	3,750	24,675	27,000	26,500	(I)
			Grant from Met Council				Grant from Met Council				Grant from Met Council				
Annual XP-SWMM Model Updates/Reviews	-	-	-	-	-	$ -	$ -	-	5,000	8,983		8,983	3,000	3,000	(J)
APM/AIS Work	30,000	11,634	1,128	10,506	14,000	13,533	$ 5,601.00	7,932	13,000	41,844	22,500	19,344	40,000	40,000	(K)
			Cost share with TRPD				DNR Grant & Cost share w/ TRPD				DNR Grant & Cost share w/ TRPD				
Subtotal Engineering & Monitoring	**$420,600**	**$497,215**	**$137,777**	**$359,438**	**$434,000**	**$438,475**	**$ 109,654.00**	**$328,821**	**$444,500**	**$499,435**	**$126,157**	**$373,278**	**$486,000**	**$621,000**	**See Notes**
PLANNING															
Next Generation Plan Development	18,000	18,000	-	18,000	18,000	10,001	$ -	10,001	18,000	47,372	11,000	36,372	53,250	35,650	(L)
											Transfer from Plan account				
Subtotal Planning	**$18,000**	**$18,000**	**$0**	**$18,000**	**$18,000**	**$10,001**	**$ -**	**$10,001**	**$18,000**	**$47,372**	**$11,000**	**$36,372**	**$53,250**	**$35,650**	

Continued next page

Item	2020 Budget	2020 Gross Expenses	2020 Revenue	2020 NET Expenses	2021 Budget	2021 Gross Expenses	2021 Revenue	2021 NET Expenses	2022 Budget	2022 Gross Expenses	2022 Revenue	2022 NET Expenses	2023 Budget	Proposed 2024 Budget	See Notes
ADMINISTRATION															
Administrator	69,200	64,764	30,000	34,764	67,400	67,481	$ 29,495.00	37,986	70,848	69,174	34,000	35,174	78,750	78,750	(M)
			Transfer from CIP account				Transfer from CIP account				Transfer from CIP account				
MAWD Dues	500	500	-	500	3,750	3,750	$ -	3,750	7,500	7,500		7,500	7,500	7,500	(N)
Legal	15,000	20,996	-	20,996	15,000	16,280	**$ -**	16,280	17,000	20,204		20,204	17,000	21,000	(O)
Financial Management	3,500	3,500	-	3,500	4,000	10,600	$ -	10,600	13,500	14,260		14,260	14,540	17,000	(P)
Audit, Insurance & Bond	18,000	18,684	-	18,684	18,000	14,949	$ -	14,949	18,700	18,218		18,218	18,700	18,700	(Q)
Meeting Catering	1,500	317	-	317	1,300	-	$ -	-	1,300	1,830		1,830	2,400	2,400	(R)
Administrative Services	15,000	11,887	-	11,887	8,000	5,960	$ -	5,960	8,000	5,993		5,993	7,240	2,570	(S)
Subtotal Administration	**$122,700**	**$120,648**	**$30,000**	**$90,648**	**$117,450**	**$119,020**	**$29,495**	**$89,525**	**$136,848**	**$137,179**	**$34,000**	**$103,179**	**$146,130**	**$147,920**	
OUTREACH & EDUCATION															
Publications / Annual Report	1,300	1,069	-	1,069	1,300	375	$ -	375	1,300	1,164		1,164	1,000	1,200	(T)
Website	1,000	1,264	-	1,264	1,800	544	$ -	544	1,800	645		645	1,600	1,600	(U)
Watershed Education Partnerships	15,850	16,535	-	16,535	17,350	13,080	$ -	13,080	18,350	15,410		15,410	18,350	18,350	(V)
Education and Public Outreach	22,000	38,321	28,811	9,510	26,000	23,073	$ 6,295.00	16,778	28,000	36,591	13,013	23,578	28,000	28,000	(W)
		Grant from BWSR					Grant from BWSR			Grant from BWSR					
Public Communications	1,000	1,113	-	1,113	1,000	1,028	$ -	1,028	1,100	69		69	1,100	1,000	(X)
Subtotal Outreach & Education	**$41,150**	**$58,302**	**$28,811**	**$29,491**	**$47,450**	**$38,100**	**$6,295**	**$31,805**	**$50,550**	**$53,879**	**$13,013**	**$40,866**	**$50,050**	**$50,150**	
MAINTENANCE FUNDS															
Channel Maintenance Fund	25,000	25,000	-	25,000	20,000	$20,000	**$ -**	20,000	25,000	25,000		25,000	25,000	25,000	(Y)
Flood Control Project Long-Term Maint.	25,000	25,000	-	25,000	25,000	25,000	$ -	25,000	25,000	25,000		25,000	35,000	35,000	(Z)
Subtotal Maintenance Funds	**$50,000**	**$50,000**	**$0**	**$50,000**	**$45,000**	**$45,000**	**$0**	**$45,000**	**$50,000**	**$50,000**	**$0**	**$50,000**	**$60,000**	**$60,000**	
TMDL WORK															
TMDL Implementation Reporting	10,000	263	-	263	7,000	6,989	$ -	6,989	7,000	3,397	-	3,397	-	-	(AA)
Subtotal TMDL Work	**$10,000**	**$263**	**$0**	**$263**	**$7,000**	**$7,000**	**$7,000**	**$7,000**	**$7,000**	**3,397**	**-**	**3,397**	**$0**		
GRAND TOTAL	**$662,450**	**$744,428**	**$196,588**	**$547,840**	**$668,900**	**$657,596**	**$152,444**	**$512,152**	**$706,898**	**$791,262**	**$184,170**	**$607,092**	**$795,430**	**$914,720**	

DRAFT 2024 Revenues		
	Budget Cmte Rec	TAC Rec Fiscal Policy
Expected Income	Income	Income
Assessments to cities	$ 653,000	$ 681,800
Investment Income	$ 14,400	$ -
CIP Administrative Funds (2.0% of est. requested levy of $1.972M)	$ 39,440	$ 39,440
Project review fees	$ 77,000	$ 77,000
Transfer from Long-term Maint Fund for Flood Control Proj Inspections	$ 85,000	$ 85,000
WOMP reimbursement	$ 5,000	$ 5,000
TRPD reimbursement	$ 5,000	$ 5,000
Transfer from Plan Development Savings	$ 13,000	$ 13,000
TOTAL EXPECTED INCOME	**$ 891,840**	**$ 906,240**
Expected Expenses		
Total operating budget	**$ 914,720**	**$ 914,720**
Fund Balance Details		
Est. Beginning Fund Balance (Jan 31, 2024)	**$ 473,099**	**$ 458,699**
Change in Fund Balance (income - expenses)	$ (22,880)	$ (8,480)
Est. Remaining Fund Balance (Jan 31, 2025)	$ 450,219	$ 450,219
	Assumes 50% of average annual investment income in 2023 and 2024 (Budget Cmte recommended investment income policy)	Assumes no investment income in 2023 and 2024 (TAC recommended investment income policy)

