Bassett Creek Watershed Management Commission

Regular Meeting
Thursday, May 16, 2024
8:30 a.m.
Council Conference Room
Golden Valley City Hall @ 7800 Golden Valley Rd.
Listen via Zoom:
https://plymouthmn-gov.zoom.us/meeting/register/tZcodOCvrj8rHtZJzxg6hib82UqHHvF4Ift3#/registration

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 – April 18, 2024 Commission Meeting
   - B. Acceptance of May Financial Report
   - C. Approval of Payment of Invoices
     - i. Keystone Waters, LLC – April 2024 Administration
     - ii. Keystone Waters, LLC – April 2024 Administrative Expenses
     - iii. Barr Engineering – April 2024 Engineering Services
     - iv. Triple D Espresso – Meeting Catering
     - v. City of Plymouth – April Accounting Services
     - vi. Kennedy and Graven – Legal Services
     - vii. Stantec – WOMP Services
     - viii. INCase LLC – Watershed Map Designer
   - D. Approval of Resolution 24-06 to Not Waive Monetary Limits on Municipal Tort Liability
   - E. Approval to Reimburse Commissioners and Alternates for MN Watersheds Summer Tour Attendance
   - F. Approval for Administrator to Attend MN Watersheds Summer Tour

5. **BUSINESS**
   - A. Review Draft Feasibility Study for Plymouth Creek Restoration Project (40 min)
   - B. Consider Adoption of Land and Water Acknowledgement Statement (15 min)
   - C. Discuss Study of Creek Co-naming Opportunities (20 min)
   - D. Discuss Commission Review of Wetland Impacts and Buffers (30 min)
   - E. Receive Update from Plan Steering Committee (10 min)
   - F. Receive Update from Budget Committee (10 min)

6. **COMMUNICATIONS (15 minutes)**
   A. Administrator's Report
      i. Minnesota Watersheds Summer Tour
   B. Engineer
   C. Legal Counsel
   D. Chair
   E. Commissioners
   F. TAC Members
      i. Need June 12th Liaison
      ii. JPA Questions or Concerns
   G. Committees

7. **INFORMATION ONLY (Information online only)**
   A. Administrative Calendar
   B. CIP Project Updates www.bassettcreekwmo.org/projects
   C. Grant Tracking Summary and Spreadsheet
   D. Sun Post Article on Sochacki Park Water Quality Improvement Project
   E. Bassett Creek Pollutant Trend Update 2000 – 2020 by Met Council
   F. WCA Notice, Plymouth

8. **ADJOURNMENT**

Upcoming Meetings & Events

- BCWMC Budget Committee Meeting: May 20, 12:00 p.m. Rice Lake Room, Brookview
- Indigenous Creek Connections: A Joint Meeting of MWMO and BCWMC: Tuesday, June 11, 5:30 p.m., Mississippi Watershed Management Organization Office
- BCWMC Plan Steering Committee Meeting: Wednesday, Juen 12, 8:30 a.m., Wirth Lake Room, Brookview
- BCWMC Technical Advisory Committee Meeting: Wednesday, June 12, 10:30 a.m., Wirth Lake Room, Brookview
- BCWMC Regular Meeting: June 20, 8:30 a.m., Golden Valley City Hall
- MN Watersheds Summer Tour Event: June 25 – 27, St. Paul www.mnwatersheds.com/summer-tour
- BCWMC Education Committee Meeting: June 26, 4:00 p.m., Wirth Lake Room, Brookview
- Annual Salt Symposium: August 6 – 7, virtual; www.bolton-menk.com/salt-symposium/

Bassett Creek Watershed Management Commission

AGENDA MEMO
Date: May 9, 2024
To: BCWMC Commissioners
From: Laura Jester, Administrator
RE: Background Information for 5/16/24 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 – April 18, 2024 Commission Meeting- **ACTION ITEM with attachment**

   B. Acceptance of May Financial Report - **ACTION ITEMS 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 – April 2024 Administration
      ii. Keystone Waters, LLC – April 2024 Administrative Expenses
      iii. Barr Engineering – April 2024 Engineering Services
      iv. Triple D Espresso – Meeting Catering
      v. City of Plymouth – April Accounting Services
      vi. Kennedy and Graven – Legal Services
      vii. Stantec – WOMP Services
      viii. INCase LLC – Watershed Map Contractor

   D. Approval of Resolution 24-06 to Not Waive Monetary Limits on Municipal Tort Liability – **ACTION ITEM with attachment** - *Commission Attorney Anderson recommends the Commission take action (via resolution) to not waive monetary limits on municipal tort liability. This action is taken by the Commission annually*.

   E. Approval to Reimburse Commissioners and Alternates for MN Watersheds Summer Tour Attendance– **ACTION ITEM no attachment** – *Minnesota Watersheds is hosting a summer tour in the east metro June 25-26. June 25th includes educational sessions in the afternoon followed by an evening reception in St. Paul. June 26th is an all-day bus tour of various projects throughout the east metro. A complete agenda is coming soon. Two-day registration is $125/person. Staff recommends approving reimbursement of registration costs for any commissioner or alternate wishing to attend.*

   F. Approval for Administrator to Attend MN Watersheds Summer Tour - **ACTION ITEM no attachment** – *I am requesting to participate in the Minnesota Watersheds Tour as described above including attendance at the Minnesota Association of Watershed Administrators meeting on the morning of June 25th. Registration cost of $125, plus my time to attend, would come from my administrator's budget.*

5. BUSINESS

A. Review Draft Feasibility Study for Plymouth Creek Restoration Project (40 min) – **DISCUSSION ITEM WITH ATTACHMENT** – **full document online; appendices separate** – *At the October 2023 meeting, the Commission approved a scope and budget from the Commission Engineer for development of a feasibility study for the Plymouth Creek Restoration Project Dunkirk Lane to Plymouth Ice Center. The attached draft study was developed with input from the BCWMC Administrator, Plymouth staff, and residents in the area. The Commission Engineer will present the study at this meeting. The Commission should review and comment. A final study should be approved at the June Commission meeting in order to set the 2025 maximum levy.*

B. Consider Adoption of Land and Water Acknowledgement Statement (20 min) – **ACTION ITEM with attachment** – *The first draft of the land and water acknowledgement statement was briefly discussed at the March meeting and was tabled at the April meeting due to time constraints. Chair Cesnik and Alternate Commissioner Gould developed the statement and refined it for the Commission's consideration. I recommend adoption by the Commission and a commitment to carry out the statement's call to action to identify and integrate Native wisdom in the stewardship of watershed resources*.

C. Discuss Study of Creek Co-naming Opportunities (20 min) – **DISCUSSION ITEM with attachment** – *This item was moved from the March and April meetings due to time constraints. Please see the attached memo with ideas for studying co-naming opportunities*.

D. Discuss Commission Review of Wetland Impacts and Buffers – **DISCUSSION ITEM with attachment** - *This item was tabled at the February 2024 meeting. Please review the attached memo which includes content from the original February memo, along with options recently developed by staff. Staff recommends that the Commission review these materials and options today and consider directing staff and the Plan Steering Committee to complete a more thorough gaps analysis on the issue to understand what's working or not working with current requirements and processes. Staff recommends incorporating changes to policies or requirements (if any) in the updated watershed management plan.*

E. Receive Update from Plan Steering Committee – **INFORMATION ITEM with attachment** – *At their meeting on May 1st the Plan Steering Committee made progress on developing issue statements, measurable goals, and potential actions for issues in the Flooding and Climate Resiliency category. The next Plan Steering Committee meeting is scheduled for June 12th. The Commission Workshop on plan development is slated for the July 18th or August 15th Commission meeting. Please see the attached progress tracker to review past and upcoming discussion topics.*

F. Receive Update from Budget Committee – **INFORMATION ITEM no attachment** – *The Budget Committee met on May 2nd to discuss the 2025 operating budget, the potential use of a maintenance levy, and options for increasing staff capacity. Current projections (using unaudited figures) show the potential for only a moderate increase (less than 10%) in city assessments over 2024. The committee will meet again on May 20th and will bring recommendations to the June Commission meeting.*

6. COMMUNICATIONS (15 minutes)

A. Administrator's Report – **See attachment**

i. Minnesota Watersheds Summer Tour

B. Engineer
C. Legal Counsel
D. Chair
E. Commissioners
F. TAC Members
   i. Need June 12th Liaison
   ii. JPA Questions or Concerns
G. Committees

7. INFORMATION ONLY (Information online only)

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- BCWMC Technical Advisory Committee Meeting: Wednesday, June 12, 10:30 a.m., Wirth Lake Room, Brookview
- BCWMC Regular Meeting: June 20, 8:30 a.m., Golden Valley City Hall
- MN Watersheds Summer Tour Event: June 25 – 27, St. Paul www.mnwatersheds.com/summer-tour
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Item 4A.
BCWMC 5-16-24

Bassett Creek Watershed Management Commission

DRAFT Minutes of Regular Meeting
Thursday, April 18, 2024
8:30 a.m.
Golden Valley City Hall, 7800 Golden Valley Road

1. CALL TO ORDER and ROLL CALL

On Thursday April 18, 2024 at 8:32 a.m. Chair Cesnik called 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	Joan Hauer	Terri Schultz	Ben Perkey
Golden Valley	Paula Pentel	Roxanne Gould	Eric Eckman
Medicine Lake	Clint Carlson	Shaun Kennedy (voting member)	*Absent*
Minneapolis	Michael Welch	Jodi Polzin	Liz Stout, Nico Cantarero
Minnetonka	*Absent*	Stacy Harwell	*Absent*
New Hope	Jere Gwin-Lenth	Jen Leonardson	*Absent*
Plymouth	Catherine Cesnik	*Absent*	Ben Scharenbroich
Robbinsdale	Wayne Sicora	Bob Stamos	Richard McCoy, Jenna Wolf
St. Louis Park	*Absent*	David Johnston	Erick Francis
Administrator	Laura Jester, Keystone Waters, LLC		
Engineers	Karen Chandler, Stephanie Johnson – Barr Engineering Co.		
Recording Secretary	*Vacant Position*		
Legal Counsel	Dave Anderson, Kennedy & Graven		
Presenters/ Guests/Public	Jim Rock (online)		

2. PUBLIC FORUM ON NON-AGENDA ITEMS

No public comments.

3. APPROVAL OF AGENDA

MOTION: Commissioner Gwin-Lenth moved to approve the agenda. Commissioner Pentel seconded the motion. Upon a vote the motion carried 9-0.

4. CONSENT AGENDA

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

MOTION: Commissioner Pentel moved to approve the consent agenda as amended. Commissioner Gwin-Lenth seconded the motion. Upon a vote the motion carried 9-0.

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

- Acceptance of April Financial Report
- Approval of Payment of Invoices
    - Keystone Waters, LLC – March 2024 Administration
    - Keystone Waters, LLC – March 2024 Administrative Expenses
    - Barr Engineering – March 2024 Engineering Services
    - Triple D Espresso – Meeting Catering
    - City of Plymouth – March Accounting Services
    - Kennedy and Graven – Legal Services
    - Stantec – WOMP Services
- Approval of Agreement with Three Rivers Park District for 2024 Medicine Lake Activities

5. BUSINESS

4A. Approval of Minutes – March 21, 2024 Commission Meeting

Commissioner Welch requested that language in Item 6Ei of the March meeting minutes be revised from "MN Landscapers Association still refuses to support the language in the bill" to "MN Landscapers Association is not willing to join the coalition."

MOTION: Commissioner Welch moved to approve the March 21, 2024 meeting minutes, as amended. Commissioner Gwin-Lenth seconded the motion. Upon a vote the motion carried 9-0.

4E. Approval of 2023 Annual Report

Commissioner Hauer noted that the annual report was a good and thorough document. She noted that the budget pie chart in the executive summary would be helpful when reviewing the operating budget during the year. Commissioner Pentel agreed that the report was well done and useful but noted that Commissioner Hauer was missing from the list of commissioners.

MOTION: Commissioner Gwin-Lenth moved to approve the 2023 Annual Report with the revision noted. Commissioner Hauer seconded the motion. Upon a vote the motion carried 9-0.

4F. Approval of 2024 Plymouth Boulevard Rehabilitation Project

Commissioner Hauer asked where the new stormwater outlets would be located wondering if there was to be more stormwater flowing to Plymouth Creek than currently. Commission Engineer Johnson noted that the Commission Engineers reviewed the project in context of the current BCWMC requirements. Plymouth TAC member Scharenbroich noted on the map where the new stormwater outfalls would be located and indicated that the same amount of stormwater will reach the creek but that it will be treated first, unlike current conditions. He noted that conditions are improving through project implementation. He also confirmed that stormwater volume is not changing (infiltration is not possible due to clay soils). There was further description of the project and discussion on the balance between needed city infrastructure (e.g., improved roadways), and stormwater management. Commissioner Welch noted an error within the project description of the permit memo; the proposed project will result in 9.4 acres of fully

reconstructed impervious and no new impervious area. Commissioner Welch noted that this 9.4 acres of fully reconstructed impervious surface does not require water quality improvements according to BCWMC requirements for linear projects. He advocated for updating the Commission's standards and requirements.

MOTION: Commissioner Hauer moved to approve the Plymouth Boulevard Rehabilitation Project with Commission Engineers' comments and conditions noted in the review memo. Commissioner Gwin-Lenth seconded the motion. Upon a vote the motion carried 9-0.

A. Consider Approval of Agreement for Sochacki Park Water Quality Improvement Project Implementation

Administrator Jester noted the agreement with Three Rivers Park District and the City of Robbinsdale to design, construct, and maintain the project was drafted by the Commission Attorney and was reviewed by project partners. She noted the agreement is similar to other typical CIP implementation agreements and incorporates the provisions reviewed and discussed at the March Commission meeting.

Commission Attorney Anderson noted there were minor changes (clarifications) made from the version included in the meeting packet which were shown on the screen.

MOTION: Commissioner Sicora moved to approve the agreement with Three Rivers Park District and the City of Robbinsdale for the Sochacki Park Water Quality Improvement Project. Commissioner Pentel seconded the motion.

Discussion: Commissioner Welch noted that he would abstain from the vote noting that the agreement is fine but he continues to feel the process for implementation was not appropriate.

VOTE: Upon a vote the motion carried 8 in favor, 0 opposed, 1 abstention by Commissioner Welch.

B. Consider Approval of Updated Joint Powers Agreement for Member City Review

i. JPA with Tracked Revisions Since March

ii. Proposed JPA Document

Commission Attorney Anderson noted the valuable feedback gathered during the March Commission meeting and noted the changes that were made to the updated JPA (as shown in the memo in the meeting packet) including providing more clarity on voting and allowing cities to compensate commissioners (in addition to the Commission). Administrator Jester also noted the change allowing the Commission to authorize the administrator to disburse Commission funds without two signatures.

Attorney Anderson noted the termination date for the JPA was left blank and should be decided today. Administrator Jester noted that the current JPA's term is 10 years while the previous JPA's term was 20 years. There was considerable discussion on the appropriate term with some commissioners advocating for a 20-year term and/or a term that does not coincide with updating the watershed management plan. Commissioner Welch noted that the Commission will be evaluating the possibility of changing its governance and/or funding structure early in the implementation of the watershed management plan. He advocated for a short term for the JPA such as 3 or 5 years. He noted that he didn't know why the Commission would sign a 20-year JPA while knowing a change to the governance structure is possible. He indicated that sends conflicting messages to member cities and he indicated he is nervous that if a 20-year JPA is approved, member cities may not earnestly engage in analyzing governance structure. Administrator Jester noted the potential timeline of the watershed management plan is for it to be adopted in 2026 and the analysis of governance to be completed in 2027 or 2028. She noted that if the funding structure or governance structure were slated to change significantly, it might take several years before new structures are in place (particularly if special legislation is needed). She noted that perhaps a 7-year term would be appropriate.

Chair Cesnik took a roll call vote to understand leanings of the commissioners. Most commissioners voted for a 10- or 20-year JPA term. There was more discussion about various possible terms including 5-, 10-, and 15-year terms. Commissioner Welch advocated for a 5-year term. There was discussion about the governance structure analysis. It was noted that commissioners and TAC members seem open to the possibility of changing structure or funding and that some people may not know the difference between the various options (such as watershed district vs. watershed management organization). Commissioner Sicora noted that the structure analysis is currently an internal discussion,

mostly with the Plan Steering Committee. He noted the need for a firm setting and "safe" document to be able to move forward and that there is always the option for change. He indicated that 10 years is a minimum for operating responsibly and less than 10 years seems irresponsible. There was further discussion on the complication of syncing the JPA term with watershed plan updates. Commissioner Pentel noted that city councils like stability and that a longer term JPA would be better. Chair Cesnik took another poll on a 7-year vs 12-year term with most people choosing the 12-year term. There was some additional discussion on other term options.

MOTION: Commissioner Pentel moved to approve the draft joint powers agreement with a 12-year term. Alternate Commissioner Harwell seconded the motion. A roll call vote was ordered:

Crystal: No
Golden Valley: Yes
Medicine Lake: Yes
Minneapolis: No
Minnetonka: Yes
New Hope: Yes
Plymouth: Yes
Robbinsdale: Yes
St. Louis Park: Yes

The motion passed 7-2.

C. Consider Approval of Contract for Gathering Content on Native Communities

Administrator Jester reported that the Education Committee recommends that the updated watershed map include a large section describing Native culture, history, and land and water care practices in the Haha Wakpadan area. She noted that Jim Rock (husband of Alternate Commissioner Gould) is a member of the Dakota community and an educator of Indigenous culture. He indicated willingness to develop content for the watershed map and, upon request, submitted a proposal to complete that work. Commission Attorney Anderson explained that since Alternate Commissioner Gould is an interested official the Commission must adopt a resolution approving the contract by unanimous vote and noted the Commission could look for alternate bids if they so choose. The resolution was shown on the screen in the room as it was not included with meeting materials. There was agreement among commissioners that the price of $2,000 for this work was already quite low and that the Commission is fortunate to have Jim Rock as a watershed resident and resource on Native communities. Attorney Anderson noted that Commissioner Gould cannot discuss the contract being considered but would be allowed to provide input on the Native content.

MOTION: Commissioner Harwell moved approval of the resolution and the contract with Mr. Rock. Commissioner Hauer seconded the motion. Upon a vote the motion carried 9-0.

A friendly amendment to the motion removed the paraphrase "with Alternate Commissioner Gould abstaining from the vote" from the resolution (unnecessary as she was not a voting member at this meeting).

Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

D. Review Next Steps in Bassett Creek Valley Discussions

Administrator Jester reported that now is a good time to convene some Bassett Creek Valley (BCV) stakeholders including neighborhood groups, the Redevelopment Oversight Committee (ROC), city council members, and county board members in order to get their input and continue supporting the county's potential plans to develop a community works program through a multi-jurisdictional partnership for planning and implementation in the BCV. Commissioner Welch noted the Commission should decide its role in this issue. He also noted that the ROC is a group of businesses and neighborhoods in the area that acts as an unauthorized commission of the City of Minneapolis for providing input to the city on redevelopment within the BCV. He noted the city council adopted ROC's plans for redevelopment many years ago. There was more discussion about the ROC and how the city's impound lot is an important piece of the discussion on the future of the area. It was noted that the Commission could not be an official member of the multi-jurisdictional partnership but could be involved. Commissioner Welch noted the Commission's involvement as a stakeholder and convener is a good role. Commissioners Sicora and Harwell noted the request of the Commission is simple and that it's a good opportunity to be involved. Minneapolis TAC member Stout noted it's a very challenging area and includes environmental justice issues and the need to avoid gentrification. She noted the Commission's role in protecting the environment as redevelopment occurs. Engineer Chandler remined commissioners at that the Bassett Creek Valley issue is included in the Climate Resiliency category in the new watershed plan.

MOTION: Commissioner Welch moved to authorize the administrator to work with Hennepin County to organize a Bassett Creek Valley stakeholder meeting. Alternate Commission Kennedy seconded the motion. Upon a vote the motion carried 9-0.

[Chair Cesnik called for a 5-minute break.]
[Alternate Commissioners Harwell and Stamos leave the meeting.]

E. Consider Technical Advisory Committee Recommendations

TAC Chair Scharenbroich reported that the TAC recommends a 5-year Capital Improvement Program (CIP) that includes dredging in Theodore Wirth Park, with a feasibility study to looking at options for additional dredging in Lagoons D, E, and F vs. new dredging in Lagoon G upstream. He also noted that the TAC considered a Golden Valley request to include replacement or significant repair of a culvert that carries the Sweeney Branch of Bassett Creek just upstream of the confluence with the main stem (and just upstream of Lagoon G in Theodore Wirth Park). TAC Chair Scharenbroich said the TAC does not recommend including it as a CIP project but agreed there is likely a Commission role in repairing or replacing this culvert. Alternate Commissioner Polzin wondered about the timing of the culvert replacement in relation to the possible dredging of Lagoon G. Administrator Jester noted that because the dredging project is slated for 2027, there was time to align the project if that made sense.

MOTION: Commissioner Welch moved to approve the addition of a project to dredge lagoons (either Lagoons D, E, and F, or Lagoon G) in Theodore Wirth Park to the 5-year CIP. Commissioner Pentel seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

TAC Chair Scharenbroich went on to review a TAC recommendation to convert the Commission's hydrologic and hydraulic (H&H) model from XPSWMM to PCSWMM and update the model with new data. He briefly described the various components of the project which is expected to span three years: 2025 – 2027. He noted the TAC recommends completing the whole project as shown in a detailed scope and budget from the Commission Engineer, and to use Flood Control Project (FCP) long term maintenance funds until or unless grant funding is secured or a maintenance levy is collected through Hennepin County.

Administrator Jester further defined the funding options and noted the Shingle Creek Watershed Management Commission already levies for CIP maintenance through the county. She noted the project could be wholly funded from the FCP long term maintenance fund but then the balance of that fund may be too low to perform actual maintenance when needed in the future. Commissioner Sicora indicated his support of the TAC recommendations and strongly encouraged proposing a maintenance levy through the county as an additional resource. Commissioners noted the importance of a good H&H model.

MOTION: Commissioner Sicora moved to approve the TAC recommendations to 1) direct the Commission Engineer to implement the hydrologic and hydraulic model conversion and update project as presented and to fund the project with Flood Control Project Long Term Maintenance Funds until or unless alternative funding is secured; 2) direct Commission staff to continue exploring grant funding opportunities for the model conversion and update project; and 3) direct Commission staff to explore establishment of a maintenance levy through Hennepin County. Commissioner Hauer seconded the motion. Upon a vote the motion carried 8-0 with the City of Minnetonka absent from the vote.

TAC Chair Scharenbroich reviewed additional discussions by the TAC (which did not include recommendations to the Commission) regarding the JPA review and approval timeline and the 2025 operating budget. Regarding the TAC's concern about city assessments possibly being greater than 10% more than 2024, Commissioner Welch noted the argument for levy authority rather than reliance on city funds. Commissioner Sicora noted the 2025 budget should reflect current work and noted the future needs of the Commission would be a separate discussion.

F. Receive Update from Plan Steering Committee

Plan Steering Committee Chair Kennedy reviewed the progress of the committee noting that considerable time was spent on how the Commission should operate in the future. He noted the committee will focus more on what the Commission wants to accomplish and then circle back to how to implement. He noted the watershed and waterbody quality category of issues was finalized and that anyone is welcome to attend the committee meetings. Administrator Jester noted this progress tracker would be included in Commission meeting materials each month.

MOTION: Chair Cesnik moved to table the remaining agenda items until a future meeting. Commissioner Pentel seconded the motion. Upon a vote the motion carried 8-0 with City of Minnetonka absent from the vote.

6. COMMUNICATIONS

A. Administrator's Report
   i. Update on Sweeney Lake Eurasian Watermilfoil Eradication Project – EWM is growing more slowly than expected. Commission Engineers are checking growth every two weeks. Residents and the public are asked to stay off the lake.
   Various requests for interviews lately including on Sochacki Park Water Quality Improvement Project and history of the Bassett Creek tunnels, and request from MPCA to host a tour stop with college students at Schaper Pond/Sweeney Lake.
   Reported on upcoming June 11 BCWMC/MWMO evening meeting centered around the Haha Wakpadan oral history project and that commissioners will receive personal invitations.

B. Engineer
   i. Update on Water Monitoring Activities – Ice out monitoring was March 19th on Cavanaugh/Sunset and Westwood Lakes. TRPD is monitoring Parkers and Medicine Lakes in cooperation with BCWMC; TRPD completed ice out monitoring on April 1. North Branch stream monitoring is underway with equipment being set up and a storm event sample collected April 7th.
   Medicine Lake TMDL Assessment project continues to move forward; doesn't appear that additional sediment monitoring is needed. Alternate Commissioner Kennedy requested that the final report include information on the impact of zebra mussels on algae.

C. Legal Counsel – Commission attorney Anderson continues to work on Bassett Creek Tunnel agreement with City of Minneapolis including negotiating indemnification language. He will be absent from the May meeting; his colleague Sarah Sonsalla will attend in his place.

D. Chair – Chair Cesnik was appointed to the Plymouth City Council in the ward that includes Medicine Lake. Chair Cesnik plans to attend TRPD's April 25th State of the Parks event.

E. Commissioners – Commissioner Welch reported the chloride limited liability legislation is dead this year. Also noted that Hwy 55's future is under consideration and may be a huge shift from current use and configuration. Alternate Commissioner Polzin noted a good article in the MinnPost on the topic.

F. TAC Members – TAC Chair Scharenbroich reported that Plymouth continues to work through Army Corps permitting for Four Seasons Mall site. Commissioner Pentel was appointed as TAC liaison to May 1st TAC meeting.

G. Committees – Budget Committee meets May 2nd

7. INFORMATION ONLY

A. Administrative Calendar
B. CIP Project Updates www.bassettcreekwmo.org/projects
C. Grant Tracking Summary and Spreadsheet
D. Minneapolis Stormwater Management Program Public Hearing

8. ADJOURNMENT - The meeting adjourned at 11:11 a.m.

Bassett Creek Watershed Management Commission
Statement of Financial Position as of 05/16/2024
Unaudited

	400	100	
	Capital Improvement Projects	General Fund	TOTAL
ASSETS			
Current Assets			
Checking/Savings			
· 101 · Checking	-1,493,875.03	2,310,985.25	817,110.22
· 102 · 4MP Fund Investment	3,501,986.62	300,943.84	3,802,930.46
· 103 · 4M Fund Investment	3,533,650.36	-56,388.74	3,477,261.62
Total Checking/Savings	5,541,761.95	2,555,540.35	8,097,302.30
Accounts Receivable			
· 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	5,605,964.90	2,560,619.51	8,166,584.41
TOTAL ASSETS	5,605,964.90	2,560,619.51	8,166,584.41
LIABILITIES & EQUITY			
Liabilities			
Current Liabilities			
Accounts Payable			
· 211 · Accounts Payable	25,599.58	93,269.84	118,869.42
Total Accounts Payable	25,599.58	93,269.84	118,869.42
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	475,819.13	93,269.84	569,088.97
Total Liabilities	475,819.13	93,269.84	569,088.97
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	1,639,476.55	458,540.74	2,098,017.29
Net Income	-62,136.29	536,013.21	473,876.92
Total Equity	6,139,922.26	1,372,957.27	7,512,879.53
TOTAL LIABILITIES & EQUITY	6,615,741.39	1,466,227.11	8,081,968.50
UNBALANCED CLASSES	-1,009,776.49	1,094,392.40	84,615.91

Bassett Creek Watershed Management Commission			
Actual vs Budget Year to Date Comparison - General Fund			
4/18/2024			
Unaudited			
	Annual Budget	May	Year to Date	Budget Balance
Ordinary Income/Expense				
Income				
411 · Assessments to Cities	622,500.00	0.00	622,500.00	0.00
412 · Project Review Fees	77,000.00	0.00	19,726.13	57,273.87
413 · WOMP Reimbursement	5,000.00	0.00	0.00	5,000.00
414 · State of MN Grants	0.00	0.00	0.00	0.00
415 · Investment earnings	0.00	31,166.03	93,046.00	-93,046.00
416 · TRPD Reimbursement	5,000.00	0.00	0.00	5,000.00
417 · Transfer from LT & CIP	227,840.00	0.00	0.00	227,840.00
418 · Property Taxes	0.00	0.00	0.00	0.00
419 · Insurance Dividend	0.00	0.00	0.00	0.00
Total Income	937,340.00	31,166.03	735,272.13	202,067.87
Expense				
1000 · Engineering				
1010 · Technical Services	145,000.00	11,328.00	40,255.50	104,744.50
1020 · Development/Project Reviews	90,000.00	6,934.00	13,993.00	76,007.00
1030 · Non-fee and Preliminary Reviews	30,000.00	3,852.50	10,103.50	19,896.50
1040 · Commission and TAC Meetings	15,000.00	1,637.50	5,197.50	9,802.50
1050 · Surveys and Studies	15,000.00	0.00	0.00	15,000.00
1060 · Water Quality / Monitoring	186,900.00	11,906.56	34,256.11	152,643.89
1070 · Water Quantity	9,000.00	643.50	1,947.50	7,052.50
1080 · Annual Flood Control Inspection	85,000.00	609.50	609.50	84,390.50
1090 · Municipal Plan Review	2,000.00	0.00	0.00	2,000.00
1100 · Watershed Monitoring Program	26,500.00	1,675.57	5,489.61	21,010.39
1110 · Annual XP-SWMM Model Updates	3,000.00	0.00	148.00	2,852.00
1120 · TMDL Implementation Reporting	0.00	0.00	0.00	0.00
1130 · APM/AIS Work	40,000.00	3,111.90	5,814.40	34,185.60
1140 · Erosion Control Inspections	0.00	0.00	0.00	0.00
1000 · Engineering - Other	0.00	0.00	0.00	0.00
Total 1000 · Engineering	647,400.00	41,699.03	117,814.62	529,585.38
2000 · Plan Development				
2010 · Next Gen Plan Development	47,650.00	7,364.75	20,991.50	26,658.50
2000 · Plan Development - Other	0.00	0.00	0.00	0.00
Total 2000 · Plan Development	47,650.00	7,364.75	20,991.50	26,658.50
3000 · Administration				
3010 · Administrator	78,750.00	6,543.75	18,543.75	60,206.25
3020 · MAWD Dues	7,500.00	0.00	0.00	7,500.00
3030 · Legal	26,520.00	4,170.30	9,167.65	17,352.35
3040 · Financial Management	17,000.00	1,334.00	4,002.00	12,998.00
3050 · Audit, Insurance & Bond	18,700.00	0.00	0.00	18,700.00
3060 · Meeting Catering	2,400.00	197.53	749.34	1,650.66
3070 · Administrative Services	2,570.00	269.23	860.06	1,709.94
3000 · Administration - Other	0.00	0.00	0.00	0.00
Total 3000 · Administration	153,440.00	12,514.81	33,322.80	120,117.20
4000 · Education				
4010 · Publications / Annual Report	1,200.00	814.50	1,008.50	191.50
4020 · Website	1,600.00	0.00	0.00	1,600.00
4030 · Watershed Education Partnership	18,350.00	0.00	14,500.00	3,850.00
4040 · Education and Public Outreach	28,000.00	2,200.00	2,320.00	25,680.00
4050 · Public Communications	1,000.00	0.00	0.00	1,000.00
4000 · Education - Other	0.00	0.00	0.00	0.00
Total 4000 · Education	50,150.00	3,014.50	17,828.50	32,321.50
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	0.00
Total 5000 · Maintenance	60,000.00	0.00	0.00	60,000.00
Total Expense	1,044,040.00	66,291.09	189,957.42	768,682.58

Bassett Creek Watershed Management Commission

Actual vs Budget Year to Date Comparison - Construction in Progress

5/16/2024

Unaudited

	Project Budget	May	Year to Date	Inception to Date Expense	Remaining Budget
Ordinary Income/Expense					
Income	0.00	0.00	0.00	0.00	0.00
· BC2,3,8 · DeCola Ponds B&C Improve	0.00	0.00	0.00	0.00	0.00
· BC23810 · Decola Ponds/Wildwood Park	0.00	0.00	0.00	0.00	0.00
· BC5 · Bryn Mawr Meadows	0.00	0.00	0.00	0.00	0.00
· BC7 · Main Stem Dredging Project	0.00	0.00	0.00	0.00	0.00
· BCP2 · Bassett Creek Park & Winnetka	0.00	0.00	0.00	0.00	0.00
· CL3 · Crane Lake Improvement Project	0.00	0.00	0.00	0.00	0.00
· CRM · Main Stem Cedar Lk Rd-Dupont	0.00	0.00	0.00	0.00	0.00
· Fld1 · Flood Control Long Term Maint	0.00	0.00	0.00	0.00	0.00
· Flood1 · Emergency FCP Income	0.00	0.00	0.00	0.00	0.00
· LT1 · Metro Blooms Harrison Nghbr CWF	0.00	0.00	0.00	0.00	0.00
· ML12 · Medley Park Stormwater Treament	0.00	0.00	0.00	0.00	0.00
· ML21 · Jevne Park Stormwater Mgmt	0.00	0.00	0.00	0.00	0.00
· NL2 · Four Seasons Mall Area	0.00	0.00	0.00	0.00	0.00
· Qual · Channel Maintenance Fund	0.00	0.00	0.00	0.00	0.00
· SL1,3 · Schaper Pond Enhancement	0.00	0.00	0.00	0.00	0.00
· SL8 · Sweeny Lake Water Quality	0.00	0.00	0.00	0.00	0.00
· TW2 · Twin Lake Alum Treatment	0.00	0.00	0.00	0.00	0.00
· WST2 · Westwood Lake Water Quality	0.00	0.00	0.00	0.00	0.00
Total Income	0.00	0.00	0.00	0.00	0.00
Expense					
· 1000 · Engineering	0.00	0.00	0.00	0.00	0.00
· 2024CR-M · CIP-BS Main Stem Restore	1,941,000.00	1,399.00	1,399.00	86,894.39	1,854,105.61
· 2026CR-P · Plymouth Creek Restor Dunk 38th	0.00	20,933.00	52,796.71	95,250.58	-95,250.58
· BC-12 · CIP-CostShare Pur High Eff St S	150,000.00	0.00	0.00	0.00	150,000.00
· BC-14 · CIP-Sochacki Pk Wter Quality Im	600,000.00	0.00	0.00	0.00	600,000.00
· 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	77,749.39	1,222,250.61
· BC-5 · CIP-Bryn Mawr Meadows	1,835,000.00	2,343.58	3,183.08	749,655.06	1,085,344.94
· BC-7 · CIP-Main Stem Lagoon Dredging	2,759,000.00	144.00	197.50	1,589,533.34	1,169,466.66
· BCP-2 · CIP- Basset Cr Pk & Winnetka	1,123,351.00	0.00	0.00	1,075,698.32	47,652.68
· ML-12 · CIP-Medley Park Stormwater	1,500,000.00	0.00	0.00	98,218.61	1,401,781.39
· ML-20 · CIP-Mount Olive Stream Restore	178,100.00	0.00	0.00	178,100.00	0.00
· 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	352,000.00	0.00	0.00	43,789.81	308,210.19
· NL-2 · CIP-Four Seasons Mall	990,000.00	0.00	0.00	204,215.06	785,784.94
· PL-7 · CIP-Parkers Lake Stream Restore	485,000.00	780.00	2,631.00	236,884.12	248,115.88
· SL-3 · CIP-Schaper Pond	612,000.00	0.00	1,929.00	490,070.96	121,929.04
· SL-8 · CIP-Sweeney Lake WQ Improvement	568,080.00	0.00	0.00	568,064.13	15.87
· TW-2 · CIP-Twin Lake Alum Treatment	163,000.00	0.00	0.00	91,037.82	71,962.18
Total Expense	16,656,531.00	25,599.58	62,136.29	7,149,537.65	9,506,993.35
Net Ordinary Income	-16,656,531.00	-25,599.58	-62,136.29	-7,149,537.65	-9,506,993.35

Bassett Creek Watershed Management Commission								
Long Term Accounts - General Fund								
Unaudited			Total		Year		Inception	
			Budget	May	to-Date	Prior Years	to Date	Remaining Budget
Income	·	Fld1 · Flood Control Long Term Maint		0.00	0.00	189,421.90	189,421.90	
Expense	·	Fld2 · Flood Control Long Term Exp	699,980.00	0.00	0.00	442,776.41	442,776.41	
Total			699,980.00	0.00	0.00	(253,354.51)	-253,354.51	446,625.49
Income	·	Flood1 · Emergency FCP Income		0.00	0.00	-	0.00	
Expense	·	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
Income	·	Gen · Next gen Plan Development Income		0.00	0.00	38,000.00	38,000.00	
Expense	·	Gen1 · Next gen Plan Development Exp	0.00	0.00	0.00	20,000.00	20,000.00	
Total			0.00	0.00	0.00	18,000.00	18,000.00	18,000.00
Income	·	Qual · Channel Maintenance Fund		0.00	0.00	570,000.00	570,000.00	
Expense	·	Qual1 · Channel Maintenance Expense	0.00	0.00	0.00	265,837.70	265,837.70	
Total			0.00	0.00	0.00	304,162.30	304,162.30	304,162.30
Income	·	410 · Special Projects Fund	0.00	31,166.03	93,046.00	339,620.56	432,666.56	
Expense	·	410 · Special Projects Fund	0.00	1,698.00	9,301.50	4,541.95	13,843.45	
Total			0.00	32,864.03	83,744.50	335,078.61	418,823.11	418,823.11

Item 5A. BCWMC
5-16-24
Full Document Online
Appendices Separate

DRAFT

Plymouth Creek Stream Restoration Project (2025 CR-P) Feasibility Report

Plymouth, Minnesota

Prepared for
Bassett Creek Watershed Management Commission

May 2024

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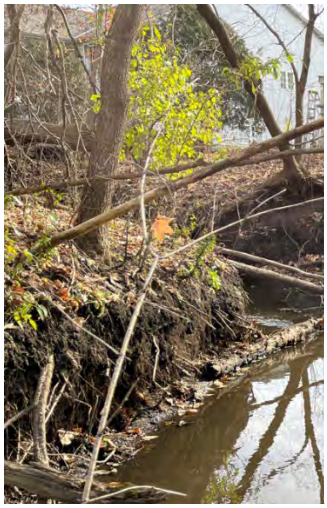

Certification

I hereby certify that this Report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Jessica Olson, PE #: 43102

Date

DRAFT
Plymouth Creek Stream Restoration Project (2025 CR-P) Feasibility Report

May 2024

Contents

Tables

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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
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 Plymouth Creek Stream Restoration Project from Dunkirk Lane North to 38th Avenue North behind Plymouth Ice Center (CIP 2025-CR-P). At their October 2023 meeting, the Commission approved the BCWMC Engineer's proposal to conduct a feasibility study for the Plymouth Creek Stream Restoration Project.

