



Bassett Creek Watershed Management Commission

Regular Meeting
Thursday April 19, 2018
8:30 – 11:30 a.m.

Council Conference Room, Golden Valley City Hall, Golden Valley, MN

AGENDA

1. CALL TO ORDER and ROLL CALL

- 2. CITIZEN FORUM ON NON-AGENDA ITEMS** - *Citizens 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, with the exception of 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

- A. Approval of Minutes – March 15, 2018 Commission Meeting
- B. Approval of April 2018 Financial Report
- C. Approval of Payment of Invoices
 - i. Keystone Waters, LLC – March 2018 Administrative Services
 - ii. Keystone Waters, LLC – March 2018 Meeting Materials Distribution Expenses
 - iii. Barr Engineering – March 2018 Engineering Services
 - iv. Triple D Espresso – April 2018 Meeting Refreshments
 - v. Wenck – March 2018 WOMP Monitoring
 - vi. Lawn Chair Gardener – March 2018 Administrative Services
 - vii. Kennedy Graven – February 2018 Legal Services
 - viii. Prairie Moon Nursery – Packets of Native Seeds
 - ix. Metro Conservation Districts – Children's Water Festival 2018 Contribution
 - x. Metro Watershed Partners - 2018 Contribution
 - xi. M. Scanlan – State of Water Conference Registration
 - xii. Freshwater Society - P. Crough Road Salt Symposium Registration
 - xiii. Talbott Promotions – Education Giveaways
 - xiv. MMKR – 2017 Financial Audit
- D. Approval Not to Waive Monetary Limits on Municipal Tort Liability
- E. Approval of Kilmer Park Street Reconstruction Project, Plymouth
- F. Approval to Reimburse Commissioner Scanlan for State of Water Conference Registration and Alt. Commissioner Crough for Road Salt Symposium
- G. Approval of Agreement with Hennepin County for 2018 River Watch Program
- H. Approval of Agreement with Met Council for Watershed Outlet Monitoring Program (WOMP)

5. BUSINESS

- A. Receive Presentation of Draft Feasibility Study for Westwood Lake Water Quality Improvement Project (WST-2) (25 minutes)
- B. Consider Approval of 50% Design Plans for Bassett Creek Park Phase I Dredging Project: Winnetka Pond (BCP-2) (25 minutes)
- C. Review Feasibility Study Concepts for DeCola Ponds B & C Improvement Project (BC-2,3,8) (20 minutes)

- D. Consider Approval of Recommendations from Technical Advisory Committee (15 minutes)
 - i. 2020 – 2024 Capital Improvement Program and Project Fact Sheets
 - ii. Channel Maintenance Fund Request
- E. Receive Update on Status of Bryn Mawr Meadows Water Quality Improvement Project (BC-5) (5 minutes)
- F. Consider Authorizing Expenditures for Possible Rapid Response to Zebra Mussels in Medicine Lake (20 minutes)
- G. Consider Appointing Administrator as Commission Representative at Hennepin County Watershed Based Funding Pilot Program Convene Meeting and Discuss Funding Options (15 minutes)

6. COMMUNICATIONS (15 minutes)

- A. Administrator's Report
 - i. Update on Plans for Freshwater Society-Facilitated Lake Group Meeting
 - ii. Update on Chloride Limited Liability Legislation
 - iii. Update on Medicine Lake Issues and Meeting with AMLAC
- B. Chair
- C. Commissioners
 - i. Report on State of the Water Conference
- D. TAC Members
- E. Committees
 - i. Report from Budget Committee
- F. Legal Counsel
- G. Engineer

7. INFORMATION ONLY (Information online only)

- A. Administrative Calendar
- B. CIP Project Updates <http://www.bassettcreekwmo.org/projects>
- C. Grant Tracking Summary and Spreadsheet
- D. Minnesota Association of Watershed Districts Summer Tour
- E. 2017 WMWA Annual Report
- F. 2017 Met Council Water Resources Update

8. ADJOURNMENT

Upcoming Meetings & Events

- BCWMC Education Committee Meeting: Wednesday April 18th, 8:30 a.m., Lower Level Conf Room, GV City Hall
- BCWMC Regular Meeting: Thursday April 19th, 8:30 a.m., Council Conference Room, Golden Valley City Hall
- Bassett Creek Watershed Clean Ups: Saturday April 21st; 9:30 – 12:00, Various MRPB locations, https://www.minneapolisparcs.org/activities_events/events/earth_day_cleanup/#group_1_219258
- BCWMC CIP Prioritization Committee Meeting: Tuesday April 24th, 8:30 – 10:00 a.m., Golden Valley City Hall
- BCWMC Budget Committee Meeting: Wednesday April 25th, 11:30 a.m. – 1:00 p.m., Golden Valley City Hall
- Minnesota Water Action Day at the Capitol: Wednesday May 2nd, 8:00 a.m. – 4:00 p.m., State Capitol
- Minnesota Association of Watershed Districts Summer Tour: June 20 – 22, 2018



Bassett Creek Watershed Management Commission

AGENDA MEMO

Date: April 12, 2018

To: BCWMC Commissioners

From: Laura Jester, Administrator

RE: Background Information for 4/19/18 BCWMC Meeting

1. **CALL TO ORDER and ROLL CALL**
2. **CITIZEN FORUM ON NON-AGENDA ITEMS**
3. **APPROVAL OF AGENDA – ACTION ITEM with attachment**
4. **CONSENT AGENDA**
 - A. Approval of Minutes – March 15, 2018 Commission Meeting- ACTION ITEM with attachment
 - B. Approval of April 2018 Financial Report - ACTION ITEM with attachment
 - C. Approval of Payment of Invoices - ACTION ITEM with attachments (online) – I have reviewed the following invoices and recommend approval of payment.
 - i. Keystone Waters, LLC – March 2018 Administrative Services
 - ii. Keystone Waters, LLC – March 2018 Meeting Materials Distribution Expenses
 - iii. Barr Engineering – March 2018 Engineering Services
 - iv. Triple D Espresso – April 2018 Meeting Refreshments
 - v. Wenck – March 2018 WOMP Monitoring
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 - xi. M. Scanlan – State of Water Conference Registration
 - xii. Freshwater Society - P. Crough Road Salt Symposium Registration
 - xiii. Talbott Promotions – Education Giveaways
 - xiv. MMKR – 2017 Financial Audit
 - D. Approval Not to Waive Monetary Limits on Municipal Tort Liability – ACTION ITEM with attachment – Commission Legal Counsel Gilchrist recommends the Commission take action to not waive monetary limits on municipal tort liability. This action is taken by the Commission annually.
 - E. Approval of Kilmer Park Street Reconstruction Project, Plymouth – ACTION ITEM with attachment – The Commission Engineer recommends approval of this proposed linear project in the Medicine Lake Direct subwatershed in Plymouth. The project includes the reconstruction of several streets and utilities and results in 7.70 acres of disturbance and an increase of impervious surface by 0.38 acres from 4.58 acres to 4.96 acres. The project does not create one or more acres of net new impervious surfaces and therefore does not trigger the BCWMC requirements for water quality treatment.
 - F. Approval to Reimburse Commissioner Scanlan for State of Water Conference Registration and Alt. Commissioner Crough for Road Salt Symposium – ACTION ITEM no attachment – At your meeting in March you approved the Education Committee’s proposed 2018 work plan and budget including \$1,200 for Commissioners to attend trainings and conferences. Staff recommends reimbursement to Commissioner Scanlan for State of the Water Conference registration and payment to Freshwater Society for attendance at the Road Salt Symposium by Alt. Commissioner Crough.

- G. Approval of Agreement with Hennepin County for 2018 River Watch Program – **ACTION ITEM with attachment** – *Each year the Commission contracts with Hennepin County for their coordination and support of the River Watch Program. Through this program, classrooms take fieldtrips to the stream to collect macroinvertebrates and learn about pollution and watersheds. Typically, 2 – 4 schools from the Bassett Creek watershed participate each year, usually visiting the stream each spring and fall. You can view the 2017 River Watch Annual Report here: <https://www.hennepin.us/riverwatch>. Staff recommends approval.*
- H. Approval of Agreement with Met Council for Watershed Outlet Monitoring Program (WOMP) – **ACTION ITEM with attachment** – *Each biennium, the Commission enters an agreement with the Met Council for operation of the WOMP station on Bassett Creek. The Commission is reimbursed \$5,000 per year to help cover the costs of collecting samples, operating equipment, and calculating a rating curve. The Commission contracts with Wenck for much of this work and the Commission Engineer maintains the rating curve. The Met Council owns and maintains the monitoring equipment and pays for sample analyses. Staff recommends approval.*

5. BUSINESS

- A. Receive Presentation of Draft Feasibility Study for Westwood Lake Water Quality Improvement Project (WST-2) (25 minutes) – **DISCUSSION ITEM with attachment; appendices online** – *In September 2017 the Commission approved a [proposal](#) from the Commission Engineer to complete a feasibility study for this project. The Commission Engineer has been working closely with St. Louis Park staff and their consultants as the CIP project is part of a much larger project to completely reconstruct the Westwood Hills Nature Center. The Commission Engineer will present 3 different concepts for the Commission to consider. The Commission's 5-year CIP includes \$300,000 for this project. At the May meeting, the Commission should make a final decision on which concept(s) to implement.*
- B. Consider Approval of 50% Design Plans for Bassett Creek Park Phase I Dredging Project: Winnetka Pond (BCP-2) (25 minutes) – **ACTION ITEM with attachment; full plan set online** – *In September 2017 the Commission entered an [agreement](#) with the City of Crystal to design and construct this CIP project. The city hired Barr Engineering to prepare project plans and specifications for the project. 50% design plans will be presented at this meeting. Staff recommends approval of these plans and recommends directing the city to prepare 90% plans for the Commission's review at a future meeting.*
- C. Review Feasibility Study Concepts for DeCola Ponds B & C Improvement Project (BC-2,3,8) (20 minutes) – **DISCUSSION ITEM with attachment** – *At the meeting in November 2016, the Commission received a [presentation](#) on the Long Term Flood Mitigation Plan for Medicine Lake Rd & Winnetka Ave Area prepared by the cities of Golden Valley, New Hope, and Crystal. At their meetings in Sept and Oct 2017 the Commission approved a proposal and an addition to the proposal (respectively) from the Commission Engineer to prepare a feasibility study for this CIP [project](#) which is one of several projects recommended in the Long Term Flood Mitigation Plan. At this meeting, the Commission Engineer will walk through 3 concepts for flood mitigation and water quality improvements in this area and will relay the public's comments/concerns gathered through two open houses. As a reminder, the BCWMC CIP has \$1.6M slated for this project. Additional funding sources are being sought by the City of Golden Valley. A complete feasibility study report will be presented at the May meeting where Commissioners should select a concept to pursue.*

- D. Consider Approval of Recommendations from Technical Advisory Committee (15 minutes) – **ACTION ITEM with attachments** – *The TAC met on April 9th and forwards recommendations on the 5-year CIP and use of Channel Maintenance Funds in Golden Valley (see memo attached and documents below)*
- i. 2020 – 2024 Capital Improvement Program and Project Fact Sheets – **ACTION ITEM with attachment** – *The TAC recommends the 5-year CIP which incorporates a project in the City of Minnetonka for 2020 and adds three projects for 2024. (Fact sheets for these four new projects are attached.) Addition of 3 of these projects will require a minor plan amendment. The Bryn Mawr Meadows Water Quality Improvement Project originally slated for 2019 is proposed to be moved to 2020 to better align with the timing of design and construction of MPRB’s park reconstruction project. Staff recommends approval of this 5-year CIP and seeks direction to begin minor plan amendment process.*
 - ii. Channel Maintenance Fund Request – **ACTION ITEM with attachment** – *The TAC recommends the Commission approve Golden Valley’s request for use of \$15,000 of their accumulated Channel Maintenance Funds for the project proposed here. Staff recommends approval and direction to prepare and execute an agreement with the City of Golden Valley pending BCWMC legal counsel review and approval.*
- E. Receive Update on Status of Bryn Mawr Meadows Water Quality Improvement Project (BC-5) (5 minutes) – **INFORMATION ITEM no attachment** – *At their meeting in September 2017 the Commission approved a [proposal](#) from the Commission Engineer to prepare a feasibility study for this project. The study is underway in close coordination with MPRB’s development of concept designs for the park’s reconstruction. As indicated with TAC recommendations in Item 5D, the proposed 5-year CIP includes moving this CIP project from 2019 to 2020 to better align with timing of design and construction of MPRB’s park reconstruction project. If approved above, staff will continue to work on the feasibility study and will present the study for Commission’s review and consideration later this spring or early summer. Once a final feasibility study is approved by the Commission and a concept(s) is chosen to pursue, that information will be used the following year in a 2020 levy request to the County.*
- F. Consider Authorizing Expenditures for Possible Rapid Response to Zebra Mussels in Medicine Lake (20 minutes) – **ACTION ITEM with attachment** – *Once ice (finally) goes out on Medicine Lake, a survey of the distribution of zebra mussels will be completed by TRPD. There is a chance a rapid response (chemical treatment of the mussels) may be approved by the MnDNR but the window for performing that treatment is narrow. Staff requests approval to spend up to \$11,000 of its APM/AIS budget on a rapid response, if warranted. Multiple funding partners have been identified. Please see the memo attached.*
- G. Consider Appointing Administrator as Commission Representative at Hennepin County Watershed Based Funding Pilot Program Convene Meeting and Discuss Funding Options (15 minutes) – **ACTION ITEM with attachment** – *Discussions with watershed organizations in Hennepin County have continued and will culminate in a formal “convene meeting” on May 16th. (You can view my [initial memo](#) on this topic from your January meeting and can read [FAQs from BWSR here](#).) Please see the attached memo for staff recommendations on moving forward in this process.*

6. COMMUNICATIONS

- A. Administrator's Report - **INFORMATION ITEM with attachment**
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- B. Chair
- C. Commissioners
 - i. Report on State of the Water Conference Committees
- D. TAC Members
- E. Committees
 - i. Report from Budget Committee
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Bassett Creek Watershed Management Commission

DRAFT Minutes of Regular Meeting
Thursday, March 15, 2018
8:30 a.m.
Golden Valley City Hall, Golden Valley MN

1. CALL TO ORDER and ROLL CALL

On Thursday, March 15, 2018 at 8:32 a.m. in the Council Conference Room at Golden Valley City Hall (7800 Golden Valley Rd.), Chair de Lambert called to order the meeting of the Bassett Creek Watershed Management Commission (BCWMC) and asked for roll call to be taken.

Commissioners and city staff present:

City	Commissioner	Alternate Commissioner	Technical Advisory Committee Members (City Staff)
Crystal	Guy Mueller	<i>Absent</i>	Mark Ray
Golden Valley	Stacy Harwell	<i>Absent</i>	Eric Eckman
Medicine Lake	Clint Carlson	<i>Absent</i>	<i>Absent</i>
Minneapolis	Michael Welch	<i>Absent</i>	Liz Stout
Minnetonka	Absent	Bill Monk	Tom Dietrich
New Hope	John Elder	Pat Crough (voting member)	Megan Albert, Chris Long
Plymouth	Jim Prom	John Byrnes	Derek Asche
Robbinsdale	Michael Scanlan	<i>Absent</i>	Richard McCoy, Marta Roser
St. Louis Park	Jim de Lambert	<i>Absent</i>	Erick Francis
Administrator	Laura Jester, Keystone Waters		
Engineer	Karen Chandler, Barr Engineering		
Recorder			
Legal Counsel	Troy Gilchrist, Kennedy & Graven		
Presenters/ Guests/Public	John Gulliver and Poornima Natarajan, University of Minnesota Dan Edgerton, Stantec Jere Gwin-Lenth and David Spicer, Friends of Northwood Lake		

2. CITIZEN FORUM ON NON-AGENDA ITEMS

None

3. APPROVAL OF AGENDA

Administer Jester requested adding 5H "Consider approval of agreement with Hennepin County for AIS Prevention Grant" to the agenda.

MOTION: Alternate Commissioner Crough moved to approve the amended agenda. Commissioner Prom seconded the motion. Upon a vote, the motion carried 8-0. [City of Robbinsdale absent from the vote.]

4. CONSENT AGENDA

The following items were approved as part of the consent agenda: February 15, 2018 commission meeting minutes, March 2018 financial report, payment of invoices, approval to set April 9, 2018 as the Technical Advisory Committee meeting, approval of the letter agreement with Freshwater Society for engaging lake groups, approval of Golden Valley's 2018 Pavement Management Program, and the approval of a revised Aquatic Invasive Species Rapid Response Plan.

The general and construction account balances reported in the March 2018 Financial Report are as follows:

Checking Account Balance	\$ 848,625.30
TOTAL GENERAL FUND BALANCE	\$ 848,625.30
TOTAL CASH & INVESTMENTS ON-HAND (3/7/18)	\$3,731,081.72
CIP Projects Levied – Budget Remaining	(\$4,262,228.70)
Closed Projects Remaining Balance	(\$531,146.98)
2012-2016 Anticipated Tax Levy Revenue	\$3,721.01
2017 Anticipated Tax Levy Revenue	\$1,771.12
Anticipated Closed Project Balance	(\$525,654.85)

MOTION: Commissioner Mueller moved to approve the consent agenda. Commissioner Carlson seconded the motion. Upon a vote, the motion carried 8-0. [City of Robbinsdale absent from the vote.]

5. BUSINESS**A. Receive Presentation on Technical Pre-Proposal for Assessment & Treatment of Phosphorus in Northwood Lake**

Chris Long with Stantec, consulting engineer for the City of New Hope, introduced Dr. John Gulliver, a researcher and professor at St. Anthony Falls Laboratory at the University of Minnesota (U of M).

The City of New Hope and the U of M are proposing a study on Northwood Lake to investigate internal phosphorus release from sediment and implement a pilot study of the use of iron filings in the lake. Dr. Gulliver outlined the proposed study in a PowerPoint presentation and city staff requested funding assistance from the Commission for the study.

[Commissioner Scanlan arrives.]

In Dr. Gulliver's summary, he described prior laboratory projects using sediment from Rush and Ann Lakes. He noted iron can control the release of phosphorus with and without the presence of oxygen. He reported iron pulls phosphorus out of pore water in the sediment and that different types of iron have been tested.

Dr. Gulliver then reviewed the proposed study for Northwood Lake, which included estimated costs for pre-treatment analyses of water quality and sediment in year 1 (\$16,409); applying the iron and performing post-treatment monitoring in year two (\$26,876); and purchase of the iron itself (\$15,000 - \$30,000).

There was discussion about the cost of iron filings vs. alum. Dr. Gulliver noted that an alum treatment is likely to be more expensive for a small lake like Northwood, but it's about the same cost for large lakes. There was a question on whether continued external loading of phosphorus would degrade the iron and the answer was no, although it would impact water quality. As to impacts on aquatic life, Dr. Gulliver noted iron is ubiquitous and present in many northern Minnesota lakes. He noted alum does leave toxicity issues. Dr. Gulliver reported the life expectancy of the treatment is unknown since this study has not been done in the field before.

Commissioner Harwell liked the idea of having the Commission involved with the project and a study like this.

Commission Engineer Chandler commented that this is an interesting idea, but thought that Northwood Lake might not be the best place for this study because there are not indicators that internal loading is the issue with Northwood Lake, and the lake has a high volume of water flowing through it as it's an impoundment of the North Branch of Bassett Creek. On the other hand, a lot would be learned with sediment coring in the first year. There was discussion about other lakes that may be better candidates for the study, including Lost Lake.

Administrator Jester stated that New Hope is requesting funding partners including the Commission and recommended that the Budget Committee consider the funding request in their 2019 budget.

[Commissioner Harwell departs.]

Mr. Long indicated that Stantec would offer some free assistance toward the project and that Stantec grant dollars are also being sought. It was also noted that the Commission will monitor Northwood Lake as part of its routine monitoring program in 2019, so that may help bring down some of the monitoring costs.

There was general support for the project from several commissioners.

Alternate Commissioner Monk said the Budget Committee should have the question answered regarding whether or not this is the right lake for the study and that more information from U of M or Commission Engineer is needed to determine this. Dr. Gulliver said they would look at the complete water quality data for the lake as supplied by the Commission Engineer.

B. Consider Approval of Resolution of Appreciation for Commissioner Mueller

Chair de Lambert noted this is Commissioner Mueller's last meeting with the Commission because he is moving to Wisconsin. Chair de Lambert read the resolution of appreciation, noting that Commissioner Mueller had served on the Commission since 2013, including serving as vice chair from 2014 – 2017 and working on several committees.

Commissioner Mueller said he will miss everyone and that he learned a lot. He noted that good organizations are all about the people and good staff. Commissioner Welch added that Commissioner Mueller had been a fantastic commissioner and he will be missed. Commissioner Carlson noted that he has appreciated Commissioner Mueller's input. Commissioner Scanlan commented that he appreciated Mueller's easy-going approach. Chair de Lambert appreciated that Mr. Mueller was willing to stand in for him at meetings.

MOTION: Commissioner Welch moved to approve the resolution of appreciation for Commissioner Mueller. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 8-0. [City of Golden Valley absent from the vote.]

C. Consider Approval of Recommendations from Technical Advisory Committee (TAC)

Erick Francis, Technical Advisory Committee chair reported that the TAC met on March 2nd to discuss various topics. He noted that the TAC needs another meeting to finalize recommendations on the 5-year CIP and other topics. He noted the board packet memo includes updates on the timing of local water management plan development in each city and recommendations regarding 1) BWSR's Biennial Budget Request (BBR) and 2) a request from Plymouth for use of Channel Maintenance Funds.

Mr. Francis reviewed the recommendations:

The TAC recommends that the Commission submit its 2020 – 2021 capital projects to BWSR through the BBR and ask member cities for their 2020 and 2021 capital projects to be included with the Commission's submittal.

The TAC recommends that the Commission approve a reimbursement to the City of Plymouth from its accrued Channel Maintenance Funds in the amount of \$73,461.65 for sediment removed from the Plymouth Creek Water Quality Ponds in February 2018.

There was some discussion about the purpose and intended use of the channel maintenance funds.

Administrator Jester noted that typically the funds are requested by cities for a future project but that there is precedence for providing funds after the fact and that sediment removal from a water quality pond on the trunk system is an accepted use of the funds. She recommended approval of the request.

[Commissioner Elder departs.]

MOTION: Commissioner Prom moved to approve the TAC recommendations as presented. Commissioner Welch seconded the motion. Upon a vote, the motion carried 8-0. [City of Golden Valley absent from the vote.]

Commissioner Welch noted he attended the TAC meeting and reminded cities that the BCWMC Plan requires cities adopt ordinances within two years of the BCWMC Plan approval and the deadline has passed. He noted that the cities' lack of ordinance adoption could interfere with the BCWMC approval of local water management plans.

Commissioner Scanlan wondered if commissioners or staff should get on city council agendas. TAC member, Derek Asche, noted that cities with multiple watersheds and schedules find it difficult to keep updating ordinances. There was some discussion about ordinance updates. Mr. Asche stated that it is not uncommon to change ordinances, but that it cannot be done constantly.

D. Approval of Funding Request from Three Rivers Park District for Watercraft Inspectors

Administrator Jester gave an overview of the \$5,000 request from Three Rivers Park District (TRPD) to hire Level II inspectors to use the decontamination unit which was recently purchased by TRPD using a Hennepin County AIS Prevention grant awarded to the Commission. Administrator Jester noted the grant agreement is included in the added agenda item, 5H. She noted TRPD has agreed to own, operate, and maintain the decontamination unit but is in need of funding to hire Level II inspectors to operate the unit. Staff recommends approval of the funding request which would come from the APM/AIS budget. She reviewed the items expected to be charged to this budget line this year and noted this request still fits within the budget.

Commissioner Carlson stated he felt strongly that the decontamination unit is important, but he has a different opinion than the TRPD about the hours of operation. He wants to see a provision to close the launch when inspectors are not present.

MOTION: Commissioner Carlson moved to approve the funding request on the condition that TRPD close the launch when inspectors are not present. Commissioner Welch seconded the motion.

Administrator Jester stated that her understanding was that TRPD is opposed to closing the launch but that they would be willing to train extra volunteer inspectors or hire additional inspectors if additional funding is provided.

Commissioner Welch noted that more information is needed on reasons for keeping the launch open when inspectors are not there. Commissioner Mueller wondered if there should be a fee for use of the decon unit.

There was discussion about other public launches on the lake including a City of Plymouth launch open a few weeks each year and monitored by the city and a private marina. It was noted that TRPD is a good partner on many issues, but there was sympathy for Commissioner Carlson's concerns.

Administrator Jester reminded the Commission that TRPD is a good partner on many issues including water quality monitoring and treating curly-leaf pondweed and she noted the approved APM/AIS Committee recommendations including one to consider starting a small grant program to help fund inspectors or AIS education materials, or signs, etc.

After more thought, Commissioner Welch indicated he thought the funding should not be contingent on launch hours and rescinded his support on the motion.

Commissioner Carlson restated how strongly he felt about this issue and proposed that the Commission approve the current motion to send a strong message to TRPD about the need to have a gate that closes when the launch is not staffed.

Upon a **VOTE**, the motion failed with two ayes and six nos. (Cities of Medicine Lake and New Hope voting aye; cities of Plymouth, Crystal, St. Louis Park, Minneapolis, Robbinsdale, and Minnetonka voting no.) [City of Golden Valley absent from the vote.]

MOTION: Commissioner Welch moved to approve the funding request of \$5,000 to TRPD with direction to the Administrator to get information from TRPD on launch policies and express deep concerns with keeping launch open when inspectors are not present. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 8-0. [City of Golden Valley absent from the vote.]

[Commissioner Prom departs. Commissioner Byrnes assumed voting role.]

E. Discuss Status of Chloride Limited Liability Legislation

Administrator Jester gave an update on the status of the chloride legislation in the Minnesota House and Senate. There was some discussion about different groups supporting and opposing the legislation. Commissioner Welch stated that the Commission should be actively involved.