Community	**For Taxes Payable in 2023**	**2023 Percent of**	**Area Watershed (w/ 2022 changes)**	**Percent of**	**Average**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024 Proposed Budget Cmte Rec (5.8% increase)**	**Percent increase by city**	**2024 Proposed Budget TAC Rec Invest (10.4% increase)**	**Percent increase by city**	
	Net Tax Capacity	**Valuation**	**in Acres**	**of Area**	**Percent**	**$500,000**	**$515,050**	**$529,850**	**$550,450**	**$554,900**	**$565,998**	**$ 617,430**	**$ 653,000**	**5.8%**	**$ 681,800**	10.4%	
Crystal	$12,385,383	5.58	1,297	5.11	5.35	$25,704	$26,904	$27,877	$29,062	$29,898	$30,206	$32,948	$34,910	6.0%	$36,450	10.6%	Crystal
Golden Valley	$56,201,654	25.34	6,615	26.05	25.70	$131,270	$134,649	$138,553	$144,693	$145,228	$148,477	$160,438	$167,794	4.6%	$175,195	9.2%	Golden Valley
Medicine Lake	$1,436,006	0.65	199	0.78	0.72	$3,561	$3,783	$3,846	$3,975	$3,928	$3,988	$4,472	$4,673	4.5%	$4,879	9.1%	Medicine Lake
Minneapolis	$16,265,139	7.33	1,685	6.64	6.98	$33,609	$34,763	$35,805	$37,631	$37,983	$39,103	$43,643	$45,611	4.5%	$47,623	9.1%	Minneapolis
Minnetonka	$14,598,518	6.58	1,108	4.36	5.47	$28,199	$28,053	$28,989	$29,967	$29,622	$30,437	$34,091	$35,739	4.8%	$37,315	9.5%	Minnetonka
New Hope	$12,585,791	5.68	1,368	5.39	5.53	$25,917	$26,740	$27,987	$28,987	$29,464	$30,087	$33,078	$36,118	9.2%	$37,711	14.0%	New Hope
Plymouth	$93,993,300	42.38	12,001	47.26	44.82	$224,531	$231,682	$237,986	$245,942	$247,860	$252,307	$275,216	$292,683	6.3%	$305,591	11.0%	Plymouth
Robbinsdale	$4,329,509	1.95	369	1.45	1.70	$7,747	$8,189	$8,523	$8,937	$9,299	$9,288	$10,314	$11,118	7.8%	$11,609	12.6%	Robbinsdale
St. Louis Park	$9,974,412	4.50	752	2.96	3.73	$19,463	$20,287	$20,284	$21,257	$21,618	$22,105	$23,230	$24,354	4.8%	$25,428	9.5%	St. Louis Park
TOTAL	**$221,769,712**	**100.00**	**25,394**	**100.00**	**100.00**	**$500,000**	**$515,050**	**$529,850**	**$550,450**	**$554,900**	**$565,998**	**$ 617,430**	**$ 653,000**	5.8%	**$ 681,800**	10.4%	

NOTES
(A1) General technical services by Barr Engineering; 2021 budget based on actual expenditures in 2019 and 2020. 2024 Budget same as 2022 and 2023.
(A) Partially funded by application fees; with the creation of the preliminary and non-fee budget category, most of the review costs will be covered by application fees. Budget based on recent actual expenses and projected number of projects submitted for review. New review fees effective Aug 1, 2022. Increase in 2024 to better align with 2022 costs.
(B) This was a new line item in 2015 used to cover reviews for which either we do not receive an application fee or it's too early in the process for us to have received an application fee. Includes DNR application reviews, MnDOT project reviews, and other prelim reviews requested by administrator and member cities. Reviews for large projects such as SWLRT reviews and North Loop Green Project have been partially or fully reimbursed to Commission.
(C) Includes attendance at BCWMC meetings, TAC meetings and other committee meetings, as needed. 2017 budget increased to allow for additional BCWMC Engineer staff to attend Commission/TAC meetings (total of 3 assumed). 2018 - 2020 budgets were reduced from 2017 and assumed 12 BCWMC meetings and 5 other meetings (TAC, etc.). 2021 budget also assumes 17 meetings including BCWMC meetings (12), TAC meetings (3), Administrative Services Committee meetings (1), Budget Committee meetings and other meetings (1). 2022 and 2023 budgets increased to reflect return to in-person meetings, plus additional staff attendance at meetings. 2024 Budget same as 2023.
(D) For Commission-directed surveys and studies not identified in other categories - e.g., past work has included watershed tours, Medicine Lake outlet work, Flood Control Project Maintenance and Responsibilites, Sweeney Lake sediment monitoring, stream monitoring equipment purchase. 2018 budget was reduced from previous years for overall budget savings. 2019 budget is more in line with previous years and gives Commission flexibility to investigate or tackle unforeseen issues that arise. Lowered again in 2020, 2021, and 2022 for budget savings. Among other surveys and studies, in 2023 this budget may be used to review and develop agreements with Minneapolis related to tunnel roles and responsibilities. There are not yet specific plans for this budget in 2024 but it allows BCWMC to address unforeseen issues.
(E) Routine lake and stream monitoring. Follows monitoring schedule laid out in Appendix A of Watershed Plan. Higher budget than 2023 due to monitoring 3 lakes instead of 2, biological monitoring on streams, and higher water quality monitoring costs for North Branch than Plymouth Creek (partnership with TRPD brought down costs for Plymouth Creek). See details on next page. https://www.bassettcreekwmo.org/application/files/7914/4676/6436/Appendix_A_Monitoring_Plan.pdf
(F) Water Quantity (lake level) monitoring. 2018 budget lowered for budget savings and resulted in fewer data points. 2019 budget back to earlier budget levels. 2020 budget lowered again for budget savings. 2022 and 2023 budget increase allows for additional measurements and benchmark checks, beyond the once/month lake level measurements to assist with proper maintenance of hyrologic and hydraulic modeling and climate resiliency preparations. 2024 same as 2023 budget
(G) 2024 budget includes double box inspection, along with annual inspections. Budget assumes $70,000 for double box inspection (includes $25,000 in subcontractor fees for Rescue Resources and a crane), and $15,000 for regular annual inspections. The BCWMC Flood Control Project Double Box Culvert Repairs CIP project (FCP-1) is slated for 2027; a feasibility study is needed in 2025 or 2026. Therefore, the double box inspection includes meeting with contractor in double box culvert to discuss repairs for 2025/2026 feasibility study. The last deep tunnel inspection was 2020, next one is due 2030. Unsubmerged deep tunnel inspection due in 2025.
http://www.bassettcreekwmo.org/application/files/4514/9637/1815/2016_FCP_Policies.pdf
(H) Municipal plan approvals completed in 2019; however, this task has also included review of adjacent WMO plan amendments, and review of city ordinances; $2,000 budget recommended annually.
(I) Monitoring at the Watershed Outlet Monitoring Program (WOMP) site in Minneapolis through an agreement with Met Council (MCES). Commission is reimbursed $5,000 from Met Council. Met Council pays for equipment, maintenance, power, cell service, and lab analyses. Monitoring protocol changed in 2017 with collection of bi-monthly samples (up from once-per-month sampling).Both Barr and Stantec (previously Wenck) have tasks related to WOMP activities. Station was moved in late 2020. In 2022, Barr portion was set at $10,000 because MCES requested additional high flow measurements due to the new station location. Stantec portion was similar to previous years at $18,500 due to similar sampling regime. 2024 budget reflects actual 2023 contract with Stantect and Barr estimates ($7,500 for Barr + $19,000 for Stantec).
(J) This item is used to make updates to the XP-SWMM model, coordinate with P8 model updates, and assist cities with model use. No XP-SWMM updates were performed 2019 - 2021 due to work on the grant funded FEMA modeling project. 2022 budget includes finalizing updates to the Commission's official model and flood elevations to match the "FEMA model" (this work was started in 2021 using "Surveys and Studies" budget). 2024 budget is same as 2023: budget assumes Barr will request, compile, and review information provided by the cities and flag those that are large enough/significant enough to incoporate into the XP-SWMM and P8 modelupdates. As this covers both XP-SWMM and P8, we assumed $0 for the TMDL Implementation Reporting (P8 model update) budget.