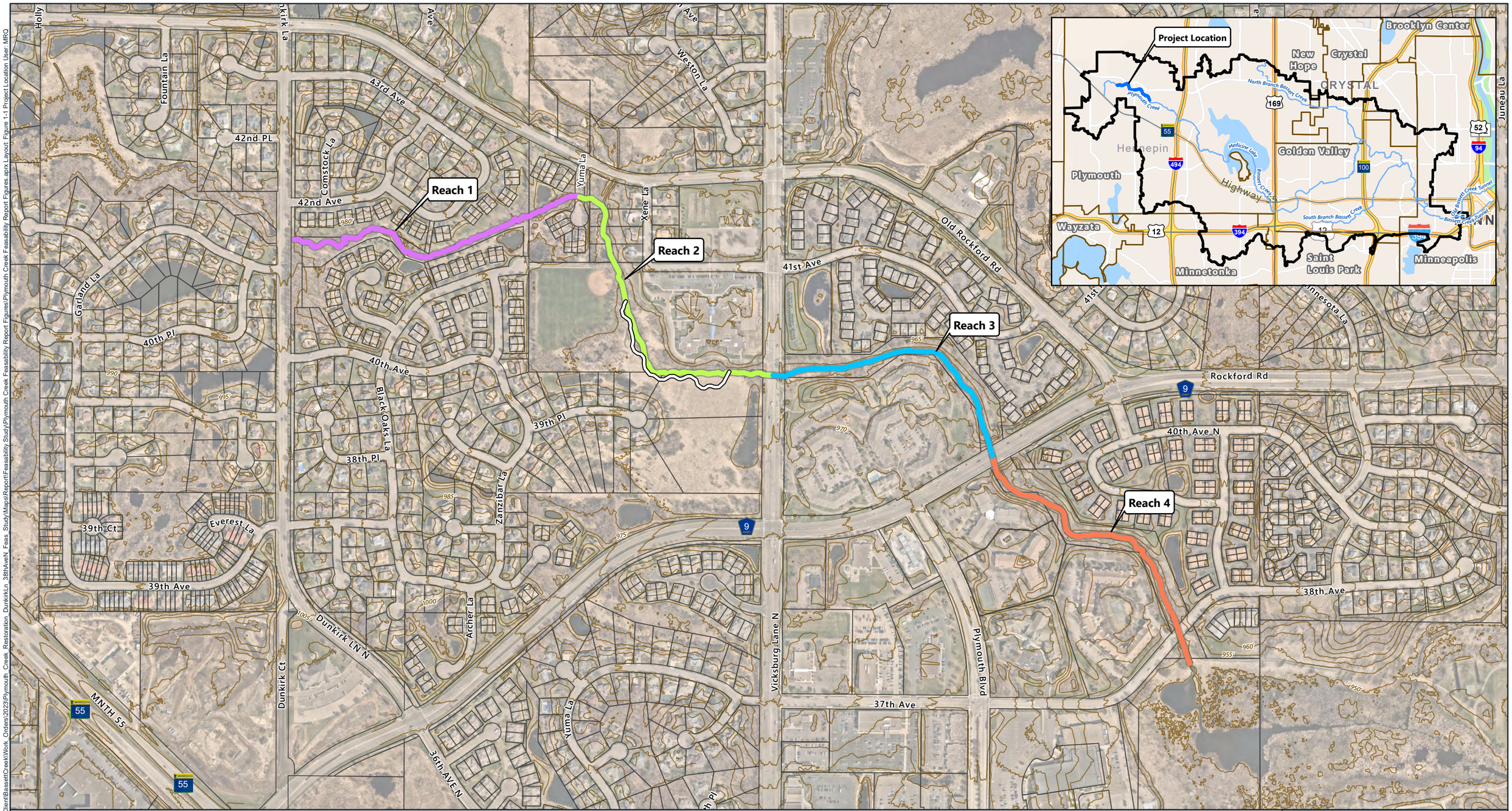
As is required for BCWMC CIP projects, a feasibility study must be completed prior to the BCWMC holding a hearing and ordering the project. This feasibility study examines methods to stabilize and restore areas of erosion within the corridor, as well as improve aquatic and riparian habitats. The Commission 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 Plymouth and the Commission Engineer.

If ordered, the BCWMC will utilize the BCWMC CIP funds to implement the proposed project. The current CIP budget earmarks $2,000,000 for this 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, Plymouth plans to contribute channel maintenance funds and capital improvement program funds toward project implementation.

1.2 General Description and Site Characteristics

The Plymouth Creek Stream Restoration project area is located along Plymouth Creek between Dunkirk Lane North to 38th Avenue North behind Plymouth Ice Center (Figure 1-1). The project will focus on restoring eroding streambanks and improving aquatic and riparian habitats..

The approximately 7,000-foot reach is located on a combination of privately owned and publicly owned properties. The creek generally maintains a low flow, except during severe droughts, and meanders through neighborhoods and wooded backyards, behind Plymouth Creek Elementary school, and alongside a trail owned by the City of Plymouth. Erosion of the streambanks varies along the reach from mild to very high, with eroding bank heights varying from 1.5 feet to approximately 5 feet.



Barr Footer: ArcGISPro 3.1.5, 2024-05-08 13:59, File: I:\Client\Bassett\Creek\Work_Orders\2023\Plymouth_Creek_Restoration_DunkirkLn_38thAveN_Feas_Study\Maps\Report\Feasibility Study\Plymouth Creek Feasability Report Figures\Plymouth Creek Feasability Report Figures.aprx\Layout: Figure 1-1 Project Location User: MRO

The 7,000-foot reach was broken into four separate reaches for mapping purposes. Reach 1 is located between Dunkirk Avenue and Yuma Lane, Reach 2 is between Yuma Lane and Vicksburg Road, Reach 3 is between Vicksburg Road and Rockford Road, and Reach 4 is between Rockford Road and 38th Avenue (see Figure 5-1 through Figure 5-4).. An alternative option for Reach 2 that includes a new meandering channel path is shown in Figure 1-1 and Figure 5-5.

The measures identified for potential implementation consist of the following:

- Removing trees and invasive vegetation (e.g., buckthorn) and planting native species to restore riparian areas and improve habitat
- Incorporating a variety of stream restoration measures to reduce erosion including streambank grading for improved floodplain connectivity and stability along with vegetation establishment; hard armoring like riprap; and bioengineering techniques such as installing root wads and toe wood, coir logs, vegetated reinforced soil stabilization (VRSS), rock or log j-hook vanes and cross vanes, brush mattresses, and live stakes
- Removing accumulated sediment in targeted areas near culvert crossings
- Constructing a new meandering channel segment to replace a straightened segment of channel near Plymouth Creek Elementary School
- Establishing new vegetation in areas disturbed by construction

This study identifies 26 restoration areas, defined as areas of similar erosion properties and prioritization metrics, within the approximate 7,000-foot assessed reach. The restoration areas are ranked from low to high priority. Figure 5-1 shows the potential restoration areas, and Table 5-3 details the proposed restoration methods for each area.

Depending on the option (1, 2 or 3), the estimated water quality improvements resulting from the project range from 67.3 to 211 pounds per year total phosphorus reductions and from 134,580 to 422,050 pounds per year total suspended solids reductions (Table 1-1 and Section 6). Tree removals also vary by option. All options presented in this study include vegetation management within the riparian zones of the proposed construction areas. Option 3 is the only alternative that includes sediment removal.

Table 1-1 Overview of Proposed Options for CIP 2025-CR-P

Option Description	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]	Tree Loss[5]
Option 1. High-ranked restoration areas only	$726,000 ($581,000–$944,000)	$50,000	43.6	$1,163	87,310	$0.57	35
Option 2. High- and medium-ranked restoration areas	$2,066,000 ($1,653,000–$2,686,000)	$145,000	148.4	$977	296,720	$0.49	75
Option 3. All proposed restoration areas and sediment removal	$2,196,000 ($1,757,000–$2,855,000)	$156,000	148.4	$1,051	296,720	$0.53	76
Option 1a. High-ranked restoration area and meander	$1,369,000 ($1,096,000-$1,780,000)	$88,000	85.2	$1,033	170,510	$0.52	35
Option 2a. High- and medium-ranked restoration areas and meander	$2,360,000 ($1,888,000-$3,068,000)	$162,000	148.4	$1,092	296,720	$0.55	71
Option 3a. All proposed restoration areas and meander	$2,420,000 ($1,936,000-$3,146,000)	$170,000	148.4	$1,146	296,720	$0.57	72

(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 defined as loss of healthy coniferous trees that are 4 inches in diameter or greater and deciduous trees measuring eight inches in diameter or more, excluding the following species: buckthorn, box elder, green ash, and Siberian elm.

1.3 Recommendations

The Plymouth Creek Stream Restoration Project (CIP 2025-CR-P) will improve water quality and habitat by (1) repairing actively eroding sites by stabilizing streambanks; (2) providing and improving instream and riparian habitats; and (3) preventing erosion at other sites by installing preemptive measures to protect existing streambanks. 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, plus sediment removal at two sites—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. If Option 2 or Option 3 is selected, we also recommend installing a new meander path for the segment of the channel near the Plymouth Creek Elementary School (Option 2a or 3a). 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 Plymouth Creek in Plymouth from Dunkirk Lane North to 38th Avenue North behind the Plymouth Ice Arena (see Figure 2-1 through Figure 2-4). Restoration of sites along this reach is proposed to be included as a group for design and construction in the BCWMC's 2025 CIP (2025-CR-P).

2.1 Goals and Objectives

The objective of this study is to review the feasibility of implementing measures to protect and improve Plymouth Creek, including stabilizing eroding streambanks, removing accumulated sediment, and re-establishing desirable vegetation in the riparian zone on this reach of Plymouth 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 eroded 7,000-foot reach between Dunkirk Lane and 38th Avenue North behind Plymouth Ice Arena is scheduled to be restored in the winter of 2025-2026 and potentially winter 2026-2027 as part of this BCWMC CIP project (2025-CR-P). Prior to the BCWMC holding a hearing and ordering a CIP project, a feasibility study must be completed. The purpose of this feasibility study is 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 2023, including a creek walk and tree survey. The field investigation also included a drone flight that was conducted by the City of Plymouth. 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 Restoration

The goals of the stream restoration project include the following:

- Reducing sediment loading and associated nutrient and contaminant loading to Plymouth Creek and improving downstream water quality by stabilizing eroding banks.
- Preserving natural features along Plymouth 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.
- Expanding buffers (conversion of turf grass to native plantings) adjacent to the stream on public property and on privately-owned property with willing owners.
- Enhancing buffers through removal of invasive species and replacing with native plantings adjacent to the stream on public and private property.
- Grading banks to improve channel access to floodplain

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.
- Evaluate areas for sediment removal that could decrease flood potential for homes and stormwater infrastructure.
- Seek opportunities to enhance vegetation and habitat within the reach, including in riparian areas adjacent to streambank 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).
- Improve the public's physical or visual access to the creek where it runs through public property.
- Improve the stream reach by re-establishing stream meanders.
- Evaluate existing trees to determine the benefit of preserving or removing trees to construct stream stabilization methods.

2.2 Background

2.2.1 Reach Description

This reach of Plymouth Creek (Figure 2-1 through Figure 2-4) extends approximately 7,000 feet from Dunkirk Lane North to 38th Avenue North behind Plymouth Ice Arena. The reach flows through a combination of privately owned properties and publicly owned properties, including portions of land owned by Independent School District 284. Land use immediately adjacent to most of the reach is residential.

The Commission Engineer and Plymouth staff walked the reach in November 2023 and identified 26 eroding segments. The total length of the streambank identified for restoration and stabilization is 5,030 feet on the right bank (looking downstream) and 4,730 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.

Streambank 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 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.

4 Stakeholder and Public Engagement

4.1 Kickoff Meeting with BCWMC Staff and City of Plymouth Representatives

A virtual project kickoff meeting with BCWMC (administrator, the Commission Engineer, and the Plymouth Alternate Commissioner) and City of Plymouth staff occurred on November 3, 2023. At this meeting, we reviewed the project scope and schedule, reviewed key tasks, and identified data needs. Discussions also included preferences regarding preliminary stream stabilization and water quality improvement concepts.

4.2 Technical Stakeholder / Agency Meeting

A technical stakeholder meeting was held virtually on December 5, 2023. Attendees included representatives from the City of Plymouth, BCWMC (administrator, the Commission Engineer), Hennepin County, USACE, MPCA, MnDNR, and Minnesota Board of Water and Soil Resources (BWSR). The attendees reviewed the restoration techniques and design concepts for the Plymouth Creek project and provided technical and permitting feedback. Items discussed included:

- Review of the project schedule and meeting objectives.
- Review of the erosion sites and other creek deficiencies.
- Review of water quality issues.
- Review and discussion of the design concepts.
- Discussion of potential habitat improvements.
- Discussion of threatened and endangered species.
- Discussion of permit requirements for potential wetland and stream impacts.

One of the permits that will be required for the project is a water quality certification under Section 401 of the Clean Water Act. Given the project scope and early feasibility stage, it is uncertain if a nationwide or regional general permit or individual permit would be required under Section 401. Representatives from the USACE mentioned that if there are wetland impacts due to the stream restoration project, wetland mitigation would mostly likely not be required under the Section 401 water quality certification. USACE representatives also noted that the Minnesota Stream Quantification and Debit Calculator (MNSQT) may be a helpful tool in their evaluation of the project and could be used to calculate stream credits if the BCWMC opts to pursue streambank credits with this project.

The second specific permit discussed during the meeting was a right-of-way permit from Hennepin County. If the proposed project includes work in the Hennepin County right-of-way, then a Hennepin County permit will be required.

A primary topic of the meeting was the potential new meander path of the channel west and south of the elementary school. The general opinion of the meeting attendees was that the new meander option may require additional permitting and there are a few obstacles this concept would need to overcome to obtain permit approval. The proposed new meander path is in an existing FEMA floodway and floodplain;

therefore, the project would need to adhere to floodplain requirements. A MnDNR representative suggested expanding the new meandered segment to include areas such as the channel area near the ball parks. Expanding the meander path area could potentially be more cost-effective for the project due to the permitting costs and permitting requirements not being dependent on the stream meander path length. In other words, the cost and turn-around time for permitting is the same for a short or a long new meander section. The USACE representatives noted that if the new meander could connect the floodplain to the wetlands, then the project may be eligible for wetland mitigation credits. Additionally, USACE representatives noted that the project could also be eligible for stream mitigation credit bank credits, but that the time involved to proceed with this effort would take longer than a typical stream restoration project.

The final topic of conversation during the meeting was whether the project would require preparation of an Environmental Assessment Worksheet (EAW). According to a MnDNR representative, in recent years watershed organizations proposing reshaping or re-meandering a channel have submitted an EAW. Minnesota Rules 4410.4300 sub-part 27 states that an EAW is required for projects that will "change or diminish the course, current, or cross-section of one acre or more of any public water" so an EAW will be necessary if a one-acre threshold of change is reached with the project. Restoration elements that could alter the course, current or cross-section of the channel include structures placed in the channel (such as cross-vanes and J-hooks), or alterations of the streambank configuration below the ordinary high water level.

4.3 Open House for Gathering Public Stakeholder Input

A public open house was held at Plymouth City Hall on March 11, 2024; 16 members of the public attended the meeting. The Commission Engineer developed display boards for the meeting to present the project background and preliminary design to local residents and users of Plymouth Creek, as seen in Appendix B. Attendees asked questions and shared observations about the creek. Attendees voiced support for the project and were interested in learning more about it. Residents expressed a general desire to remove invasive species, specific areas of sedimentation, and localized debris from the project area. They offered varying opinions on tree protection, tree removal, and vegetation. Some residents preferred protecting trees to maintain visual barriers around their properties while others preferred to remove trees and other vegetation to improve their view of the creek. In general, residents supported native vegetative establishment and a more natural approach to restoring the reach. They also noted an appreciation for the bike/walking trails and visibility/connection to the creek from the trails. Other discussion topics included site access, project costs, and concerns about nearby ponds that are outside of the project scope.

5 Potential Improvements

5.1 Description of Potential Improvements

As described in Section 1.2, the 2025 Plymouth Creek Stream Restoration project would consist of a variety of stream stabilization measures to address erosion problems along the reach. Figure 2-1 through Figure 2-4 shows the identified potential stream restoration areas, and Table 5-1 lists the potential stream stabilization measures considered for each restoration 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 this reach of Plymouth 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 installation of the technique or that it would be relatively easy to learn. During final design, the most appropriate measures to use at each individual site will be selected 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.