MOTION: Commissioner Welch moved to direct the Administrator to draft a letter for the Chair's signature in support of the legislation and send to the bill's authors and the Senate and House President. Commissioner Mueller seconded the motion.

After the motion was made, Alternate Commissioner Byrnes stated he thought that was a good idea, but he wondered if it was effective. He thought individual commissioners should also contact their legislators.

Commissioner Welch stated that the Commission should be on record supporting the legislation. Mr. Asche voiced concern saying he didn't think it was appropriate for the Commission to comment on proposed legislation since the Commission doesn't know the positions of all of its member cities. Commissioner Welch replied that the Commission is local unit of government and the letter would not state the cities' positions, only the Commission's position.

VOTE: Upon a vote, the motion carried, 7 - 1. Dissenting vote by the City of Plymouth. [City of Golden Valley absent from the vote.]

F. Receive Update on BWSR's Watershed Based Funding Pilot Program

Administrator Jester reported that a second meeting of the 11 Hennepin County watersheds was held on February 27th and that the group narrowed down their recommendations for use of the Clean Water funds which included an idea for all watersheds to work collectively on the issue of chloride pollution. The group agreed to meet in smaller groups based on basins. The Mississippi River Basin watersheds met on March 12th and

developed general criteria that could be used to prioritize CIP projects among the Mississippi River Basin watersheds. She noted a meeting of all watersheds AND eligible cities would be convened in May.

[Commissioner Welch departs.]

G. Consider Approval of Recommendations from Education Committee

Committee Chair Byrnes reported that the Education Committee met on March 9th. He walked through the Committee's recommendations including:

- 1) To approve funding presented in the proposed education budget, much of which is the same as previous years and which includes \$250 for packets of native seeds; \$1,200 for commissioner training and registration; \$4,000 to Metro Blooms as local match for Harrison Neighborhood Project; \$310 for dog waste bag dispensers; and \$1,000 for creek crossing signs; and
- 2) To not hold a watershed tour this year due to one or more watershed tours planned for next year; and
- 3) To approve entering into a contract with Dawn Pape with Lawn Chair Gardener Creative Services for up to \$3,000 for education activities, the details of which will be worked out at the next Education Committee meeting.

MOTION: Alternate Commissioner Byrnes moved to approve the Education Committee's recommendations as presented. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 7-0. [Cities of Golden Valley and Minneapolis absent from the vote.]

H. Consider Approval of Agreement with Hennepin County for AIS Prevention Grant

Administrator Jester reported the grant agreement was reviewed by attorney Gilchrist and the County agreed to his recommended changes.

MOTION: Commissioner Carlson moved to approve the execution of the AIS Grant Agreement with Hennepin County. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 7-0. [Cities of Golden Valley and Minneapolis absent from the vote.]

6. COMMUNICATIONS

A. Administrator's Report

Administrator Jester reported that 50 people attended the open house hosted by the Minneapolis Park and Recreation Board that included the Bryn Mawr Meadows CIP Project, and that 50 – 60 people attended open houses hosted by the City of St. Louis Park on the Westwood Hills Nature Center Reconstruction Project that included the CIP project.

Administrator Jester also reported that a resident had expressed concerns about PFC contaminants reaching the creek in Wirth Park due to its use in ski wax and that she is working with MPRB to possibly investigate this in 2019; that she will be on vacation March 30 – April 8; and that the Administrative Calendar in 7A will be updated each month.

B. Chair

Chair de Lambert attended one open house for the Westwood project and noted there were cost concerns from residents regarding the overall reconstruction project. He also noted that he is participating on a committee developing a white paper on chlorides.

C. Commissioners

Commissioner Scanlan thanked the Commission for support to attend various education programs and he reported on the recent AIS Summit. Commissioner Mueller thanked the Commission for the experience.

D. TAC Members

Mr. Asche asked that city clerks be copied on the letter to the legislators.

E. Committees

Budget Committee will meet on March 23, 11:30 a.m.

F. Legal Counsel

Nothing to report

G. Engineer

Nothing to report

7. INFORMATION ONLY (Information online only)

- A. Administrative Calendar
- B. CIP Project Updates <http://www.bassettcreekwmo.org/projects>
- C. Grant Tracking Summary and Spreadsheet
- D. Results of Harrison Neighborhood Knowledge, Attitudes and Practices (KAP) Survey
- E. [Minnesota Water Action Day at the Capitol](#)
- F. Metro Blooms Upcoming Workshops: Turf Alternatives and Resilient Yards

8. ADJOURNMENT

The meeting adjourned at 10:47 a.m.

Signature/Title

Date

Signature/Title

Date

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report

Fiscal Year: February 1, 2018 through January 31, 2019

MEETING DATE: April 19, 2018

Item 4B.
BCWMC 4-19-18

(UNAUDITED)

BEGINNING BALANCE	7-Mar-18	848,625.30
ADD:		
General Fund Revenue:		
Interest less Bank Fees	27.45	
Assessments:		
Permits:		
Three Rivers Park District	BCWMC 2018-05	1,500.00
I & S Group Inc	BCWMC 2018-06	1,500.00
City of Robbinsdale	BCWMC 2018-07	1,500.00
City of Plymouth	BCWMC 2018-08	1,500.00
Reimbursed Construction Costs		116,670.81
	Total Revenue and Transfers In	122,698.26
DEDUCT:		
Checks:		
3058 Barr Engineering	March Engineering	78,789.70
3059 Kennedy & Graven	February Legal	975.10
3060 Keystone Waters LLC	March Administrator	7,230.53
3061 Lawn Chair Gardener	March Admin Services	1,102.47
3062 Triple D Espresso	April Meeting	103.98
3063 Wenck Associates	March WOMP	1,770.58
3064 Freshwater Society	Road Salt Symposium	135.00
3065 Metro Watershed Partners	Membership-Clean Wat	3,500.00
3066 Metro Conservation Districts	Festival Sponsor	350.00
3067 MMKR	Audit	1,500.00
3068 Prairie Moon Nursery	Seed Packets	268.44
3069 Michael Scanlan	Freswater Society Conf	170.00
3070 Talbott Promotions	Waste Disposal Bag Disp	296.09
3071 City of Plymouth	Channel Maintenance	73,461.65
	Total Checks/Deductions	169,653.54
ENDING BALANCE	7-Mar-18	801,670.02

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report
Fiscal Year: February 1, 2018 through January 31, 2019
MEETING DATE: April 19, 2018

(UNAUDITED)

	2018 /2019 BUDGET	CURRENT MONTH	YTD 2018 /2019	BALANCE
<u>OTHER GENERAL FUND REVENUE</u>				
ASSESSEMENTS TO CITIES	515,000	0.00	515,050.00	(50.00)
PROJECT REVIEW FEES	55,000	6,000.00	12,000.00	43,000.00
WOMP REIMBURSEMENT	5,000	0.00	0.00	5,000.00
METRO BLOOMS - MET COUNCIL GRANT		0.00	36,541.24	
TRANSFERS FROM LONG TERM FUND & CIP	75,000	0.00	0.00	75,000.00
REVENUE TOTAL	650,000	6,000.00	563,591.24	122,950.00
<u>EXPENDITURES</u>				
ENGINEERING & MONITORING				
TECHNICAL SERVICES	125,000	11,071.16	24,239.66	100,760.34
DEV/PROJECT REVIEWS	75,000	9,672.88	11,895.29	63,104.71
NON-FEE/PRELIM REVIEWS	10,000	1,355.50	2,300.00	7,700.00
COMMISSION AND TAC MEETINGS	12,000	1,102.50	1,627.50	10,372.50
SURVEYS & STUDIES	12,000	0.00	0.00	12,000.00
WATER QUALITY/MONITORING	80,700	6,884.30	16,676.30	64,023.70
WATER QUANTITY	6,300	617.25	1,123.50	5,176.50
WATERSHED INSPECTIONS - EROSION CONTROL	1,000	0.00	0.00	1,000.00
ANNUAL FLOOD CONTROL INSPECTIONS	48,000	0.00	0.00	48,000.00
REVIEW MUNICIPAL PLANS	8,000	1,487.50	1,487.50	6,512.50
WOMP	20,500	2,978.53	3,753.58	16,746.42
XP-SWMM MODEL UPDATES/REVIEWS	10,000	641.50	2,483.00	7,517.00
APM / AIS WORK	32,000	0.00	0.00	32,000.00
ENGINEERING & MONITORING TOTAL	440,500	35,811.12	65,586.33	374,913.67
ADMINISTRATION				
ADMINISTRATOR	67,200	7,105.00	12,915.00	54,285.00
LEGAL COSTS	17,000	975.10	975.10	16,024.90
AUDIT, INSURANCE & BONDING	15,500	1,500.00	1,600.00	13,900.00
FINANCIAL MANAGEMENT	3,200	0.00	0.00	3,200.00
MEETING EXPENSES	1,600	103.98	311.94	1,288.06
ADMINISTRATIVE SERVICES	15,000	1,228.00	2,556.20	12,443.80
ADMINISTRATION TOTAL	119,500	10,912.08	18,358.24	101,141.76
OUTREACH & EDUCATION				
PUBLICATIONS/ANNUAL REPORT	1,500	0.00	0.00	1,500.00
WEBSITE	4,200	0.00	0.00	4,200.00
PUBLIC COMMUNICATIONS	2,500	0.00	0.00	2,500.00
EDUCATION AND PUBLIC OUTREACH	22,000	869.53	6,308.53	15,691.47
WATERSHED EDUCATION PARTNERSHIPS	13,850	3,850.00	3,850.00	10,000.00
OUTREACH & EDUCATION TOTAL	44,050	4,719.53	10,158.53	33,891.47
MAINTENANCE FUNDS				
EROSION/SEDIMENT (CHANNEL MAINT)	25,000	0.00	0.00	25,000.00
LONG TERM MAINTENANCE (moved to CF)	25,000	0.00	0.00	25,000.00
MAINTENANCE FUNDS TOTAL	50,000	0.00	0.00	50,000.00
TMDL WORK				
TMDL IMPLEMENTATION REPORTING	10,000	1,540.00	4,428.00	5,572.00
TMDL WORK TOTAL	10,000	1,540.00	4,428.00	5,572.00
TOTAL EXPENSES	664,050	52,982.73	98,531.10	565,518.90

Cash Balance 2/7/2018			
Cash		1,230,850.34	
Transfer to purchase investments			
	Total Cash		1,230,850.34
Investments:			
Minnesota Municipal Money Market (4M Fund)		2,500,000.00	
Dividends-prior months		231.38	
Dividends-Current		2,612.44	
	Total Investments		<u>2,502,843.82</u>
	Total Cash & Investments		3,733,694.16
Add:			
Interest Revenue (Bank Charges)		76.66	
	Total Revenue		<u>76.66</u>
Less:			
CIP Projects Levied - Current Expenses - TABLE A		0.00	
Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B		<u>(43,209.16)</u>	
	Total Current Expenses		<u>(43,209.16)</u>
	Total Cash & Investments On Hand	03/07/18	<u><u>3,690,561.66</u></u>
Total Cash & Investments On Hand		3,690,561.66	
CIP Projects Levied - Budget Remaining - TABLE A		<u>(4,262,228.70)</u>	
Closed Projects Remaining Balance		(571,667.04)	
2012 - 2016 Anticipated Tax Levy Revenue - TABLE C		<u>3,721.01</u>	
2017 Anticipated Tax Levy Revenue - TABLE C		<u>1,771.12</u>	
Anticipated Closed Project Balance		<u>(566,174.91)</u>	
Proposed & Future CIP Project Amount to be Levied - TABLE B		<u>0.00</u>	

TABLE A - CIP PROJECTS LEVIED

		Approved Budget	Current Expenses	2018 YTD Expenses	INCEPTION To Date Expenses	Remaining Budget	Grant Funds Received
Lakeview Park Pond (ML-8) (2013)		196,000	0.00	0.00	11,589.50	184,410.50	
Four Seasons Mall Area Water Quality Proj (NL-2)		990,000	0.00	0.00	162,907.34	827,092.66	
2014							
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)		612,000	0.00	0.00	349,661.40	262,338.60	
Briarwood / Dawnview Nature Area (BC-7)		250,000	0.00	0.00	250,000.00	0.00	
Twin Lake Alum Treatment Project (TW-2)		163,000	0.00	0.00	91,037.82	71,962.18	
2015							
Main Stem 10th to Duluth (CR2015)		1,503,000	0.00	0.00	1,003,746.24	499,253.76	
2016							
Honeywell Pond Expansion (BC-4) ¹		810,930	0.00	0.00	25,307.00	785,623.00	
Northwood Lake Pond (NL-1) ²	822,140						
Budget Amendment	611,600	1,433,740	0.00	0.00	1,445,143.38	(11,403.38)	670,000
2017							
Main Stem Cedar Lk Rd-Dupont (2017CR-M)	2017 Levy	400,000	1,064,472	0.00	0.00	126,376.39	938,095.61
	2018 Levy	664,472					
Plymouth Creek Restoration (2017 CR-P)	2017 Levy	580,930	863,573	0.00	0.00	158,717.23	704,855.77
	2018 Levy	282,643					200,000
2018							
Bassett Creek Park & Winnetka Ponds Dredging (BCP-2)		1,000,000	0.00	0.00	61,069.25	938,930.75	
		<u>7,886,715</u>	<u>0.00</u>	<u>0.00</u>	<u>3,624,486.30</u>	<u>4,262,228.70</u>	

TABLE B - PROPOSED & FUTURE CIP PROJECTS TO BE LEVIED

	Approved Budget - To Be Levied	Current Expenses	2018 YTD Expenses	INCEPTION To Date Expenses	Remaining Budget
2019					
Bryn Mawr Meadows (BC-5)	0	17,719.16	20,511.83	51,754.15	(51,754.15)
Decola Ponds B&C Improvement(BC-2,BC-3,BC-8)	0	13,970.00	26,095.86	70,605.02	(70,605.02)
Westwood Lake Water Quality Improvement Project(Feasibility)	0	11,520.00	12,175.00	14,685.20	(14,685.20)
2019 Project Totals	0	43,209.16	58,782.69	137,044.37	(137,044.37)
Total Proposed & Future CIP Projects to be Levied	0	43,209.16	58,782.69	137,044.37	(137,044.37)

BCWMC Construction Account
Fiscal Year: February 1, 2018 through January 31, 2019
(UNAUDITED)
April 2018 Financial Report
TABLE C - TAX LEVY REVENUES

	County Levy	Abatements / Adjustments	Adjusted Levy	Current Received	Year to Date Received	Inception to Date Received	Balance to be Collected	BCWMO Levy
2018 Tax Levy	947,115.00		947,115.00	0.00	0.00	0.00	947,115.00	947,115.00
2017 Tax Levy	1,303,600.00	(10,691.48)	1,292,908.52	0.00	0.00	1,291,137.40	1,771.12	1,303,600.00
2016 Tax Levy	1,222,000.00	(9,526.79)	1,212,473.21	0.00	0.00	1,211,215.56	1,257.65	1,222,000.00
2015 Tax Levy	1,000,000.00	32.19	1,000,032.19	0.00	0.00	998,931.70	1,100.49	1,000,000.00
2014 Tax Levy	895,000.00	(8,533.75)	886,466.25	0.00	0.00	885,636.52	829.73	895,000.00
2013 Tax Levy	986,000.00	(10,510.52)	975,489.48	0.00	0.00	974,956.34	533.14	986,000.00
				0.00			5,492.13	

OTHER PROJECTS:

	Approved Budget	Current Expenses / (Revenue)	2018 YTD Expenses / (Revenue)	INCEPTION To Date Expenses / (Revenue)	Remaining Budget
TMDL Studies					
TMDL Studies	135,000.00	0.00	0.00	107,765.15	27,234.85
TOTAL TMDL Studies	135,000.00	0.00	0.00	107,765.15	27,234.85
Flood Control Long-Term					
Flood Control Long-Term Maintenance	690,573.00	0.00	0.00	320,742.41	
Less: State of MN - DNR Grants			0.00	(93,000.00)	
	690,573.00	0.00	0.00	227,742.41	462,830.59
Annual Flood Control Projects:					
Flood Control Emergency Maintenance	500,000.00	0.00	0.00	0.00	500,000.00
Annual Water Quality					
Channel Maintenance Fund	375,000.00	73,461.65	73,461.65	255,619.60	119,380.40
Metro Blooms Harrison Neighborhood CWF Grant Project					
BWSR Grant	134,595.00	0.00	0.00	8,396.89	126,198.11
				(67,298.00)	(67,298.00)
	134,595.00	0.00	0.00	(58,901.11)	
Total Other Projects	1,835,168.00	73,461.65	73,461.65	464,928.05	1,168,345.95

Cash Balance 2/7/2018 1,139,307.55

Add:

Transfer from GF 0.00

Less:

Current (Expenses)/Revenue (73,461.65)

Ending Cash Balance 03/07/18 1,065,845.90
Additional Capital Needed (102,500)

Bassett Creek Construction Project Details

4/11/2018

	CIP Projects Levied											
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017	2018
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (CR-M)	Plymouth Creek Restoration (CR-P)	Basset Cr Pk & Winnetka Ponds Dredging (BCP-2)
Original Budget	8,275,115	196,000	990,000	612,000	250,000	163,000	1,503,000	810,930	822,140	1,064,472	863,573	1,000,000
Added to Budget	611,600								611,600			
Expenditures:												
Feb 2004 - Jan 2014	269,971.68	11,589.50	101,635.49	89,594.90	19,598.09	23,793.65	11,179.35	7,461.95	5,118.75	42,671.88	49,412.13	
Feb 2015-Jan 2016	313,510.98		25,866.35			432.00	93,862.65	6,442.53	94,823.44			
Feb 2016-Jan 2017	2,835,773.05		14,350.00	213,668.55	230,401.91	66,812.17	841,405.15	11,402.52	1,338,331.79	71,889.91	16,192.00	31,319.05
Feb 2017-Jan 2018	266,299.84		21,055.50	46,397.95			57,299.09		6,869.40	11,814.60	93,113.10	29,750.20
Feb 2018-Jan 2019												
Total Expenditures:	3,685,555.55	11,589.50	162,907.34	349,661.40	250,000.00	91,037.82	1,003,746.24	25,307.00	1,445,143.38	126,376.39	158,717.23	61,069.25
Project Balance	5,201,159.45	184,410.50	827,092.66	262,338.60		71,962.18	499,253.76	785,623.00	(11,403.38)	938,095.61	704,855.77	938,930.75
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017	2018
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (CR-M)	Plymouth Creek Restoration (CR-P)	Basset Cr Pk & Winnetka Ponds Dredging (BCP-2)
Project Totals By Vendor												
Barr Engineering	519,796.93	6,338.95	64,076.04	121,649.45	13,089.74	15,712.00	15,825.00	13,157.98	17,966.00	111,939.39	78,973.13	61,069.25
Kennedy & Graven	11,961.70	1,200.55	2,471.95	993.40	1,038.35	1,058.65	2,223.75	796.00	1,701.45	318.40	159.20	
City of Golden Valley	1,414,281.03			213,668.55	230,401.91	66,812.17	903,398.40					
City of Minneapolis												
City of Plymouth	97,451.25		25,866.35								71,584.90	
City of New Hope	1,413,267.55								1,413,267.55			
City of Crystal												
MPCA	2,500.00									2,500.00		
Blue Water Science	3,900.00					3,900.00						
Misc												
2.5% Admin Transfer												
Transfer to General Fund	109,450.02	4,050.00	20,600.00	13,350.00	5,470.00	3,555.00	25,000.00	11,353.02	6,453.40	11,618.60	8,000.00	
Total Expenditures	3,572,608.48	11,589.50	113,014.34	349,661.40	250,000.00	91,037.82	946,447.15	25,307.00	1,439,388.40	126,376.39	158,717.23	61,069.25
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017	2018
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (CR-M)	Plymouth Creek Restoration (CR-P)	Basset Cr Pk & Winnetka Ponds Dredging (BCP-2)
Levy/Grant Details												
2010 -2014 Levies	1,881,000	162,000	824,000	534,000	218,800	142,200						
2014/2015 Levy	1,000,000						1,000,000					
2015-2016 Levy	1,222,000							810,930	411,070			
2016-2017 Levy	1,303,600								322,670	580,930	400,000	
2017-2018 Levy	947,115									282,643	664,472	
Construction Fund Balance	703,000	34,000	166,000				503,000		470,000			
BWSR Grant- BCWMO	470,000											
DNR Grants-LT Maint												
Total Levy/Grants	7,526,715	196,000	990,000	534,000	218,800	142,200	1,503,000	810,930	1,203,740	863,573	1,064,472	
BWSR Grants Received									670,000		200,000	
MPCA Grant-CWP (Total \$300,000)									75,000.00			
									19,932.80			

Bassett Creek Construction Project Details

Proposed & Future CIP Projects (to be Levied)					DNR Grant From GF	Other Projects					Totals - All Projects
Total	2019	2019		Total							
Proposed & Future CIP Projects (to be Levied)	Bryn Mawr Meadows (BC- 5)	DeCola Ponds B&C Improve (BC- 2,BC-3,BC-8)	Westwood Lake Water Quality - Feasibility	Other Projects		TMDL Studies	Flood Control Emergency Maint	Flood Control Long- Term Maint	Channel Maint		
Original Budget Added to Budget					1,278,373.00 (250,000.00) 93,000.00 422,200.00	105,000.00	500,000.00	748,373.00 (250,000.00) 93,000.00 192,200.00	175,000.00	9,553,488.00 361,600.00 93,000.00 422,200.00	
Expenditures:											
Feb 2004 - Jan 2014	5,282.80	5,282.80			245,426.23	107,765.15		43,195.48	94,465.60	520,680.71	
Feb 2015-Jan 2016					137,357.54			110,580.19	26,777.35	450,868.52	
Feb 2016-Jan 2017					152,070.74			152,070.74		2,987,843.79	
Feb 2017-Jan 2018	72,978.88	25,959.52	44,509.16	2,510.20	75,811.00			14,896.00	60,915.00	415,089.72	
Feb 2018-Jan 2019	58,782.69	20,511.83	26,095.86	12,175.00	73,461.65				73,461.65	132,244.34	
Total Expenditures:	137,044.37	51,754.15	70,605.02	14,685.20	684,127.16	107,765.15		320,742.41	255,619.60	4,506,727.08	
Project Balance	(137,044.37)	(51,754.15)	(70,605.02)	(14,685.20)	1,109,445.84	27,234.85	500,000.00	462,830.59	119,380.40	6,173,560.92	
										Totals - All Projects	
Total	2019	2019		Total							
Proposed & Future CIP Projects (to be Levied)	Bryn Mawr Meadows (BC- 5)	DeCola Ponds B&C Improve (BC- 2,BC-3,BC-8)	Westwood Lake Water Quality - Feasibility	Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long- Term Maint	Channel Maint			
Project Totals By Vendor											
Barr Engineering	137,044.37	51,754.15	70,605.02	14,685.20	387,939.50	104,888.70		283,050.80		1,044,780.80	
Kennedy & Graven					2,648.25	1,164.30		1,099.35	384.60	14,609.95	
City of Golden Valley					55,287.50				55,287.50	1,469,568.53	
City of Minneapolis					38,823.35				38,823.35	38,823.35	
City of Plymouth					100,209.15				100,209.15	197,660.40	
City of New Hope									29,240.00	1,413,267.55	
City of Crystal											
MPCA										2,500.00	
Blue Water Science										3,900.00	
Misc					5,704.41	1,712.15		3,992.26		5,704.41	
2.5% Admin Transfer					32,600.00			32,600.00		109,450.02	
Transfer to General Fund										32,600.00	
Total Expenditures	137,044.37	51,754.15	70,605.02	14,685.20	652,452.16	107,765.15		320,742.41	223,944.60	4,332,865.01	
										Totals - All Projects	
Total	2019	2019		Total							
Proposed & Future CIP Projects (to be Levied)	Bryn Mawr Meadows (BC- 5)	DeCola Ponds B&C Improve (BC- 2,BC-3,BC-8)	Westwood Lake Water Quality - Feasibility	Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long- Term Maint	Channel Maint			
Levy/Grant Details											
2010 -2014 Levies					42,200.00	30,000		175,000	175,000	1,881,000	
2014/2015 Levy								17,200	25,000	1,042,200	
2015-2016 Levy											
2016-2017 Levy											
2017-2018 Levy											
Construction Fund Balance										703,000	
BWSR Grant- BCWMO										470,000	
DNR Grants-LT Maint					93,000.00			93,000			
Total Levy/Grants					515,200.00	30,000		285,200	200,000	4,096,200	



CONNECTING & INNOVATING
SINCE 1913

LIABILITY COVERAGE – WAIVER FORM

LMCIT members purchasing coverage must complete and return this form to LMCIT before the effective date of the coverage. Please return the completed form to your underwriter or email to pstech@lmc.org

This decision must be made by the member's governing body every year. You may also wish to discuss these issues with your attorney.

League of Minnesota Cities Insurance Trust (LMCIT) members that obtain liability coverage from LMCIT must decide whether to waive the statutory tort liability limits to the extent of the coverage purchased. The decision has the following effects:

- *If the member does not waive the statutory tort limits*, an individual claimant would be able to recover no more than \$500,000 on any claim to which the statutory tort limits apply. The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would be limited to \$1,500,000. These statutory tort limits apply regardless of whether the city purchases the optional excess liability coverage.
- *If the member waives the statutory tort limits and does not purchase excess liability coverage*, a single claimant could potentially recover up to \$2,000,000 for a single occurrence. (Under this option, the tort cap liability limits are waived to the extent of the member's liability coverage limits, and the LMCIT per occurrence limit is \$2 million.) The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would also be limited to \$2,000,000, regardless of the number of claimants.
- *If the member waives the statutory tort limits and purchases excess liability coverage*, a single claimant could potentially recover an amount up to the limit of the coverage purchased. The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would also be limited to the amount of coverage purchased, regardless of the number of claimants.