Notes (continued)
(K) Funds to implement recommendations of Aquatic Plant Management/Aquatic Invasive Species Committee likely including curly-leaf pondweed control in Medicine Lake and small grant program for launch inspectors, education/outreach, etc. by other organizations including TRPD, AMLAC, others. TRPD shares cost (17%) of treatments. In 2021, recieved $5,000 DNR grant. In 2022, recieved $10,000 DNR grant. In 2022 and for a few years thereafter, treatment costs are expected to be signficantly higher due to expanded treatment area allowed under Lake Vegetation Management Plan. No DNR grant in 2023 awarded in 2023. 2024 budget same as 2023.
(L) The scope and budget for development of the 2025 Watershed Plan was approved in February 2022. $38,000 has already been set aside 2019 - 2022 in a long term account for Plan development, of which $11,000 was initially planned to cover work in 2022. The Commission approved a revised Plan scope and budget in September 2022 to include additional funding to address "complex issues." In 2022, Barr spent approximately $41,000 as part of the original Plan update and complex issues tasks. In 2023, Barr estimates spending $42,000 and Administrator estimates spending $11,250 on Plan development (total = $53,250) and Barr estimates spending $16,300 to address complex issues. Barr estimates spending $26,700 in 2024 and Administrator estimates spending $8,950 on Plan development (total = $35,650).
(M) Amended Administrator contract approved March 2022 includes 87.5 hours per month at $75/hour starting in FY23 for total of $78,750.
(N) MN Association of Watershed District Annual dues. New budget item. 2019 and 2020 dues were $500 because WMOs were newly allowed to join the organization. 2021 dues $3,750. Starting in 2022 dues went to the max of $7,500 similar to other Metro watersheds.
(O) For Commission attorney. 2022 budget included 3% hourly rate increase over 2021 + more work expected. Acutal costs in 2022 were $3,000 over budget. 2024 proposed budget is in line with acutal 2022 costs. Legal costs for some CIP projects will be charged to specific CIP budgets, as warranted.
(P) In 2021, Commission began contractoing with Redpath for accounting services. 2023 contract includes NTE of $16,650. Increased 2024 budget to reflect slight potential increase from 2023 contract.
(Q) Insurance and audit costs have risen considerably in the last few years.
(R) Assumes 12 in-person meetings @ $200 per meeting
(S) Recording Secretary $40/hr rate * 8 hrs/mo for 6 months for minutes ($1,920 total) + $250/mo meeting packet printing/mailing + $400 supplies (envelopes, stamps, etc).
(T) Budget was decreased in last few years to be more in line with actual expenses. Costs associated with Commission Engineer assistance with annual report
(U) Based on agreement with HDR for website hosting and maintenance activities.
(V) Includes CAMP ($7,000), River Watch ($2,000), Metro Watershed Partners ($3,500), Metro Blooms Workshops ($1,500), Children's Water Festival ($350), Metro Blooms resident engagement in Minneapolis neighborhoods ($4,000).
(W) Includes funding for West Metro Water Alliance at $13,000 and $15,000 for work by educational contractors + supplies and materials including educational signage, display materials, Commissioner training, etc. [2024 may be a good year to redesign and print watershed map for estimated $15,000]
(X) Public Communications covers required public notices for public hearings, etc.
(Y) Will be transferred to Channel Maintenance Fund for use by cities with smaller projects along main streams.
(Z) Will be transferred to Long-Term Maintenance Fund. Budget increased in 2023 to be more in line with expected costs at TAC's recommendation.
(AA) This task is meant for updating the P8 pollution model; will be done in conjunction with the work in budget line J with XP-SWMM model updates.

BCWMC 2024 Water Quality Monitoring Budgets - by item		
Item	**Budget**	**Notes**
Reporting on 2023 (and 2022 biological) monitoring:		
Plymouth Creek stream flow and quality monitoring (2022 & 2023), and biological monitoring (2022)	$15,500	Stream flow, water quality, and biological monitoring will be combined into one report for Plymouth Creek. Report will follow template of recent reports.
Sweeney Lake & Twin Lake	$13,000	Report will follow template of recent reports.
2024 monitoring:		
Year 1 of North Branch stream flow and quality monitoring	$42,000	Flow and monitoring equipment will be installed in the North Branch of Bassett Creek. Samples will be collected during 8 storm events and 7 baseflow events. Water depth, flow, temperature, and specific conductance will be continuously measured during the 2024 monitoring period. Dissolved oxygen will be continuously measured for 4 days during July or August. Storm and base flow samples will be analyzed for nutrients (total phosphorus, ortho phosphorus, dissolved phosphorus, nitrate/nitrite, ammonia, and total Kjeldahl nitrogen), solids (total suspended solids and volatile suspended solids), chlorides, hardness, calcium, and magnesium. Base-flow samples will also be analyzed for chlorophyll a, and E. coli bacteria. Quarterly grab samples will be analyzed for metals (chromium, cadmium, copper, lead, nickel, and zinc). Instantaneous dissolved oxygen and pH measurements will be taken when baseflow samples are collected. MCES Lab will perform the analyses. Four manual flow measurements will be taken to verify/adjust the rating curve. Budget assumes an average level of maintenance and trouble-shooting efforts. Budget also includes purchase of a new 4G cell modem, as the existing modem is obsolete. Cellular data services will be purchased directly from the vendor (Campbell Scientific), rather than Verizon (saves time and costs). Equipment that cannot withstand winter weather (e.g., specific conductance probe) will be removed at the end of the monitoring period. Data will be reviewed and
Parkers Lake (Priority 1 Deep lake)	$20,000	Detailed lake monitoring includes monitoring one location on Parkers Lake on 6 occasions for selected parameters (total phosphorus, soluble reactive phosphorus, total nitrogen, chlorophyll a, chloride, temperature, pH, DO, and specific conductance), plus parameters associated with AIS vulnerability (alkalinity, sodium, hardness, calcium, and magnesium) sample analysis, phytoplankton and zooplankton collection and analysis, an aquatic plant survey (two occasions), calculation of aquatic plant IBIs, preparation of dissolved oxygen, temperature, total phosphorus, and specific conductance isopleths, completion of trend analyses of total phosphorus, chlorophyll a, and Secchi disc average summer values. Three Rivers Park District staff will collect water quality, phytoplankton, and zooplankton samples, perform aquatic plant surveys, and complete lab analysis of samples (except for AIS vulnerability parameters) at a reduced cost to BCWMC. Final report preparation(following template of recent reports) and presentation costs deferred to 2025.
Westwood Lake (Priority 1 Shallow lake)	$23,000	Detailed lake monitoring includes monitoring one location on six occasions for selected parameters (total phosphorus, ortho phosphorus, total nitrogen, nitrate +nitrite nitrogen, total Kjeldahl nitrogen, chlorophyll a, chloride, Secchi disc, temperature, pH, DO, and specific conductance), plus parameters associated with AIS vulnerability (alkalinity, hardness, calcium, magnesium, and sodium) and sample analysis, monitoring phytoplankton, and zooplankton and sample analysis, an aquatic plant survey (two occasions), calculation of aquatic plant IBIs, preparation of dissolved oxygen, temperature, total phosphorus, and specific conductance isopleths, completion of trend analyses of total phosphorus, chlorophyll a, and Secchi disc average summer values. Final report preparation (following template of recent reports) and presentation costs deferred to 2025.
Cavanaugh Lake (Priority 2 Shallow lake)	$23,000	Detailed lake monitoring includes monitoring one location on six occasions for selected parameters (total phosphorus, ortho phosphorus, total nitrogen, nitrate +nitrite nitrogen, total Kjeldahl nitrogen, chlorophyll a, chloride, Secchi disc, temperature, pH, DO, and specific conductance), plus parameters associated with AIS vulnerability (alkalinity, hardness, calcium, magnesium, and sodium) and sample analysis, monitoring phytoplankton, and zooplankton and sample analysis, an aquatic plant survey (two occasions), calculation of aquatic plant IBIs, preparation of dissolved oxygen, temperature, total phosphorus, and specific conductance isopleths, completion of trend analyses of total phosphorus, chlorophyll a, and Secchi disc average summer values. Final report preparation (following template of recent reports) and presentation costs deferred to 2025.
Biological monitoring - Main Stem & North Branch	$14,000	Assumptions: 1) one sample event during late September to early October of 2024; 2) macroinvertebrate samples will be collected and a habitat survey completed at one location on the North Branch and three locations on the Main Stem; 3) microscope identification/ enumeration by subconsultant (Dr. Dean Hansen); and 4) MPCA computes MIBI at no cost to BCWMC. Budget does not include report and presentation to Commission, which will likely occur in 2026 (and be included in 2026 budget), to coincide with the reporting on the North Branch stream flow and water quality monitoring. This monitoring could be deferred to 2025, if needed.
General water quality	$10,000	
Total Water Quality Monitoring	**$160,500**	