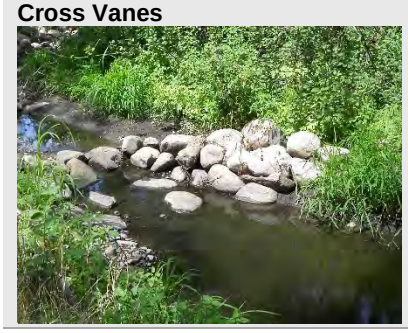
Bioengineering techniques maintain more of a stream's natural function and provide better habitat and a more natural appearance than hard armoring. With bioengineering, if vegetation is well-established, this approach can also be self-maintaining. Due to the biodegradation of construction materials and 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.

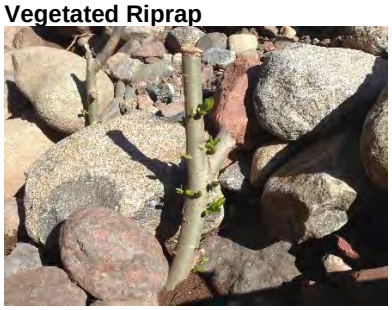
Technical stakeholders for this feasibility study, including the USACE, expressed a preference for bioengineering over hard armoring for stream stabilization where possible. In addition, the current BCWMC Watershed Management Plan (see Section 4.2.5 of Reference (1) states: “recognizing their benefits 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 stream within the project area. J-hook vanes or boulder cross vanes could be used to stabilize the channel banks and introduce flow variability and an improved riffle/pool sequence, with the structure shape maintaining deeper pools near the center of the channel. The deeper pools will improve habitat, especially during winter months. The use of grading, root wads, toe wood, coir logs, brush mattresses, and the establishment of vegetation on eroding banks will stabilize these areas, preventing further sediment loss and improving habitat adjacent to and within the channel. Root wads and toe wood, especially, will help create micro-scour zones and habitat diversity in the near-bank channel. Vegetation establishment on the streambanks will include enhanced buffers with native vegetation that have deeper roots to reduce erosion and improve riparian habitat. The evaluated reach of Plymouth Creek includes significant potential for vegetation enhancement through most of the riparian corridor. This could include treatment and/or clearing of invasive species, such as buckthorn, and the introduction of management practices aimed at promoting the growth of beneficial native species. These strategies could include the use of hand pulling, mowing, mulching, spot chemical treatments alongside active native planting and establishment efforts. 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 streambanks 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 streambanks, 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.
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 streambanks, 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

Design Element	Purpose	Ecological Benefit
Brush Mattresses and Riprap Toe (source: USDA-NRCS) 	Live cuttings are placed along a bank to protect the underlying soil and establish roots over time, preventing future bank erosion. The cuttings are anchored to the bank using dead stout stakes or string. The toe of the bank in this image is stabilized with bundled live cuttings (fascines) and riprap.	Vegetation placed on the bank creates riparian habitat and shading of the creek.
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.
Fascines and Coir Logs 	Fascines and coir logs can be placed along the toe of a streambank in low-velocity areas to help establish vegetation and associated rooting systems to stabilize the streambank.	Creates vegetated riparian habitat and adds roughness to dissipate energy at the toe of the slope.
Vegetated Buffer 	Established along a streambank 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

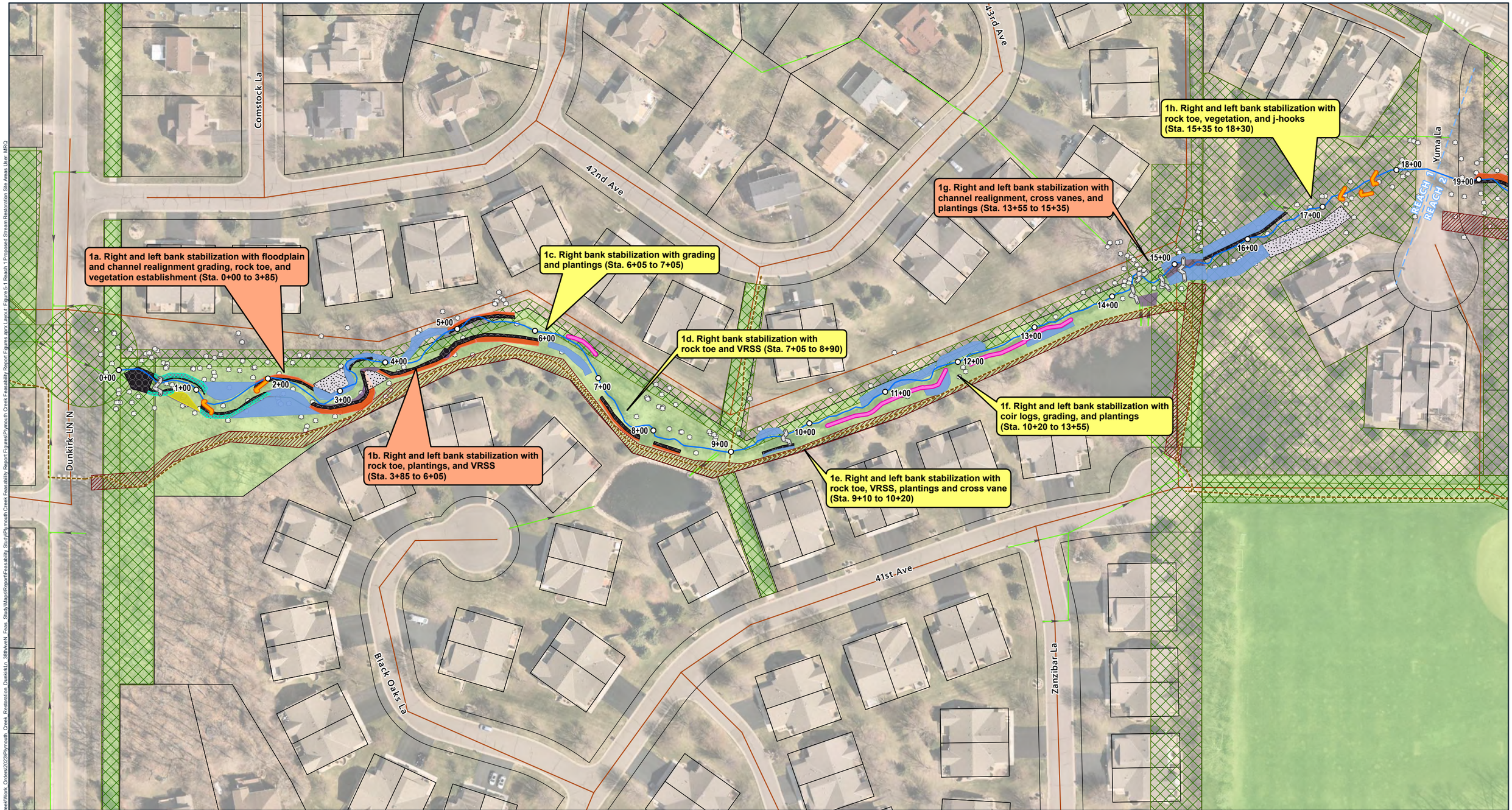
Considering feedback obtained from residents during the open house, the Commission Engineer developed a recommended restoration concept that incorporates bioengineering, hard armoring, and vegetation management. Recommended restoration measures along the reach include in-stream structures, toe stabilization, bioengineering methods, bank grading, riprap, and vegetation establishment.

The Commission Engineer reviewed the entire 7,000-foot reach and conceptually designed restoration methods for more than half of the evaluated creek length. The purpose of the proposed restoration was to select specific stabilization methods that would address varying erosion concerns, including bank sloughing, toe erosion, streambank undercutting, entrenched channels, and scour associated with existing infrastructure. Due to the extensive nature of the design, the proposed design concepts were broken down into restoration areas. Restoration areas for this study refer to proposed stream repair reaches that vary from 100 to 400 feet in length. The start and end of restoration areas were defined based on streambanks having similar erosion properties and prioritization metrics (defined in Table 5-2). The restoration areas and the specific proposed stream stabilization measures are shown in Figure 5-1 through Figure 5-4. To better organize the various stream restoration areas, they are labeled based on one of four broader reaches:

- Reach 1 is from Dunkirk Lane to Yuma Lane
- Reach 2 is from Yuma Lane to Vicksburg Road
- Reach 3 is from Vicksburg Road to Rockford Road
- Reach 4 is from Rockford Road to the Plymouth Ice Arena

The recommended restoration concept design would result in approximately 9,875 linear feet of bank stabilization, which includes approximately 4,340 feet of stabilization on the left bank (looking downstream) and 5,535 feet of stabilization on the right bank (looking downstream).

Due to the extensive length of the recommended stabilization measures, the Commission Engineer assigned a numeric score for the restoration areas based on the prioritization metrics noted below. The metrics are a combination of elements originally developed for the Bassett Creek Main Stem restoration project feasibility study and modifications by Plymouth staff and the Commission Engineer to better fit the Plymouth Creek project. Table 5-2 provides a summary of the scoring system used for this feasibility analysis.



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Easements

Proposed Restoration

- Coir Log
- Cross-Vanes
- J-Hook
- Brush Mattresses
- Construction Access
- Grading
- Live Staking
- Plug Planting
- Rock Riprap
- Seeding
- VRSS

Priority Level

- Low
- Medium
- High

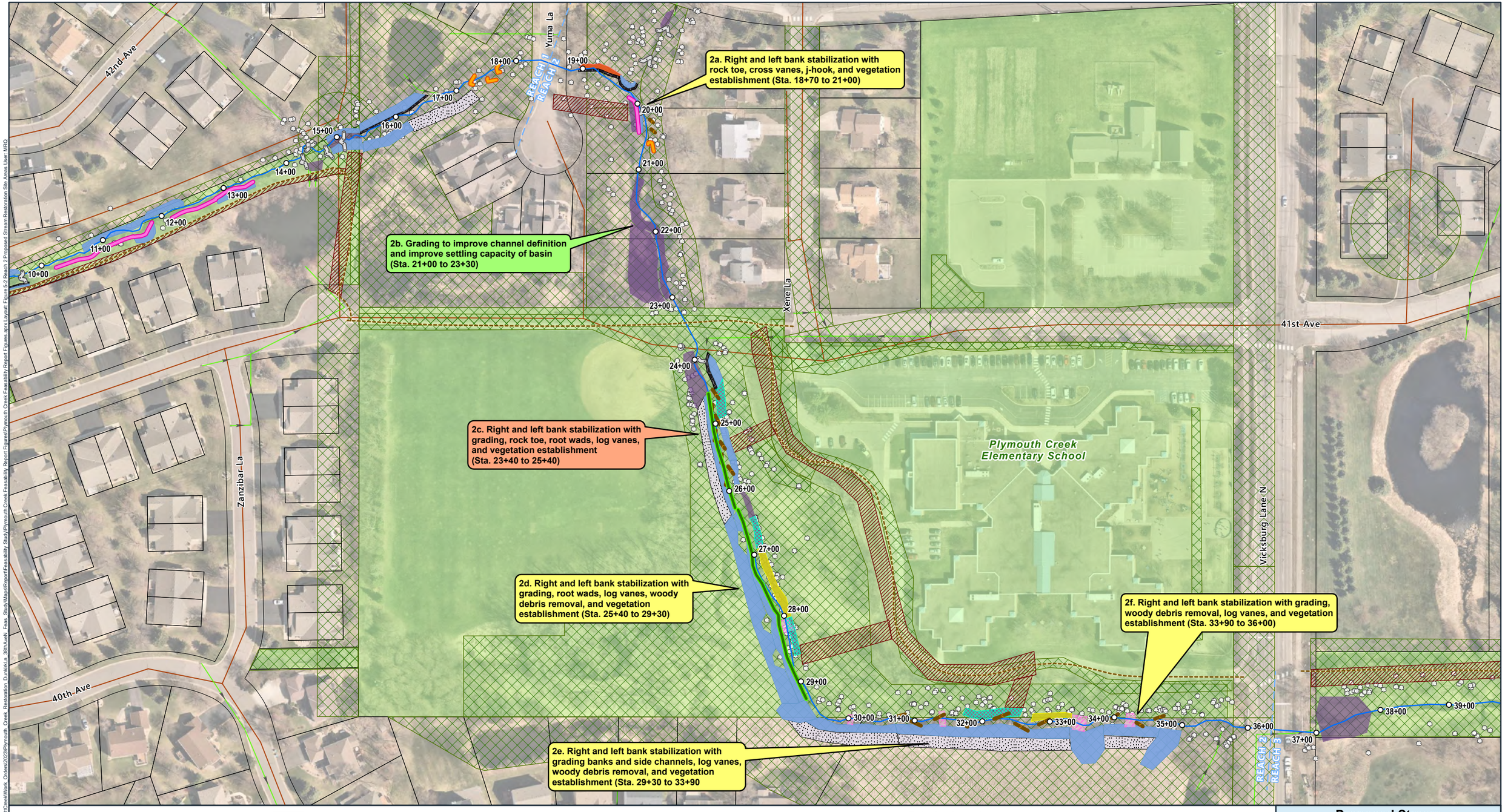
N

0 100 Feet

Imagery Source: Hennepin County 2022

Proposed Stream Restoration Site Areas
Reach 1
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-1

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Easements

Proposed Restoration

- Coir Log
- Cross-Vanes
- J-Hook
- Root Wads
- Vanes
- Brush Mattresses
- Construction Access
- Debris Removal
- Grading
- Live Staking
- Plug Planting
- Rock Riprap
- Seeding
- VRSS

Priority Level

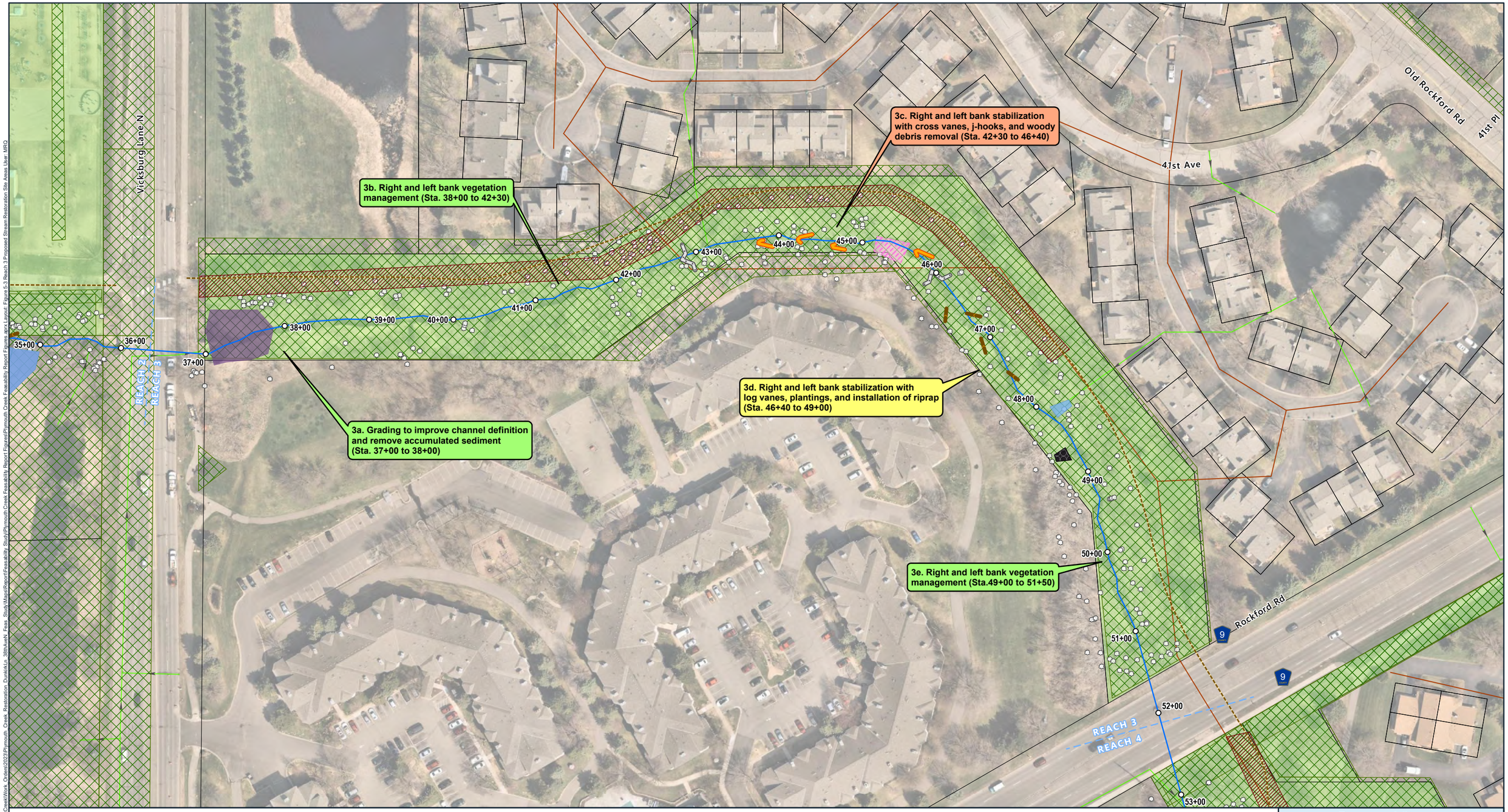
- Low
- Medium
- High

0 150 Feet

Imagery Source: Hennepin County 2022

Proposed Stream Restoration Site Areas
Reach 2
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-2