Claims to which the statutory municipal tort limits do not apply are not affected by this decision.

LMCIT Member Name

Check one:

- ☐ The member **DOES NOT WAIVE** the monetary limits on municipal tort liability established by Minnesota Statutes, Section 466.04.
- ☐ The member **WAIVES** the monetary limits on municipal tort liability established by Minnesota Statutes, Section 466.04 to the extent of the limits of the liability coverage obtained from LMCIT.

Date of city council/governing body meeting _____

Signature _____

Position _____



Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4E – Kilmer Park Street Reconstruction – Plymouth, MN
BCWMC April 19, 2018 Meeting Agenda
Date: April 11, 2018
Project: 23270051 2018 2155

4E Kilmer Park Street Reconstruction – Plymouth, MN BCWMC 2018-08

Summary:

Proposed Work: Excavation, Grading, Aggregate Base, Bituminous Paving, Bituminous Trail, Concrete Sidewalk, Concrete Curb & Gutter, Drainage, Turf Establishment, and Retaining Walls

Basis for Review at Commission Meeting: Linear Project Disturbing Over 5 Acres

Impervious Surface Area: Increase 0.38 Acres

Recommendation: Approval

General Background & Comments

The proposed linear project is located in the Medicine Lake Direct subwatershed in Plymouth, MN. The project includes the reconstruction of portions of 28th Avenue, Pilgrim Lane, Nathan Lane, Lancaster Lane, and Kilmer Lane. The proposed linear project includes excavation, grading, concrete curb and gutter, bituminous paving, storm sewer modifications, sanitary sewer repair, and water main replacement resulting in 7.70 acres of disturbance (grading). The proposed project results in an increase of impervious surface by 0.38 acres from 4.58 acres (existing) to 4.96 acres (proposed).

Floodplain

The proposed linear project does not involve work in the Bassett Creek floodplain.

Wetlands

The proposed linear project does not appear to involve work adjacent to wetlands.

Stormwater Management

The proposed linear project does not create one or more acres of net new impervious surfaces and therefore does not trigger the BCWMC requirements for rate control. The drainage patterns under existing and proposed conditions will remain similar; this project will not result in major changes to land use or topography.

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4E – Kilmer Park Street Reconstruction – Plymouth, MN
Date: April 11, 2018
Page: 2

Water Quality Management

The proposed linear project does not create one or more acres of net new impervious surfaces and therefore does not trigger the BCWMC requirements for water quality treatment.

Erosion and Sediment Control

The proposed linear project creates more than one acre of land disturbance, therefore the project was submitted for erosion and sediment control review. Proposed temporary erosion and sediment control features include silt fence, rock construction entrances, and inlet protection. Permanent erosion and sediment control features include riprap, sod, seeding, and erosion control blanket.


Recommendation


Approval.


Barr Footer: ArcGIS 10.4.1, 2018-03-22 11:10 File: \\barr.com\gis\client\BassettCreek\maps\Permits\Maps-2018-08.mxd User: EMA





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

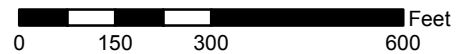
 Project Location

 Municipality

 Bassett Creek

 WMC Boundary

 Major Subwatershed



BCWMC #2018-08
Kilmer Park
Street Reconstruction
Plymouth, MN

LOCATION MAP

AGREEMENT FOR SERVICES

This Agreement is between the COUNTY OF HENNEPIN, STATE OF MINNESOTA, (the "COUNTY") A-2300 Government Center, Minneapolis, Minnesota 55487, on behalf of the Hennepin County (Environment and Energy, 701 Fourth Avenue South, Suite 700, Minneapolis, MN 55415) ("DEPARTMENT") and Bassett Creek Watershed Management Commission, a Minnesota joint powers organization ("COMMISSION") C/O 16145 Hillcrest Lane, Eden Prairie, MN 55346.

The parties agree as follows:

1. TERM OF THE AGREEMENT

The County agrees to furnish River Watch program services to the Commission commencing May 1, 2018 and terminating December 31, 2018, unless terminated earlier in accordance with the Default and Cancellation provisions of this Agreement.

2. SERVICES TO BE PROVIDED

The County agrees to provide River Watch program services to the Commission as more fully described in Exhibit A, attached hereto and incorporated herein by reference.

3. PAYMENT FOR SERVICES

The Department will bill the Commission for services rendered. Payment shall be made within thirty-five (35) days from receipt of the invoice.

The total cost of this Agreement shall not exceed Two Thousand Dollars (\$2,000).

4. INDEPENDENT CONTRACTOR

The County shall select the means, method, and manner of performing the services. Nothing is intended or should be construed as creating or establishing the relationship of a partnership or a joint venture between the parties or as constituting either party as the agent, representative, or employee of the other party for any purpose. The County is and shall remain an independent contractor for all services performed under this Agreement.

5. LIABILITY

Each party shall be responsible for its own acts and deeds and the results thereof. The County's liability and the Commission's liability shall be governed by the provisions of Minnesota Statutes, Chapter 466 and other applicable law.

6. INSURANCE

A. Both parties agree at all times during the term of this Agreement, and beyond such term when so required, to have and keep in force the following insurance coverages:

Limits

1. Commercial General Liability on an occurrence basis with contractual liability coverage:

General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	2,000,000
Personal and Advertising Injury	1,500,000
Each Occurrence—Combined Bodily Injury and Property Damage	1,500,000

2. Workers' Compensation and Employer's Liability:

Workers' Compensation	Statutory
Employer's Liability. Bodily injury by:	
Accident—Each Accident	500,000
Disease—Policy Limit	500,000
Disease—Each Employee	500,000

3. Professional Liability—Per Claim 1,500,000
Aggregate 2,000,000

The professional liability insurance must be maintained continuously for a period of two years after the termination of this Agreement.

- B. A self-insurance program is an acceptable method to provide the required insurance limits. The coverages provided by the League of Minnesota Cities Insurance Trust municipal liability policy shall be considered sufficient for the purposes of this section.
- C. Duty to Notify. Each party shall promptly notify the other party of any claim, action, cause of action or litigation brought against it, its employees, officers, agents or subcontractors, which arises out of the services contained in this Agreement. Each party shall also notify the other party whenever it has a reasonable basis for believing that it and/or its employees, officers, agents or subcontractors, might become the subject of a claim, action, cause of action, or litigation arising out of and/or related to the services contained in this Agreement.

7. DATA PRACTICES

Each party, its officers, agents, owners, partners, employees, volunteers and subcontractors shall abide by the provisions of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13 (MGDPA), the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH), adopted as part of the American Recovery and Reinvestment Act of 2009, and implementing regulations, if applicable, and all other applicable state and federal laws, rules, regulations and orders relating to data privacy or confidentiality. The terms of this section shall survive the cancellation or termination of this Agreement.

8. SUCCESSORS AND ASSIGNMENTS

- A. Each party binds itself, its partners, successors, assigns and legal representatives to the other party for all covenants, agreements and obligations contained in the contract documents.
- B. Neither party shall assign, transfer or pledge this Agreement and/or the services to be performed, whether in whole or in part, without the prior written consent of the other party.

9. MERGER AND MODIFICATION

- A. It is understood and agreed that the entire Agreement between the parties is contained herein and that this Agreement supersedes all oral agreements and negotiations between the parties relating to the subject matter. All items that are referenced or that are attached are incorporated and made a part of this Agreement. If there is any conflict between the terms of this Agreement and referenced or attached items, the terms of this Agreement shall prevail.
- B. Any alterations, variations, modifications, or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing as an amendment to this Agreement signed by the parties.

10. DEFAULT AND CANCELLATION

- A. If either party fails to perform any of the provisions of this Agreement or so fails to administer the work as to endanger the performance of the Agreement, it shall be in default. Unless the defaulting party's default is excused by the other party, the non-defaulting party may upon written notice immediately cancel this Agreement in its entirety.
- B. A party's failure to insist upon strict performance of any provision or to exercise any right under this Agreement shall not be deemed a relinquishment or waiver of the same, unless consented to in writing. Such consent shall not constitute a general waiver or relinquishment throughout the entire term of the Agreement.
- C. This Agreement may be canceled with or without cause by either party upon thirty (30) day written notice.

11. SURVIVAL OF PROVISIONS

Provisions that by their nature are intended to survive the term, cancellation or termination of this Agreement include but are not limited to: INDEPENDENT CONTRACTOR; LIABILITY; INSURANCE; DATA PRACTICES; DEFAULT AND CANCELLATION; PROMOTIONAL LITERATURE; and MINNESOTA LAW GOVERNS.

12. CONTRACT ADMINISTRATION

In order to coordinate the services being provided to the Commission with the activities of the Department, Mary L Karius, or successor, shall manage this Agreement on behalf of the County and serve as liaison between the County and the Commission.

13. COMPLIANCE AND NON-DEBARMENT CERTIFICATION

Both parties shall comply with all applicable federal, state and local statutes, regulations, rules and ordinances currently in force or later enacted.

14. NOTICES

Any notice or demand which must be given or made by a party under this Agreement or any statute or ordinance shall be in writing, and shall be sent registered or certified mail. Notices to the County shall be sent to the County Administrator with a copy to the originating Department at the address given in the opening paragraph of the Agreement. Notice to the Commission shall be sent to the address stated in the opening paragraph of the Agreement.

15. MEDIA OUTREACH

Commission shall not use the term “Hennepin County”, or any derivative thereof in Commission’s advertising, external facing communication and/or marketing, including but not limited to advertisements of any type or form, promotional ads/literature, client lists and/or any other form of outreach, without the written approval of the Hennepin County Public Affairs/Communications Department, or their designees.

16. MINNESOTA LAWS GOVERN

The Laws of the State of Minnesota shall govern all questions and interpretations concerning the validity and construction of this Agreement and the legal relations between the parties and their performance. The appropriate venue and jurisdiction for any litigation will be those courts located within the County of Hennepin, State of Minnesota. Litigation, however, in the federal courts involving the parties will be in the appropriate federal court within the State of Minnesota. If any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions will not be affected.

COUNTY ADMINISTRATOR AUTHORIZATION

Reviewed by the County Attorney’s
Office

COUNTY OF HENNEPIN
STATE OF MINNESOTA

Assistant County Attorney

By: _____
David Hough, County Administrator

By: _____

Date: _____

Recommended for Approval

By: _____
Director, Department of Environment and Energy

Date: _____

**Basset Creek Watershed
Management Commission**

The Commission certifies that the person who executed this Agreement is authorized to do so on behalf of the Commission as required by applicable articles, bylaws, resolutions or ordinances.*

Printed Name: _____

Signed: _____

Title: _____

Date: _____

* Commission shall submit applicable documentation (articles, bylaws, resolutions or ordinances) that confirms the signatory's delegation of authority. This documentation shall be submitted at the time Commission returns the Agreement to the County. Documentation is not required for a sole proprietorship.

EXHIBIT A

SCHEDULE OF SERVICES

River Watch is a volunteer monitoring program coordinated by Hennepin County Environment and Energy and highlights a partnership between cooperating cities and watershed Commissions. In the program, teachers and youth volunteers use biological monitoring criteria established by the MPCA to monitor local streams. Teachers use this as a unique hands-on research experience in the classroom setting. The details of the program responsibilities are as follows:

- Take proper precautions to ensure the safety of those involved in activities relating to River Watch.
- Recruit and manage teachers and students to monitor sites within the Bassett Creek Watershed.
- Coordinate and facilitate training sessions in field collection techniques and macroinvertebrate identifications including all in-person, hands-on training.
- Provide all necessary equipment and resources for successful collection of data.
- Provide funds to cover internal teacher costs including busing.
- Provide all Quality Assurance/Quality Control checks.
- Manage program finances.
- Manage program contracts.
- Maintain communication with all parties.
- Coordinate outreach educational opportunities.
- Coordinate volunteer appreciation efforts.
- Develop and distribute Year End Results to all interested parties upon request and via Hennepin County website.

**GRANT AGREEMENT
BETWEEN
THE METROPOLITAN COUNCIL
AND
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
FOR THE METROPOLITAN AREA
WATERSHED OUTLET MONITORING PROGRAM (WOMP2)**

THIS AGREEMENT is made and entered into by and between the **METROPOLITAN COUNCIL** (the "Council") and Bassett Creek Watershed Management Commission (the "Grantee"), each acting by and through its duly authorized officers.

WHEREAS:

1. The Metropolitan Council has been charged by the Minnesota Legislature (Minnesota Statutes, section 473.157, Water Resources Plan) with the development of target pollution loads for all Metropolitan Area watersheds.
2. A search of the available data yielded very little data adequate for use in the development of these loads.
3. On January 12, 1995 the Metropolitan Council authorized its staff to enter into grant agreements with various watershed management organizations for the collection of watershed outlet data.
4. The Council has entered into a Joint Power Agreement with the State of Minnesota, acting through its Commissioner of the Minnesota Pollution Control Agency ("State") where the State agrees to provide certain funds for the purposes of the Metropolitan Area Watershed Outlet Monitoring Program.
5. The Grantee has expressed an interest in collecting water quality data at the watershed outlet.
6. The Grantee has exhibited the technical capability to conduct a watershed outlet monitoring program.
7. The Council has reviewed the Grantee's proposal and desires to assist it in the collection of data.

NOW, THEREFORE, the Council and the Grantee agree as follows:

I. GRANTEE PERFORMANCE OF GRANT PROJECT

1.01 Grant Project. The Grantee agrees to perform and complete in a satisfactory and proper manner the grant project as described in the Grantee's application for grant assistance, incorporated in this agreement by reference, and in accordance with the terms and conditions of this agreement. Specifically, the Grantee agrees to perform the specific activities described in Exhibit A ("WOMP Monitoring Work Plan") and to undertake the financial responsibilities described in Exhibit B ("WOMP Monitoring Budget and Financial Responsibilities" document), both of which are attached to and incorporated in this agreement. These activities and financial responsibilities are referred to in this agreement as the "Grant Project".

1.02 Use of Contractors. With the approval of the Council's Grant and Project Managers, the Grantee may engage contractors to perform Grant Project activities. However, the Grantee retains

primary responsibility to the Council for performance of the Grant Project and the use of the contractor does not relieve the Grantee from any of its obligations under this agreement.

1.03 Material Representations. The Grantee agrees that all representations contained in its application for grant assistance are material representations of fact upon which the Council relied in awarding this grant and are incorporated in this agreement by reference.

II. AUTHORIZED USE OF GRANT FUNDS

2.01 Authorized Uses. Grant funds may be used only for costs directly associated with Grant Project activities, as described in paragraph 1.01, and which: i) occur during the Project Activity Period specified in paragraph 6.01, and ii) are eligible expenses as listed in the Grantee Financial Responsibilities portion of the WOMP Monitoring Budget and Financial Responsibilities document (Exhibit B). Grant funds may also be used to prepare the expense report required by paragraph 5.02 of this grant agreement. No other use of grant funds is permitted.

2.02 Unauthorized Uses of Grant Proceeds. Grant funds cannot be used to purchase land, buildings, or other interests in real property, or to pay legal fees, or permit, license, or other authorization fees, unless specifically approved in advance by the Council's Grant Manager.

2.03 Project Equipment and Supplies. With approval of the Council's Project Manager, grant funds may be used to purchase or lease equipment, machinery, supplies, or other personal property directly necessary to conduct the Grant Project. The Grantee will comply with the personal property management requirements described in article VIII of this agreement, with regard to any property purchased pursuant to this paragraph.

III. GRANT AMOUNT AND DISTRIBUTION

3.01 Maximum Grant Amount. The Council shall pay to the Grantee a Maximum Grant Amount of \$10,000. Provided, however, that in no event will the Council's obligation under this agreement exceed the lesser of:

- a. the Maximum Grant Amount of \$10,000; or,
- b. the actual amount expended by the grantee on eligible expenses as specified in paragraph 2.01.

The Council shall bear no responsibility for cost overruns which may be incurred by the Grantee in performance of the Grant Project.

3.02 Distribution of Grant Funds. Grant funds will be distributed by the Council according to the following schedule:

- a. Within ten working days of Council execution of this agreement, the Council will distribute to the Grantee forty-five (45%) of the Maximum Grant Amount.
- b. Upon Council approval of Grantee's January 2019 financial report required by paragraph 5.02, the Council will distribute to the Grantee forty-five (45%) percent of the Maximum Grant Amount.
- c. Upon approval of Grantee's January 2020 financial report required by paragraph 5.02, the Council will distribute to Grantee the final payment of the remainder of the Maximum Grant Amount. However, no payment will be made which would cause the distribution of grant

funds to exceed the limits in paragraph 3.01. Further, if the amount already paid to Grantee by the Council pursuant to this paragraph exceeds the cumulative amount actually expended by the Grantee on eligible expenses as specified in paragraph 2.01, the Council shall notify Grantee of the amount of over-payment. Grantee shall repay to the Council the amount of overpayment within 30 calendar days of receipt of notice from the Council.

No payment will be made under this paragraph if the Grantee is not current in its reporting requirements under article V at the time the payment is due. Distribution of any funds or approval of any report is not to be construed as a Council waiver of any Grantee noncompliance with this agreement.

3.03 Repayment of Unauthorized Use of Grant Proceeds. Upon a finding by Council staff that the Grantee has made an unauthorized or undocumented use of grant proceeds, and upon a demand for repayment issued by the Council, the Grantee agrees to promptly repay the amounts to the Council.

3.04 Reversion of Unexpended Funds. All funds granted by the Council under this agreement that have not been expended for authorized Grant Project activities as described in paragraph 2.01 shall revert to the Council.

IV. ACCOUNTING AND RECORDKEEPING REQUIREMENTS

4.01 Documentation of Grant Project Costs. All costs charged to the Grant Project must be supported by proper documentation, including properly executed payroll and time records, invoices, contracts, receipts for expenses, or vouchers, evidencing in detail the nature and propriety of the charges.

4.02 Establishment and Maintenance of Grant Project Information. The Grantee agrees to establish and maintain accurate, detailed, and complete separate accounts, financial records, documentation, and other evidence relating to: i) Grantee's performance under this agreement, and ii) the receipt and expenditure of all grant funds under this agreement. The Grantee shall establish and maintain this information in accordance with generally accepted accounting principles and practices and shall retain intact all Grant Project information until the latest of:

- a. complete performance of this agreement; or
- b. six (6) years following the term of this agreement; or
- c. if any litigation, claim, or audit is commenced during either of these periods, then when all the litigation, claims or audits have been resolved.

If the Grantee engages any contractors to perform any part of the Grant Project activities, the Grantee agrees that the contract for these services shall include provisions requiring the contractor to establish and maintain Grant Project information in accordance with the provisions of this paragraph and to allow audit of this information in accordance with paragraph 4.03.

4.03 Audit. The accounts and records of the Grantee relating to the Grant Project shall be audited in the same manner as all other accounts and records of the Grantee are audited. During the time of maintenance of information under paragraph 4.02, authorized representatives of the Council, and either the legislative auditor or the state auditor in accordance with Minnesota Statutes, section 16C.05, subdivision 5, will have access to all books, records, documents, accounting practices and procedures, and other information for the purpose of inspection, audit, and copying during normal business hours. The Grantee will provide proper facilities for access and inspection.

V. REPORTING AND MONITORING REQUIREMENTS

5.01 Monitoring Work Plan. The WOMP Monitoring Work Plan (Exhibit A) includes the specific geographic area and watershed outlet affected by the Grant Project, the tasks to be undertaken together with schedules and the organization responsible for the tasks' costs. The Grantee Financial Responsibilities portion of the WOMP Monitoring Budget and Financial Responsibilities document (Exhibit B) lists the Grantee expenses eligible for reimbursement by the Council, subject to the limitations of paragraph 2.01. The Grantee agrees to abide by the Monitoring Work Plan, including the Quality Control Provisions listed in the Monitoring Work Plan.

5.02 Grant Project Financial Reports. In January 2019 and January 2020, the Grantee will submit a financial report detailing expenses incurred by Grantee for the Grant Project in the preceding twelve calendar months which are eligible for reimbursement by the Council in accordance with paragraph 2.01.

5.03 Changed Conditions. The Grantee agrees to notify the Council immediately of any change in conditions, local law, or any other event that may affect the Grantee's ability to perform the Grant Project in accordance with the terms of this agreement.

VI. GRANT PROJECT ACTIVITY PERIOD; TERM; TERMINATION

6.01 Project Activity Period. The Grantee agrees to complete the Grant Project activities specified in paragraph 1.01 during the period from January 16, 2018 through December 31, 2019 (the "Project Activity Period").

6.02 Term. The term of this agreement shall extend from the effective date of this agreement to a date sixty (60) calendar days following the end of the Project Activity Period, to permit closeout of this agreement.

6.03 Termination. Either the Council or the Grantee may terminate this grant agreement at any time, with or without cause, by providing the other party written notice of termination at least thirty (30) days prior to the effective date of termination. Upon termination Grantee shall be entitled to compensation for Grant Project activities in accordance with this grant agreement which were satisfactorily performed and incurred prior to the effective date of the termination. Any remaining grant funds which have been distributed to Grantee will be returned to the Council no later than the effective date of termination. Upon the effective date of termination, a) all data collected by Grantee prior to the effective date of termination shall be turned over to the Council by Grantee; and b) all Council personal property in possession of Grantee wherever located and all property acquired with Grant funds shall be turned over to the Council by Grantee.

6.04 Termination by Council for Noncompliance. If the Council finds that there has been a failure to comply with the provisions of this agreement, the Council may terminate the agreement at any time following seven (7) calendar days written notice to the Grantee and upon failure of the Grantee to cure the noncompliance within the seven-day period. Noncompliance includes failure to make reasonable progress toward completion of the Grant Project. If the Council finds that the Grantee's noncompliance is willful and unreasonable, the Council may terminate or rescind this agreement and require the Grantee to repay the grant funds in full or in a portion determined by the Council. Nothing in this agreement shall be construed so as to limit the Council's legal remedies to recover grant funds.

6.05 Effect of Grant Project Closeout or Termination. The Grantee agrees that Grant Project closeout or termination of this agreement does not invalidate continuing obligations imposed on the Grantee by this agreement. Grant Project closeout or termination of this agreement does not alter the Council's authority to disallow costs and recover funds on the basis of a later audit or other review, and does not alter the Grantee's obligation to return any funds due to the Council as a result of later refunds, corrections, or other transactions.

VII. COUNCIL'S GRANT MANAGER AND PROJECT MANAGER

Financial aspects of this grant agreement will be handled by the Council's Grant Manager. The Council's Grant Manager for this grant agreement is Joe Mulcahy, or other person as may be designated in writing by the Council.

Technical aspects of the Grant Project, including supervision of the Grantee under the Monitoring Work Plan, will be handled by the Council's Project Manager. The Council's Project Manager for this grant agreement is Casandra Champion, or other person as may be designated in writing by the Council.

However, nothing in this agreement will be deemed to authorize the Grant Manager or Project Manager to execute amendments to this Grant Agreement on behalf of the Council.

VIII. GRANT PROPERTY AND DATA.

8.01 Title. Title to all personal property at the monitoring station site as described in Exhibit A and all property acquired with grant funds will remain with the Council. The Council authorizes the Grantee to utilize the personal property at the site in carrying out the Grant Project activities during the Project Activity Period.

8.02 Maintenance. The Grantee agrees to maintain any personal property at the site in good operating order. If, during the Project Activity Period, any personal property is no longer available for use in performing the Grant Project, whether by planned withdrawal, misuse, or casualty loss, the Grantee shall immediately notify the Council's Project Manager.

8.03 Utility Services. The Council shall make arrangements with local utilities to provide both telephone and electrical hookups as needed at the monitoring station specified in Exhibit A. All utility accounts serving the monitoring station shall be in the name of the Council. All telephone and electric utility costs for the monitoring station shall be paid by the Council.

8.04 Grant Project Closeout or Termination. No later than a) the effective date of termination as provided in Sections 6.03 and 6.04 of this Grant Agreement or b) no later than sixty (60) calendar days following the end of the Project Activity Period ("Project Closeout Date"), whichever is applicable:

i) all data defined in Section 9.04 of this Agreement collected by Grantee prior to the Project Closeout Date or the effective date of termination shall be turned over to the Council by Grantee; and

ii) all Council personal property in possession of Grantee wherever located and all property acquired with Grant funds shall be turned over to the Council by the Grantee.

If the Grant Agreement has not been terminated by either party and Grantee continues to participate in the Watershed Outlet Monitoring Program (WOMP 2) through a subsequent Grant Agreement with the Council, Grantee shall not be required to comply with Section 8.04 subparagraph (ii) until the time as Grantee's participation in the WOMP 2 program ceases.

IX. GENERAL CONDITIONS

9.01 Amendments. The terms of this agreement may be changed only by mutual agreement of the parties. These changes shall be effective only upon the execution of written amendments signed by duly authorized officers of the parties to this agreement.

9.02 Assignment Prohibited. Except as provided in paragraph 1.02, the Grantee shall not assign, contract out, sublet, subgrant, or transfer any Grant Project activities without receiving the express written consent of the Council. The Council may condition this consent on compliance by the Grantee with terms and conditions specified by the Council.

9.03 Indemnification. The Grantee assumes liability for and agrees to defend, indemnify and hold harmless the Council, its members, officers, employees and agents, from and against all losses, damages, expenses, liability, claims, suits, or demands, including without limitation attorney's fees, arising out of, resulting from, or relating to the performance of the Grant Project by Grantee or Grantee's employees, agents, or subcontractors.

9.04 Grant Project Data. The Grantee agrees that the results of the Grant Project, the reports submitted, and any new information or technology that is developed with the assistance of this grant may not be copyrighted or patented by Grantee. The Grantee shall comply with the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13, in administering data under this agreement.