Item 5G.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: June 7, 2023

RE: Regional Stormwater Treatment Planned in Plymouth

The City of Plymouth plans to study the feasibility of building regional stormwater treatment facilities in conjunction with a 2024 city pavement rehabilitation project. Plymouth plans to construct the facilities to provide treatment greater than the amount of treatment required for the pavement rehabilitation project. The additional treatment capacity would be available for future redevelopment ("treatment credits"). Plymouth staff recently discussed their ideas with the Commission engineers, the Commission administrator, and the Technical Advisory Committee – all of whom support this concept because of the multiple benefits (described further in this memo) it provides.

Although, regional stormwater treatment is allowed under BCWMC requirements and the Minnesota Stormwater Manual, I am bringing this to your attention as it's a slightly different approach to stormwater management. The Commission will likely hear more about the regional treatment plans when the pavement rehabilitation project and adjacent redevelopment projects are reviewed by the Commission for compliance with development requirements.

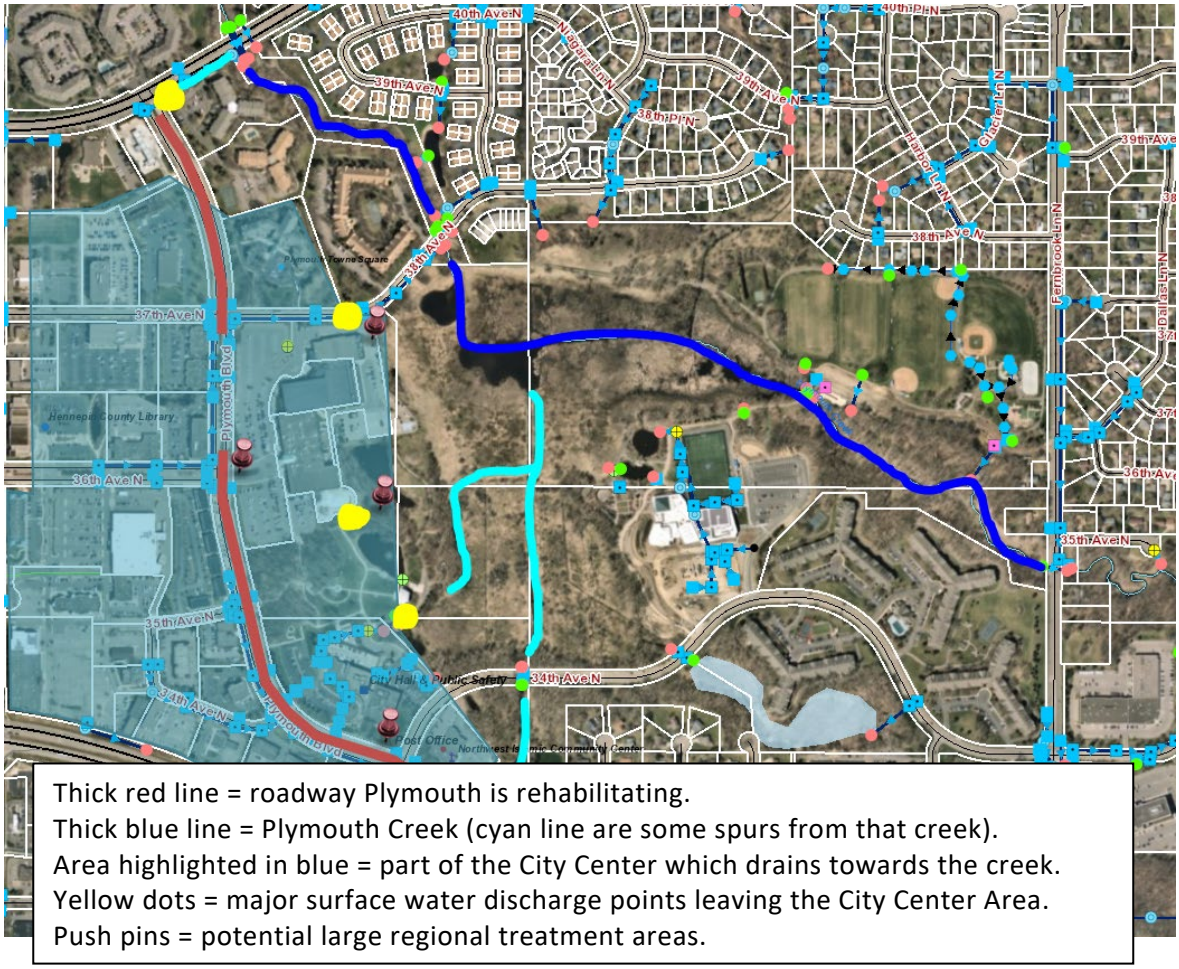
Background:
Plymouth is planning a pavement rehabilitation project in 2024 within the middle of its "City Center" which is the area generally bounded by Vicksburg Lane, Highway 55, County Road 9, and Plymouth Creek (see map below). Plymouth staff believes there is an opportunity to construct a stormwater management project in conjunction with the pavement project that would provide regional treatment for the area as it redevelops. The stormwater project would ideally:

- Treat runoff from the entire re-developable area including public and private properties.
- Incentivize and streamline redevelopment as stormwater management capacity would already be available.
- Treat runoff from the re-developable area that currently drains directly to Plymouth Creek starting immediately, rather than waiting for redevelopment.
- Address future maintenance.