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline

- Parcel Boundary
- Public Parcel
- Easements

Proposed Restoration

- Cross-Vanes
- J-Hook
- Vanes

- Construction Access
- Debris Removal
- Grading
- Plug Planting
- Rock Riprap

Priority Level

- Low
- Medium
- High

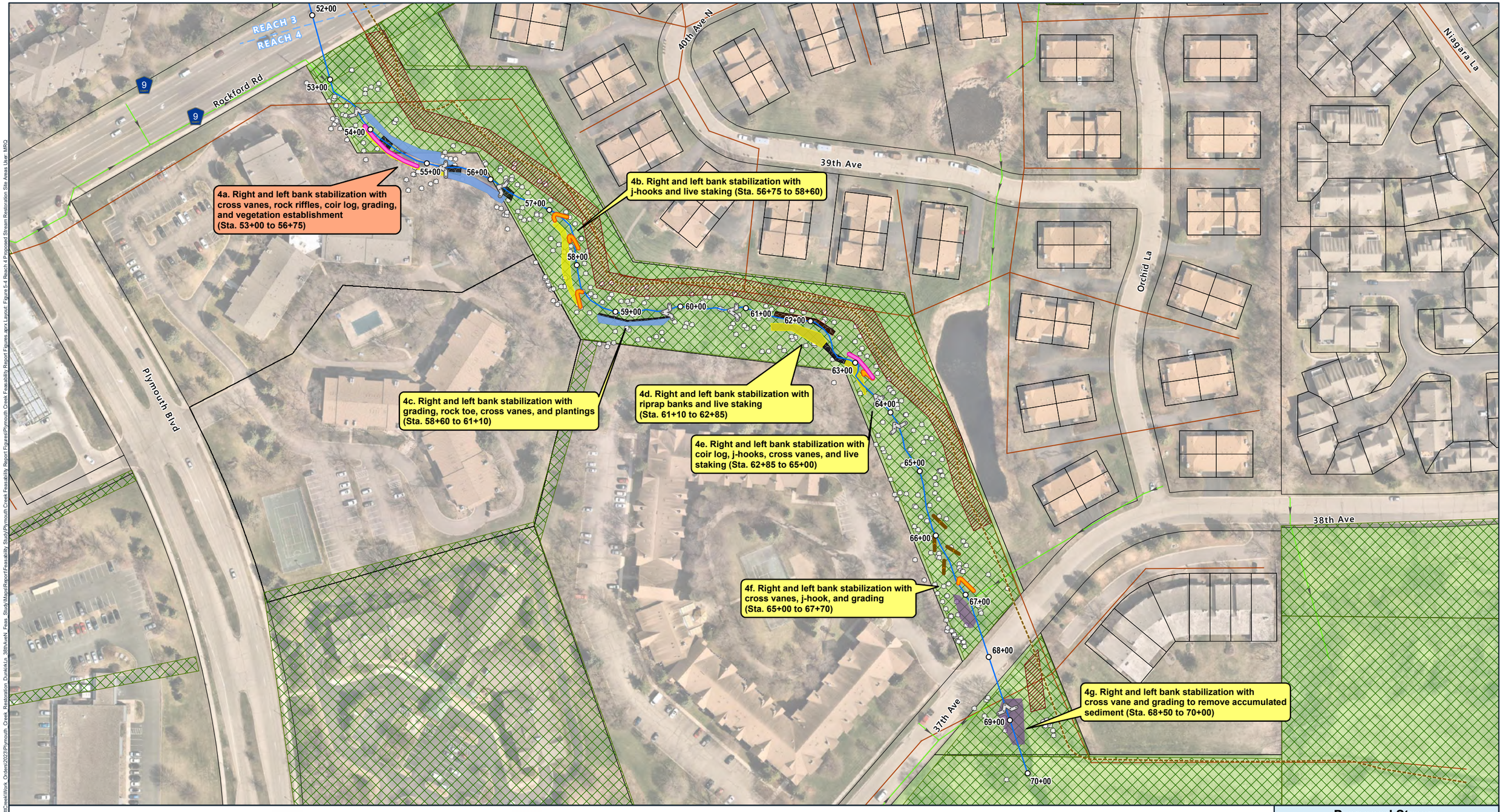
0 100 Feet

Imagery Source: Hennepin County 2022

Proposed Stream Restoration Site Areas
Reach 3
Plymouth Creek Stream Restoration Feasibility Study
BCWMC

FIGURE 5-3

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel

Proposed Restoration

- Coir Log
- Cross-Vanes
- J-Hook
- Vanes
- Construction Access
- Grading
- Live Staking
- Plug Planting
- Rock Riprap
- VRSS

Priority Level

- Low
- Medium
- High

0 150 Feet

Imagery Source: Hennepin County 2022

Proposed Stream Restoration Site Areas
Reach 4
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-4

BARR

Table 5-2 Scoring Methodology for Stream Restoration Areas

Plymouth 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
Creek ownership	3 points if construction occurs on city/public land, 2 points if public easement, and 1 point if private
Riparian ownership/access for stabilization	3 points if construction occurs on city/public land, 2 points if public easement, and 1 point if private
Riparian ownership/access for vegetation work	3 points if vegetation management occurs on city/public land, 2 points if public easement, and 1 point if private
Ease of construction access	3 points if the trail can be used, 2 points if public/city land can be used, 1 point if existing easement can be used, and no points if private land
Protection of existing structures/infrastructure (within 25 feet of streambank)	15 points if protecting sanitary sewer structures and 5 points if protecting other infrastructure such as the trail
Impact on surrounding areas	1 point if 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, Extreme NBS=6
Opportunity for habitat creation or restoration	2 points if upland or stream habitat creation, based on stream restoration technique
Preservation of healthy trees, native significant trees	2 points if protecting significant trees
Vegetation establishment	2 points if vegetation establishment is part of stream restoration
Education potential	2 points if the proposed work could be viewed from the trail and 1 point if the proposed work is near the Plymouth Creek Elementary School

Specific details related to the exact locations of restoration and prioritization rankings are presented in Appendix C. Using the scoring criteria described above, each restoration area was given a ranking value of low, medium, or high, as shown below:

- Low: Score below 18
- Medium: Score between 18.1 and 31.9
- High: Score 32 and above

As a result of scoring and prioritization, the recommended restoration concept includes 6 high, 16 medium, and 4 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. Estimated construction costs are presented in Section 7.1. Table 5-3 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 5-3 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 and left bank stabilization with floodplain and channel realignment grading, rock toe, and vegetation establishment (Sta. 0+00 to 3+85)	High	1, 2
1b. Right and left bank stabilization with rock toe, plantings, and VRSS (Sta. 3+85 to 6+05)	High	3,4
1c. Right bank stabilization with grading and plantings (Sta. 6+05 to 7+05)	Medium	5
1d. Right bank stabilization with rock toe and VRSS (Sta. 7+05 to 8+90)	Medium	6,7
1e. Right and left bank stabilization with rock toe, VRSS, plantings and cross vane (Sta. 9+10 to 10+20)	Medium	8
1f. Right and left bank stabilization with coir logs, grading, and plantings (Sta. 10+20 to 13+55)	Medium	9, 10
1g. Right and left bank stabilization with channel realignment, cross vanes, and plantings (Sta. 13+55 to 15+35)	High	11, 12
1h. Right and left bank stabilization with rock toe, vegetation, and j-hooks (Sta. 15+35 to 18+30)	Medium	13, 14
2a. Right and left bank stabilization with rock toe, cross vanes, j-hook, and vegetation establishment (Sta. 18+70 to 21+00)	Medium	15, 16
2b. Grading to improve channel definition and improve settling capacity of basin (Sta. 21+00 to 23+30)	Low	17, 18
2c. Right and left bank stabilization with grading, rock toe, root wads, log vanes, and vegetation establishment (Sta. 23+40 to 25+40)	High	19, 20
2d. Right and left bank stabilization with grading, root wads, log vanes, woody debris removal, and vegetation establishment (Sta. 25+40 to 29+30)	Medium	21, 22
2e. Right and left bank stabilization with grading banks and side channels, log vanes, woody debris removal, and vegetation establishment (Sta. 29+30 to 33+90)	Medium	23, 24
2f. Right and left bank stabilization with grading, woody debris removal, log vanes, and vegetation establishment (Sta. 33+90 to 36+00)	Medium	25
3a. Grading to improve channel definition and remove accumulated sediment (Sta. 37+00 to 38+00)	Low	26
3b. Right and left bank vegetation management (Sta. 38+00 to 42+30)	Low	
3c. Right and left bank stabilization with cross vanes, j-hooks, and woody debris removal (Sta. 42+30 to 46+40)	High	27, 28
3d. Right and left bank stabilization with log vanes, plantings, and installation of riprap (Sta. 46+40 to 49+00)	Medium	29, 30
3e. Right and left bank vegetation management (Sta.49+00 to 51+50)	Low	
4a. Right and left bank stabilization with cross vanes, rock riffles, coir log, grading, and vegetation establishment (Sta. 53+00 to 56+75)	High	31, 32
4b. Right and left bank stabilization with j-hooks and live staking (Sta. 56+75 to 58+60)	Medium	33, 34
4c. Right and left bank stabilization with grading, rock toe, cross vanes, and plantings (Sta. 58+60 to 61+10)	Medium	35, 36
4d. Right and left bank stabilization with riprap banks and live staking (Sta. 61+10 to 62+85)	Medium	37
4e. Right and left bank stabilization with coir log, j-hooks, cross vanes, and live staking (Sta. 62+85 to 65+00)	Medium	38, 39

Restoration Areas and Proposed Stabilization Measures	Priority	Photo numbers[1]
4f. Right and left bank stabilization with cross vanes, j-hook, and grading (Sta. 65+00 to 67+70)	Medium	40, 41
4g. Right and left bank stabilization with cross vane and grading to remove accumulated sediment (Sta. 68+50 to 70+00)	Medium	42

1. Photos are in Appendix A
2. Right and left bank refer to looking downstream

Using the summary above, we developed three implementation options:

- Option 1: complete stream restoration solely in high-ranked areas.
- Option 2: complete stream restoration in high- and medium-ranked areas.
- Option 3: complete stream restoration in all 26 ranked areas.

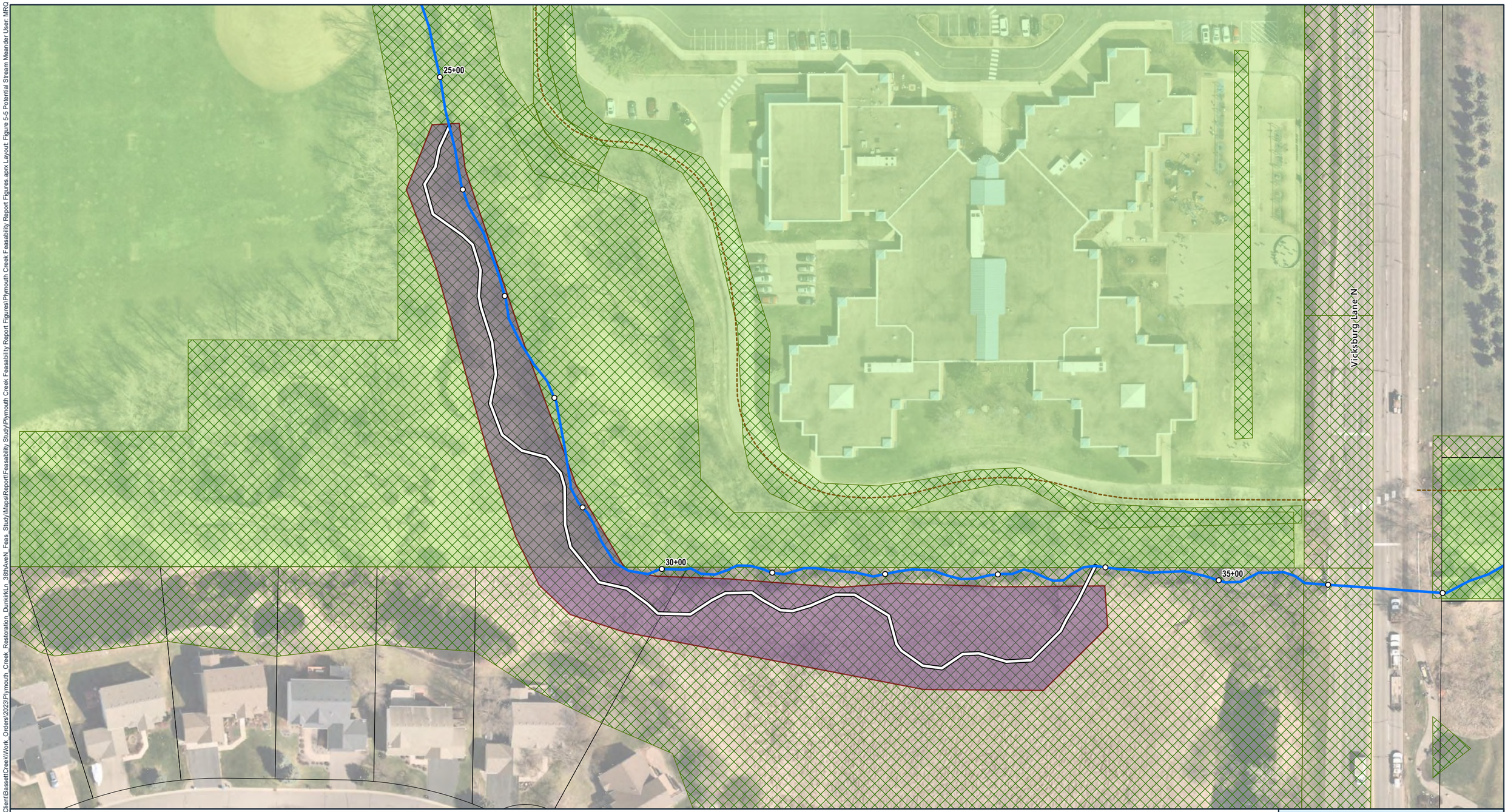
Option 1 primarily includes sites that have infrastructure at risk from erosion such as sanitary lines and the walking trail. Option 2 includes all of the Option 1 sites as well as additional sites with actively eroding banks that are contributing to total suspended solids and total phosphorus loading to stream. Option 3 includes all of the Option 1 and 2 sites along with proposed sediment removal (see Section 5.4), and additional areas of riparian vegetation management above the ordinary high water level.

5.3 Channel Meander

If funding allows, the Commission Engineer recommends an alternative to the proposed stream restoration described for areas 2d and 2e (near Plymouth Creek Elementary) in Table 5-3, to create a meandering channel as shown in Figure 5-5. In 1947, Plymouth Creek was ditched and straightened, possibly to improve access to agricultural fields. Natural channels are typically sinuous, and re-establishing a meandering pattern can be an important part of restoring a ditched and straightened stream. Potential benefits of a reestablishing a meandering pattern include:

- Increasing stream length and sinuosity
- Decreasing velocities and likelihood of bank erosion by allowing flows exceeding the bankfull event to spread out and disperse energy across the wider floodplain
- Increasing resiliency during higher flow storm events
- Enhancing in-stream, and riparian habitat
- Promoting groundwater connectivity if new channel bedding includes void spaces for sub-surface flow
- Enhancing geomorphic processes including sediment transport and deposition
- Enhancing floodplain connectivity if floodplain grading is incorporated into the design

Although reestablishing a meandering pattern could improve the stream as described above, the meander restoration alternative has a higher construction cost, which is discussed further in Section 7.



Potential Stream Meander
Plymouth Creek Stream Restoration Feasibility Study
BCWMC

FIGURE 5-5

BARR

5.4 Sediment Removal

The City requested an evaluation of sediment accumulation and potential removal in three locations along the study reach:

- In the area upstream of the ballfields and downstream of Yuma Lane (approximate station 22+00 to 23+00)
- Downstream of Vicksburg Lane (approximate station 36+80 to 37+20)
- Downstream of 38th Avenue North (approximate station 68+70 to 69+20)

In addition to the three areas noted above, we noted three additional sediment accumulation zones during the site walk:

- Upstream of Rockford Road (approximate station 51+00 to 51+30)
- Downstream of Rockford Road (approximate station 53+00 to 53+40)
- Upstream of 38th Avenue North (approximate station 67+00 to 67+50)

Sediment has accumulated in each of these areas, likely related to reduced velocities in ponding areas upstream of culvert crossings and/or over-widening of the channel and associated reduced velocities downstream of culvert crossings.

Based on our review of the areas of accumulated sediment, we recommend removal of the sediment within 15 feet of the culverts in these two locations, as accumulated sediment partially impedes flow through culverts at these locations, and removal will allow the culverts to function at full capacity:

- Upstream of Rockford Road
- Upstream of 38th Avenue North

Removal of sediment at two historically-dredged locations identified in the restoration reach would alter what has become, effectively, a broad floodplain adjacent to the channel. The following well-vegetated deposition areas are functioning as floodplains for the channel (flood flows easily access these areas, velocities are reduced as water flows across floodplains, and sediment drops out in the floodplain). Removal of existing accumulated sediment would eliminate the functioning floodplain in these areas; therefore, we do not recommend removal in these locations:

- Upstream of the ballfields (station 22+00 to 23+00)
- Downstream of Vicksburg Lane (station 36+80 to 37+20)

Sediment accumulation is stable and vegetated at the following locations; therefore, we do not recommend removal:

- Downstream of Rockford Road
- Downstream of 38th Avenue North

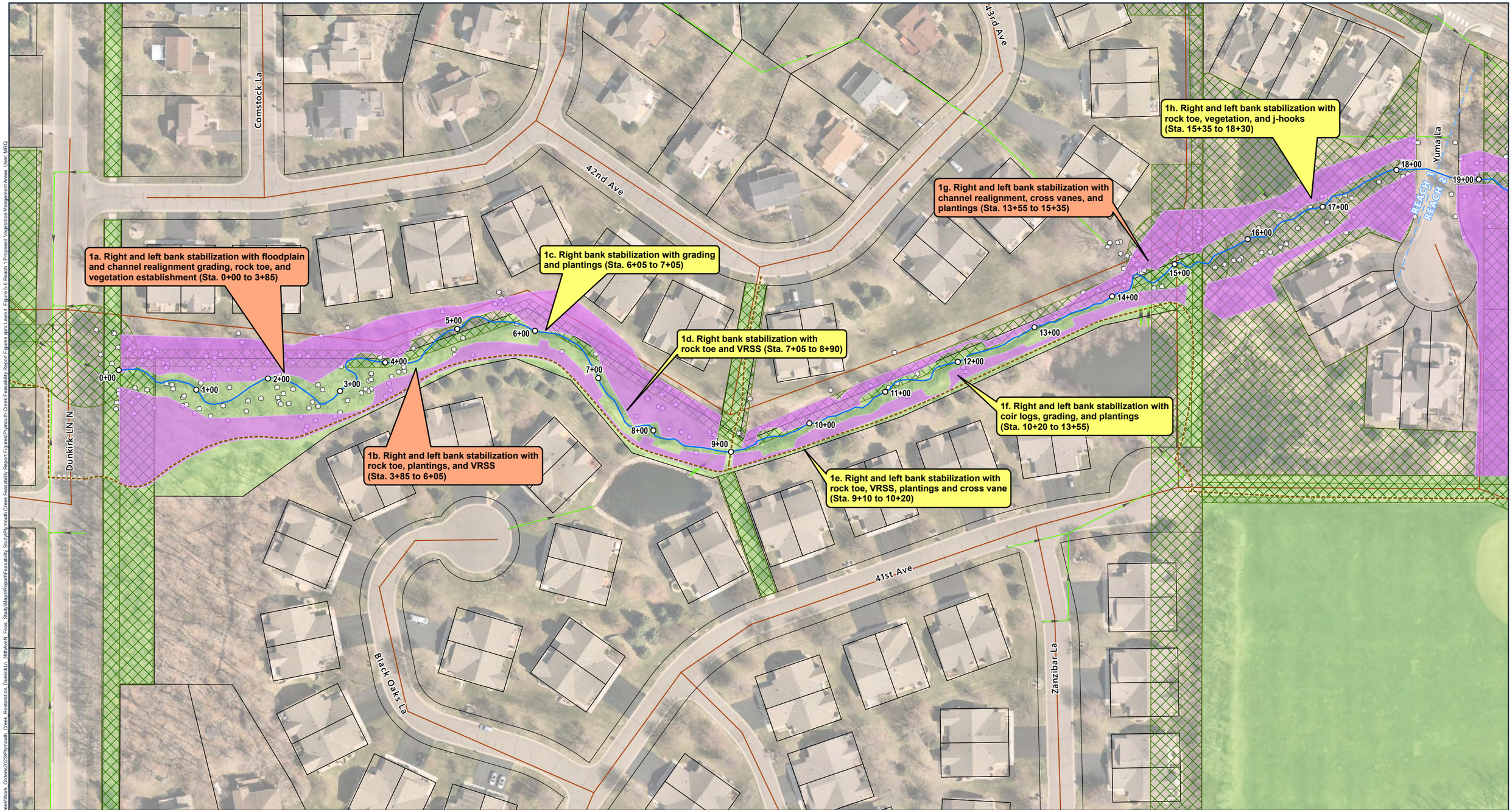
For this study, sediment removal is categorized as a low priority and included as a component of Option 3 only due to its minimal impact on water quality improvement.