9.05 Nondiscrimination. The Grantee agrees to comply with all applicable laws relating to nondiscrimination and affirmative action. In particular, the Grantee agrees not to discriminate against any employee, applicant for employment, or participant in this Grant Project because of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, membership or activity in a local civil rights commission, disability, sexual orientation, or age; and further agrees to take action to ensure that applicants and employees are treated equally with respect to all aspects of employment, including rates of pay, selection for training, and other forms of compensation.

9.06 Promotional Material: Acknowledgment. The Grantee agrees to submit to the Council a copy of any promotional information regarding the Grant Project disseminated by the Grantee. The Grantee shall appropriately acknowledge the grant assistance made by the State and the Council in any promotional materials, reports, and publications relating to the Grant Project.

9.07 Compliance with Law; Obtaining Permits, Licenses and Authorizations. The Grantee agrees to conduct the Grant Project in compliance with all applicable provisions of federal, state, and local laws, ordinances or regulations. The Grantee is responsible for obtaining all federal, state, and local permits, licenses, and authorizations necessary for performing the Grant Project.

9.08 Workers Compensation; Tax Withholding. The Grantee represents that it is compliance with the workers compensation coverage requirements of Minnesota Statutes, section 176.181, subdivision 2, and that it, and any of its contractors or material suppliers, if any, under this contract, are in compliance with the tax withholding on wages requirements of Minnesota Statutes, section 290.92.

9.09 Jurisdiction, Venue, and Applicable Law. Venue for all legal proceedings arising out of this agreement, or breach of this agreement, shall be in the state or federal court with competent jurisdiction in Ramsey County, Minnesota. All matters relating to the performance of this agreement shall be controlled by and determined in accordance with the laws of the State of Minnesota.

9.10 Relation to Joint Power Agreement. The Grantee recognizes that the Council has undertaken certain obligations as part of the Joint Power Agreement. A copy of the Joint Power Agreement is attached to and incorporated in this agreement as Exhibit C. The Grantee agrees that obligations imposed by the Joint Power Agreement on subgrantees or subcontractors are hereby made binding on the Grantee, and the terms of the Joint Power Agreement are incorporated into this Grant Agreement to the extent necessary for the Council to meet its obligations under the Joint Power Agreement. Terms of the Joint Power Agreement which are hereby specifically incorporated include, without limitation, the following:

Section 5	Clean Water Funding
Section 6	Conditions of Payment
Section 8	Subcontracting
Section 13	Government Data Practices and Intellectual Property
Section 14	Insurance requirements
Section 15	Publicity and Endorsement
Section 16	Governing Law, Jurisdiction and Venue

This paragraph shall not be deemed to create any contractual relationship between the State of Minnesota and the Grantee. The Grantee is not a third-party beneficiary of the Joint Power Agreement.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized officers on the dates set forth below. This agreement is effective upon final execution by, and delivery to, both parties.

GRANTEE _____

Date _____

By _____

Name _____

Title _____

METROPOLITAN COUNCIL

Date _____

By _____

Sam Paske
Assistant General Manager, Environmental Quality
Assurance Department

Feasibility Report for Westwood Lake Water Quality Improvement Project

St. Louis Park, MN

April 2018



Prepared for
Bassett Creek Watershed Management Commission



Feasibility Report for Westwood Hills Nature Center

April 2018

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Appendix A	Westwood Hills Nature Center Site Topographic and Tree Survey
Appendix B	Soil Borings
Appendix C	Cost Estimates

1.0 Background

The BCWMC's 2015-2025 Watershed Management Plan (Plan, Reference (1)) addresses the need to improve the quality of stormwater runoff reaching the Mississippi River by reducing nonpoint source pollution, protecting and enhancing fish and wildlife habitat, reducing stormwater runoff volume to improve water quality, and taking into account aesthetics and recreational opportunities within the watershed. This project is consistent with the goals (Section 4.1) and policies (Sections 4.2.1 and 4.2.10) in the Plan. The Plan's 10-year Capital Improvement Program (CIP, Table 5-3 in the Plan) includes project WST-2 Westwood Lake Water Quality Improvement Project. The BCWMC approved the 5-year (working) CIP at their March 17, 2016 meeting, which included implementation of the Westwood Lake Water Quality Improvement Project in 2019.

The Westwood Lake Water Quality Improvement Project is part of a larger project at the Westwood Hills Nature Center (WHNC). WHNC is in the planning phase of a complete reconstruction of its facilities in 2019. A master plan for the reconstruction project was completed in May 2016 for the City of St. Louis Park. The proposed improvements in the master plan include trail circulation and wayfinding, additional parking, expanded outdoor classroom area and water garden, expanded natural play and outdoor education area, improved canoe and kayak launch, interpretive features, and a new interpretive center building. This study examines the feasibility of constructing additional water quality improvements to treat stormwater runoff that would otherwise flow untreated to Westwood Lake.

1.1 Project Area Description

The WHNC is a 160-acre park located in St. Louis Park in the southern portion of the Bassett Creek watershed, southeast of the intersection of Interstate 394 and Highway 169 (Figure 1-1). The park is bordered by Westwood Hills Drive, Virginia Avenue South, and Westwood Hills Road on the east; and Westmoreland Lane and Flag Avenue South on the south and west. Wayzata Boulevard is north of the park. The park contains trails, marsh, woods, and restored prairie, and is surrounded by medium density residential and commercial areas (Figure 1-2). The existing interpretive center at the WHNC is located in the southeast portion of the park, approximately 360 feet north of the existing parking lot, and is accessed via a paved trail from the parking lot. The existing interpretive center will be demolished as part of the larger WHNC reconstruction project and the new interpretive center will be built near the north edge of the existing parking lot. The existing parking lot will be demolished and reconstructed farther to the south. The new facility will be nearly five times as large as the existing building. The existing parking lot has 33 parking spaces and the proposed parking lot will provide nearly double the number of parking spaces (Figure 1-3).

1.1.1 Westwood Lake

Westwood Lake is a 38-acre lake in St. Louis Park in the southern portion of the Bassett Creek watershed. The BCWMC classified Westwood Lake as a Priority 1 shallow lake, making this water quality improvement project eligible for inclusion in the BCWMC's CIP. Westwood Lake has a maximum depth of 5 feet, a normal water elevation of 887.6 feet (NAVD88 datum), and a 100-year elevation of 890.0 feet (NAVD88 datum). Runoff draining into the lake enters through five storm sewers located around the perimeter. On

the north side of the lake, the outlet is a 400-foot long open channel which discharges to a 27-inch reinforced concrete pipe (RCP) storm sewer at an elevation of 886.2 feet (NAVD88 datum). From there runoff drains through several ponds and pipes over 1500 feet in length, and outlets into the main stem of Bassett Creek, downstream of General Mills Boulevard.

1.1.2 Westwood Lake Subwatershed

Westwood Lake's 463-acre watershed includes portions of St. Louis Park, Golden Valley, and Minnetonka. The watershed primarily comprises low-density residential land use, park and recreational areas, and a golf course (Figure 1-2). The lake is adjacent to parkland and within the WHNC, both of which provide access to trails surrounding the lake and opportunities for canoeing or kayaking, scenic viewing, birding, and hiking. The project area is generally flat or moderately undulating, with the exception of a steep hilly area near the existing WHNC interpretive center. Adjacent upland areas east of the parking lot have steep topography. A detailed topographic map can be found in Appendix A.

1.1.3 Turtle Pond

Turtle Pond is a small wetland located northwest of the proposed WHNC interpretive center building. The Turtle Pond outlet is a 12-inch polyvinyl chloride (PVC) culvert with an invert elevation of 889.4. Turtle Pond drains into a small unnamed wetland which then drains into Westwood Lake via an 8-inch PVC culvert with an invert elevation of 888.6 (Figure 1-3).

1.1.4 Wetland Delineation

The City of St. Louis Park, in coordination with HGA Architects and Engineers (HGA), completed a site topographic and tree survey, wetland delineation, and Phase 1 environmental site assessment in 2017 as part of the larger WHNC reconstruction project. The site topographic and tree survey, which shows the wetland locations, was provided by HGA is included in Appendix A.

1.1.5 Soil Borings

The City of St. Louis Park, in coordination with HGA, completed soil borings in 2017 for the proposed WHNC reconstruction project. Soils are generally characterized as fill, swamp deposits, peat, or clay with groundwater seven to ten feet below grade. The Soil boring logs were provided by HGA and are included in Appendix B.

1.2 Hydrologic and Hydraulic Models

The BCWMC completed the Phase II XP-SWMM model for Bassett Creek and its contributing watersheds in 2016. Hydrologic and hydraulic information was not reviewed or analyzed as part of this feasibility study because no changes are proposed that would impact the information included in the XP-SWMM model.

1.3 Water Quality Models

The BCWMC developed the P8 model for Bassett Creek and its contributing watersheds in 2012. The P8 water quality model was not reviewed or analyzed as part of this feasibility study, however this study

included a preliminary MIDS and water balance analysis to estimate the water quality improvement expected from each proposed alternative. Final design efforts should include both additional refinements to the water quality modeling as the design components are finalized and incorporation of the constructed improvements into the BCWMC's P8 model after completion of the project.

2.0 Goals and Objectives

The goals and objectives of the feasibility study are to:

1. Review the feasibility of improving quality of stormwater runoff reaching Westwood Lake.
2. Develop conceptual designs.
3. Provide an opinion of cost for design and construction of concepts.
4. Identify potential impacts and permitting requirements.

The goals and objectives of the water quality project is to:

1. Reduce nonpoint source pollution
2. Protect and enhance fish and wildlife habitat at WHNC
3. Reduce stormwater runoff volume
4. Prevent erosion of soil into Westwood Lake and surrounding wetlands
5. Consider aesthetics and recreational opportunities at WHNC
6. Increase the quality of wetlands

2.1 Scope

As part of the larger WHNC reconstruction project, the City of St. Louis Park is proposing to construct additional water quality improvements to treat stormwater runoff that would otherwise flow untreated to Westwood Lake. The BCWMC's WST-2 CIP project funding would be applied towards the portions of the water quality improvements that provide treatment "above and beyond" the BCWMC requirements for the WHNC reconstruction project.

This project is consistent with the goals (Section 4.1) and policies (Sections 4.2.1, 4.2.2, and 4.2.10) in the 2015 – 2025 BCWMC Watershed Management Plan. The BCWMC has included the Westwood Hills Nature Center Water Quality Project in its CIP, based on gatekeeper policy 110 from the BCWMC Plan:

The BCWMC will consider including projects in the CIP that meet one or more of the following "gatekeeper" criteria.

- *Project is part of the BCWMC trunk system (see Section 2.8.1, Figure 2-14 and Figure 2-15)*
- *Project improves or protects water quality in a priority waterbody*
- *Project addresses an approved TMDL or watershed restoration and protection strategy (WRAPS)*
- *Project addresses flooding concern*

The BCWMC will use the following criteria, in addition to those listed above, to aid in the prioritization of projects:

- *Project protects or restores previous Commission investments in infrastructure*
- *Project addresses intercommunity drainage issues*
- *Project addresses erosion and sedimentation issues*

- *Project will address multiple Commission goals (e.g., water quality, runoff volume, aesthetics, wildlife habitat, recreation, etc.)*
- *Subwatershed draining to project includes more than one community*
- *Addresses significant infrastructure or property damage concerns*

The BCWMC will place a higher priority on projects that incorporate multiple benefits, and will seek opportunities to incorporate multiple benefits into BCWMC projects, as opportunities allow.

The Westwood Hills Nature Center Water Quality Project meets multiple of the gatekeeper criteria—the project is part of the BCWMC trunk system, the project would improve water quality, and would address multiple commission goals.

2.2 Considerations

The following considerations played a key role in determining recommendations for the Westwood Hills Nature Center Water Quality Project and should continue to be evaluated through final design:

1. Maximizing the water quality benefit.
2. Minimizing permitting required to construct the project.
3. Minimizing wetland impacts.
4. Minimizing tree loss.
5. Adding educational opportunities.

3.0 Stakeholder Input

3.1 Public Stakeholder Meeting

Two public stakeholder open house meetings were held on February 22 and 28, 2018. The City of St. Louis Park and their consultant organized these meetings. The BCWMC administrator did not attend either meeting, however Chair de Lambert did attend one of the meetings. While the presentations and discussions focused on the proposed interpretive center, the BCWMC had a display at the meetings with a watershed map, a brief project description, educational materials, and information about the BCWMC. An opportunity was provided for residents to offer thoughts or concerns about the project on index cards; however, no comments were passed along to Barr or BCWMC concerning the water quality portion of the project.

3.2 Technical Stakeholder Meeting

Two technical stakeholder meetings were held for the project. The first was held onsite on November 21, 2017. The meeting included representatives from the City of St. Louis Park, HGA (the city's architect and engineer), and the Commission Engineer. The attendees discussed project scope, field work schedule, design and meeting schedules, and site layout.

The second meeting was held at City of St. Louis Park offices on March 1, 2018. Attendees included representatives from the City of St. Louis Park, the city's consultant, the BCWMC administrator, and the BCWMC Engineer. Attendees discussed possible design concepts, permitting needs, project schedule and funding were also reviewed.

3.3 BCWMC Stakeholder Comments

A draft version of the April 2018 draft report was provided to the BCWMC administrator and City of St. Louis Park staff. The draft feasibility study was revised in response to the comments received. Additional review of the technical comments is recommended during final design.

4.0 Water Quality Improvement Concepts

This section provides a summary of the alternatives analyzed for water quality and other improvements at WHNC. Multiple alternatives were evaluated for removing sediment, improving water quality, protecting and enhancing fish and wildlife habitat, and adding aesthetic and educational opportunities within the project area. The measures considered for potential implementation include the following:

- Adding additional permeable paver parking bays in the proposed parking lot for water quality treatment and a possible reduction of salt application in the parking bay (Concept 1)
- Increasing the size of proposed filtration basins, or supplementing the site with additional filtration basins (Concept 2)
- Installing a linear water quality feature on the north side of the interpretive center with signage and interactive features for education (Concept 3)
- Directing additional site runoff to Turtle Pond to increase the water quality treatment provided by the pond (Concept 3)

Three water quality treatment concepts were developed. The proposed concepts will reduce sediment and phosphorus loading to Westwood Lake and all downstream water bodies, including Bassett Creek and the Mississippi River.

4.1 Concept 1 – Additional Permeable Pavers

Concept 1 includes installing additional permeable pavers in the proposed parking lot. The proposed parking lot is designed with an outer and inner ring of parking stalls and includes permeable pavers at the inner ring location. Concept 1 would increase the amount of pervious concrete pavers by constructing the outer ring of parking stalls with the same permeable paver design proposed for the inner ring of parking stalls. All pervious pavers would include granular filters with draintile beneath them. An overflow structure would be installed in each paver bay to minimize flooding if the pavers become plugged. Concept 1 is shown in detail on Figure 4-1.

The soil borings show soils near the proposed parking lot that would not be conducive to infiltration. As a result, the permeable pavers are designed as a filtration system. Pervious pavers improve water quality by trapping sediments and nutrients at the surface or in the sand filter below. There is also evidence that pervious pavers require less salt application during winter months than traditional bituminous or concrete paving. Installing additional permeable pavers would reduce sediment and nutrient loading, and may reduce chloride loading to Westwood Lake, Bassett Creek, and the Mississippi River. Signage could be used to educate the visitors on how the pavers are improving water quality in the watershed.

To maintain effectiveness, permeable pavers must be maintained. Regular maintenance includes removing accumulated sediment or organic matter with sweeping and cleaning out the drain tile. Even with regular maintenance, eventually the pavers may need to be removed and reinstalled to replace the filter media. The life of the pavers depends on how well they are maintained.

4.2 Concept 2 – Expand Filtration Basins

Concept 2 includes increasing size and filtration capacity of the proposed filtration basins on the south side of the proposed interpretive center. Two areas have been identified for expansion of the filtration basins, which could provide an additional 3,300 cubic feet (0.08 acre-feet) of storage. Concept 2 is shown in detail on Figure 4-2. At the time of this report, the site design for the WHNC reconstruction project had not yet been completed. It is possible additional locations could be identified for expansion of the filtration basins. This should be evaluated during final design.

The soil borings show soils near the proposed parking lot that would not be conducive to infiltration. As a result, the basins are designed as filtration systems. The expanded filtration basins would match the design of the proposed filtration basins. These designs have not yet been finalized but will generally include a sand trench with drain tile, planting soil, surface mulch, plantings, and an overflow outlet. Filtration basins improve water quality by trapping sediments and nutrients, or removing nutrients through plant uptake. Expanding the proposed filtration basins would increase the filtration capacity of the basins, and further reduce the sediment and nutrient loading to Westwood Lake, Bassett Creek, and the Mississippi River. Signage could be used to educate the visitors on how the basins are improving water quality in the watershed.

To maintain effectiveness, filtration basins must be maintained. Regular maintenance includes removal of trash and debris, weeding, cleaning out the drain tile, loosening the surface of the basin, removing accumulated sediment or organic material, replacing plants, and replacing surface mulch. Even with regular maintenance, eventually the filtration basins may require removal and replacement of the planting soil, plants, and sand trench to restore effectiveness.

Adding iron filings to the sand trenches for iron enhanced sand filtration to remove soluble phosphorus was discussed. Soil borings near the basins show groundwater elevations to be as high as 888.0 feet (NAVD88 datum), and could be higher when groundwater is seasonally high. The basin sand trenches could be close to this elevation. We do not recommend using iron in continuously wet areas as the system can go anoxic, the iron can clump together, the system may discharge iron into the downstream waterbodies, and may not function as intended.

4.3 Concept 3 – Linear Water Feature

Concept 3 includes collecting stormwater runoff from the roof of the proposed interpretive center and the north patio areas. Runoff would be routed through a series of meandering channels and basins on the north side of the proposed interpretive center. Pumps would recirculate the runoff through the channels and basins until it leaves the system through infiltration, evaporation, or evapotranspiration. The recirculation pumps could be solar-powered or manual. An overflow would be provided from the downstream basin to Turtle Pond for storm events larger than the design event. Turtle Pond is currently stagnant and receives minimal runoff. This concept would increase flows to Turtle Pond, which may improve its water quality.

All of the basins and channels would be constructed to promote infiltration. Soils may not be highly conducive to infiltration, however an appropriate infiltration rate for the soil type would be used in design calculations. Infiltration basins improve water quality by trapping sediments and nutrients, or removing nutrients through plant uptake, and reducing runoff volume. Routing stormwater runoff to this series of channels and basins would reduce the sediment and nutrient loading to Westwood Lake, Bassett Creek, and the Mississippi River.

To maintain effectiveness, infiltration basins must be maintained. Regular maintenance includes removal of trash and debris, weeding, cleaning out the drintile, loosening the material at the surface of the basin, removing accumulated sediment or organic material, replacing plants, and replacing surface mulch. Even with regular maintenance, eventually the basins may require removal and replacement of surface mulch and plants.

In addition to water quality benefits, this system could be designed as an educational experience with signage, pedestrian bridges, and interactive features. A recirculation pump could be powered with a stationary bike, a wheel, or a hand crank. When initiated, the manual pumping could discharge at a highly visible, elevated, and accessible location. These, or similar educational features, would allow WHNC visitors see the connection between their effort and the recirculation flow. A separate solar-powered recirculation pump could provide a lower “base-flow” for the system to ensure that the system is providing consistent water quality treatment. A manual switch could be provided for the pumps to turn them off during winter months or when visitors are not at the site. This concept would also provide added aesthetics to the north side of the building.

5.0 Water Quality Impacts

This section discusses impacts of the Westwood Lake Water Quality Improvement Project, including estimated pollutant reductions resulting from each alternative. The MIDS Calculator was used to evaluate anticipated pollutant removals for Concept 1 and Concept 2. A water balance spreadsheet was used to evaluate anticipated pollutant removals for Concept 3. The same concentrations of TSS and TP loading was applied to both the MIDS Calculator evaluation and the water balance spreadsheet calculations. Table 5-1 summarizes the results from each alternative.

Table 5-1 Estimated Annual TSS and TP Removals for Concepts 1, 2, and 3

Alternative	Estimated TSS Removal (pounds/year)	Estimated TP Removal (pounds/year)
Concept 1 – Additional Permeable Pavers	39.5	0.171
Concept 2 – Expand Filtration Basins	0.7	0.004
Concept 3 – Linear Water Feature	59.9	0.330

6.0 Project Cost Considerations

This section presents a feasibility level opinion of cost of the evaluated concepts, discusses potential funding sources, and provides an approximate project schedule.

6.1 Opinion of cost

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

1. The cost estimate assumes a 30% construction contingency.
2. Costs associated with design, permitting, and construction observation (collectively “engineering”) is assumed to be 30% of the estimated construction costs (excluding contingency).
3. 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. Based on the development of concepts and initial vetting of the concepts by the City of St. Louis Park, it is not necessary to utilize the full range of the acceptable range for the cost estimate; and we assume the final costs of construction may be between -20% and +30% of the estimated construction budget. The assumed contingency for the project (30%) incorporates the potential high end of the cost estimate range.

The estimated capital and a range of 20-year to 35-year annualized costs for each alternative are summarized in Table 6-1. Detailed cost-estimate tables for all concepts considered are provided in Appendix C.

6.2 Funding Sources

The City of St. Louis Park proposes to use BCWMC CIP funds to pay for the WHNC Water Quality Improvement project. The source of these funds is an ad valorem tax levied by Hennepin County over the entire Bassett Creek watershed.

6.3 Project Schedule

For project construction to occur in 2019, project design would be completed 2018. The BCWMC must hold a public hearing and order the project in time to submit its ad valorem tax levy request to Hennepin County. The City of St. Louis Park is currently preparing the final design.

7.0 Permitting, Site Impacts, and Coordination

This section discusses permitting and coordination required for each alternative.

7.1 Permitting

No disturbance or fill of any wetlands, nor any work in public waters is anticipated as part of the WHNC reconstruction project. The City of St. Louis Park and its contractors will be responsible for any permits required by the WHNC reconstruction project. No additional permits are anticipated as part of the Westwood Lake Water Quality Improvement Project.

7.2 Site Impacts

Some tree removals are anticipated as part of the WHNC reconstruction project. Minimal additional tree removals and no additional site impacts are anticipated for the Westwood Lake Water Quality Improvement Project.

7.3 Coordination

Trail usage and pedestrian safety during construction is a significant consideration for the WHNC reconstruction project. The interpretive center and some nearby paths and trails will be closed during construction, but most WHNC paths and trails will remain open. Trail closure signs and barricades will be installed and a pedestrian detour route will be determined during final construction. The parking lot will also be closed during construction and the existing park entrance drive will be used for construction access. Minimal additional path and trail closures are anticipated as part of the Westwood Lake Water Quality Improvement Project. Continued coordination with the City of St. Louis Park's Parks and Recreation Department will be required during final design.

8.0 Recommendations

The Commission Engineer recommends Concept 3 – Linear Water Feature due to water quality improvement, education, cost effectiveness, and aesthetic possibilities. We recommend that the opinions of cost identified in this study be used to develop a levy request for the selected concept(s) and that the concept(s) proceeds to the design and construction phase.

9.0 References

1. **Bassett Creek Watershed Management Commission.** 2015 Watershed Management Plan. September 2015.

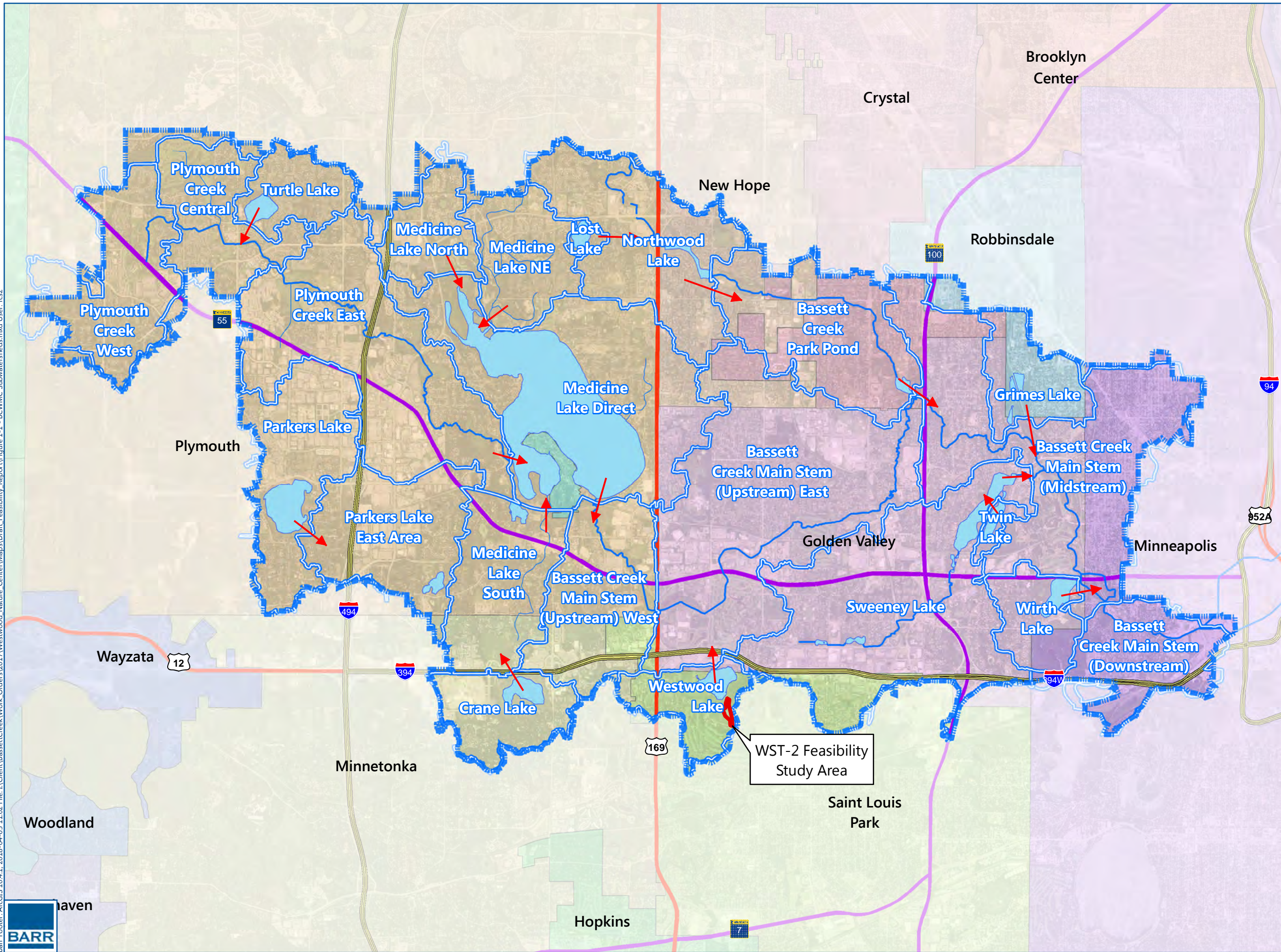
Table 6-1 Estimated Capital and Annualized Costs for Concepts 1, 2, and 3

Alternative	Construction Cost	Construction Contingency ¹	Planning, Engineering, Design, and Construction Observation ²	Total Cost	Estimated TSS Removal (lbs/year)	Estimated Annualized Cost per Pound of TSS Removal (\$/lb TSS/year) ³	Estimated TP Removal (lbs/year)	Estimated Annualized Cost per Pound of TP Removal (\$/lb TP/year) ³
Concept 1 – Additional Permeable Pavers	\$101,000	\$30,000	\$39,000	\$170,000	39.5	\$260 - \$340	0.171	\$59,060 - \$78,950
Concept 2 – Expand Filtration Basins	\$37,000	\$11,000	\$14,000	\$62,000	0.7	\$5,290 - \$7,140	0.004	\$925,000 - \$1,250,000
Concepts 1 plus Concept 2	\$138,000	\$41,000	\$53,000	\$232,000	40.2	\$440 - \$580	0.175	\$100,570 - \$133,710
Concept 3 – Linear Water Feature	\$208,000	\$62,000	\$81,000	\$351,000	59.9	\$350 - \$470	0.330	\$63,380 - \$84,610

(1) Assumed 30% contingency based on feasibility-level design (Class 4, 10-15% design completion per ASTM E 2516-06).