The City's next steps include completing a feasibility study to verify the various regional treatment areas, identify the stormwater best management practices and provide cost estimates. If found to be viable, the city would design a project for Commission review and approval consideration.

Key elements of concept:

- The proposed regional stormwater treatment concept is similar to what's being proposed in the Bassett Creek Valley.
- Stormwater management features would be fully funded by the city (no BCWMC funding required or requested).
- City would retain all easements and perform all maintenance of the treatment facilities.
- City would handle all negotiations with developers on how treatment credits are used or paid for.
- Development projects would still be submitted to the Commission for review.
    - Developments would still need to meet all applicable stormwater management requirements in place at the time of the development (including MIDS – Minimal Impact Design Standards, if triggered).
    - Upon review of development projects, Commission engineers would confirm the pollution reductions needed for the project and would calculate the remaining balance of treatment capacity within the city's facilities, if used by the development.
    - Developers would be required to meet BCWMC rate control requirements on-site.
- The city will likely require some on-site pre-treatment of stormwater runoff.
- This mechanism preserves more private real estate for redevelopment as less land is needed at individual parcels for stormwater management.
- This mechanism ensures proper maintenance of stormwater management features because the city, as the owner, is responsible for maintenance. This also removes the need for maintenance agreements, streamlines the maintenance process, and reduces administration.



Thick red line = roadway Plymouth is rehabilitating.
Thick blue line = Plymouth Creek (cyan line are some spurs from that creek).
Area highlighted in blue = part of the City Center which drains towards the creek.
Yellow dots = major surface water discharge points leaving the City Center Area.
Push pins = potential large regional treatment areas.

Item 6A.
BCWMC 6-15-23

Bassett Creek Watershed Management Commission

MEMO

Date: June 8, 2023
From: Laura Jester, Administrator
To: BCWMC Commissioners
RE: Administrator's Report

Aside from this month's agenda items, the Commission Engineers, city staff, committee members, and I continue to work on the following Commission projects and issues.

CIP Projects (more resources at http://www.bassettcreekwmo.org/projects.)

2019 Medicine Lake Road and Winnetka Avenue Area Long Term Flood Mitigation Plan Implementation Phase I: DeCola Ponds B & C Improvement Project (BC-2, BC-3 & BC-8) Golden Valley (No change since Nov 2021): A feasibility study for this project was completed in May 2018 after months of study, development of concepts and input from residents at two public open houses. At the May 2018 meeting, the Commission approved Concept 3 and set a maximum 2019 levy. Also in May 2018, the Minnesota Legislature passed the bonding bill and the MDNR has since committed $2.3M for the project. The Hennepin County Board approved a maximum 2019 levy request at their meeting in July 2018. A BCWMC public hearing on this project was held on August 16, 2018 with no comments being received. Also at that meeting the Commission officially ordered the project and entered an agreement with the City of GoldenValley to design and construct the project. In September 2018, the City of Golden Valley approved the agreement with the BCWMC. The Sun Post ran an article on this project October 2018. Another public open house and presentation of 50% designs was held February 6, 2019. An EAW report was completed and available for public review and comment December 17 – January 16, 2019. At their meeting in February 2019, the Commission approved the 50% design plans. Another public open house was held April 10th and a public hearing on the water level drawdown was held April 16th. 90% Design Plans were approved at the April Commission meeting. It was determined a Phase 1 investigation of the site is not required. The City awarded a contract to Dahn Construction for the first phase of the project, which involves earthwork, utilities, and trail paving and extends through June 2020. Dewatering began late summer 2019. Tree removal was completed in early winter; excavation was ongoing through the winter. As of early June 2020, earth work and infrastructure work by Dahn Construction is nearly complete and trail paving is complete. Vegetative restoration by AES is underway including soil prep and seeding. Plants, shrubs, and trees will begin soon along with placement to goose protection fencing to help ensure successful restoration. The construction phase of this project was completed in June with minor punch list items completed in September. The restoration and planting phase is complete except for minor punch list items and monitoring and establishment of vegetation over three growing seasons. A final grant report for BWSR's Watershed Based Implementation Funding was submitted at the end of January. City staff recently completed a site walk through to document dead or dying trees and shrubs in need of replacement (under warranty). This project (along with Golden Valley's Liberty Crossing Project) recently received the award for "Project of the Year" from the Minnesota Association of Floodplain Managers as part of the overall Project website: http://www.bassettcreekwmo.org/index.php?cID=433 .

2020 Bryn Mawr Meadows Water Quality Improvement Project (BC-5), Minneapolis: A feasibility study by the Commission Engineer was developed in 2018 and approved in January 2019. The study included wetland delineations, soil borings, public open houses held in conjunction with MPRB's Bryn Mawr Meadows Park improvement project, and input from MPRB's staff and design consultants. Project construction year was revised from 2020 and 2022 to better coincide with the MPRB's planning and implementation of significant improvements and redevelopment Bryn Mawr Meadows Park where the project will be located. A public hearing for this project was held September 19, 2019. The project was officially ordered at that meeting. In January 2020 this project was awarded a $400,000 Clean Water Fund grant from BWSR; a grant work plan was completed and the grant with BWSR was fully executed in early May 2020. The project and the grant award was the subject of an article in the Southwest Journal in February: https://www.southwestjournal.com/voices/green-digest/2020/02/state-awards-grant-to-bryn-mawr-runoff-project/. In September 2020, Minneapolis and MPRB staff met to review the implementation agreement and maintenance roles.

BCWMC developed options for contracting and implementation which were presented at the November meeting. At that meeting staff was directed to develop a memorandum of understanding or agreement among BCWMC, MPRB, and city of Minneapolis to recognize and assign roles and responsibilities for implementation more formally. The draft agreement was developed over several months and multiple conversations among the parties. At the May 2021 meeting the Commission approved to waiver potential conflict of the Commission legalcounsel and reviewed a proposal for project design by the Commission Engineer. The updated design proposal and the design agreement among all three parties were approved at the June 2021 meeting. Four public open houses were held in the park in 2021 to gather input on park concepts. Project partners met regularly throughout design to discuss schedules, planning and design components, and next steps. Concept designs were approved by the MRPB Board in late 2021. Staff met with MnDOT regarding clean out of Penn Pond and continue discussions. 50% design plans were approved by the Commission at the January 2022 meeting; 90% design plans were approved at the March 2022 meeting along with an agreement with MPRB and Minneapolis for construction. The agreement was approved by all three bodies. Commission Engineers finalized designs and assisted with bidding documents. Bids were returned in early August. At the meeting in August, the Commission approved moving forward with project construction (through MPRB), and approved a construction budget (higher than previously budgeted) and an amended engineering services budget. MPRB awarded the construction contract. In late November the contractor began the initial earthwork and started on portions of the stormwater pond excavations. By late December the 1st phase of construction was complete with the ponds formed and constructed. The contractor began driving piles in late January and began installing underground piping in early February. At the March meeting, the Commission approved an increase to the engineering services budget and learned the construction budget is currently tracking well under budget. The change order resulting from the City of Minneapolis' request to replace a city sewer pipe resulted in extra design/engineering costs that were approved by the Administrator so work could continue without delays. The MPRB will reimburse the Commission for those extra costs and will, in-turn, be paid by the city. In early May construction was focused in the Morgan / Laurel intersection. The right-of-way storm sewer work is now complete; this includes the rerouting of some of the existing storm infrastructure and installation of the stormwater diversion structures. Construction of the ponds are nearly complete and stormwater from the neighborhood to the west is not being routed through new storm sewers to the ponds. Additional grading around the ponds is currently underway. Project website: http://www.bassettcreekwmo.org/projects/all- projects/bryn-mawr-meadows-water-quality-improvement-project