5.5 Riparian Vegetation Management

The Commission Engineer proposes vegetation management for all options due to presence of buckthorn and other invasive species along the 7,000-foot reach. Vegetation management areas for the reach were defined starting from the top of streambanks to either mowed lawns or the biking/walking trail. The objective of the vegetation management areas is to remove unhealthy trees and invasive species and establish deep-rooting native trees, shrubs, sedges, grasses and forbs. Selective tree removals will open the tree canopy to allow understory vegetation to grow. Plantings and seeding will establish vegetation along the streambank and riparian area to stabilize bare soils and increase resistance to stream erosion while enhancing habitat and natural riparian function.

Riparian vegetation management adjacent to proposed in-stream and streambank restoration areas is a proposed component of every option in this feasibility study. Typically, the proposed vegetation management areas are 25 to 40 feet wide but can be as narrow as 15 feet and as wide as 80 feet. The vegetation management width changes due to the varying proximity of the creek to buildings and the bike/pedestrian trail Figure 5-6 through Figure 5-9.

According to the January 2023 BCWMC Requirements for Improvements and Development Proposals, a buffer is required for proposed projects along priority streams that will result in more than 200 yards of cut or fill, or more than 10,000 square feet of land disturbance. The stream buffer should be 10 feet wide or 25% of the distance between the ordinary high-water level (top of bank of the channel) and the nearest existing structure (impervious building or other object that is constructed or placed on the ground that is intended to remain in place for longer than a temporary period), whichever is less. Based on the locations of buildings along this section of Plymouth Creek, a 10-foot buffer would be required and can be provided as part of the proposed project.



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Easements
- Proposed Vegetation Management Area

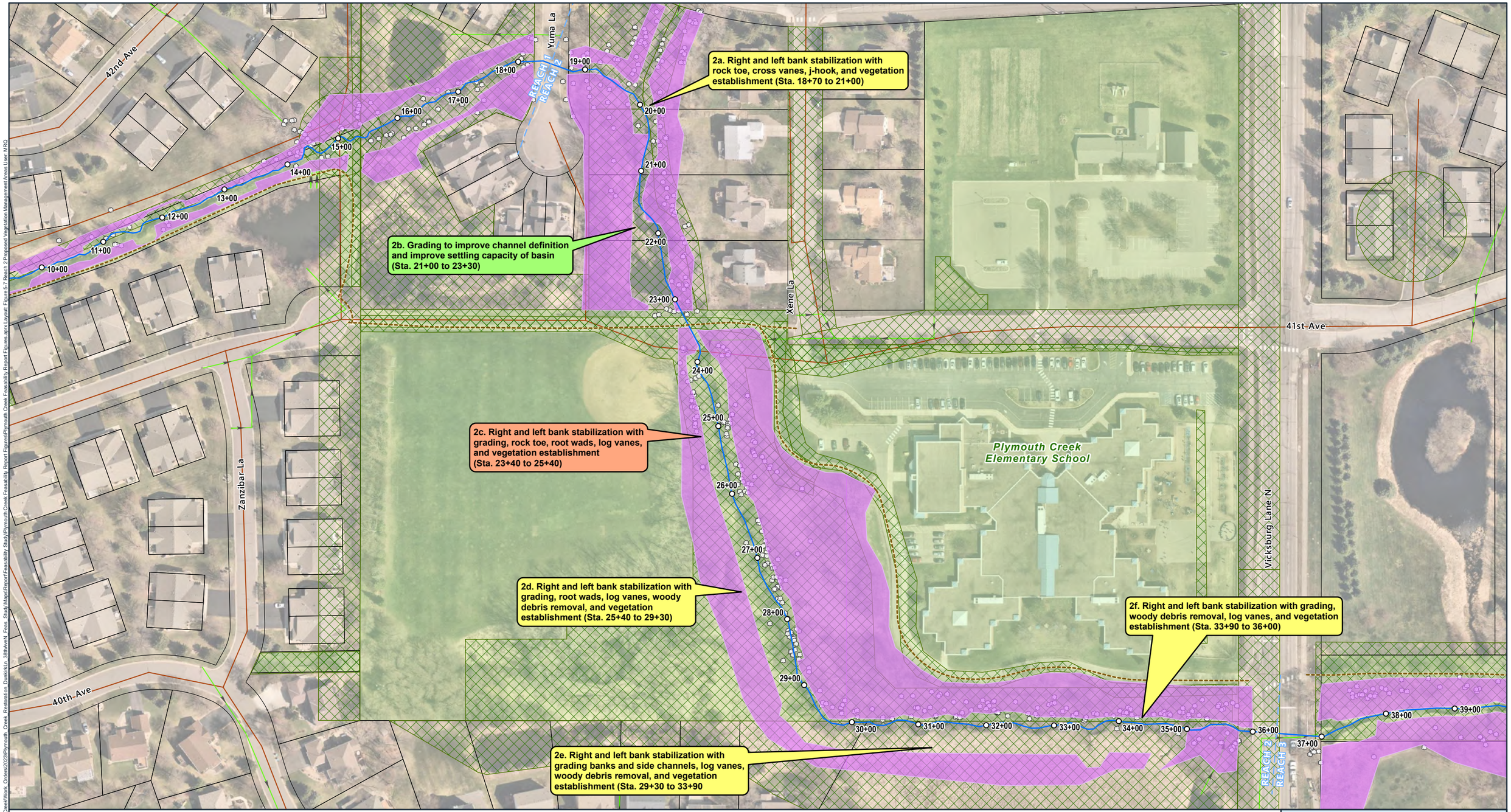
Priority Level
- Low
- Medium
- High

0 100 Feet

Imagery Source: Hennepin County 2022

Proposed Vegetation Management Areas
Reach 1
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-6

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Easements
- Proposed Vegetation Management Area

Priority Level
- Low
- Medium
- High

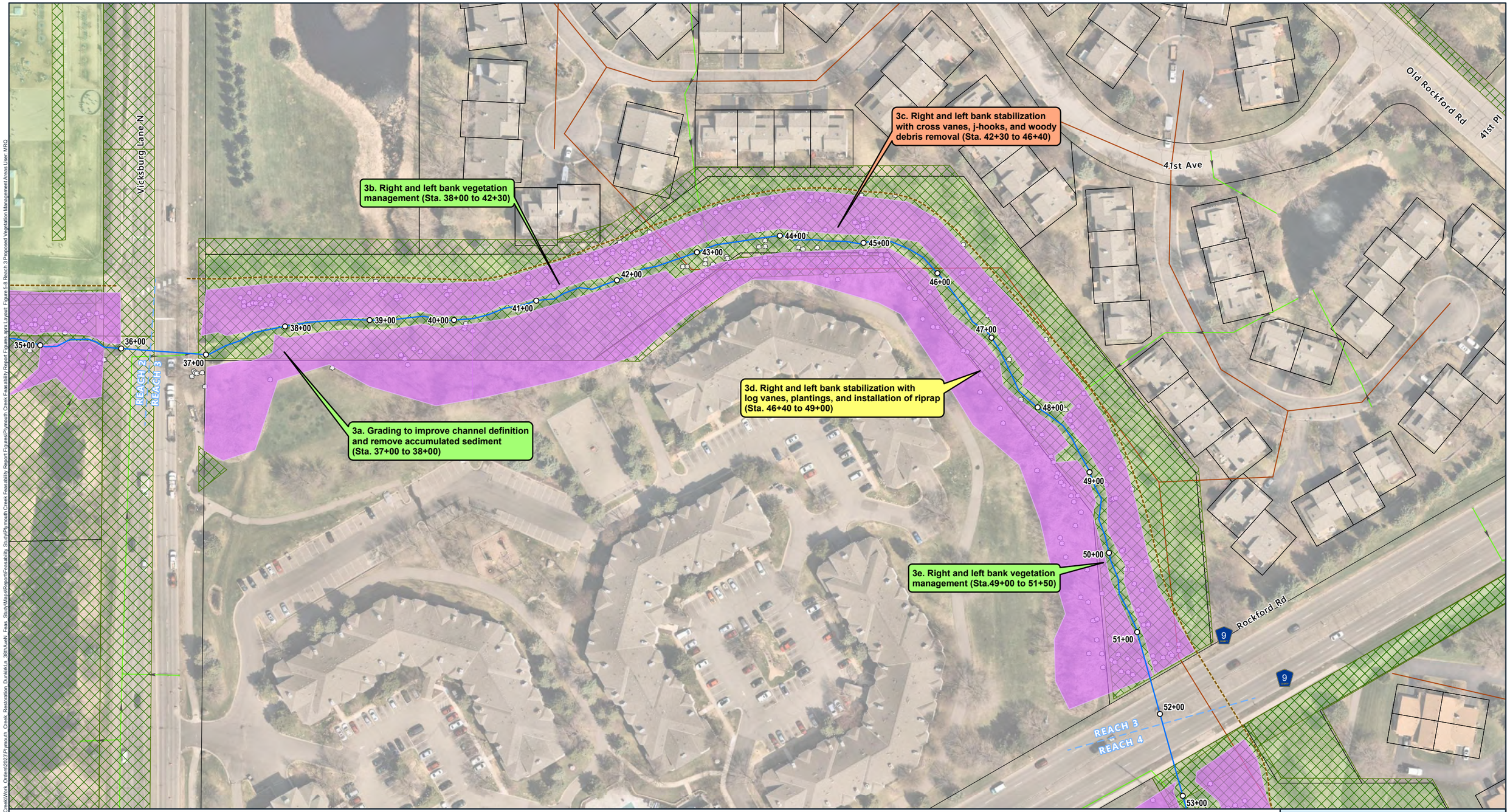
N

0 150
Feet

Imagery Source: Hennepin County 2022

Proposed Vegetation Management Areas
Reach 2
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-7

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Easements
- Proposed Vegetation Management Area

Priority Level
- Low
- Medium
- High

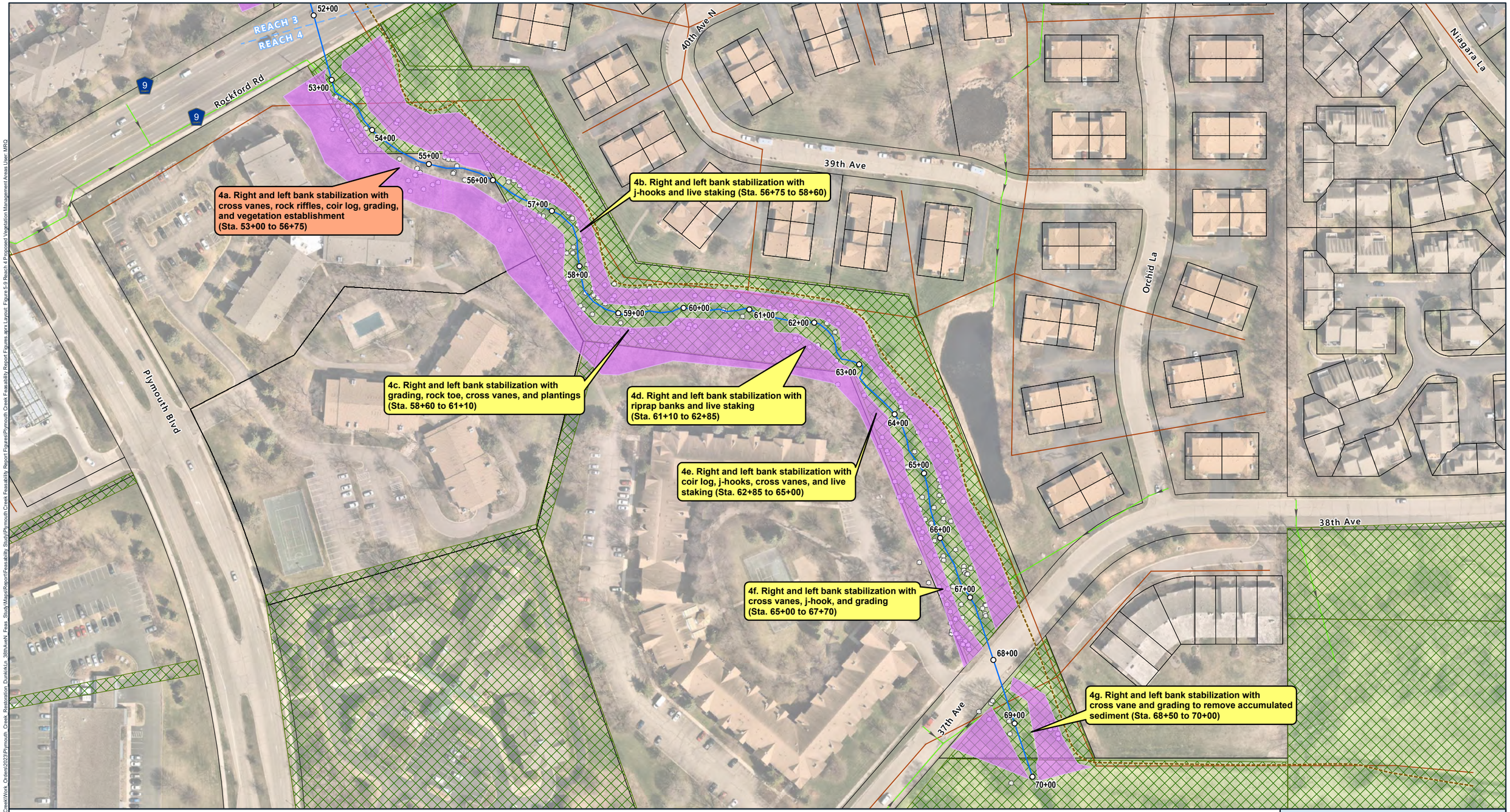
0 100 Feet

Imagery Source: Hennepin County 2022

Proposed Vegetation Management Areas
Reach 3
Plymouth Creek Stream Restoration Feasibility Study
BCWMC

FIGURE 5-8

BARR



- Creek Stationing
- Significant Trees
- Bike and/or Pedestrian Trail
- Gravity Storm Sewer
- Sanitary Main
- Plymouth Creek
- Reach Breakline
- Parcel Boundary
- Public Parcel
- Proposed Vegetation Management Area

Priority Level
- Low
- Medium
- High

0 150
Feet

Imagery Source: Hennepin County 2022

Proposed Vegetation Management Areas
Reach 4
Plymouth Creek Stream Restoration Feasibility Study
BCWMC
FIGURE 5-9

BARR

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 Plymouth Creek Stream Restoration project using approaches developed by Rosgen et al. (3) and BWSR (16).

The proposed stabilization measures will result in reduced streambank erosion and, therefore, reduced sediment and phosphorus loading to Plymouth Creek and all downstream water bodies, including Medicine Lake, Bassett Creek, the Mississippi River and Lake Pepin. We estimated the existing streambank erosion rate (in units of feet per year) for each stabilization location 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: Bank Erosion Hazard Index (BEHI) and near bank stress (NBS). The BEHI rating evaluates the susceptibility of a segment of streambank 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 streambank; 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 streambank potentially contributing sediment to the stream channel. The Commission Engineer performed BEHI assessments for multiple segments of the Plymouth Creek project area during site visits in November 2023 and completed NBS ratings using aerial imagery from Google Earth dated 2018. Although it is not the newest aerial imagery, we used aerial imagery from 2018 because it provided the best imagery of the creek during leaf-off season.

The field-determined BEHI and NBS ratings for the Plymouth Creek project area are shown in Figure 2-1 and in tabular form in Appendix D. Approximately 16% of the eroding right banks (looking downstream) are in the moderate BEHI category, 66% are in the high BEHI category, and 18% are in the very high BEHI category. Approximately 35% of the left eroding banks (looking downstream) are in the moderate BEHI category, 51% are in the high BEHI category, and 14% are in the very high BEHI category. The majority of the right and left banks rated a very low NBS category, with only fourteen channel bends rated higher than a very low NBS category.

To convert BEHI and NBS ratings into a streambank 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 streambanks; this feasibility study uses bank erosion rates from the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) (17) along with relationships developed from streambank erosion data collected in sedimentary and metamorphic geologic regions in North Carolina (18). Appendix D shows the estimated bank erosion rate for each stabilization location; estimated erosion rates range from 0.01 to 0.5 feet per year.

We calculated the estimated total sediment load from bank erosion using the approximate dimensions of the eroding streambanks at each restoration area. We estimated the impacts of the stabilization options on water quality 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, which 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 C 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 (16). 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 stabilization. Pollutant reduction estimates are not impacted by the amount of sediment removed nor invasive vegetation management. Table 6-2 summarizes the pollutant loading reduction estimates based on the approximate length of restoration. Option 2 and Option 3 have the same estimated pollutant reductions because the options repair the same length of eroding streambank. Option 3 has 1,160 more feet of restored stream length, but this includes banks that are solely restored with sediment removal and additional riparian vegetation management. The sediment removal and additional riparian vegetation management are not expected to reduce pollutant reductions because the work does not directly repair an eroding streambank, but will benefit habitat and enhance long-term stability of the reach.