(2) Assumed 30% of construction cost for Engineering, Design, and Construction Observation.

(3) Assumed 4% interest rate and 20-year to 35-year lifespan.



→ Flow Directions

BCWMC Priority Streams

WST-2 Feasibility Study Area

Major Subwatersheds

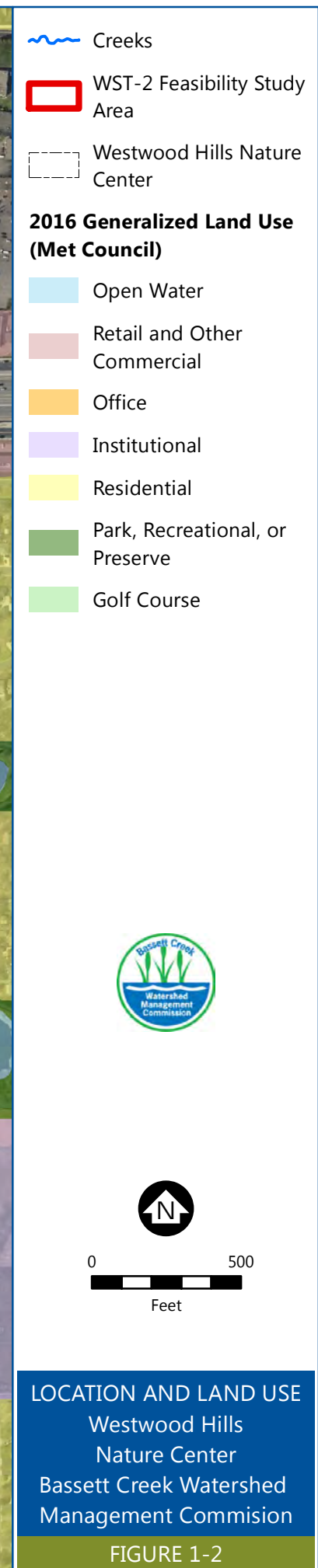
Lakes and Ponds

BCWMC Jurisdictional Boundary

0 2,000 4,000
Feet

BCWMC
MAJOR SUBWATERSHEDS
AND DRAINAGE PATTERNS
Westwood Hills
Nature Center

FIGURE 1-1



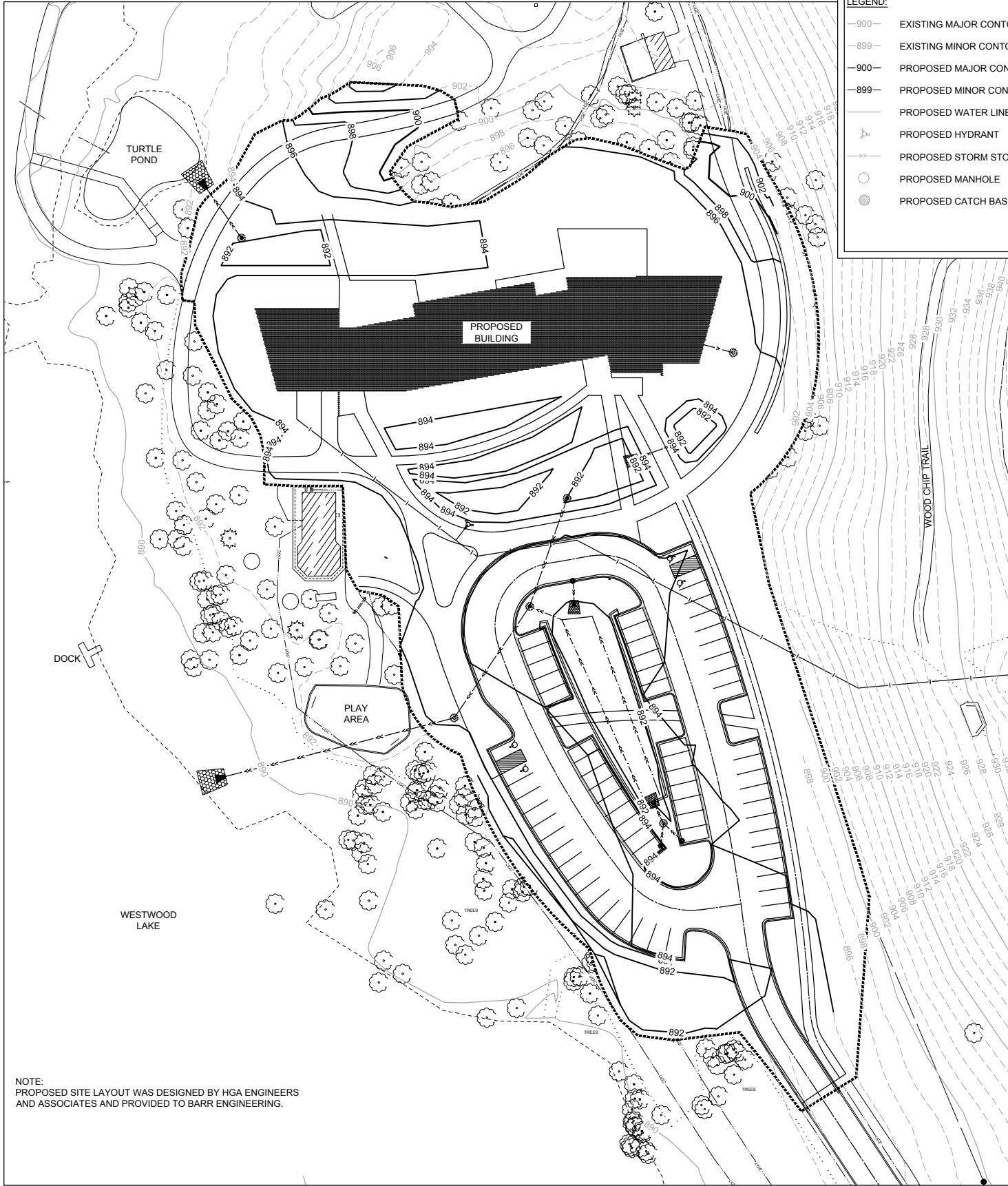
CADD USER: Josh Phillips FILE: M:\DESIGN\23270051_40\23270051_40_EXISTING_VS_PROPOSED.DWG PLOT SCALE: 1:2 PLOT DATE: 4/11/2018 3:34 PM

BARR M:\AutoCAD 2011\AutoCAD 2011 Support\out Template\Barr_2011_Template.dwt Plot at 1 10/05/2010 14:03:50



1 PLAN: EXISTING CONDITIONS
SCALE AS SHOWN

0 40 80
SCALE IN FEET



2 PLAN: PROPOSED CONDITIONS
SCALE AS SHOWN

0 40 80
SCALE IN FEET



ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

LEGEND:

- 900 EXISTING MAJOR CONTOUR
- 899 EXISTING MINOR CONTOUR
- 900 PROPOSED MAJOR CONTOUR
- 899 PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED HYDRANT
- PROPOSED STORM STORM
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN

NO.	BY	CHK	APP	DATE	REVISION DESCRIPTION
A	JPP	MAK	KLC	04/11/2018	BCWMC AND CITY REVIEW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR 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.	
PRINTED NAME	
SIGNATURE	
DATE	LICENSE #

CLIENT	04/11/18
BID	
CONSTRUCTION	
RELEASED TO/FOR	A B C 0 1 2 3
DATE RELEASED	

BARR	Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435
Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277	Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com

Scale	AS SHOWN
Date	04/11/2018
Drawn	JPP
Checked	MAK
Designed	
Approved	KLC

BCWMC

WESTWOOD LAKE WATER QUALITY
IMPROVEMENT PROJECT (WST-2)

EXISTING CONDITIONS AND
PROPOSED CONDITIONS

BARR PROJECT No.	23/27-0051.40
CLIENT PROJECT No.	
DWG. No.	FIGURE 1-3
REV. No.	A



CITY of CRYSTAL

4141 Douglas Drive North • Crystal, Minnesota 55422-1696

Tel: (763) 531-1000 • www.crystalmn.gov

April 11, 2018

Laura Jester
Administrator
Bassett Creek Watershed Management Commission
16145 Hillcrest Lane
Eden Prairie, MN 55436

RE: 50% Design plans – Winnetka pond sediment removal project

Dear Ms. Jester,

Please find attached the 50% design plans and the engineering letter presenting information about the feasibility study, the design features of the project, and the approval/permitting needs for the Winnetka pond sediment removal project.

This project is being constructed by the city per the cooperative agreement between the City of Crystal and the BCWMC with the plans and specifications being subject to the approval by the Commission. I am requesting that this project be included with the Commission packet for the April 2018 regular meeting. City staff and the project design engineer will be at the meeting to present the project and answer any questions.

If you have any questions or need any additional information, please contact me at mark.ray@crystalmn.gov or 763-531-1160.

Sincerely,

Mark Ray, PE
Director of Public Works

April 11, 2018

Mr. Mark Ray, P.E.
Director of Public Works
4141 Douglas Dr. N.
Crystal, MN, 55422-1696

**Re: 50% Design Plans – Winnetka Pond Dredging Project
City of Crystal Project 2018-04**

Dear Mr. Ray:

Attached please find the 50% design plans for the Winnetka Pond Dredging Project. The Bassett Creek Watershed Management Commission (BCWMC) is funding the Winnetka Pond Dredging Project (BCWMC CIP project BCP-2: Bassett Creek Park Pond Phase I Dredging Project) through a 2018 ad valorem levy (via Hennepin County). Per the cooperative agreement between the City of Crystal and the BCWMC, the city is to construct the project, and the plans and specifications are subject to approval by the Commission. Also, per the BCWMC's CIP project flow chart, the 50% design plans for this project must be submitted to the BCWMC for review and approval. If the attached 50% plans meet the city's approval, we recommend submitting them, along with this letter, to the BCWMC for inclusion in the meeting packet for their April 19th meeting. Barr staff will present the 50% plans to the BCWMC at the meeting and answer any questions from the BCWMC.

The remainder of this letter presents information about the feasibility study, the design features of the project, and approval/permitting needs.

Feasibility Study Summary and Selected Project

The BCWMC completed the *Feasibility Report for Bassett Creek Park Pond and Winnetka Pond East Dredging Project (May 2017)* to evaluate options for dredging accumulated sediment from Bassett Creek Park Pond and Winnetka Pond. The BCWMC selected completing the Winnetka Pond East alternative 3 project (deepening to 6.0 feet), along with add-on 1 (native buffer) and add-on 2 (goose management). The selected project will provide water quality improvement by (1) providing additional permanent pool storage for sedimentation and to prevent re-suspension of sediment, (2) minimizing downstream transport of sediment, (3) filtering pollutants such as phosphorus, sediment, and bacteria from stormwater runoff, and (4) reducing phosphorus and bacteria loads from geese.

During the design process, City of Crystal staff met with the Winnetka Village Apartments management staff to discuss the native buffer and goose management measures. As a result of these discussions and further discussion at the March 20th city council workshop, the city council decided to move ahead with installing the native buffer, and to continue to manage goose populations at Winnetka Pond (and other waterbodies along the North Branch).

Design features – 50% plans

The primary design features of the proposed work, as shown on the attached 50% plans, include:

1. Pond dredging. The design calls for removal of approximately 18,500 cubic yards of accumulated sediment and native soils to deepen the pond to a depth of 6 feet (the feasibility study estimated 18,400 cubic yards of excavation). As originally designed, the pond depth was only 2 feet. A large portion of the original volume has now been filled in with accumulated sediment, allowing for increased sediment resuspension and transport downstream. Increasing the depth is still subject to review and approval by the Minnesota Department of Natural Resources (MDNR).
2. Maintenance access. The design includes providing maintenance access at two locations. The west access point is a 12-foot-wide vehicle ramp at a 10% maximum slope. This access point will be used for construction hauling traffic. The east access near the outlet structure will allow for maintenance vehicle parking while city crews perform routine maintenance at the outlet structure. Both access locations will have turf reinforcement to prevent rutting and compaction and will be maintained as native buffer or turf grass. This design feature was not identified in the feasibility study.
3. Outlet structure modifications. To reduce the frequency of obstructed flows, the design includes removing the existing grate and installing a new hinged grate with sloping bars. The design will also allow maintenance crews to clean the new grate more effectively and easily than the current structure. The existing plywood weir will be replaced with a concrete weir of the same dimensions, elevations, and orifice size/shape to ensure no change in flood elevations or outflow. The joints of the downstream 42-inch pipe have separated, which allows soil to infiltrate into the pipe. The project includes replacing these sections of pipe.
4. Erosion repair and new storm sewer installation. The runoff from the existing driveway curb cuts has resulted in visible erosion along the slopes, forming channels on both sides of the driveway, and depositing sediment in the pond. The design calls for installing new storm sewer inlets at each curb cut location and directing that stormwater through pipes into the existing box culvert that connects the east and west ponds. This design feature was not identified in the feasibility study, as the issue was identified later, during the existing condition field evaluation, where it became apparent the project would need to address the problem.
5. Expanding the existing vegetated buffer. To improve erosion control and the filtering of stormwater runoff, the design calls for removing the vegetation within the existing buffer and expanding the footprint. The restored buffer will be planted with native plant species. The buffer will be a minimum 30 feet in width and includes a 10 foot wide mow strip along the driveway perimeter. The area of the expanded buffer is approximately 1.1 acres (the feasibility study estimated a buffer area of 0.85 acres). Since a portion of the buffer is on private property and outside of any existing easements the city will pursue acquisition of a permanent easement over both the buffer area that is located on private property (on the far west end of the pond) and the very west portion of the pond. An easement is needed for the City to have the right to plant and maintain the buffer.
6. Goose management. At the March 20th work session, the city council decided to continue goose management at Winnetka pond by city staff. The city is currently performing goose management in the form of egg adding at other locations within the city (Bassett Creek Park Pond). City staff performed goose management at Winnetka Pond in the past, turned it over to the apartment

management staff, but the apartment management staff subsequently discontinued goose management activities.

Opinion of cost

The table below summarizes our opinion of costs, based on the 50% design plans:

Table 1 Opinion of Cost Summary

Item Description	Cost
Project costs eligible for BCWMC reimbursement:	
Pond dredging and general work	\$ 540,000
Other pond improvements	\$ 44,500
Native buffer	\$ 18,000
Existing drainage corrections	\$ 21,500
Goose management	\$ 0 ¹
Total estimated construction costs	\$ 624,000
Contingency (+20%)	\$ 125,000
Engineering costs	\$ 81,000
Total construction and engineering costs	\$ 830,000
Other project costs that the city requests the BCWMC consider for reimbursement:	
Easement acquisition costs	\$ 3,000 ²

¹ Work already performed by city staff

² Costs include easement development and recording, but not purchasing of easement. If easement purchase required, costs will be higher.

The detailed cost estimate is also attached.

Per the cooperative agreement between the city and the BCWMC, the BCWMC's total reimbursement for this project may not exceed \$1,000,000, less Commission expenses. The current balance (as of March 7, 2018) in the CIP budget for this project is \$938,930.75. The total estimated construction and engineering costs (\$830,000), plus easement acquisition costs are well within the reimbursable costs allowed for this project.

Approvals/permit requirements

In addition to BCWMC approval of the plans, other permits/approvals will be required for this project. Of largest concern is the MDNR public waters work permit.

Winnetka Pond is a MDNR Public Water (#27062900P) and the MDNR requires a Public Waters Work Permit for any work below the ordinary high water level (OHWL). Winnetka Pond East was created in about 1968 as part of the Winnetka Village Apartments development. Because the project pre-dates permitting, MDNR and United States Army Corps of Engineers (USACE) permits were not required. Typically, removal of accumulated sediment is permitted with some documentation, such as the available original construction drawings for the site. Deepening the pond to 6 feet would involve additional permitting considerations because it would require excavating into native material in a MDNR public water wetland, which is also under jurisdiction of the USACE. Barr contacted the MDNR area hydrologist (Jason Spiegel) and he indicated that we can make a case for excavation beyond removing accumulated sediment. It will be evaluated in terms of how much excavation is proposed below the original elevation

(i.e., as originally constructed). (Note: we heard a similar message from Jason Spiegel at the December 8th, 2017 DeCola Ponds B&C Feasibility Study agency meeting.)

A USACE joint permit (Section 404 permit and Section 401 Certification) is not required but is recommended. The USACE may consider the pond a "previously-authorized structure," which would simplify permitting. As long as there is no re-grading of the pond bottom, the USACE does not consider it a wetland impact and therefore the USACE does not regulate the activity.

There is a narrow fringe of Wetland Conservation Act (WCA) wetland above the MDNR OHWL at the southeastern and eastern sides of the pond. Site access through this area is needed during construction, which will cause temporary wetland impacts within the WCA wetland. This would be considered a no-loss under MN Rules 8420.0415 H, as long as the disturbed areas are restored back to original elevation, and vegetation is restored within six months of the start of activity. The project will also result in permanent wetland impacts due to the fill required to allow for routine maintenance access within this portion of WCA wetland; the area of wetland fill will likely be within the allowable de minimis exemption amount (≤ 400 square feet). A joint application form requesting approval of both the WCA no-loss and de minimis exemption will be required.

A Minnesota Pollution Control Agency (MPCA) Construction Stormwater General Permit is required if land disturbance outside of the pond dredging is greater than 1 acre. If the final project includes the native buffer as currently designed, the total disturbance will exceed the 1 acre threshold. The general contractor would obtain this permit after the city awards the project. In addition, a stormwater pollution prevention plan (SWPPP) would be added to the construction drawings.

Recommendations

We recommend that the city request 1) BCWMC approval of the 50% drawings, 2) BCWMC authorization for the city to proceed with 90% plans, contract documents, and permitting, and 3) BCWMC consideration of reimbursement for easement development and acquisition costs.

If you have any questions, please contact me at 952-832-2813 or kchandler@barr.com.

Sincerely,

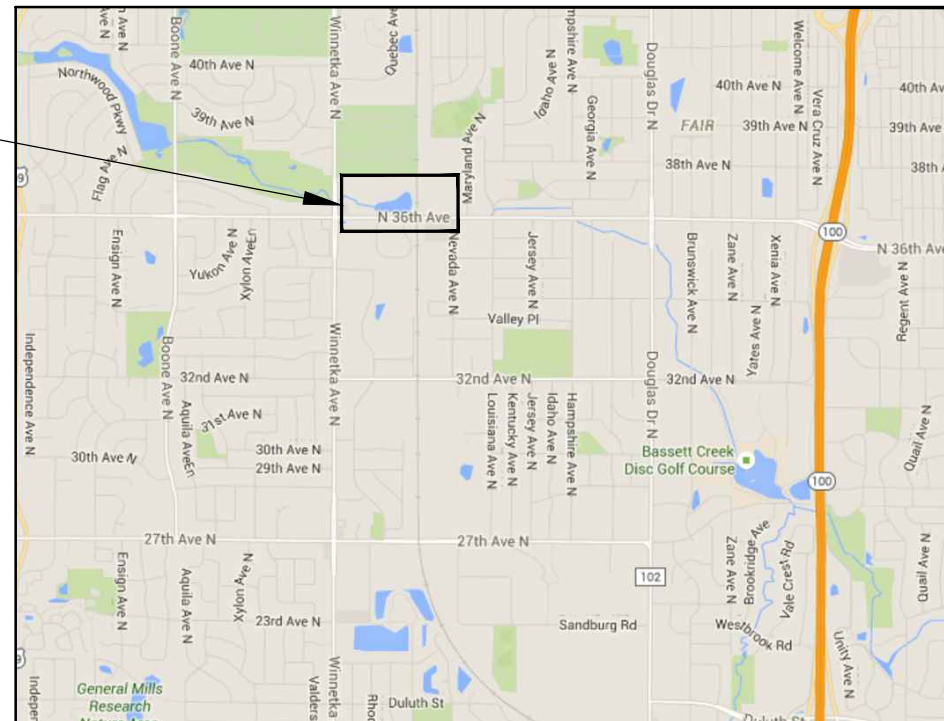


Karen L. Chandler, P.E.
Vice President

CITY OF CRYSTAL
WINNETKA POND DREDGING PROJECT
ENGINEERS OPINION OF COST
DATED APRIL 11, 2018

ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENSION
POND DREDGING AND GENERAL				
MOBILIZATION/DEMOBILIZATION	LS	1	\$ 31,000.00	\$ 31,000.00
CONTROL OF WATER/DEWATERING	LS	1	\$ 20,000.00	\$ 20,000.00
ROCK CONSTRUCTION ENTRANCE	EACH	1	\$ 3,000.00	\$ 3,000.00
ROCK FILTER DIKE	LS	1	\$ 2,000.00	\$ 2,000.00
REMOVE 42" RCP	LF	28	\$ 30.00	\$ 840.00
REMOVE EXISTING WEIR AND TRASH RACK	LS	1	\$ 1,000.00	\$ 1,000.00
REMOVE FALLEN TREES AND DEBRIS	LS	1	\$ 10,000.00	\$ 10,000.00
COMMON EXCAVATION (P)	CY	600	\$ 16.00	\$ 9,600.00
POND DREDGING OF MPCA DREDGED MATERIAL LEVEL 1 REMOVAL AND DISPOSAL (P)	CY	18,500	\$ 25.00	\$ 462,500.00
SUBTOTAL				\$ 539,940.00
POND IMPROVEMENTS				
INSTALL NEW 42" RCP CLASS 3	LF	28	\$ 180.00	\$ 5,040.00
CONNECT TO EXISTING STRUCTURE	EACH	2	\$ 300.00	\$ 600.00
INSTALL CONCRETE WEIR	LS	1	\$ 3,000.00	\$ 3,000.00
OUTLET STRUCTURE TRASH RACK	EACH	1	\$ 4,200.00	\$ 4,200.00
INSTALL RIPRAP AT PIPES AND STRUCTURES	TON	84	\$ 65.00	\$ 5,460.00
MAINTENANCE ACCESS SOIL	CY	100	\$ 40.00	\$ 4,000.00
MAINTENANCE ACCESS TURF REINFORCEMENT (NETLON)	LS	1	\$ 12,000.00	\$ 12,000.00
SALVAGE AND REINSTALL TOPSOIL	CY	240	\$ 5.00	\$ 1,200.00
IMPORT TOPSOIL	CY	100	\$ 35.00	\$ 3,500.00
TURF SEEDING	ACRE	0.4	\$ 2,000.00	\$ 800.00
HYDROMULCH	SY	1,900	\$ 2.50	\$ 4,750.00
SUBTOTAL				\$ 44,550.00
NATIVE BUFFER				
HERBICIDE ERADICATION OF EXISTING POND BUFFER	ACRE	0.5	\$ 4,500.00	\$ 2,250.00
NATIVE BUFFER SEEDING	ACRE	1.1	\$ 8,800.00	\$ 9,680.00
STRAW MULCH	ACRE	1.1	\$ 3,000.00	\$ 3,300.00
ONE YEAR SEEDING WARRANTY AND ESTABLISHMENT	LS	1	\$ 3,000.00	\$ 3,000.00
SUBTOTAL				\$ 18,230.00
EXISTING DRAINAGE CORRECTIONS				
REMOVE TREE AND FLARED END	LS	1	\$ 600.00	\$ 600.00
INSTALL NEW 12" CMP FLARED END WITH RIPRAP	LS	1	\$ 800.00	\$ 800.00
STORM SEWER NEAR DRIVEWAY	LS	1	\$ 19,000.00	\$ 19,000.00
REPAIR EROSION WITH GRADING AND SEEDING	LS	1	\$ 1,000.00	\$ 1,000.00
SUBTOTAL				\$ 21,400.00
CONSTRUCTION TOTAL				\$ 624,120.00
CONTINGENCY (+20%)				\$ 125,000.00
ENGINEERING TOTAL				\$ 81,000.00
PROJECT TOTAL				\$ 830,120.00