2020 Jevne Park Stormwater Improvement Project (ML-21) Medicine Lake (No change since April 2022): At their meeting in July 2018, the Commission approved a proposal from the Commission Engineer to prepare a feasibility study for this project. The study got underway last fall and the city's project team met on multiple occasions with the Administrator and Commission Engineer. The Administrator and Engineer also presented the draft feasibility study to the Medicine Lake City Council on February 4, 2019 and a public open house was held on February 28th. The feasibility study was approved at the April Commission meeting with intent to move forward with option 1. The city's project team is continuing to assess the project and understand its implications on city finances, infrastructure, and future management. The city received proposals from 3 engineering firms for project design and construction. At their meeting on August 5th, the Medicine Lake City Council voted to continue moving forward with the project and negotiating the terms of the agreement with BCWMC. Staff was directed to continue negotiations on the agreement and plan to order the project pending a public hearing at this meeting. Staff continues to correspond with the city's project team and city consultants regarding language in the agreement. The BCWMC held a public hearing on this project on September 19, 2019 and received comments from residents both in favor and opposed to the project. The project was officially ordered on September 19, 2019. On October 4, 2019, the Medicine Lake City Council took action not to move forward with the project. At their meeting in October 2019, the Commission moved to table discussion on the project. The project remains on the 2020 CIP list. In a letter dated January 3, 2022, the city of Medicine Lake requested that the Commission direct its engineer to analyze alternatives to the Jevne Park Project that could result in the same or similar pollutant removals and/or stormwater storage capacity. At the March meeting, the Commission directed the Commission Engineer to prepare a scope and budget for the alternatives analysis which were presented and discussed at the April 2022 meeting. No action was taken at that meeting to move forward with alternatives analysis. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=467.

2014 Schaper Pond Diversion Project and Carp Management, Golden Valley (SL-3) (No change since April): Repairs to the baffle structure were made in 2017 after anchor weights pulled away from the bottom of the pond and some vandalism occurred in 2016. The city continues to monitor the baffle and check the anchors, as needed. Vegetation around the pond was planted in 2016 and a final inspection of the vegetation was completed last fall. Once final vegetation has been completed, erosion control will be pulled and the contract will be closed. The Commission Engineer began the Schaper Pond Effectiveness Monitoring Project last summer and presented results and

recommendations at the May 2018 meeting. Additional effectiveness monitoring is being performed this summer. At the July meeting the Commission Engineer reported that over 200 carp were discovered in the pond during a recent carp survey. At the September meeting the Commission approved the Engineer's recommendation to perform a more in-depth survey of carp including transmitters to learn where and when carp are moving through the system. At the October 2020 meeting, the Commission received a report on the carp surveys and recommendations for carp removal and management. Carp removals were performed through the Sweeney Lake Water Quality Improvement Project. Results were presented at the February 2021 meeting along with a list of options for long term carp control. Commission took action approving evaluation of the long-term options to be paid from this Schaper Pond Project. Commission and Golden Valley staff met in March 2021 to further discuss pros and cons of various options. At the September 2021 meeting, the Commission approved utilizing an adaptive management approach to carp management in the pond ($8,000) and directed staff to discuss use of stocking panfish to predate carp eggs. Commission Engineers will survey the carp in 2022. At the April meeting, the Commission approved panfish stocking in Schaper Pond along with a scope and budget for carp removals to be implemented later in 2022 if needed. Commission staff informed lake association and city about summer activities and plans for a fall alum treatment. Approximately 1,000 bluegills were released into Schaper Pond in late May. Carp population assessments by electroshocking in Sweeney Lake and Schaper Pond were completed last summer. A report on the carp assessment was presented in January. Monitoring in Schaper Pond in 2023 and a reassessment of carp populations in 2024 were approved in early 2023. Carp box netting in 2024 is also approved, as needed. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=277.

Sweeney Lake Water Quality Improvement Project, Golden Valley (SL-8): This project was added to the 2020 CIP list after receiving a federal 319 grant from the MPCA. It is partially a result of the carp surveys completed through the Schaper Pond Diversion Project and a study of the year-round aeration on Sweeney Lake. This project will treat curly-leaf pondweed in spring 2020, will remove carp in summer 2020, and will perform an alum treatment on Sweeney Lake in late summer 2020. The project was officially ordered by the Commission after a public hearing in September 2019. A public open house on this project was held via Webex on April 8th with approximately 20 people joining. The open house presentation and a question and answer document are available online. The curly-leaf pondweed herbicide treatment was completed in May. Carp Solutions performed carp tracking and setting nets in early June. The first round of netting resulted in 334 carp removed from Sweeney Lake (mean length 620 mm, mean weight 3.1 kg), representing an estimated 29% of the total population. From Schaper Pond 82 carp removed which likely represents about 17% of the initial population. After anotherround of carp removals in late July, 118 additional carp were netted from Sweeney. Based on preliminary estimates, approximately 40% of the carp population was removed from Sweeney this summer. The carp biomass was reduced from approximately 129 kg/ha to 79 kg/ha, which is below the threshold where adverse impacts on water quality are expected. The first round of alum treatment was completed in late October. A grant report and payment request were submitted at the end of January. A report on the results of the carp removals and recommendations for future management were presented at the February 2021 meeting. Long term carp management evaluation will happen through the Schaper Pond Diversion Project funding. A one-page overview of 2020 activities and outcomes was developed for the Sweeney Lake Association and posted online in March. This year, the Commission is continuing carp population assessments and performing an alum treatment this fall. At the September meeting the Commission awarded a contract for the alum treatment. The treatment was completed the week of October 16th. Post treatment water quality results were presented in January and an interim grant report, budget update, and invoice to MPCA were submitted by February 1st. The lake is slated to be removed from the impaired waters list in 2024. This project is complete and the final grant report was recently submitted to the MPCA. Project website: Sweeney Lake Water Quality Improvement Project, SL-8).

2014 Twin Lake In-lake Alum Treatment, Golden Valley (TW-2): (No change since June 2018) At their March 2015 meeting, the Commission approved the project specifications and directed the city to finalize specifications and solicit bids for the project. The contract was awarded to HAB Aquatic Solutions. The alum treatment spanned two days: May 18- 19, 2015 with 15,070 gallons being applied. Water temperatures and water pH stayed within the desired ranges for the treatment. Early transparency data from before and after the treatment indicates a change in Secchi depth from 1.2 meters before the treatment to 4.8 meters on May 20th. There were no complaints or comments from residents during or since the treatment.

Water monitoring continues to determine if and when a second alum treatment is necessary. Lake monitoring results from 2017 were presented at the June 2018 meeting. Commissioners agreed with staff recommendations to keep the CIP funding remaining for this project as a 2nd treatment may be needed in the future. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=278.