Table 6-2 Pollutant Reduction Estimates by Proposed Option

Restoration Length, by Option	Total Suspended Solids Reduction (lb/yr)	Total Phosphorus Reduction (lb/yr)
Option 1: 2,800 linear feet[1] – High priority areas only	87,310	43.6
Option 1a: 4,205 linear feet[1] – High priority with meander	170,510	85.2
Option 2: 8,715 linear feet[1] – High and medium priority areas (same reductions with meander)	296,720	148.4
Option 3: 9,875 linear feet[1] – High, medium, and low priority areas (same reductions with meander)	296,720[2]	148.4[2]

[1]Linear feet = sum of right and left bank that is repaired
[2]The Commission Engineer assumes that sediment removal will not increase pollutant reductions.

6.2 Easement Acquisition

In general, most of the project reach is adjacent to the City of Plymouth bike/pedestrian trail, public land, and existing easements that can be used for construction of the stream restoration and construction access. However, there are multiple proposed construction locations that will require new easements. Temporary easements may be required in Reach 1 because there is minimal separation between the creek and the edge of existing easements and/or private parcel boundaries from station 3+00 to 12+00. Therefore, coordination with residents will be required for construction access and temporary construction easement acquisition in these areas. Also, permanent easements may need to be acquired for other restoration areas due to proposed channel work or riparian work occurring outside of publicly owned land or existing easements. Lastly, temporary or permanent easements may be required for vegetation management areas adjacent to the creek. Table 6-3 summarizes the length of easements required by design option and type of easement required.

Table 6-3 Summary of New Easements Required per Design Option

Design Option	Length of Permanent Easement for Stream Work (Channel or Riparian)	Length of Temporary Easement for Construction Access	Length of Temporary Easement for Vegetation Management	Total Length of Easement
Option 1	250	395	904	1,549
Option 2, without meander	250	806	2,412	3,468
Option 3, without meander	250	806	3,105	4,161
Meander	0	0	0	0

6.3 Permits Required for the Proposed 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
- Compliance with BCWMC requirements

6.3.1 Section 401 and 404 Permit

The USACE regulates the placement of fill into wetlands if they are hydrologically connected to a Water of the United States (WOTUS) in accordance with Section 404 of the Clean Water Act (CWA). The MPCA may be involved in wetland mitigation requirements as part of the CWA Section 401 water quality certification process for the 404 Permit. A joint state and federal application for a Section 404 Permit and a Section 401 Certification should be filed and submitted to the MPCA and the USACE.

Section 401 of the Clean Water Act ensures that the federal government does not issue a permit or license for a project that will result in a violation of the state water quality standards set under WOTUS. Minnesota requires a federal Section 404 permit when a project impacts a WOTUS. The MPCA will then review the project under Section 401 against their own water quality standards for that body of water. A 404 permit cannot be issued until the MPCA has either certified that the project impacting WOTUS will comply with the state water quality standards, or they have waived their review of the project. 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 Section 404 permit requires a Section 106 review for historic and cultural resources. The results of the archaeological reconnaissance study are included in Section 3.5. 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. Past project experience indicates that the Section 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, a Regional General Permit, or may require an individual 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 our desktop review of the MPCA's "What's In My Neighborhood?" database (see Section 3.6), we do not anticipate that environmental impacts such as contaminated soil and debris will be encountered during stream restoration activities; therefore, we do not anticipate 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 Plymouth 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 result from 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. If an EAW is

required for the project, the MnDNR will require completion of the EAW before they would issue a Public Waters Work Permit for the project.

During the final design, it will be important to keep track of the size of the disturbance footprint below the ordinary high water level. The proposed meander addition would alter roughly 0.5 acre of a public water (Bassett Creek) by shifting the channel into a new footprint and the proposed sediment removal would alter 0.33 acre of a public water. Based on current high-level estimates commensurate with this conceptual phase of the project, an EAW would likely be required if Option 3a is selected (all proposed restoration areas, plus the meander and sediment removal). Options 3, 2, 2a and 1 are unlikely to reach the disturbance threshold of one acre or more that would trigger the need for an EAW.

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 waterbody. Public waters regulated by the MnDNR are identified on published public water inventory (PWI) maps. Plymouth Creek is a public watercourse, so the proposed work will require a MnDNR public waters work permit.

6.3.6 BCWMC Requirements

The proposed project includes work in the BCWMC 100-year floodplain; therefore, the proposed project must adhere to the BCWMC's floodplain requirements. Due to the nature of the proposed work, the main requirements from the BCWMC are that:

- the project must maintain no net loss in floodplain storage, and
- no increase in flood level at any point along the trunk system.

The flood levels for the BCWMC are managed to a precision of 0.00 feet.

If the proposed project disturbs more than one acre of land, the BCWMC erosion and sediment requirements must also be met and reviewed for compliance. The BCWMC erosion and sediment control specifics are outlined in the January 2023 BCWMC Requirements for Improvements and Development Proposals.

6.4 Other Impacts

6.4.1 Tree Loss

The estimated removals of healthy trees resulting from the implementation of the proposed project depend on the proposed restoration length (i.e., which design option is selected). Appendix E includes a summary of the estimated healthy tree removal by species. The tree removal estimates resulting from grading or construction access for each stream restoration option are:

- Option 1: 107 total trees, 35 of which are not buckthorn, box elder, green ash, or Siberian elm (species that are invasive or prone to disease or infestation).
- Option 2: 233 total trees, 75 of which are not buckthorn, box elder, green ash, or Siberian elm (species that are invasive or prone to disease or infestation).
- Option 2a (with meander): 193 total trees, 67 of which are not buckthorn, box elder, green ash, or Siberian elm (species that are invasive or prone to disease or infestation).

- Option 3: 248 total trees, 76 of which are not buckthorn, box elder, green ash, or Siberian elm (species that are invasive or prone to disease or infestation).
- Option 3a (with meander): 208 total trees, 68 of which are not buckthorn, box elder, green ash, or Siberian elm (species that are invasive or prone to disease or infestation).

The number of trees removed could be reduced during design and construction by modifying construction access points and bank grading to protect trees. In addition to the tree removal estimates above, the proposed restoration work would include the removal of dead and dying trees and the removal of additional trees, such as buckthorn, as part of the invasive species management. As a result, the cost estimates presented in Section 7 include a higher number of tree removals than listed above.

6.4.2 Water Quality Impacts

The proposed stabilization measures will result in a reduction of the sediment and phosphorus loading to Plymouth Creek and all downstream water bodies, including Medicine Lake. 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

One of the important considerations 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 a 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. Throughout the reach, grade control structures (cross vanes) are proposed to maintain cover over sanitary lines at all crossing locations.

7 Cost Considerations

7.1 Opinion of Cost

The Commission Engineer's cost estimate is a Class 4 feasibility-level cost estimate as defined by the American Association of Cost Engineers International (AACE International) and includes 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 (19). Based on the development of concepts and initial vetting of the concepts by the City of Plymouth, BCWMC, and MnDNR, it is not necessary to use the full 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 Plymouth Creek Stream Restoration Project. Table 7-1 presents the cost for each of the prioritized preferred options described in Section 5.2. Appendix F provides detailed cost-estimate tables for each option.

Table 7-1 Plymouth Creek Stream Restoration Options Cost Summary

Option Description	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	$726,000 ($581,000–$944,000)	$50,000	43.6	$1,163	87,310	$0.57
Option 2. High- and medium-ranked restoration areas	$2,066,000 ($1,653,000–$2,686,000)	$145,000	148.4	$977	296,720	$0.49
Option 3. All proposed restoration areas	$2,196,000 ($1,757,000–$2,855,000)	$156,000	148.4	$1,051	296,720	$0.53
Option 1a. High-ranked restoration area + meander	$1,369,000 ($1,096,000-$1,780,000)	$88,000	85.2	$1,033	170,510	$0.52
Option 2a. High- and medium-ranked restoration areas + meander	$2,360,000 ($1,888,000-$3,068,000)	$162,000	148.4	$1,092	296,720	$0.55
Option 3a. All proposed restoration areas + meander	$2,420,000 ($1,936,000-$3,146,000)	$170,000	148.4	$1,146	296,720	$0.57

(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 use its CIP funds to implement this 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. The BCWMC CIP currently includes $2 million earmarked for this project. In addition to BCWMC CIP funds, the City of Plymouth and the BCWMC plan to seek out grant opportunities to assist with funding the project.

7.3 Schedule

The BCWMC will hold a public hearing for this project in September 2024. Pending the outcome of the hearing, the BCWMC will consider officially ordering the project, entering into an agreement with the City of Plymouth to design and construct the project, and certifying to Hennepin County a final 2025 tax levy

for this project. As an alternative, the BCWMC could design and construct the project instead of entering into an agreement with the City of Plymouth for the design and construction phase.

The construction work would likely begin in winter 2025/2026, 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. Construction could potentially continue in winter 2026/2027. Final restoration would be completed either in the spring/summer of 2026 or spring/summer 2027, pending the progress of winter construction.

For project construction to begin winter of 2025/2026, project design should occur the winter of 2024/2025 to spring of 2025. If project construction is scheduled for winter 2025/2026, summer 2025 bidding is recommended. This will give contractors adequate scheduling time to complete the project at a reasonable price. In the intervening time, the City (or the BCWMC if the Commission decides to design and construct the project) would gather public input, prepare the final design, and obtain permits.

8 Recommended Option

The Commission Engineer recommends implementing Option 3—completing restoration in all high, medium, and low priority areas, plus sediment removal. If funding allows, the channel meander alternative could also be included as part of the restoration project. Because Option 1 does not include restoration of the stream between stations 25+00 and 34+00, the cost of the construction of a new meander in this vicinity would be a stand-alone increase of $600,000 (including planning, design, engineering, permitting, and construction) beyond the base cost of Option 1. Installation of the new channel meander would increase the cost of Option 2 and Option 3 by approximately $300,000 because these options already include work in the area of the new meander section. All three options, including sub-options with the new meander include 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 high priority areas are included in Option 1, the medium and high priority areas are included in Option 2, and all of the restoration areas are included in Option 3, including removal of sediment upstream of Rockford Road and upstream of 38th Avenue North. Restoration areas were prioritized based on criteria developed for the Bassett Creek Main Stem Restoration feasibility study and modified for this project by City of Plymouth staff and the Commission Engineer (see Section 5.2). All three options would effectively stabilize eroding banks, contribute to habitat improvements, reduce the chance of potential future erosion, and protect existing infrastructure. Section 7.1 summarizes the costs of the three prioritized recommended concepts. The recommended option (Option 3) comes at a higher cost than the 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.

Our recommendation also considers the economies of scale, and the ease of performing the work at all sites at once (permitting, public outreach, single contractor).

Bassett Creek Water Management Water and Land Acknowledgement Statement

(03/24/24Draft)

We acknowledge that the waterways of the Ȟaȟa Wakpadaŋ, located in Mnisota Makoċe, the homeland of the Dakota peoples, are living waters which are part of a larger living ecosystem.

Historically, the Ȟaȟa Wakpadaŋ provided material, nutritional, and spiritual sustenance to the Dakota peoples. We acknowledge the forced removal of the Dakota from the lands and waterways that nurtured them as relatives and recognize the environmental degradation that continues in the watershed today.

The living waters of Ȟaȟa Wakpadaŋ remains significant to the Dakota and other Native peoples, including many who presently live in the watershed. The Bassett Creek Water Management Commission (BCWMC) seeks to identify and integrate Native wisdom by collaborating with Indigenous peoples and communities to reduce the impacts of climate change and improve the ecosystem health for all living beings in the watershed.

Acknowledging the complex past and present traumas and triumphs is a step toward healing for the land, watershed and peoples who live in the watershed today.

Item 5C.
BCWMC 5-16-24

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Administrator Jester
Date: March 14, 2024

RE: Potential Study of Creek Co-Naming Opportunities

Over the past couple of years, commissioners have occasionally and informally discussed the potential to incorporate the Dakota name, Ȟaȟa Wakpadaŋ, in and on Commission materials, signage, website, etc.

For instance, the Education Committee is recommending that the updated watershed map show both names for the creek and include a large section on the Dakota community – including history, culture, knowledge of natural resources, and historical maps.

Staff is seeking input and direction from the Commission on a potential process to study creek co-naming so that recommendations on how, when, and where co-naming is appropriate and desired can be presented and discussed. Right now, this is not an endeavor to change the name of the organization, but to incorporate and honor the Dakota name for the creek wherever possible. Some ideas include co-naming the creek on the BCWMC website, on educational signage, in educational materials, in the watershed management plan, on the BCWMC letterhead, etc.

Should an existing BCWMC committee study the options and develop co-naming recommendations?
Should a new committee be formed for this endeavor?
Should a consultant or individual be hired to help facilitate the study of options and development of recommendations?

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Administrator Jester
Date: May 8, 2024

RE: BCWMC Role with Assessing Wetland Impacts and Buffers During Development Reviews

This item was tabled at the February 2024 meeting. Much of the content below is from the original memo in the February meeting packet, along with options recently developed by staff. Staff recommends that the Commission review these materials and options today and consider directing staff and the Plan Steering Committee to complete a more thorough gaps analysis on the issue. An analysis would allow the Commission to understand what's working or not working with current requirements and processes and determine if resource benefits might be gained through revising requirements and processes. Staff recommends incorporating changes to policies or requirements (if any) in the updated watershed management plan.

Recently commissioners have voiced questions about wetland impacts or wetland/stream buffer establishment resulting from development or redevelopment projects reviewed by the Commission Engineer. These are good questions. However, the current BCWMC project review process does not require project proposers to submit wetland impact information (unless the BCWMC is the local government unit responsible for administering the Minnesota Wetland Conservation Act (WCA)) or wetland/stream buffer information, and the process does not include direction to the Commission Engineer to review or report wetland or buffer information. (Currently the BCWMC acts as the local government unit (LGU) for administering the WCA for the cities of Medicine Lake, Robbinsdale, and St. Louis Park.)

While there are existing State and Federal wetland protection and mitigation programs, including the WCA, there may be advantages for additional Commission involvement in reviewing wetland impacts, or reviewing or strengthening wetland/stream buffer requirements during development.

As noted above, the Commission should identify potential gaps in existing wetland protection and buffer programs. This could be done as part of the watershed plan update. However, if there is a desire by the Commission to review wetland impact and/or buffer information right now, before the new watershed management plan is adopted, the Commission should provide clear direction on what information should be submitted by developers and what the Commission Engineer should report during project reviews. Updates to the BCWMC Requirements Document and project submittal form would be needed and a reassessment of project review fees may also be appropriate as noted below.

Options:

1. **Option 1. No change:** No changes to the wetland and wetland/stream buffer review process, requirements document, and the application fee.

2. **Option 2. BCWMC staff provides wetland and wetland/stream buffer summaries for projects on BCWMC meeting agenda:** Require that applicants submit WCA documentation and wetland and stream buffer plans, but only for projects included on the meeting agenda (i.e., projects that require review and approval at a BCWMC meeting). The Commission Engineer would review the wetland and wetland/stream buffer documents and summarize the information in the memorandum to the Commission. The Commission Engineer would not review the documents for completeness, accuracy, or compliance. A $500 add-on fee is suggested as part of the application. The fee schedule and requirements document would be updated accordingly.

    a. **Option 2a. Activity in Option 2 + BCWMC Staff Participates in WCA Technical Evaluation Panel (TEP) reviews**: TEP members review WCA applications and hold meetings, often on site, to review and discuss wetland delineations and potential wetland impacts. TEP members consist of technical representatives including the WCA LGU (if not BCWMC, this is a designated city staff representative and/or their consultants), Hennepin County staff, DNR staff, and Board of Water and Soil Resources staff. TEP meetings may also include coordination with U.S. Army Corps of Engineers staff, and project representatives. The BCWMC staff are sometimes invited to TEP meetings but have not been directed to attend and lend input on wetland buffers and impacts. BCWMC could be directed to participate in TEP meetings and report back to the Commission.

3. **Option 3. BCWMC reviews buffer requirements for streams and wetlands:** The BCWMC would review the BCWMC buffer requirements for streams and wetlands. This would be a change from current policy in the watershed management plan which states it is the cities' responsibility to adopt and enforce the buffer requirements. The Commission Engineer would review the wetland and stream buffer plans for compliance to a set of standards. The change would require revising the requirements document and watershed management plan policy to clarify the standards and the review responsibilities. However, each City would be responsible for enforcement action. The BCWMC would need to consider if its involvement includes all projects that trigger wetland/stream buffer requirements or only those projects that trigger existing BCWMC review criteria. Assuming only a desktop review is required, a $500 add-on fee is suggested (perhaps more) as part of the application.

4. **Option 4. BCWMC is WCA LGU for all communities:** Currently, the BCWMC is the LGU responsible for administering the WCA in the cities of Medicine Lake, Robbinsdale, and St. Louis Park. It's possible the BCWMC could become the WCA LGU within the whole Bassett Creek watershed area. Moving WCA LGU delegation from cities to the BCWMC may take some negotiation with cities. Further, the change would require revising the requirements document and watershed management plan to clarify the standards and the review responsibilities. This option would likely include a separate and parallel application process. The Commission Engineer's involvement would likely vary for each project, but the cost is expected to be at least $3,000. Review would include projects that typically do not trigger the BCWMC development review requirements.

Background on existing requirements and programs:

For information on existing policies and requirements, below is the excerpt from the BCWMC Requirements for Improvements and Development Proposals regarding wetlands.

Section 2.5: Lakes, Streams, and Wetlands
Proposed projects that may affect the water surface elevation, outlet storage capability, shoreline or streambank, or be incompatible with existing or proposed land use around the lakes, streams, and wetlands in the Bassett Creek watershed shall be submitted to the BCWMC for review. The BCWMC will defer wetland issues in cases where the municipality acts as the local government unit (LGU) for administering the Wetland Conservation Act, unless BCWMC involvement is requested by the municipality. Lakes, Streams, and Wetlands requirements are included in Section 8.0.

The BCWMC does not specifically review buffers for proposed projects, but requires that member cities maintain and enforce wetland and streambank buffer requirements at least as stringent as the BCWMC requirements laid out in Appendix B. Specific wetland and stream buffer requirements and submittal information should be coordinated with the member city in which the project is located. BCWMC Buffer Requirements are included in Appendix B.