PROJECT LOCATION

VICINITY MAP 

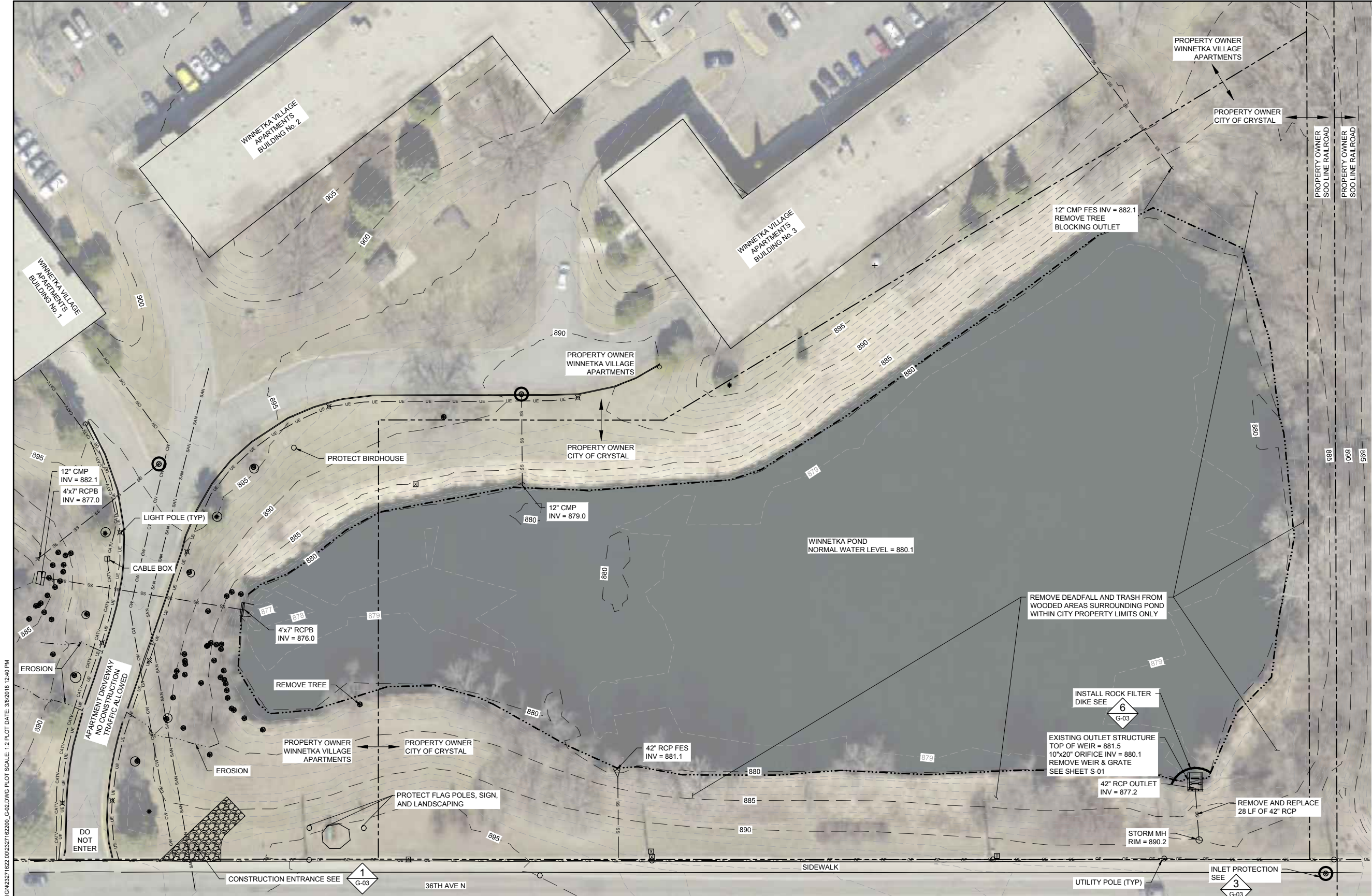
SHEET INDEX	
NO.	SHEET NAME
G-01	TITLE SHEET AND SITE LOCATION MAP
G-02	EXISTING CONDITIONS, REMOVALS, & EROSION CONTROL PLAN
G-03	EROSION CONTROL DETAILS
C-01	GRADING PLAN
C-02	GRADING SECTIONS
C-03	STORM SEWER PLAN, PROFILES, AND DETAILS
C-04	NATIVE BUFFER AND RESTORATION PLAN
C-05	MISCELLANEOUS DETAILS
S-01	OUTLET STRUCTURE SECTIONS AND DETAILS



CITY of CRYSTAL

**GOPHER STATE
ONE CALL**

										I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR 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.										CLIENT 03/08/18 BID CONSTRUCTION										Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (652) 632-2601 www.barr.com										Scale AS SHOWN Date 03/08/2018 Drawn CMH3 Checked PEB Designed BARR Approved										CITY OF CRYSTAL CRYSTAL, MINNESOTA										WINNETKA POND DREDGING PROJECT BARR PROJECT No. 23/27-1622.00 CLIENT PROJECT No. 2018-04									
A CMH3 PEB PEB 03/08/2018 50% DRAFT FOR REVIEW										PRINTED NAME PATRICK BROCKAMP SIGNATURE _____ DATE _____ LICENSE # _____										RELEASED TO/FOR DATE RELEASED A B C 0 1 2 3										Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277										TITLE SHEET AND SITE LOCATION MAP DWG. No. G-01 REV. No. A																													



- -879- --- EXISTING MINOR CONTOUR
--- 880 --- EXISTING MAJOR CONTOUR
--- 879 --- PROPOSED MINOR CONTOUR
--- 880 --- PROPOSED MAJOR CONTOUR
● DECIDUOUS TREE
* CONIFEROUS TREE
--- --- PROPERTY LINE
--- --- POND NORMAL WATER LEVEL
--- SS --- SS --- STORM SEWER
--- SAN --- SAN --- SANITARY SEWER
--- CW --- CW --- WATER MAIN
--- UE --- UE --- BURIED ELECTRIC
--- CATV --- CATV --- BURIED CABLE TV
--- OE --- OE --- OVERHEAD ELECTRIC
○ INLET PROTECTION

NOTES:
1. SURVEYED TREES WITH SYMBOLS DO NOT REPRESENT ALL TREES WITHIN OR AROUND THE WORK LIMITS. PROTECT ALL TREES UNLESS NOTED FOR REMOVAL

1 PLAN: EXSITING CONDITIONS, REMOVALS, & EROSION CONTROL PLAN



CADD USER: PATRICK E. BROCKAMP FILE: M:\DESIGN\23271622\00\23271622\00_G-02.DWG PLOT SCALE: 1:2 PLOT DATE: 3/8/2018 12:40 PM

					I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR 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.					CLIENT BID CONSTRUCTION					03/08/18					 Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com					Scale AS SHOWN Date 03/08/2018 Drawn CMH3 Checked PEB Designed BARR Approved					CITY OF CRYSTAL CRYSTAL, MINNESOTA										WINNETKA POND DREDGING PROJECT										BARR PROJECT No. 23/27-1622.00																																							
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NO.					BY					CHK.					APP.					DATE					REVISION DESCRIPTION					PRINTED NAME PATRICK BROCKAMP					SIGNATURE					DATE					LICENSE #					RELEASED TO/FOR					DATE RELEASED																																		



- 1
-
DETAIL: CONSTRUCTION ENTRANCE - ROCK
NOT TO SCALE

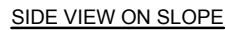


- NOTES:

- 2 DETAIL: SILT FENCE - MACHINE SLICED
- NOT TO SCALE



- 3** DETAIL: INLET PROTECTION - FILTER SACK
- NOT TO SCALE



- 5 DETAIL: EROSION CONTROL BLANKET - INSTALLATION
- NOT TO SCALE



- NOTES:

- 6 DETAIL: ROCK FILTER DIKE
- NOT TO SCALE

BARR PROJECT No.
23/27-1622.00

EROSION CONTROL DETAILS

DWG. No.	REV. No.
G-03	A

					I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR 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.
A	CNH3	PFB	PFB	03/08/2018	PRINTED NAME PATRICK BROCKAMP
					SIGNATURE _____
No.	BY	CHK	APP.	DATE	DATE _____ LICENSE # _____
REVISION DESCRIPTION					

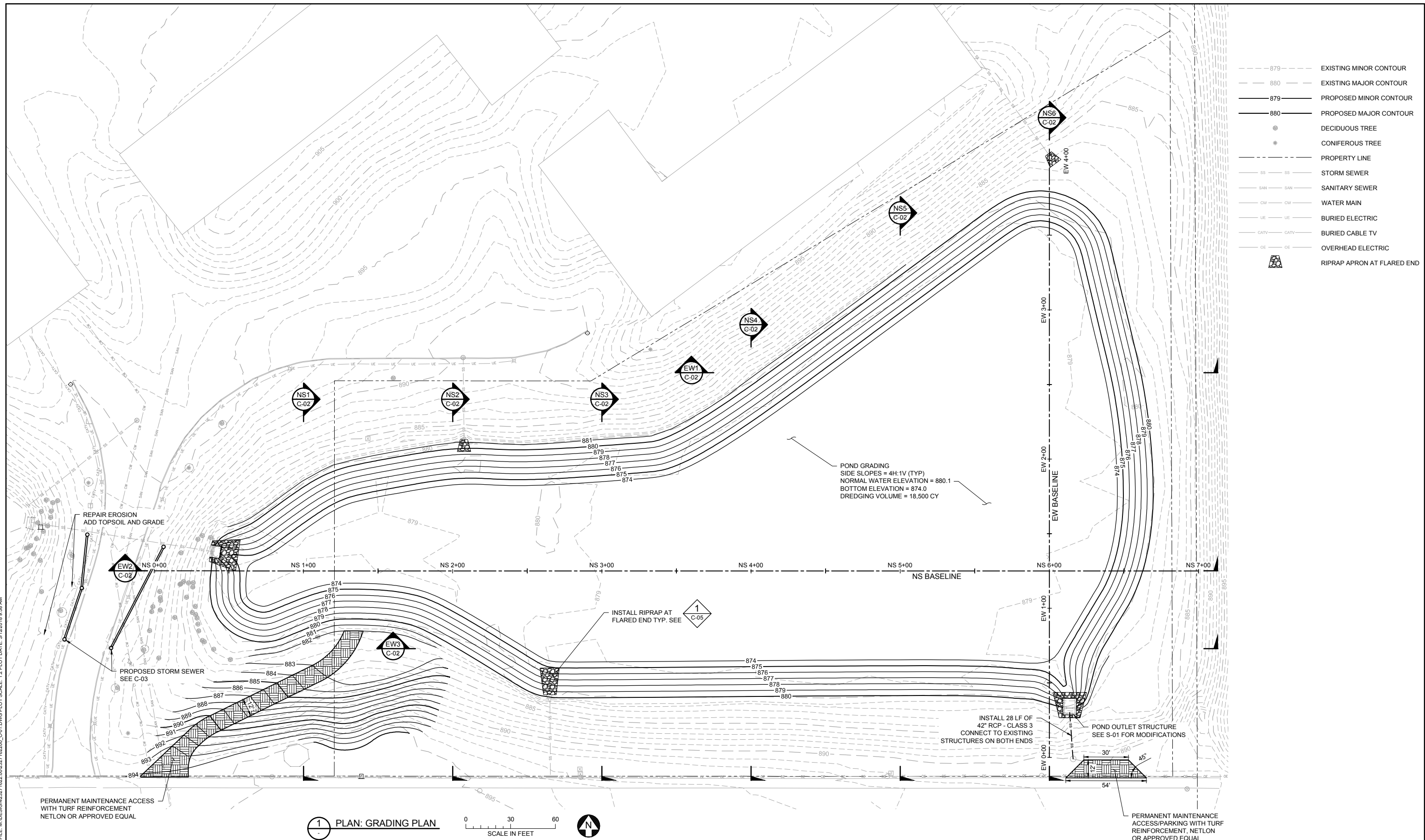
CLIENT	03/08/18						
BID							
CONSTRUCTION							
RELEASED TO/FOR	A	B	C	0	1	2	3
	DATE RELEASED						

BARR

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277

Scale	AS SHOWN
Date	03/08/2018
Drawn	CMH3
Checked	PEB
Designed	BARR
Approved	

CITY OF CRYSTAL
CRYSTAL, MINNESOTA

[illegible]

- R-4342**
Ditch Grate, Stool Type

Light Duty

CATALOG NUMBER	GRATE TYPE	SO. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-4342	Beehive	2.0	6.0

24" CB
RIM=891.70
N(OUT)=888.80

24" CB
RIM=891.70
S(IN)=888.44
N(OUT)=888.44

36 LF - 12" PVC @ 1.00%

36 LF - 12" PVC @ 1.06%

24" CB
RIM=693.03
S(IN)=888.06

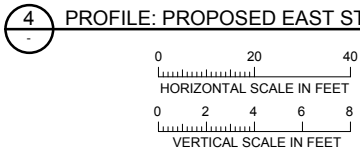
CONNECT 24" RISER TO TOP OF RCPB WITH WATERSTOP
INSTALL FLANGE AT END OF PIPE TO REST ON CONCRETE

4x7 RCPB

3 PROFILE: PROPOSED WEST SIDE

0 20 40
HORIZONTAL SCALE IN FEET

0 2 4 6 8
VERTICAL SCALE IN FEET



0 10 20
SCALE IN FEET

										I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR 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.										<div>CLIENT03/08/18</div> <div>BID</div> <div>CONSTRUCTION</div> <div>RELEASED TO/FOR</div> <div>DATE RELEASED</div> <div>A</div> <div>B</div> <div>C</div> <div>0</div> <div>1</div> <div>2</div> <div>3</div>										<div><div><div></div><div>BARR</div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div><div><div>Project Office:</div><div>BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div></div></div>										<div>ScaleAS SHOWN</div> <div>Date03/08/2018</div> <div>DrawnCMH3</div> <div>CheckedPEB</div> <div>DesignedBARR</div> <div>Approved</div>										CITY OF CRYSTAL CRYSTAL, MINNESOTA										WINNETKA POND DREDGING PROJECT										BARR PROJECT No. 23/27-1622.00									
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NO. BY CHK. APP. DATE REVISION DESCRIPTION										SIGNATURE _____ DATE _____ LICENSE # _____																														PROPOSED STORM SEWER PLAN AND PROFILE										DWG. No. C-03										REV. No. A																			



Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5C: BCWMC DeCola Ponds B & C Improvement Project Feasibility Study Summary
BCWMC April 19, 2018 Meeting Agenda
Date: April 11, 2018

Recommendations:

1. For discussion.

1.0 Introduction

The Bassett Creek Watershed Management Commission's (BCWMC) current Capital Improvement Program (CIP) includes the DeCola Ponds B & C Improvement Project, a project identified as part of the Medicine Lake Road and Winnetka Avenue Area Long-Term Flood Mitigation Plan (Barr, 2016) developed by the Cities of Golden Valley, New Hope, and Crystal. The DeCola Ponds B & C Improvement Project (2019 CIP Project BC-2, BC-3 & BC-8) builds on the Liberty Crossing flood mitigation project that was completed in 2017 by the City of Golden Valley to help alleviate flooding at the low point along Medicine Lake Road to allow for the passage of emergency vehicles, reduce the number of structures at-risk of flooding around this area, and reduce flood elevations on the DeCola Ponds. At their October 2017 meeting, the BCWMC approved the proposal from for the BCWMC Engineer to prepare a feasibility study for the DeCola Ponds B & C Improvement Project. The complete feasibility study report will be presented at the May BCWMC meeting.

DeCola Ponds B and C and the Pennsylvania Woods area are located in the City of Golden Valley, east of Rhode Island Avenue and south of Medicine Lake Road, and receive runoff from the Cities of Golden Valley, New Hope, and Crystal. Discharge from the ponds ultimately drains to the Main Stem of Bassett Creek. DeCola Ponds B and C are listed as Public Water Inventory Basins and are Minnesota Department of Natural Resources (MnDNR) public waters (MnDNR #27-0647P). DeCola Ponds B and C are located within Pennsylvania Woods Park, a public, urban, walking park consisting of deciduous forest, wooded knolls, and various wetland communities. The portion of the Pennsylvania Woods Park area directly north of DeCola Pond B is located on property owned by Dover Hill Apartments, LLC and the City of Golden Valley secured a drainage and utility easement for this area in 2015.

2.0 Feasibility Design Concepts and Impacts

Three (3) conceptual flood mitigation designs were investigated during this feasibility study. The major difference between each concept is the amount of additional flood storage developed, the area of

disturbance (and resulting tree removal), and the additional water quality treatment volume that can be developed. The three concepts are generally summarized below and are shown on the attached graphics.

- **Concept 1: Maximize Flood Storage** (resulting in the most significant disturbance area and tree removal)
- **Concept 2: Maximize Tree Preservation** (minimizing disturbance area and tree removal while developing flood storage)
- **Concept 3: Hybrid of Concepts 1 & 2** (balancing the need for flood storage with tree preservation)

The attached figures summarize the components of the three feasibility concepts. There are several shared components between each concept, including: 1) the box culvert connection to the Liberty Crossing site; 2) a sediment forebay; and 3) modifications to the DeCola Pond C outlet structure, including the lowering of the normal water level and the raising of the overflow from DeCola Pond C to DeCola Pond D.

We evaluated the design concepts using the BCWMC Phase 2 XP-SWMM and P8 model to quantify the impacts of each concept on flood reduction and water quality improvement. We also quantified habitat impacts, including estimated tree removals, and wetland and upland restorations, based on the proposed concepts.

The attached matrix summarizes the estimated impacts of each of the three concepts, including the planning level cost estimates. Also attached is a summary of public feedback received at the public open house held in November 2017 and the response to these comments.

3.0 Recommended Concept

Based on review of the project impacts for each of the three concepts, the recommended concept is Concept 3, which balances the development of flood migration volume with tree preservation. However, we also recommend that during the design process, the city pursue opportunities to increase the flood mitigation volume within the general concept disturbance footprint, with the goal to maximize the impact on flood elevation reductions around the low point on Medicine Lake Road and the downstream DeCola Ponds.

The planning level estimated cost for the recommended Concept 3 is \$3.8 million (-20%/+30%). The BCWMC CIP budget for this project is \$1.6 million. The BCWMC CIP funding (ad valorem tax levied by Hennepin County on behalf of the BCWMC), is not the sole source of funding for this project. The remainder of the funding will come from a variety of sources, including the City of Golden Valley, Hennepin County, Minnesota Department of Natural Resources (MnDNR) Flood Damage Reduction Grant program, and other sources (e.g. other grants, as appropriate).

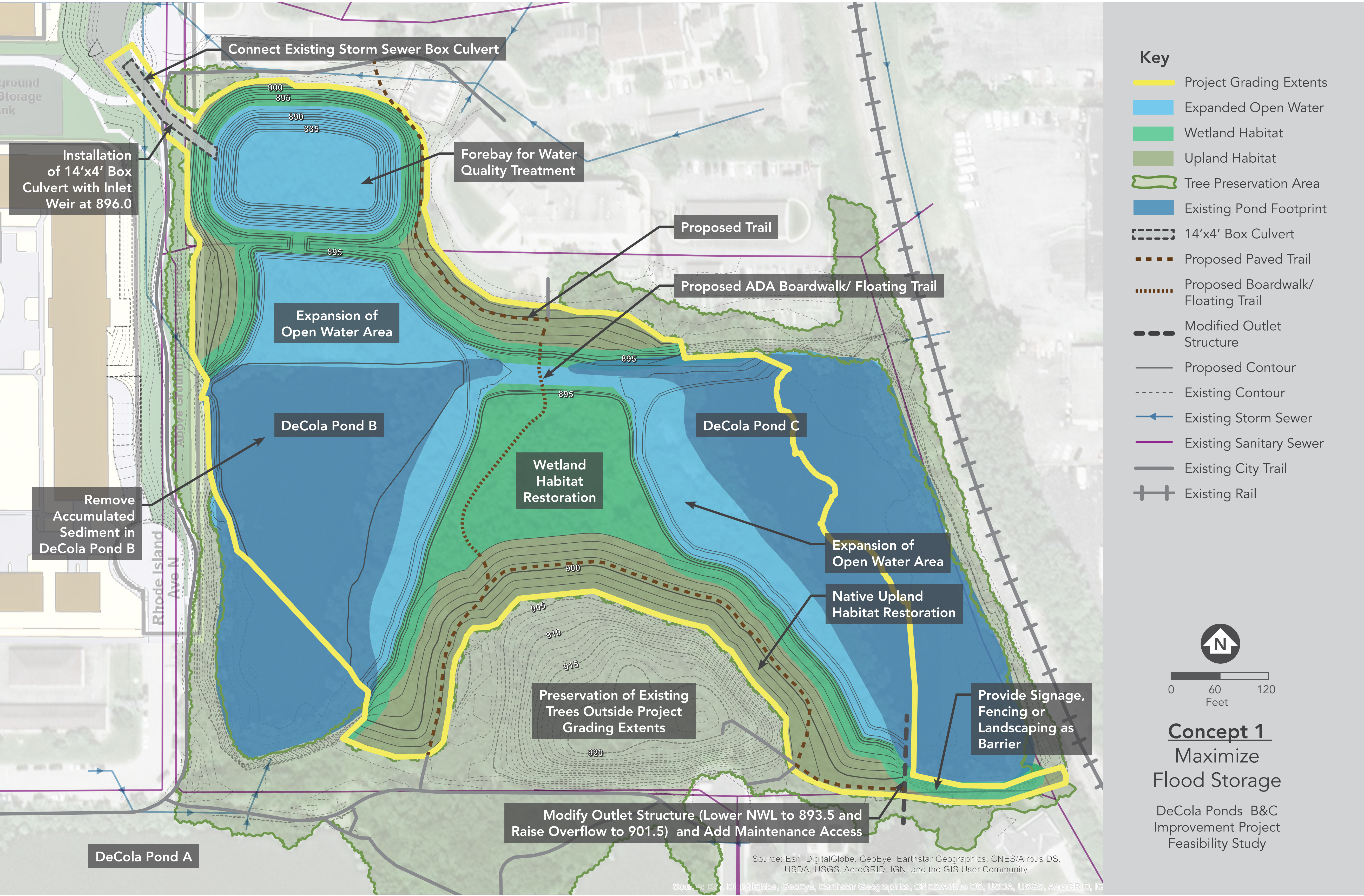
3.1 Permitting Requirements

The proposed project is expected to require the following permits/approvals for the selected concept:

- Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers
- Public Waters Work Permit from the MnDNR
- Section 401 Water Quality Certification from the Minnesota Pollution Control Agency (MPCA)
- Construction Stormwater General Permit from the MPCA
- Compliance with the MPCA's guidance for managing dredged material
- Compliance with the MPCA's guidance for managing contaminated material and debris-containing fill, managed in accordance with the MPCA-approved Response Action Plan and Site Contingency Plan (Barr, 2015)
- Compliance with the Minnesota Wetland Conservation Act

Concept 1: Maximize Flood Storage

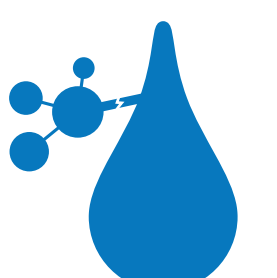
Estimated Cost (-20%/+30%) = \$5.7 Million



Concept Summary

 **Flood Mitigation Volume:**
33 acre-ft

 **Open Water Expansion:**
2.7 Acres

 **Increase in Phosphorus Removal:**
10.5 lbs/year

 **Restored Wetland & Upland:**
4.0 acres

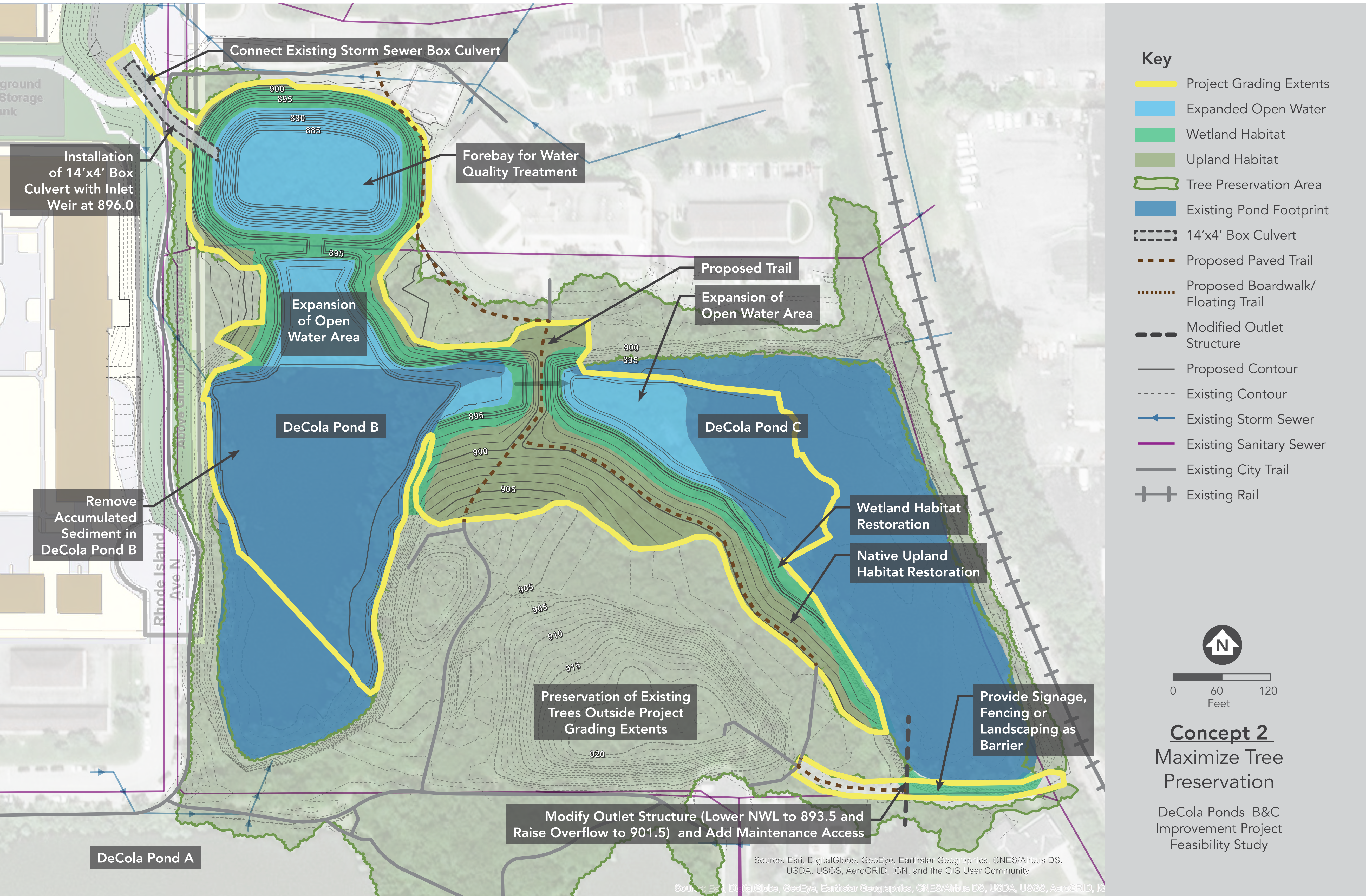
 **Medicine Lake Road 100-Year Flood Depth**
1.7 Feet