2013 Four Seasons Area Water Quality Project (NL-2) (No change since January): At their meeting in December 2016, the Commission took action to contribute up to $830,000 of Four Seasons CIP funds for stormwater management at the Agora development on the old Four Seasons Mall location. At their February 2017 meeting the Commission approved an agreement with Rock Hill Management (RHM) and an agreement with the City of Plymouth allowing the developer access to a city-owned parcel to construct a wetland restoration project and to ensure ongoing maintenance of the CIP project components. At the August 2017 meeting, the Commission approved the 90% design plans for the CIP portion of the project. At the April 2018 meeting, Commissioner Prom notified the Commission that RHM recently disbanded its efforts to purchase the property for redevelopment. In 2019, a new potential buyer/developer (Dominium) began preparing plans for redevelopment at the site. City staff, the Commission Engineer and I have met on numerous occasions with the developer and their consulting engineers to discuss stormwater management and opportunities with "above and beyond" pollutant reductions. Concurrently, the Commission attorney has been working to draft an agreement to transfer BCWMC CIP funds for the above and beyond treatment. At their meeting in December, Dominium shared preliminary project plans and the Commission discussed the redevelopment and potential "above and beyond" stormwater management techniques. At the April 2020 meeting, the Commission conditionally approved the 90% project plans. The agreements with Dominium and the city of Plymouth to construct the project were approved May 2020 and project designers coordinated with Commission Engineers to finalize plans per conditions. In June 2021, the City of Plymouth purchased the property from Walmart. The TAC discussed a potential plan for timing of construction of the stormwater management BMPs by the city in advance of full redevelopment. At the August 2021 meeting, the Commission approved development of an agreement per TAC recommendations. The city recently demolished the mall building and removed much of the parking lot. At the December meeting the Commission approved the 90% design plans and a concept for the city to build the CIP project ahead of development and allow the future developer to take credit for the total phosphorus removal over and above 100 pounds. Negotiations on an agreement between the city and BCWMC are on-going. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=282.

2021 Parkers Lake Drainage Improvement Project (PL-7) (No change since July 2022): The feasibility study for this project was approved in May 2020 with Alternative 3 being approved for the drainage improvement work. After a public hearing was held with no public in attendance, the Commission ordered the project on September 17, 2020 and entered an agreement with the city of Plymouth to design and construct the project. The city hired WSB for project design which is currently underway. 60% design plans were approved at the June meeting. 90% plans were approved at the August meeting. Construction is complete and vegetation is currently being established. www.bassettcreekwmo.org/projects/all-projects/parkers-lake-drainage-improvement-project

2021 Parkers Lake Chloride Reduction Project (PL-7) (No change since October 2022): The feasibility study for this project was approved in May 2020 with Alternative 3 being approved for the drainage improvement work. After a public hearing was held with no public in attendance, the Commission ordered the project on September 17, 2020 and entered an agreement with the city of Plymouth to implement the project in coordination with commission staff. City staff and I have had an initial conversation about thisproject. The city plans to collect additional chloride data this winter in order to better pinpoint the source of high chlorides loads within the subwatershed. Partners involved in the Hennepin County Chloride Initiative (HCCI) are interested in collaborating on this project. A proposal from Plymouth and BCWMC for the "Parkers Lake Chloride Project Facilitation Plan" was approved for $20,750 in funding by the HCCI at their meeting in March. The project will 1) Compile available land use data and chloride concentrations, 2) Develop consensus on the chloride sources to Parkers Lake and potential projects to address these sources, and 3) Develop a recommendation for a future pilot project to reduce chloride concentrations in Parkers Lake, which may be able to be replicated in other areas of Hennepin County, and 4) help target education and training needs by landuse. A series of technical stakeholder meetings were held last fall and winter to develop recommendations on BMPs. A technical findings report was presented at the July 2022 meeting. At the September meeting, the Commission approved a scope and budget for a study of the feasibility of in-lake chloride reduction activities. That study is now underway by the Commission Engineer. Additionally, the city is sampling the stormwater pond at their maintenance facility. Project website: www.bassettcreekwmo.org/projects/all-projects/parkers-lake-drainage-improvement-project

2021 Mt. Olivet Stream Restoration Project (ML-20) (No change since July 2022): The feasibility study for this project was approved in May 2020 withAlternative 3 being approved for the drainage improvement work. After a public hearing was held with no public in attendance, the Commission ordered the project on September 17, 2020 and entered an agreement with the city of Plymouth to design and construct the project. The city hired WSB for project design which is currently underway. 60% design plans were approved in June. 90% plans were approved at the August. Construction is complete and vegetation is currently being established. www.bassettcreekwmo.org/projects/all-projects/mt-olivet-stream-restoration-project

2021 Main Stem Lagoon Dredging Project (BC-7) (Update to be provided with 5I): The feasibility study for this project was approved in May 2020 with Alternative 2-all (dredge all three lagoons to 6-foot depth) being approved. After a public hearing was held with no public in attendance, the Commission ordered the project on September 17, 2020. Rather than entering an agreement with a separate entity to design and construct this project, the Commission will implement the project in close coordination with the MPRB. At their meeting in November, the Commission approved a timeline for implementation and the Commission Engineer was directed to prepare a scope of work for project design and engineering. The engineering scope and budget were approved at the May 2021 meeting. Design and permitting got underway in summer 2021. Dredging of all three lagoons is planned for winter 2022/2023. A grant agreement for the $250,000 Watershed Based Implementation Funding grant was approved at the January 2021 meeting. The project work plan was approved by BWSR. In the spring 2021 the Commission approved a grant agreement for a Hennepin County Opportunity Grant for this project. An Environmental Assessment Worksheet was approved by the Commission at their October 2021 meeting and was submitted for a 30-day comment period by the City of Golden Valley as the RGU. A meeting of project stakeholders was held December 7th and 50% designs were approved at the December 2021 meeting. Comments were received on the EAW from multiple review agencies and one private citizen. Agency comments were relatively minor and expected. Comments from the citizen were more complex and detailed. Responses to comments were developed the RGU (city of Golden Valley) made an official declaration that no Environmental Impact Statement is needed. Staff reviewed a request from a resident to add "safety" benches to the ponds, reviewed reference materials and discussed in detail with MPRB. Determined safety benches aren't appropriate or needed for this project and responded to the resident. 90% plans were approved at the June meeting. A project flyer and FAQs page were developed in conjunction with MPRB staff. They are posted on the webpage and were distributed to MPRB and Loppet staff at the Chalet and Trailhead. At the October meeting the Commission awarded the construction contract to the lowest responsive, responsible bidder: Fitzgerald Excavating and Trucking and contract documentation was completed thereafter. A pre-construction meeting was held November 28th. Dredging began in January and was completed in March 2023. Two pay requests from the contractor have been approved although dredged quantities reported do not match post-construction surveys performed by the Commission. At the May meeting, the Commission approved submittal of a notice of claim to the contractor. Since then, the contractor completed site restoration. An update will be provided at this meeting. Project website:www.bassettcreekwmo.org/projects/all-projects/bassett-creek-main-stem-lagoon-dredging-project