Additionally, the BCWMC policies regarding stream and wetland buffer requirements are found in Section 4 of the 2015 Watershed Management Plan.

Section 4.2.5 Stream Restoration and Protection Policies
Policy 64: Member cities shall maintain and enforce buffer requirements adjacent to priority streams for projects that will result in more than 200 yards of cut or fill, or more than 10,000 square feet of land disturbance. Buffer widths adjacent to priority streams must be at least 10 feet or 25 percent of the distance between the ordinary high water level and the nearest existing structure, whichever is less.

Allowable land uses, and vegetative criteria for buffers are specified in the BCWMC's Requirements for Development and Redevelopment (BCWMC, 2015, as amended). Member cities may allow exemptions for public recreational facilities parallel to the shoreline (e.g., trails) up to 20 feet in width, with that width being added to the required buffer width.

Section 4.2.6 Wetland Management Policies
Policy 68: Member cities shall maintain and enforce buffer requirements for projects containing more than one acre of new or redeveloped impervious area. Average minimum buffer widths are required according to the MnRAM classification (or similar classification system):

- *An average of 75 feet and minimum of 50 feet from the edge of wetlands classified as Preserve (or comparable classification if BWSR's MnRAM is not used)*
- *An average of 50 feet and minimum of 30 feet from the edge of wetlands classified as Manage 1 (or comparable classification if BWSR's MnRAM is not used)*
- *An average of 25 feet and minimum of 15 feet from the edge of wetlands classified as Manage 2 or 3 (or comparable classification if BWSR's MnRAM is not used).*

Allowable land uses and vegetative criteria for buffers are specified in the BCWMC's Requirements for Development and Redevelopment (BCWMC, 2015, as amended).

Member cities may allow exemptions for public recreational facilities parallel to the shoreline (e.g., trails) up to 20 feet in width, with that width being added to the required buffer width.

Finally, although it was last updated in 2019, this publication by the MN Department of Natural Resources about wetland regulation in Minnesota is a good overview of the current State and Federal regulations:

https://bwsr.state.mn.us/sites/default/files/2019-04/WETLAND_General_Wetlands_Regulation_in_Minnesota_v2.1_March_2019.pdf

Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Administrator Jester on Behalf of Plan Steering Committee
Date: May 6, 2024

RE: Plan Steering Committee Update

Committee Members: Committee Chair Kennedy; Commission Chair Cesnik; Commission Vice Chair Welch; Commissioners Pentel and Hauer; Alternate Commissioners Polzin, Vadali, and Harwell; TAC Members Scharenbroich and Eckman; community member Loomis

The Plan Steering Committee (PSC) continues to develop goals and discuss future BCWMC implementation activities and mechanisms. The table below is updated each month to show plan development progress and discussion topics. The table also includes future work slated for the PSC and associated timelines. All PSC meeting minutes (and other materials) are available to review (after approved at the following PSC meeting) at: www.bassettcreekwmo.org/document/2025-plan-update. (Prioritized issues list can be found here.)

Month and Year	Plan Steering Committee Work
September 2023 thru February 2024	Developed format for presenting and discussing issue statements, desired future conditions, 10-year goals, potential actions/strategies, and tracking notes. Developed mission statement: *Stewardship of water resources to reduce flood risk and improve watershed ecosystem health.* Developed issue statements and measurable goals: • Impaired Waters • Chloride Loading • Streambank and gully erosion • Lakeshore erosion • Wetland Health and Restoration Received update on plan development budget Planned for January 2024 Commission workshop and responded to input received Discussed implementation capacity of Commission

Month and Year	Plan Steering Committee Work
March 7, 2024	Reviewed and approved updated waterbody classification table; recommend to keep current list of priority waterbodies Reviewed plan development calendar and timeline Revisited discussion on future funding and governance structure, acknowledging complicated matter given JPA status and difficulty writing a 10-year plan without knowing future structure or funding of organization. General approach agreed to: 1) get the JPA updated and keep the JPA update simple; 2) engage with cities to gain support for additional staff hours/higher operating budget; 3) build the plan with a tiered approach dependent on staffing and structure; 4) analyze organizational structure early in plan Implementation. Although the TAC members present agreed that a thorough analysis of organizational structure is a good idea, there was concern from some that momentum for analyzing organizational structure will wane once new JPA is adopted. PSC members acknowledged that future structure will be further explored within the "organizational effectiveness" category in the coming months and a commission workshop would incorporate this item. Developed issue statements, measurable goals and possible implementation actions for: • Aquatic Invasive Species • Groundwater Surface Water Interaction (partial)
April 3, 2024	Revisited discussion on future funding and governance structure for the commission. Noted that at March Commission meeting, the topic was introduced but without enough background and written materials. May need something in writing to commission soon. Again, confirmed this topic would be subject of future commission workshop. Finalized development of issue statements, measurable goals and possible implementation actions for Waterbody and Watershed Quality category including: • Groundwater Surface Water Interaction • Degradation of Riparian Areas • Degradation/Loss of Upland Areas • Groundwater Quality Discussed format and timing for next Plan TAC meeting Rescheduled June and July meetings
May 1, 2024	Reviewed draft mockup of Waterbody and Watershed Quality section. Discussed timing and topics for next commission workshop

Month and Year	Plan Steering Committee Work
	Developed issue statements, measurable goals and possible implementation actions for Climate Resiliency category: • Impact of climate change on hydrology, water levels, and flood risk
June 12, 2024	Continue developing issue statements, measurable goals and possible implementation actions for Climate Resiliency category: • Impact of climate change on hydrology, water levels, and flood risk • Bassett Creek Valley Stormwater Management • Groundwater Quantity Review overall plan organization and terminology Develop issue statements, measurable goals and possible implementation actions for Education and Outreach category: • Provide outreach to and develop relationships with diverse communities • Protect recreation opportunities
July 10, 2024	Develop issue statements, measurable goals and possible implementation actions for Organizational Effectiveness category: • Organizational assessment of capacity and staffing • BCWMC funding mechanisms • Progress assessment • Projects and programs implemented through a DEI lens • Public ditch management • Carbon footprint of BCWMC projects
August 7, 2024	Finalize issue statements, measurable goals and possible implementation actions for Organizational Effectiveness category: • Organizational assessment of capacity and staffing • BCWMC funding mechanisms • Progress assessment • Projects and programs implemented through a DEI lens • Public ditch management • Carbon footprint of BCWMC projects
September 4, 2024	Finalize any remaining statements, measurable goals and possible implementation actions for Organizational Effectiveness (and any other remaining issues) Review draft outreach and education plan Review draft water monitoring plan Plan for Commission workshop

Month and Year	Plan Steering Committee Work
October 2, 2024	Discuss possible revisions to BCWMC development requirements. Possible topics include: • Requirements related to winter maintenance and chloride minimization design practices • Changes to linear project standards • Changes to permitted activities in floodplains
November 6, 2024	Consider policies for addressing various goals. What changes, additions, deletions from 2015 policies are needed?
December 4, 2024	Continue discussion on policies
January 2025	Review updated CIP prioritization metrics to reflect this plan's priority issues. Review potential CIP projects 2026 – 2035.
February 2025	Discuss implementation of plan including CIP implementation and staff capacity.
March 2025	Catch up month for unfinished work from last few months. Plan for Commission workshop
April 2025	Review complete implementation program.
May 2025	Finalize policies and implementation program Review various plan sections Prepare recommendation on complete plan for Commission
June 2025	Review the complete Plan document
Mid June – Mid August, 2025	60-day comment period
Sept 2025	Review comments and discuss draft responses to comments
October 2025	Review and finalize draft responses to comments Plan for public hearing (required per MN Rule 8410) Prepare recommendations to Commission
Nov 1 – Jan 31, 2025	90-day comment period; presentation to BWSR (likely week of Jan 5, 2026); target January 28, 2026 BWSR meeting for approval
February 2026	Final approval and Commission adoption (6 months past due)

*Plan TAC = Regular city TAC members plus state and local agencies and other partners

Bassett Creek Watershed Management Commission
MEMO

Date: May 8, 2024
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) (No change since March), 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 complete including the rerouting of some of the existing storm infrastructure and installation of the stormwater diversion structures. Construction of the ponds is complete and stormwater from the neighborhood to the west is now being routed through new storm sewers to the ponds. Vegetation is currently being established around the ponds. At the October meeting the Commission approved an amendment to the agreement with MPRB and Minneapolis in order to facilitate grant closeout. At the December meeting the Commission approved a partial reimbursement to MPRB for $400,000. Corrections to a weir that was installed at the wrong elevation are currently being developed. Commission Engineers are evaluating options to correct it. A final grant report was submitted to the MN Board of Water and Soil Resources in late January. 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 July 2023): 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. In May and June 2023, Commission staff discussed the possibility of incorporating stormwater management features into a redevelopment of Jevne Park currently being considered by the City of Medicine Lake. After review of the preliminary park design plans, the Commission Engineer and I recommended implementation of the original CIP Project to the City. 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 March): 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. Water monitoring in the pond was performed in summer 2023. A carp survey will proceed this summer and box netting, if needed. The Commission Engineer will provide updates as work progresses. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=277.

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 Nov): 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. At the July meeting, the Commission approved an agreement with the city to design, construct, and maintain the CIP project components and allow a future developer to use pollutant removal capacity above 100 pounds of total phosphorus. A fully executed agreement is now filed. The updated 90% project plans were approved at the September meeting. Unfortunately, city staff recently indicated that due to permitting inconsistencies with the U.S. Army Corps of Engineers, the project will not be built this winter as planned. The city is now planning to construct the project in the fall and winter of 2024. Project webpage: http://www.bassettcreekwmo.org/index.php?cID=282.

2021 Parkers Lake Chloride Reduction Project (PL-7) (No change since March): 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 2022 meeting, the Commission approved a scope and budget for a study of the feasibility of in-lake chloride reduction activities which was presented at the November meeting. Following direction from the Commission, Commission staff are preparing a scope for a holistic plan for addressing chloride runoff from the most highly contributing subwatershed. Commission Engineers and Administrator recently met with city staff and the WMWA educator to discuss outreach, possibly highly contributing properties, data needs, and possible approaches to reducing chlorides. Project website: www.bassettcreekwmo.org/projects/all-projects/parkers-lake-drainage-improvement-project

2022 Medley Park Stormwater Treatment Facility (ML-12) (No change since February): 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 included 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. Site restoration, planting, and seeding was completed in late June. An interim grant report was submitted to the MN Board of Water and Soil Resources in late January. www.bassettcreekwmo.org/projects/all- projects/medley-park-stormwater-treatment-facility

2022 SEA School-Wildwood Park Flood Reduction Project (BC-2, 3, 8, 10) (No change since December): 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. By late June excavation was completed and the playground area was prepped and ready for concrete work to begin on July 5. Bids were open for the SEA School/Wildwood Park restoration project on June 20. Three bids were received and two came in right around our estimate. The city is recommending the low bidder (Landbridge Ecological). At the end of July utility crews lowered the watermain and installed the storm sewer diversions into the park from along Duluth Street. The hydrodynamic separator was also set (with a crane). Crews also worked on the iron-enhanced sand filter and the outlet installation, stone work on the steepened slopes, trail prep, bituminous paving, and concrete work (curb and gutter, pads, and ADA ramps). The preconstruction meeting for the restoration work was held with work to begin late August or early September. The city awarded the contract for the DeCola Pond D outlet work to Bituminous Roadways Inc. in August. The SEA School site construction is complete and restoration work is complete for the season. The DeCola Pond D outlet replacement and site restoration is also now complete.

Project webpage: www.bassettcreekwmo.org/projects/all- projects/sea-school-wildwood-park-flood-reduction-project.

Bassett Creek Restoration Project: Regent Ave. to Golden Valley Rd. (2024 CR-M), Golden Valley:

A feasibility study for this project got underway in fall 2022. A public open house was held March 1st with 30 residents attending. The draft feasibility report was presented at the April meeting. A final feasibility report was presented at the June meeting where the Commission approved the implementation of Alternative 3: to restore all high, medium, and low priority sites. A Clean Water Fund grant application for $350,000 was recently developed and submitted to BWSR. The Commission held a public hearing on this project at its September meeting and officially ordered the project and set the final levy. An agreement with the City of Golden Valley to implement the project was drafted by the Commission Attorney recently reviewed by city staff. Commission staff and city staff continue to work through development of an implementation agreement. Project website: https://www.bassettcreekwmo.org/projects/all-projects/bassett-creek-restoration-project-regent-ave-golden-valley-r

Ponderosa Woods Stream Restoration Project, Plymouth (ML-22): A feasibility study for this project got underway in fall 2022. 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 was presented at the June meeting where the Commission approved implementing Alternative 1.5. The Commission held a public hearing on this project at its September meeting and officially ordered the project, set the final levy, and approved an agreement with the City of Plymouth for project implementation. Plymouth hired Midwest Wetland Improvements to design the project. 60% designs are slated to be presented at the June Commission meeting. A public open house is planned for late June and construction is likely to get underway in late fall/early winter. Project website: https://www.bassettcreekwmo.org/projects/all-projects/ponderosa-woods-stream-restoration-project.

Sochacki Park Water Quality Improvement Project (BC-14) (See Item 7D): 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 memorandum of understanding

about the implementation process, schedules, and procedural requirements for the project was executed in April among BCWMC, TRPD, and the cities of Golden Valley and Robbinsdale. A feasibility study is 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 was presented at the June meeting. A technical stakeholder meeting was held July 10th. A public open house was held July 26th and a Phase I Environmental Site Assessment was recently completed. The draft feasibility study was presented at the August meeting and the final feasibility study was approved at the September meeting. The Commission held a public hearing on this project at its September meeting and officially ordered the project and set the final levy. Project partners recently met to review a scope and budget for design and discuss construction sequencing, funding availability, and cooperative agreement provisions. TRPD was recently awarded $1.6M in federal funding for this project and other facility investments in Sochacki Park. Staff provided a project update at the March meeting. A cooperative agreement with TRPD and Robbinsdale was approved at the April meeting. The Sun Post recently printed an article on the project (see item 7D). Project webpage: https://www.bassettcreekwmo.org/projects/all-projects/sochacki-park-water-quality-improvement-project.

Plymouth Creek Restoration Project Dunkirk Lane to 38th Ave. North (2026 CR-P) (See Item 5A): A scope and budget for a feasibility study was approved at the October meeting. A project kick off meeting was held November 3rd and a technical stakeholder meeting was held December 5th. Field investigations and desktop analyses are complete. Site prioritization ranking criteria are being developed and concept designs are being developed. A public open house was held on March 11th. Residents who attended are in favor of the project and had questions about impacts to trees, potential construction activities in specific reaches, and buckthorn removal. The draft feasibility study will be presented at this meeting. Project webpage: https://www.bassettcreekwmo.org/projects/all-projects/plymouth-creek-restoration-dunkirk-lane-38th-ave-n.

Administrator Activities April 11 – May 7, 2024

Subject	Work Progress
CIP and Technical Projects	• Sochacki Park WQ Improvement Project: Routed agreement for signatures; provided information to Sun Post reporter • Sweeney Lake EWM Eradication Project: Continued coordination with Sweeney Lake Assoc, Commission Engineers, and Hennepin County on plans for surveys and treatment of Eurasian watermilfoil on Sweeney Lake and implementation of the Hennepin County AIS Prevention Grant and budget; compiled water temperatures submitted by SLA member and forwarded to Commission Engineer • Bryn Mawr Meadows Water Quality Project: Responded to requests from BMNA and MPRB for assistance with tour stops • Crane Lake Chloride Reduction Demonstration Project: Met with Commission Engineer and Minnetonka staff to discuss ideas for project scope; reviewed high level scope outline from Commission Engineer • Plymouth Creek Restoration Project: Reviewed and provided comments on draft feasibility study; participated in meeting with Commission Engineer and Plymouth staff on draft study • Main Stem Restoration Project, Golden Valley: Reviewed revised agreement for implementation; discussed agreement with Commission Attorney and Engineers
Education and Outreach	• Reviewed meeting materials and participated in West Metro Water Alliance meeting • Assisted with WMWA educator position opening and covering schools with lessons planned for May • Corresponded with map designer and Jim Rock re: watershed map • Posted updated water quality graphs online • Participation in a Watershed Equity Workshop sponsored by U of M • Gave interview to Star Tribune reporter on history of Bassett Creek tunnels; prepped for that interview and followed up with reporter with additional information • Corresponded with teacher at Breck School re: potential shoreline restoration project and stormwater management on school site
Administration	• Developed agenda; reviewed invoices and submitted expenses spreadsheet to Plymouth; reviewed financial report; drafted April meeting minutes; reviewed memos, reports, and documents for Commission meeting; printed and disseminated meeting information to commissioners, staff, and

	TAC; updated online calendar; drafted meeting follow up email; ordered catering for May Commission meeting • Participated in pre-meeting call with Commission Engineer and Chair Cesnik • Sent draft JPA document to member cities for review and comment • Provided comments and met with MnDNR and partners to discuss Medicine Lake Fishery Management Plan • 2023 audit assistance: completed forms, gathered materials, gathered conflict of interest forms, answered questions, posted materials online • Updated options for 2025 operating budget; began developing list of administrator tasks and possible increased staffing use • Developed agenda and materials for Budget Committee meeting and participated in meeting • Participated in Watershed Equity Alliance meeting • Sent correspondence re: Bassett Creek Valley next steps • Met with Hennepin County staff to review discuss possible maintenance levy • Participated in initial "convene meeting" to discuss Watershed Based Implementation Funds • Updated BCWMC grant tracker spreadsheet • Finalized and posted 2023 BCWMC Annual Report; sent to BWSR • Participated in meeting with Commission Engineer and agency staff re: grant funding opportunities for H&H model update/conversion project • Developed and submitted 2023 WOMP expense report to Met Council • Scheduled Budget and Education Committee meetings • Reviewed new ADA compliance law and corresponded with website consultant • Provided financial information for insurance renewal form
MN Watersheds	• Attended Metro Watersheds quarterly meeting • Attended MN Association of Watershed Administrators Executive Committee meeting
2025 Watershed Management Plan	• Met with Commission Engineers for bi-weekly check in meetings • Drafted meeting minutes for April PSC meeting • Updated progress tracker for PSC and Commission meetings • Prepared agenda and assisted with preparing materials for May PSC meeting; attended meeting • Reviewed and edited draft issue statement/goals for education and outreach issues