 **Reduction of Flood Level on Ponds**

DeCola Pond	Feet
A,B,C	- 0.6'
D	- 1.2'
E,F	- 0.1'

Concept 2: Maximize Tree Preservation

Estimated Cost (-20%/+30%) = \$3.5 Million



Concept Summary

 **Flood Mitigation Volume:**
17 acre-ft

 **Open Water Expansion:**
1.6 Acres

 **Increase in Phosphorus Removal:**
8.0 lbs/year

 **Restored Wetland & Upland:**
2.5 acres

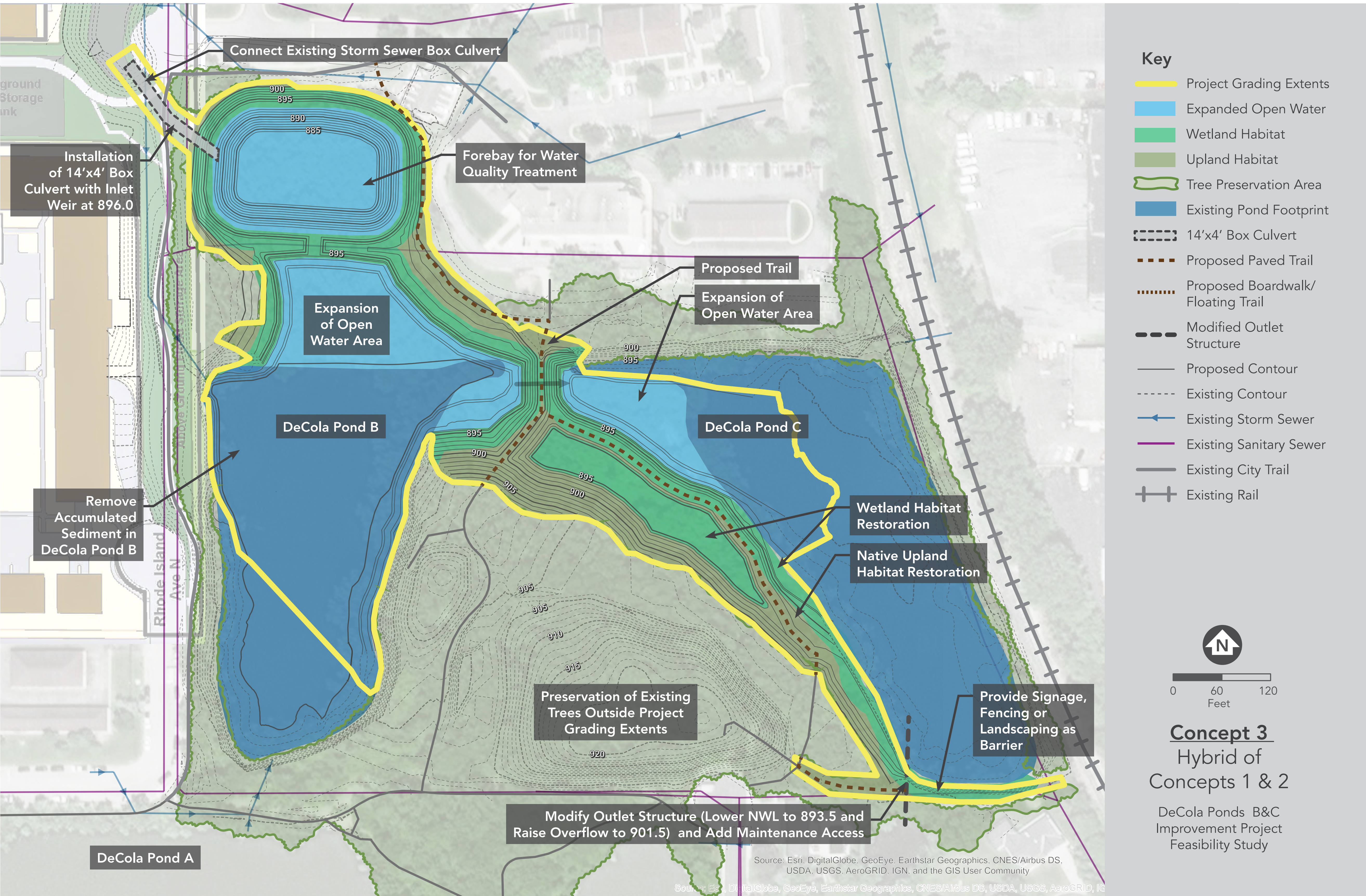
 **Medicine Lake Road 100-Year Flood Depth**
1.8 Feet

 **Reduction of Flood Level on Ponds**

DeCola Pond	Feet
A,B,C	- 0.3'
D	- 0.3'
E,F	- 0.1'

Concept 3: Hybrid of Concepts 1 & 2

Estimated Cost (-20%/+30%) = \$3.8 Million



Concept Summary

 **Flood Mitigation Volume:**
22 acre-ft

 **Open Water Expansion:**
1.9 Acres

 **Increase in Phosphorus Removal:**
9.0 lbs/year

 **Restored Wetland & Upland:**
2.7 acres

 **Medicine Lake Road 100-Year Flood Depth**
1.8 Feet

 **Reduction of Flood Level on Ponds**

DeCola Pond	Feet
A,B,C	- 0.5'
D	- 0.5'
E,F	- 0.1'

Concept Design: Summary Matrix

Category	Item	Concept 1: Maximize Flood Storage	Concept 2: Maximize Tree Preservation	Concept 3: Hybrid Alternative
Flood Mitigation	Increase in Flood Mitigation Volume	33 acre-ft	17 acre-ft	22 acre-ft
	100-Year (1% Chance) Depth of Flooding at Medicine Lake Road	1.7 ft	1.8 ft	1.8 ft
	Reduction in 100-Year Flooding at DeCola Ponds A, B, & C	0.6 ft	0.3 ft	0.5 ft
	Reduction in 100-Year Flooding at DeCola Pond D	1.2 ft	0.3 ft	0.5 ft
	Reduction in 100-Year Flooding at DeCola Ponds E & F	0.1 ft	0.1 ft	0.1 ft
	Number of Structures No Longer in 100-Year Floodplain	1	1	1
Water Quality	Open Water Expansion	2.7 acres	1.6 acres	1.9 acres
	Expansion of Water Quality Treatment Volume	10.3 acre-ft	6.5 acre-ft	7.5 acre-ft
	Increase in Total Phosphorus Removal	10.5 lbs/yr	8.0 lbs/yr	9.0 lbs/yr
Trees	General Tree Preservation	Good	Best (of 3 Concepts)	Better
	Preservation of Hardwood Trees on Knoll & Screening Trees	Yes	Yes	Yes
Other Habitat	Restored Wetlands and Upland Areas	4.0 acres	2.5 acres	2.7 acres
Trails	Preserve and Expand Trails	Yes	Yes	Yes
Project Costs	Planning Level Cost Estimate (-20%/+30%) (Original Estimate: \$4.6 million)	\$5.7 million	\$3.5 million	\$3.8 million
	Flood Mitigation Volume Unit Cost	\$174,000/acre-ft	\$203,000/acre-ft	\$173,000/acre-ft

Feedback From the November 2017 Open House

Comment Themes	Response
Desire for Trail Accessibility & Maintenance	New trails will be designed to be ADA-compliant
	Trail locations will consider and optimize maintenance and usability
	Existing trash and debris will be removed as part of project construction
	As part of final design, City will consider locations for trash receptacles, benches, overlooks, signage and other park amenities
Management of Debris, Litter, and Trash	The proposed forebay will help capture trash from upstream and will be accessible for inspections and maintenance by City
Management of Invasive Species (e.g. Buckthorn)	Buckthorn and other invasive plant species within the disturbed areas will be removed/managed
	Disturbed areas will be restored with ecologically beneficial native wetland and upland plant and tree species (pollinator habitat)
Management of Trees	Trees within the disturbance limits, including downed or dying trees, will be removed
	All trees outside the disturbance limits will be preserved, including those hardwoods on the knolls between Ponds A, B, and C
	Trees providing existing screening of the Liberty Crossing site will remain (along south & east side of Pond B)
	New upland habitat will include native trees and shrubs
Concern about Sedimentation & Stagnant Water	Accumulated sediment will be removed from Pond B
	The forebay will provide water quality treatment of runoff, including an access for inspection and maintenance by City
	The open water area of Ponds B & C will be expanded and there is an opportunity to deepen the channel connecting Ponds B & C
	The outlet from Pond C will be modified to prevent debris from accumulating on the outlet structure/pipe
Concerns about Safety & Security due to Density of Trees/Undergrowth	The restored areas will be more open providing more visibility in these areas
	On and around the knoll and along the undisturbed shorelines, the tree density will be the same as existing conditions
Concerns about Pond Safety	A 10 foot safety bench will be incorporated along disturbed/expanded shorelines
	Slopes will be designed at 3:1 side slopes (standard)
	Wetland buffer vegetation will be planted along all disturbed shorelines
	Ponds B & C will be ~4 feet deep (same as existing)
Special Assessments to Property Owners	No special assessments will be used to fund this project
	Pursuing a variety of funding sources including City of Golden Valley, BCWMC Capital Improvement Project (CIP) Funds, MnDNR Flood Damage Reduction Grants, Hennepin County, and Others



Bassett Creek Watershed Management Commission

MEMO

To: Bassett Creek Watershed Management Commissioners
From: Technical Advisory Committee
Date: April 10, 2018

RE: TAC Recommendations – 4/9/18 TAC Meeting

The BCWMC Technical Advisory Committee met at 8:30 a.m. on April 9th to discuss the 2020-2024 CIP project list and the 2019 operating budget; and to consider a request for use of Channel Maintenance Funds from the City of Golden Valley. They forward the following recommendations to the Commission.

TAC Members and Others attending 4/9/18 TAC Meeting:

Liz Stout, Minneapolis
Eric Eckman, Golden Valley
Erick Francis, St. Louis Park
Richard McCoy and Marta Roser, Robbinsdale
Megan Albert, New Hope
Mark Ray, Crystal
Tom Dietrich and Will Manchester, Minnetonka
Derek Asche, Plymouth
Susan Wiese, Medicine Lake
Laura Jester, Administrator
Karen Chandler, Commission Engineers

1. 5-Year Capital Improvement Program 2020 – 2024 (see 5Di CIP list and fact sheets)

The TAC reviewed an updated 5-year CIP which incorporated new projects that were introduced and discussed at the March TAC meeting including

- 2020: Crane Lake Improvement Project via Ridgedale Drive - \$300,000
- 2024: Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd - \$500,000 (over 2 years)
- 2024: Bassett Creek Park Water Quality Improvement Project - \$500,000
- 2024: Ponderosa Woods Stream Restoration - \$500,000

Project fact sheets were reviewed and city staff provided overviews of the new projects. The TAC noted that the levy amount of \$1.3 - \$1.4 million per year may need to increase slightly each year to keep up with rising construction costs. It was suggested that the construction cost index be used as a guide for gradual increases in the levy amount. Administrator Jester reviewed the Commission's current CIP fiscal policy of keeping the levy amount stable. She said she would add the recommendation to gradually increase the levy according to the construction cost index to a future Budget Committee or Administrative Services Committee meeting agenda.

The TAC recommends that the Commission approve the 2020 – 2024 CIP list as presented and directs staff to begin a minor plan amendment process to incorporate the new projects.

2. 2019 Operating Budget

Administrator Jester reported that the Budget Committee met on March 23rd and asked for input in a few areas. The TAC provided the following:

- Question: Should a budget line be added to begin saving for the 2025 Watershed Plan development, rather than having a much larger increase in a few years when plan development begins?
 - TAC Response: Yes – it's a good idea to begin saving for the next plan by setting aside a few thousand dollars every year.
- Question: How much budget should be included for aquatic plant management and aquatic invasive species prevention/management? (2017 = \$35,000; 2018 = \$32,000) These issues have the potential to utilize a large portion of the budget. What level of funding "feels" appropriate for the Commission?
 - TAC Response: Current levels of \$30,000 - \$40,000 seems appropriate considering the breadth of the issue. This level allows the Commission to perform significant activities and implement the recommendations of the APM/AIS committee, while leveraging partnerships with other agencies and organizations.
- What increase in city assessment is palatable for 2019 over 2018?
 - TAC Response: A 2 – 3 % increase in assessment levels is justifiable and would generally be in line with city budgets.

3. Channel Maintenance Fund Request (see 5Dii for materials)

Eric Eckman reviewed a request from the City of Golden Valley to use \$15,000 of its available Channel Maintenance Funds to repair and restore a portion of streambank on the Sweeney Branch Bassett Creek. The city would cost share the project with the landowner.

The TAC recommends approval of the Golden Valley's request to use \$15,000 of its available Channel Maintenance Funds for the proposed restoration project.

4. Biennial Budget Request (BBR)

Administrator Jester reminded city staff to get their CIP project information to her today or tomorrow if they want those projects submitted to the BBR through the Commission.

5. Update on Watershed Based Funding Pilot Program

Administrator gave an update on the new Watershed Based Funding Pilot Program and reviewed the options considered and the option preferred by the 11 Hennepin County watershed organizations for disseminating Clean Water Funds in this biennium. She reported that cities would be invited to a meeting on May 16th where they can weigh in on their preferred method of disseminating funds.

The TAC meeting adjourned at 9:32 a.m.

Proposed BCWMC Capital Improvement Program 2020 – 2024 (proposed changes to previous 2019 – 2023 CIP shown with underline/strikeout)

Item 5Di.
BCWMC 4-19-18

Project Name	City	Number	2019	2020	2021	2022	2023	2024	2025	Totals
Medicine Lake Rd and Winnetka Ave Long Term Flood Mitigation Plan Project	GV, Crystal, New Hope	BC-2,3,8,10	\$500,000 \$1,100,000	\$1,100,000 \$500,000		\$300,000	\$1,000,000			\$2,900,000
Water quality improvements in Bryn Mawr Meadows, Main Stem Watershed	MPLS	BC-5	\$500,000	<u>\$100,000</u>	<u>\$400,000</u>					\$500,000
Medley Park Stormwater Treatment Facility	GV	ML-12				\$200,000	\$300,000			\$500,000
Restoration and stabilization of historic Bassett Cr channel, Main Stem Watershed	MPLS	BC-9				\$500,000				\$500,000
Mt. Olivet Stream Restoration Project	PLYM	ML-20			\$400,000					\$400,000
Dredging of accumulated sediment in Main Stem Bassett Creek just north of Hwy 55, Wirth Park	GV/MPLS	BC-7			\$400,000					\$400,000
Westwood Lake Water Quality Improvement Project	St. Louis Park	WST-2	\$300,000							\$300,000
Stormwater Pond in Jevne Park to alleviate flooding/improve water quality	Medicine Lake	ML-21		\$200,000 \$500,000	\$300,000					\$500,000
Crane Lake Improvement Project via Ridgedale Drive*	<u>Minnetonka</u>	<u>Crane Lk-1</u>		<u>\$300,000</u>						<u>\$300,000</u>
Parkers Lake Drainage Improvement Project	Plymouth	PL-7			\$200,000 \$100,000	\$200,000 \$300,000				\$400,000
Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd	Golden Valley	2021-CR-M						\$300,000	\$200,000	\$500,000
Bassett Creek Park Water Quality Improvement Project*	Minneapolis	BC-11						\$500,000		\$500,000
Ponderosa Woods Stream Restoration*	Plymouth	ML-22						\$475,000		\$500,000
TOTAL Estimated Project Cost			\$1,300,000 \$1,400,000	\$1,300,000 \$1,400,000	\$1,300,000	\$1,200,000 \$1,300,000	\$1,300,000	\$1,275,000		

*Requires minor plan amendment

Project Category: Water Quality/Water Capacity

Project Title: Crane Lake Water Quality and Capacity Improvements

Total Estimated Cost: \$300,000

BCWMC Project Number: Crane Lk-1

Description:

The city of Minnetonka is in the planning phase of the reconstruction of Ridgedale Drive from Plymouth Road to I-394. This project will include the installation of water quality best practices to protect and improve the water quality of Crane Lake. Improvements may be located in adjacent park space, boulevards, or upstream basins.

Source of Project Funding	2019	2020	2021	2022	2022
CIP Account –BCWMC ad valorem tax levy through Hennepin County		\$300,000			

Justification:

Storm water runoff from approximately 250 acres south and west of Crane Lake currently flows into Crane Lake via the storm sewer system and a series of ponds adjacent to and south of Ridgedale Drive. The drainage area to Crane Lake is nearly developed and includes the Ridgedale Center shopping mall and associated parking lot. The reconstruction of Ridgedale Drive will include the net reduction of impervious surfaces in the project area and installation of water quality best practices to protect/improve the water quality of Crane Lake.

Scheduling and Project Status:

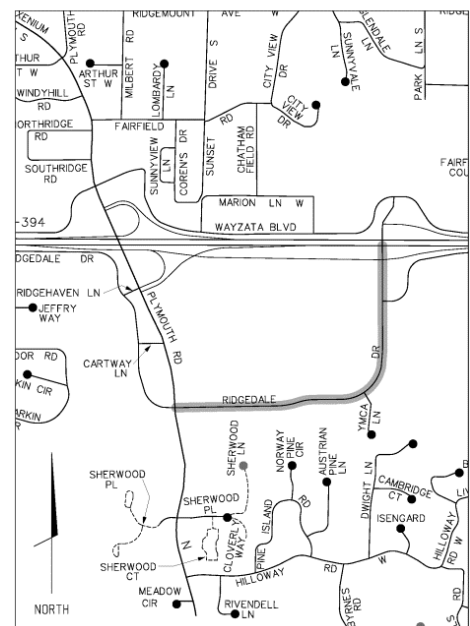
A concept plan should be completed in May 2018. The project is scheduled for construction in 2019 – 2020.

Relationship to BCWMC Plan and Other Projects:

Crane Lake is a shallow 30-acre lake in the Bassett Creek Watershed that drains northerly into Medicine Lake. Crane Lake is designated as a Priority 2 lake. This project meets the gatekeeper criteria of improving/protecting water quality in a priority water body and is likely to address additional Commission goals including improved wildlife habitat. Education components are also being evaluated and may be included in the project. The project is also included in the city of Minnetonka CIP but would require a minor amendment to the Bassett Creek Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: **Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd**

Total Estimated Cost: \$500,000

BCWMC Project Number: 2021 CR-M

Description:

This project in the City of Golden Valley will include bank stabilization measures and erosion repair methods. Consideration will be given to a variety of best management practices. Per BCWMC policy, the Commission will strive to utilize soft armoring techniques as much as possible and where feasible, including bio-logs, erosion control blanket, live stakes and fascines, and native vegetation buffers.

Source of Project Funding	2021	2022	2023	2024	2025
CIP Account – BCWMC ad valorem tax levy through Hennepin County				\$100,000	\$400,000

Justification:

The City of Golden Valley's annual creek inventory identified significant erosion in this reach of the creek. Continued erosion along the stream will result in increased sediment and pollutant loading downstream. Restoration and repair of the Main Stem in this area will reduce phosphorus and is consistent with BCWMC goals regarding water quality.

Scheduling and Project Status:

A Feasibility Study should be completed in 2024. The project is anticipated for construction during the winter of 2025-2026.

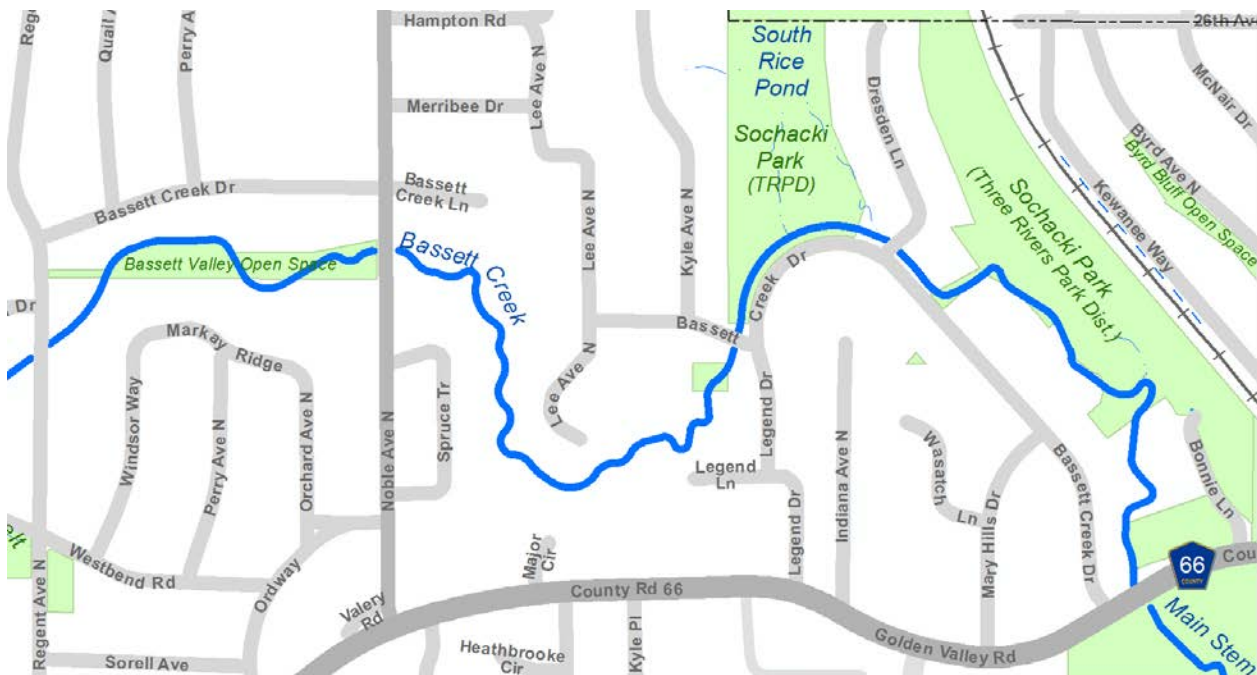
Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. It meets the criteria (policy 111) of protecting and improving water quality in a priority waterbody (Bassett Creek) and addressing erosion and sedimentation issues.

Three Rivers Park District has an interest in Sochacki Park and has been identified as a potential funding partner in this project.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Bassett Creek Park Water Quality Improvement Project

Total Estimated Cost: \$500,000

BCWMC Project Number: BC-11

Description:
This project will include construction of water quality treatment facilities benefitting the main stem of Bassett Creek in cooperation with the MPRB park renovation. There is an opportunity for a wetland restoration component on the south side of Bassett Creek. Providing a better neighborhood connection to the creek and educational signage will also be considered as components of this project.

Source of Project Funding	2020	2021	2022	2023	2024
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$500,000

Justification:

This water quality improvement project will remove sediment and pollutants from storm water runoff in the residential and park areas that discharge into Bassett Creek through Bassett Creek Park. The project meets gatekeeper criteria by improving water quality in a priority waterbody and is consistent with BCWMC goals.