2022 Medley Park Stormwater Treatment Facility (ML-12): The feasibility study for this project is complete after the Commission Engineer's scope of work was approved last August. City staff, Commission Engineers and I collaborated on developing materials for public engagement over the fall/early winter. A project kick-off meeting was held in September, an internal public engagement planning meeting was held in October, and a Technical Stakeholder meeting with state agencies was held in November. A story map of the project was created and a survey to gather input from residents closed in December. Commission Engineers reviewed concepts and cost estimates have been reviewed by city staff and me. Another public engagement session was held in April to showcase and receive feedback on concept designs. The feasibility report was approved at the June meeting with a decision to implement Concept #3. At the July meeting the Commission directed staff to submit a Clean Water Fund grant application, if warranted. A grant application was developed and submitted. Funding decisions are expected in early December. A public hearing on this project was held in September with no members of the public attending. In September, a resolution was approved to officially order the project, submit levy amounts to the county, and enter an agreement with the city to design and construct the project. The city hired Barr Engineering to develop the project designs which are now underway. The BCWMC received a $300,000 Clean Water Fund grant from BWSR in December 2021 and the grant agreement approved in March 2022. 50% design plans were approved in February 2022 and 90% plans were approved at the May 2022 meeting. Final plans and bid documents were developed by the city's consultation (Barr Engineering). Construction began in November and winter construction was finished in late January 2023. Activities this spring include completing grading (topsoil adjustments); paving (concrete, bituminous); light pole and fixture install; benches install; site clean up and prep for restoration

contractor. In late May, Peterson Companies completed their construction tasks and the project transitioned to Traverse de Sioux for site restoration and planting. A small area of unexpected disturbance from construction was added to the overall area to be restored with native plants through a minor change order. www.bassettcreekwmo.org/projects/all-projects/medley-park-stormwater-treatment-facility

2022 SEA School-Wildwood Park Flood Reduction Project (BC-2, 3, 8, 10): The feasibility study for this project is complete after the Commission Engineer's scope of work was approved last August. A project kick-off meeting with city staff was held in late November. Meetings with city staff, Robbinsdale Area School representatives, and technical stakeholders were held in December, along with a public input planning meeting. A virtual open house video andcomment form were offered to the public including live chat sessions on April 8th. The feasibility study report was approved in June with a decision to implement Concept #3. A public hearing on this project was held in September with no members of the public attending. In September, a resolution was approved to officially order the project, submit levy amounts to the county, and enter an agreement with the city to design and construct the project. The city hired Barr Engineering to develop the project designs which are now underway. A virtual public open house was held February 3rd. 50% Design Plans were approved at the January meeting. A public open house was held September 29th. 90% were approved at the October Commission meeting. Six construction bids were received in late February with several of them under engineer's estimates. The city contracted with Rachel Contracting and construction got underway earlier this spring. Recently, construction has been on hold in order to investigate an unmarked fiber line on the north end of the park with an unknown owner. The City approved a change order and Rachel was slated to restart construction on June 5th. The restoration portion of the project is currently out for bid, with bid opening on June 20.. Project webpage: www.bassettcreekwmo.org/projects/all- projects/sea-school-wildwood-park-flood-reduction-project.

2024 CIP Projects: Feasibility Studies Underway for

Bassett Creek Restoration Project: Regent Ave. to Golden Valley Rd. (2024 CR-M) **(See Item 5A)**

A public open house was held March 1st with 30 residents attending. The draft feasibility report was presented at the April meeting. A final report will be presented at this meeting.

Ponderosa Woods Stream Restoration Project, Plymouth (ML-22) **(See Item 5B)**

A public open house was held February 13th with 3 residents attending. The draft feasibility report was presented at the May meeting and additional information will be presented at this meeting.

Sochacki Park Water Quality Improvement Project (BC-14) **(See Item 5C)**

This project is proposed to be added to the CIP through a minor plan amendment as approved at the March Commission meeting with CIP funding set at $600,000. The project involves a suite of projects totaling an estimated $2.3M aimed improving the water quality in three ponds and Bassett Creek based on a subwatershed analysis by Three Rivers Park District (TRPD). A feasibility study is now underway for the project and is being funded by TRPD. The feasibility study kick off meeting was held June 5th. Information on the project and an update on the feasibility study will be presented at this meeting.

Administrator Report May 10 – June 7, 2023

Subject	Work Progress
CIP	• Main Stem Lagoon Dredging Project: Coordinated with Commission Attorneys and Commission Chair on Notice of Claim and sent notice and engineer's memo to contractor • Main Stem Restoration Project Regent Ave to Golden Valley Road Project: Reviewed and provided comments on revised feasibility study report • Ponderosa Woods Stream Restoration Project: Reviewed and provided comments on memo with additional information on feasibility study • Sochacki Park Water Quality Improvement Project: Created project website, reviewed and commented on agenda for feasibility study kick off meeting; participated in kick off meeting; discussed project with Chair Cesnik

	• Four Seasons Area Water Quality Treatment Project: Met with Plymouth staff and Commission Attorney re: updated agreement with BCWMC and next steps
Bassett Creek Tunnel	• Met with Minneapolis staff, Commission Engineer, and Commission Attorney to review draft agreement on tunnel inspections, maintenance, development reviews, and emergency response.
Education, Outreach & West Metro Water Alliance (WMWA)	• Attended May WMWA meeting • Discussed Low Salt, No Salt MN campaign with Capitol Region WD staff and small group members • Gathered and transmitted comments from Education Committee members on Crystal dog park interpretive sign • Coordinated with FOBC re: gathering volunteers and collecting water buckets • Attended Harrison Neighborhood Annual Meeting • Prepared presentation for and attended Sweeney Lake Association meeting • Met with HaHa Wakpadan pronunciation project coordinator and participants at the creek
Administration	• Developed agenda; reviewed invoices and submitted expenses spreadsheet to Redpath; developed Administrator's report; reviewed bank statements, investment statements and financial report; drafted May meeting minutes; reviewed memos, documents and presentations for Commission meeting; printed and disseminated meeting information to commissioners, staff, and TAC; updated online calendar; drafted meeting follow up email; ordered catering for June Commission meeting • Finalized Annual Report, posted online and submitted to BWSR • Worked to set second Administrative Services Committee meeting • Assisted with gathering information and answered questions for 2022 financial audit • Continued to refine draft 2024 Operating • Corresponded with Medicine Lake commissioners and mayor, city consultants and Commission Engineers re: Jevne Park improvements and possible use of CIP funds • Meet with Plymouth staff to discuss Commission accounting options • Post updated water quality graphs online • Met with Plymouth staff and Commission Engineers to discuss regional treatment planning • Prepared agenda and materials for TAC meeting; attended meeting and drafted TAC recommendation memo and Plymouth regional treatment memo • Attended BWSR Legislative Update meeting • Participated in Met Council 2026 Water Policy Group meeting
MAWD	• Registered for Summer Tour • Corresponded with Met Council about upcoming Metro Watersheds agenda items
Grant Work	• Wrote final grant report, prepared final budget calculations, and developed final invoice for 319 Sweeney Lake WQ Improvement Project grant – submitted all toe MPCA
2025 Watershed Management Plan	• Met with Commission Engineers for bi-weekly check in meetings and updated task list • Prepared agenda and materials for first Plan Steering Committee meeting; attended meeting and corresponded with Committee Chair and Commission Chair in follow up emails • Set second Plan Steering Committee meeting • Met with MPCA staff and Commission Engineers re: biotic impairments and options for habitat improvements