Scheduling and Project Status:

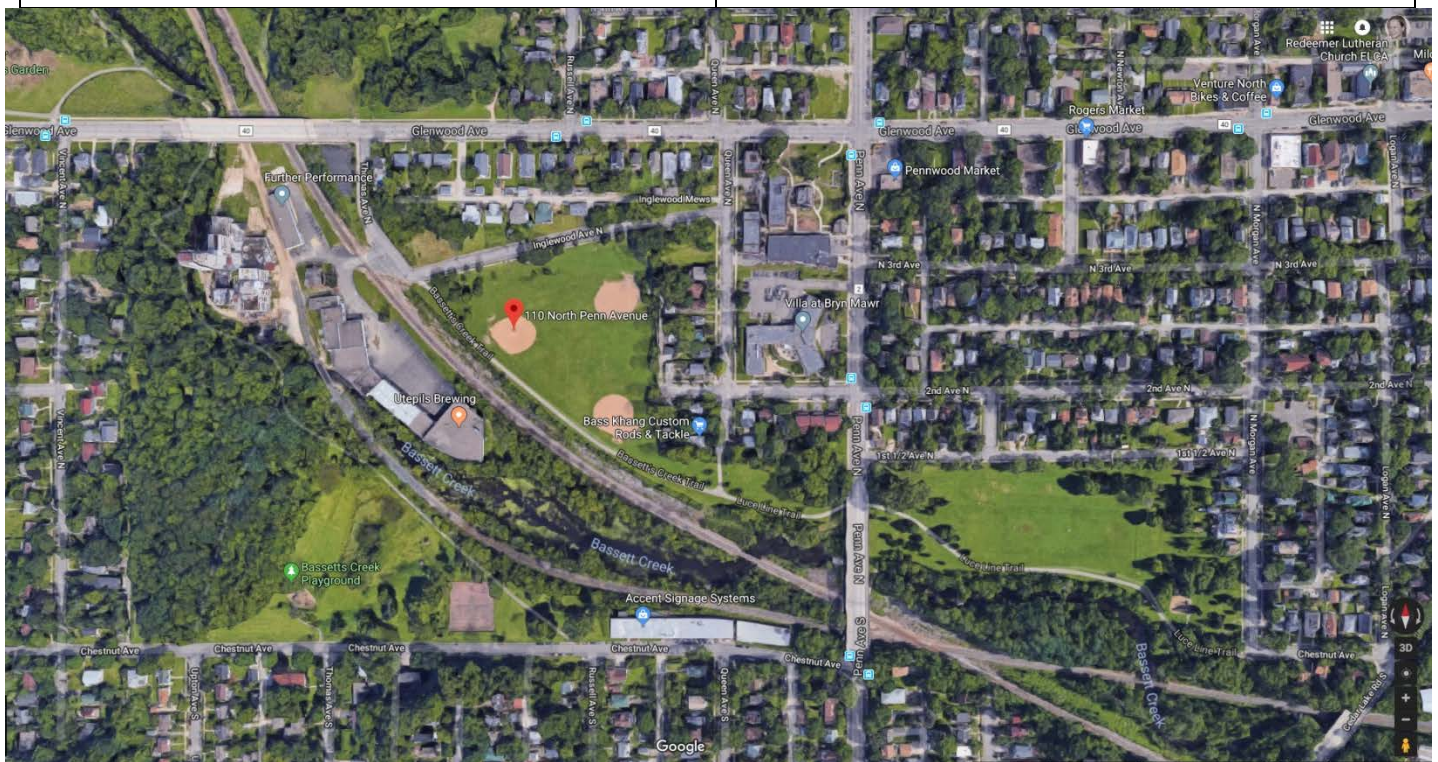
A feasibility study will need to be prepared for this project. A minor plan amendment will also be required. Construction of the project is anticipated for 2024.

Relationship to General Plan and Other Projects:

While this project is consistent with the goals and policies of the BWCMC Watershed Management Plan it is not included in the current BCWMC CIP. A minor plan amendment will be required to add this project to the CIP. This project would be phased to take advantage of the MPRB park reconstruction. The overall project will improve water quality within Bassett Creek and will provide improved wildlife habitat and access to recreation in the creek.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Ponderosa Woods Stream Restoration

Total Estimated Cost: \$475,000

BCWMC Project Number: ML-22

Description:

This project will restore a stream near Medicine Lake and which drains directly into the Plymouth Creek Water Quality ponds.

Source of Project Funding	2021	2022	2023	2024	2025
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$475,000	

Justification:

This stream restoration project will remove sediment from storm water runoff in the residential and park areas. Improving water quality in the Medicine Lake watershed is consistent with BCWMC goals.

Scheduling and Project Status:

A feasibility study will need to be prepared for this project. A minor plan amendment will also be required. Construction of the project is anticipated to begin in 2022 or 2024.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BWCMC Watershed Management Plan. This project would assist in meeting the goals of the Medicine Lake Total Maximum Daily Load project. A minor plan amendment will be required to add this project to the BCWMC CIP.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.





MEMORANDUM

Public Works Department

763-593-8030 / 763-593-3988 (fax)

Date: April 19, 2018

To: Laura Jester, Administrator, Bassett Creek Watershed Management Commission

From: Eric Eckman, Development and Assets Coordinator

Subject: Channel Maintenance Funds Request

The City of Golden Valley requests BCWMC channel maintenance funds in an amount not to exceed \$15,000. The City's available allocation from this fund is approximately \$152,920.00. The funds will be used to repair and restore a portion of the streambank along the Sweeney Lake Branch of Bassett Creek that is experiencing erosion and undercutting. Attached is a map of the location.

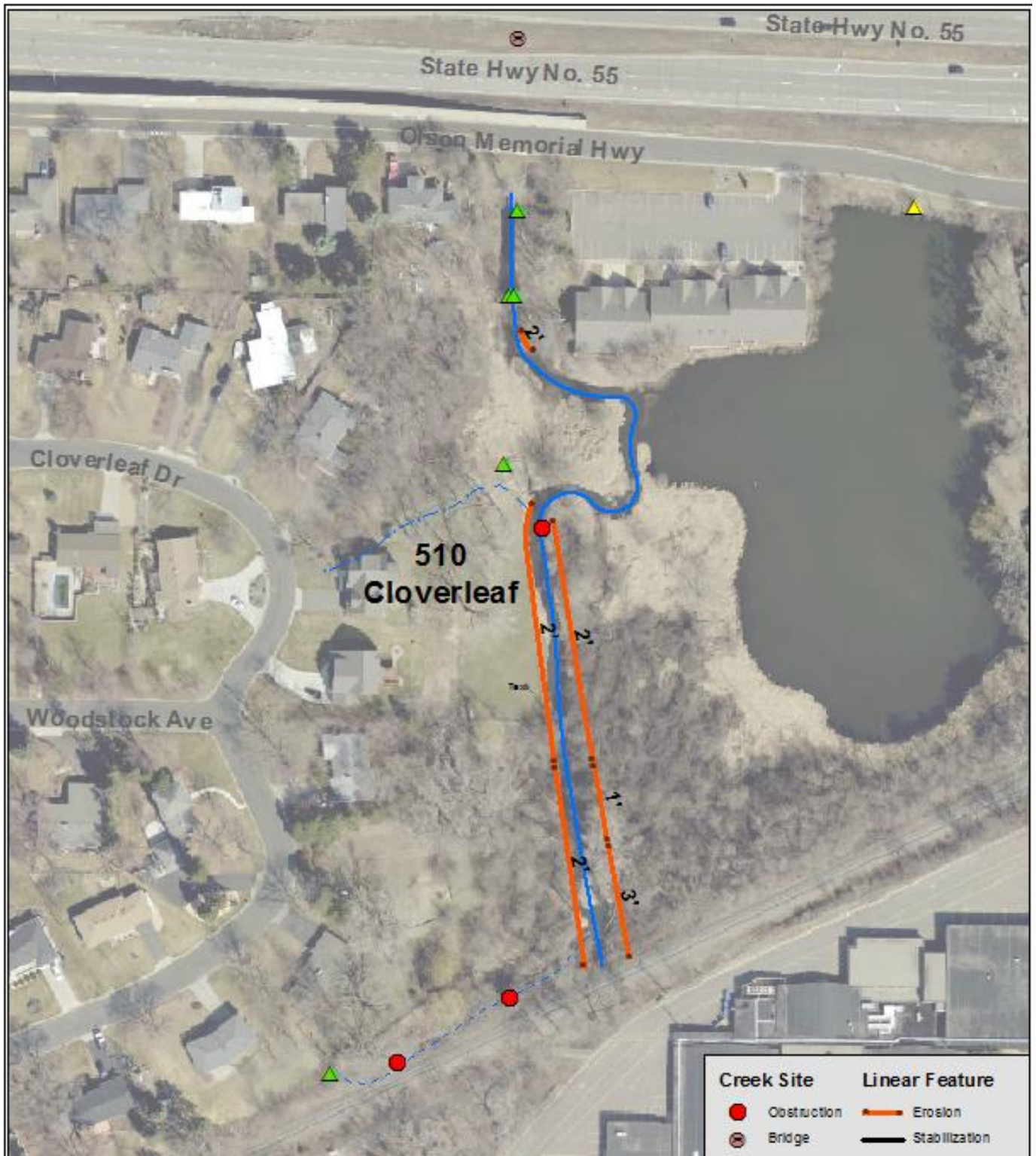
The owner whose property is being impacted is planning to fund 50% of the costs. The cost sharing will be outlined in a separate agreement between the City and owner.

The owner of 510 Cloverleaf Drive has requested quotes from two landscape contractors and is looking to utilize a combination of hard and soft armoring to repair the site and prevent future erosion and soil loss. As part of the project a buffer of native vegetation will also be implemented to help stabilize the bank and filter sediment and nutrients before entering the creek. The City requires that a professional engineer prepare and sign the plans and that the Commission Engineer review the plans.

This area has been identified for erosion issues in the City's annual creek inventory. The area has continued to erode and experience greater undercutting since the last inspection. This project will stabilize and restore the bank to help protect and improve the water quality of the stream and Sweeney Lake.

The City respectfully requests that the TAC determine this project's eligibility for use of channel maintenance funds.

2017 Creek Inventory







Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners
From: Laura Jester, Administrator
Date: April 11, 2018

RE: Item 5F – Consider Authorizing Expenditures of Possible Rapid Response to Zebra Mussels in Medicine Lake

RECOMMENDATION: Authorize staff to spend up to \$11,000 on a rapid response (chemical treatment) to zebra mussels in Medicine Lake.

BACKGROUND:

At your meeting in December, you approved the following recommended actions with regards to addressing zebra mussels in Medicine Lake:

1. Direct staff to discuss and work with Three Rivers Park District (TRPD) and, if deemed appropriate, apply for Hennepin County AIS Prevention Grant, to help fund either a) installing a CD3 (Clean, Drain, Dry, Dispose) unit at the French Regional Park boat launch, or b) additional inspection hours at the park boat launch.
2. Perform a “meandering” survey of zebra mussel adults to determine the extent of the infestation in the lake and use up to \$8,000 of 2018 APM/AIS funds for this work, if needed.
3. If the meandering survey finds zebra mussels in a few locations (i.e., isolated clusters), and the MnDNR and MAISRC staff agree that the lake is a candidate for a rapid response treatment, use up to \$1,500 of staff time to apply for a MnDNR treatment permit.
4. If the MnDNR issues the treatment permit, apply for a Hennepin County Rapid Response Grant (different from the AIS Prevention Grant discussed in #1 above) to pay/help pay for quarantine and treatment costs.

Regarding recommendation #1, the BCWMC applied for and received a grant to purchase a decontamination unit for use at French Regional Park. The grant agreement was recently executed and the unit will be purchased by TRPD soon.

Regarding recommendation #2, once the ice is out on Medicine Lake, staff with TRPD will perform a survey along the shoreline to determine the geographical extent of the zebra mussel infestation (at no cost to the BCWMC). If mussels are found to be in very limited areas, TRPD and the BCWMC staff will consult with the MnDNR and MAISRC to discuss the possibility of a rapid response (i.e., chemical treatment of the mussels).

If a rapid response is appropriate, the newly approved [AIS Rapid Response Plan](#) indicates TRPD would take the lead on the project including hiring contractors and applying for the MnDNR permit. However, the Plan also states the BCWMC would help fund the treatment in partnership with Hennepin County and TRPD. The MnDNR recommends budgeting \$20,000 - \$50,000 for a zebra mussel rapid response. Approximately \$18,000 was spent treating a small area on Lake Independence in 2014.

Because the timing of a rapid response is critical, staff is requesting authorization to spend up to \$11,000 on a rapid response effort in Medicine Lake. The cities of Medicine Lake and Plymouth have pledged a total of \$6,000 towards the survey and treatment. TRPD would lend their floating barriers needed to isolate the treatment area from the rest of the lake (saving \$6,000 - \$7,000 in rapid response costs). BCWMC staff would also apply for a Hennepin County Rapid Response Grant (as previously authorized) and would seek other funding partners.

BUDGET OVERVIEW:

Here is a breakdown of the items already approved for implementation from the 2018 APM/AIS Budget:

2018 APM/AIS Beginning Budget	\$32,000
Herbicide treatment of curly-leaf pondweed in Medicine Lake (contract NTE \$13,861; TRPD covers 17% or \$2,356)	\$11,505
Additional parameters to be collected through routine 2018 water monitoring program to determine vulnerability to AIS (approved with APM/AIS Committee recommendations in September 2017)	\$2,800
Facilitation of meeting with lake groups to discuss and learn about options for more formally organizing (letter contract with Freshwater Society approved March 2018)	\$2,000
Contribution to TRPD to hire Level II inspectors to operate decontamination unit (approved March 2018)	\$5,000
APM/AIS BUDGET REMAINING	\$10,695
NOTE: Previously approved expenditure of \$8,000 for survey of zebra mussels is not included here. TRPD is completing initial survey at no cost to the BCWMC. If SCUBA survey is needed, that cost is included with overall rapid response budget of \$20,000 - \$50,000	



Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners
From: Laura Jester, Administrator
Date: April 10, 2018

RE: Item 5G. BWSR's Watershed-Based Funding Pilot Program

RECOMMENDATIONS:

1. Appoint BCWMC Administrator as the Commission's voting representative and the Commission Engineer as the alternate voting representative for the May 16th official "convene meeting" on the watershed-based funding pilot program in Hennepin County.
2. Direct voting representative to advocate for the implementation of Collaboration Option 3 (see page 2).

BACKGROUND:

At the January Commission meeting you received [information](#) on a new policy approved by the Board of Water and Soil Resources (BWSR) related to the distribution of Clean Water Funds. At that meeting you directed me to attend meetings of the Hennepin County watershed management organizations to discuss the new program and options for disseminating or competing for the \$1M available for "eligible entities" in Hennepin County.

Since January, Hennepin County staff facilitated 3 meetings of the 11 watershed organizations. I attended the first two meetings and Commission Engineer Chandler attended the third meeting on March 30th as I was out of town. After much discussion and input from BWSR staff, this group decided to pursue a collaborative approach to disseminating the funds rather than competing among ourselves or other metro watersheds and cities for the funds.

This larger group also agreed to divide into smaller basin groups to discuss options for funding projects based on watershed basins. I participated in a meeting of the 7 watershed organizations in the Mississippi River Basin where we discussed projects in our respective jurisdictions that could use the funding in this biennium and how we would collectively prioritize projects for funding. For this biennium, the Mississippi River Basin would expect to receive between \$600,000 and \$700,000 for projects. We developed a list of criteria that would help prioritize one project over another (including project readiness, opportunity, resource impact, and goals addressed) and populated a table with two projects per watershed. I included the Bryn Mawr Meadows Water Quality Improvement Project and the Westwood Lake Water Quality Improvement Project in the table. We plan to meet again on April 25th to further discuss and prioritize our projects.

On May 16th, Hennepin County staff will facilitate an official “convene meeting” to gather all eligible entities (watershed organizations and cities) to discuss and collectively decide on one mechanism to disseminate the funds for this biennium. The 11 watershed organizations will present three options for disseminating funds:

- Collaboration Option 1: Use a formula based on area and property tax base to disseminate funds by watershed organization (approximately \$76,000 for BCWMC)
- Collaboration Option 2: Take a modest amount of funding (a figure of \$100,000 has been discussed) off the top of the \$1M to address chloride pollution on a countywide basis and distribute the remainder of funds via the formula in Option 1. (approximately \$70,000 BCWMC projects)
- Collaboration Option 3: Take a modest amount of funding off the top of the \$1M (a figure of \$100,000 has been discussed) to address chloride pollution on a countywide basis and distribute the remainder of funds to major river basins to use on their priority programs/projects. (approximately \$530,000 - \$630,000 for projects in the Mississippi River Basin watersheds)

Collectively, there is consensus among the 11 watershed organizations that Collaboration Option 3 is the preferred option, particularly if the watershed-based funding mechanism continues to be used by BWSR in the future. This option allows for more local control of spending and project prioritization in each basin. Although not all projects in the basin would receive funds in this biennium, it's expected the funding would “rotate” among the watersheds in the basin similar to how the Commission implements CIP projects in different cities in different years. This mechanism also provides a greater amount of funding per project as opposed to less than \$100,000 per watershed as in options 1 and 2. This low funding amount likely wouldn't be worth the time it takes to administer the funding and perform the required reporting.

As a reminder, the steps laid out by BWSR for counties to develop a collaborative plan include:

1. Convene initial meeting. (So far, we've been holding “pre-initial convene” meetings. The meeting on May 16th will be the official initial convene meeting.)
2. Each local government within the county area identifies a voting representative (and alternate) to attend meetings.
3. Inform BWSR who is serving as the convening organization and the decision-making process that will be used.
4. Describe the process used to select projects and programs for the “Collaborative PTM Implementation Plan” and how success will be evaluated.
5. Identify projects and programs in an eLINK budget request and work plan.

I recommend the Commission appoint me as the Commission's voting representative and the Commission Engineer as the alternate voting representative for the May 16th official “convene meeting” and direct the voting representative to advocate for the implementation of Collaboration Option 3.



Bassett Creek Watershed Management Commission

MEMO

Date: April 11, 2018
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 (See Item 5C): At their meetings in September and October, the Commission approved a proposal and additional proposed actions (respectively) from the Commission Engineer to complete a feasibility study for this project. Feasibility study field work began in late September. A project kick-off meeting was held October 6th, a public open house was held November 9th, a meeting with permitting agencies was held December 8th and a meeting with Met Council regarding the existing sanitary sewer line was held in late December. Work on various aspects of the feasibility study continued over the winter including establishment of ordinary high-water levels, test trench investigations, use of the XP-SWMM model, and development of 3 concepts for city staff, administrator review and presentation to residents at a public open house on April 11th. At this meeting the Commission will review 3 concepts for implementation. A complete feasibility study is expected at the May meeting. Project website: <http://www.bassettcreekwmo.org/index.php?cID=433>

2019 Bryn Mawr Meadows Water Quality Improvement Project (BC-5), Minneapolis (See Item 5E): At their meeting in September, the Commission approved a proposal from the Commission Engineer to complete a feasibility study for this project. A project kick-off meeting was held on October 23rd. A wetland delineation is complete and submitted for approval. Preliminary concepts were developed and discussed with designers for Minneapolis Park and Rec Board. A meeting with permitting agencies was held on January 19th and another meeting with MPRB designers was held February 13th to review possible concepts. Soil borings were recently completed and a public open house on the MPRB's Bryn Mawr Meadows Park improvement project was held March 8th and had about 50 participants. Currently, the TAC and BCWMC staff recommend moving this project from implementation in 2019 to design in 2020 and construction in 2021 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. Project website: <http://www.bassettcreekwmo.org/projects/all-projects/bryn-mawr-meadows-water-quality-improvement-project>

2019 Westwood Lake Water Quality Improvement Project (WST-2), St. Louis Park (See Item 5A): At their meeting in September, the Commission approved a proposal from the Commission Engineer to complete a feasibility study for this project. The project will be completed in conjunction with the Westwood Hills Nature Center reconstruction project. A kick-off meeting was held November 21st. A wetland delineation was completed and approved. The Commission Engineer has received the architect's survey and building location and soil boring data. Project concepts were recently discussed with the city's architect and city staff and two public open houses were held in February for the Westwood Hills Nature Center reconstruction project. At this meeting the Commission will receive a presentation on the draft feasibility study. Project website: <http://www.bassettcreekwmo.org/projects/all-projects/westwood-lake-water-quality-improvement-project>

2018 Bassett Creek Park Pond Phase I Dredging Project: Winnetka Pond, Crystal (BCP-2) (See Item 5B): The final feasibility study for this project was approved at the May 2017 meeting and is available on the project page online at <http://www.bassettcreekwmo.org/index.php?cID=403>. At the September 2017 meeting, the Commission held a public hearing on the project and adopted a resolution officially ordering the project, certifying costs to Hennepin County, and entering an agreement with the City of Crystal for design and construction. Hennepin County approved the 2018 final levy request at their meeting in November 2017. The City of Crystal hired Barr Engineering to design the project. At this meeting the Commission will consider approving 50% design plans.

2017 Plymouth Creek Restoration Project, Annapolis Lane to 2,500 feet Upstream (2017CR-P): All project documents including the feasibility study and 90% design plans are available online at <http://www.bassettcreekwmo.org/index.php?cID=284>. The BCWMC executed agreements with the BWSR for a \$400,000 Clean Water Fund grant and with Hennepin County for a \$50,000 Opportunity Grant and a subgrant agreement with the City was executed. Project design was completed by the city's contractor, Wenck Associates, with 60% and 90% design plans approved by the Commission at the April and August 2017 meetings, respectively. Plymouth City Council awarded a construction contract in early December 2018 and construction got underway on December 11, 2018. Much of the work was on hold over the winter but recently began again. Banks are stabilized in Reach 3 (downstream of Fernbrook). Clearing and grubbing continues in Reaches 1 and 2.



2017 Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M): The feasibility study for this project was approved at the April Commission meeting and the final document is available on the project page at: <http://www.bassettcreekwmo.org/index.php?cID=281>. A Response Action Plan to address contaminated soils in the project area was completed by Barr Engineering with funding from Hennepin County and was reviewed and approved by the MPCA. The Commission was awarded an Environmental Response Fund grant from Hennepin County for \$150,300 and a grant agreement is in the process of being signed by the county. A subgrant agreement with the City will be developed. The City hired Barr Engineering to design and construct the project. Fifty-percent and 90% designs were approved at the August and October Commission meetings, respectively. In September, design plans were presented by Commission and city staff to the Harrison Neighborhood Association's Glenwood Revitalization Team committee and through a public open house on the project. Bidding for construction is complete and a pre-construction meeting is likely this month. Construction will begin this summer.

2016 Northwood Lake Improvement Project, New Hope (NL-1) (No change since February): Northwood Lake Improvement Project is nearing completion with all major work complete. The storm water tank was fully operational in June and irrigated the fields all summer. Since it began operating the tank has captured and reused 904,000 gallons of storm water. All raingardens are planted and working well. A grand opening of the park was held last spring. Friends of Northwood Lake disseminated water quality educational materials, including BCWMC materials. A semi-annual grant report was submitted to the MPCA in January. The final piece of the project is to install educational signage which will happen this spring.

2016 Honeywell Pond Expansion Project, Golden Valley (BC-4): In spring 2016, the Honeywell Pond Project was bid as part of the City of Golden Valley and Hennepin County's Douglas Drive (CSAH 102) Reconstruction Project. The reconstruction project began in June 2016. Excavation of the pond basin is complete and the disturbed soils around the pond were temporarily stabilized. The force main work was recently completed. The lift station and pumps were installed and connected to the Sandburg Athletic. Final stabilization of the pond was completed last fall and the area was seeded with a mix of natives including wetland and upland species. The project is complete and a final report and final reimbursement request is expected in May.

2015 Main Stem Restoration Project 10th Avenue to Duluth Street, Golden Valley (2015CR) (No change since October): The restoration project is being constructed in two phases, each under separate contract. Phase one included stream bank shaping, placement of field stone rock and 12-inch bio-logs, and repair of storm sewer outlets. The first phase of the project began in November 2015 and was finished in June 2016. Turf establishment and minor restoration repairs in Phase 1 were accepted in late October 2016. Repairs to some areas where flooding impacted rocks or biologs were completed and accepted in mid-December 2016. Phase 1 of the construction project has entered the warranty period.

Phase 2 of the project includes the establishment of native vegetation along the stream, including grasses, wildflowers, shrubs, live stakes and fascines, and cordgrass plugs. The project has been seeded and stabilized and maintenance mowing and spot treatments have been completed. Applied Ecological Services (AES) installed live stakes and fascines this spring and completed the tree and shrub planting along the restoration project. AES will continue to monitor and maintain the native vegetation through 2018. It is anticipated that the total contract amount for both Phase one and Phase two will be within the Watershed's overall project budget.

2014 Schaper Pond Diversion Project, Golden Valley (SL-3) (No change since October): 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 is in the process of analyzing results.

2014 Twin Lake In-lake Alum Treatment, Golden Valley (TW-2): (No change since January 2017) 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 in 2017 will help determine if a second dose of alum is needed to retain water quality.

2013 Four Season Area Water Quality Project/Agora Development (NL-2) (No change since August): 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 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.

Other Work

CIP Project Work and Technical Assistance

- Coordinated with DNR, contractors and TRPD on curly-leaf pondweed control in Medicine Lake
- Reviewed draft feasibility studies and related materials for DeCola Ponds and Westwood Lake Projects
- Attended DeCola Ponds Project open house
- Revised 5-year CIP and gathered fact sheets on new projects for review by TAC
- Prepared agenda and meeting materials and attended TAC meeting; prepared TAC memo and solicited comments from TAC
- Walked Reach 3 and took photos of Plymouth Creek Restoration Project
- Gathered water quality data from partners (TRPD, MPRB, CAMP), transmitted to Barr for updating online WQ graphs
- Posted 2017 WQ reports online
- Attended MPCA's 2020 monitoring meeting; corresponded with MPCA staff re: chloride monitoring

Administration and Education

- Continued to organize, review, cull, and prepare for scanning the Commission's paper files
- Drafted and distributed letter to legislators supporting chloride legislation
- Arranged meeting with AMLAC, Plymouth staff, TRPD staff, and commissioners; prepared agenda and attended meeting regarding AIS in Medicine Lake
- Participated in Mississippi River Basin meeting on Watershed Based Funding; prepared and distributed table for watersheds to populate with their projects; filled in BCWMC projects
- Submitted BCWMC projects in BWSR's Biennial Budget Request form
- Updated administrative calendar and CIP project status table
- Developed email of events and meetings for Commissioners, et al
- Reviewed BCWMC column for Sun Post
- Attended WMWA meeting and began gathering newsletter articles
- Met with Freshwater Society to begin planning lake group meeting; reviewed draft agenda and pre-meeting survey
- Prepared draft 2019 budget, prepared for and attended Budget Committee meeting