Bassett Creek Watershed Management Commission

Regular Meeting
Thursday April 20, 2017
8:30 – 11:00 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 16, 2017 Commission Meeting
   - B. Approval of April 2017 Financial Report
   - C. Approval of Payment of Invoices
     - i. Keystone Waters, LLC – March Administrator Services
     - ii. Keystone Waters, LLC – March Meeting Materials Distribution Expenses
     - iii. Barr Engineering – March 2017 Engineering Services
     - iv. Triple D Espresso – April 2017 Meeting Refreshments
     - v. Wenck – March 2017 WOMP Monitoring
     - vi. Wenck – March Routine Lake Monitoring
     - vii. Lawn Chair Gardener – March 2017 Administrative Services
     - viii. Kennedy & Graven – February Legal Services
     - ix. Talbott Promotions – Dog Bag Dispensers
     - x. MMKR – 2016 Financial Audit
     - xi. Hamline University – 2017 Clean Water MN Campaign
   - D. Approval Not to Waive Monetary Limits on Municipal Tort Liability
   - E. Accept Fiscal Year 2016 Financial Audit Report

5. **BUSINESS**
   - A. Receive Presentation and Discuss Draft Feasibility Study for Bassett Creek Park Pond/Winnetka Pond Dredging Project (BCP-2)
   - B. Receive Update on Curly-leaf Pondweed Control on Medicine Lake
     - i. Ratify Agreement with Three Rivers Park District for Cooperation of Curly-leaf Pondweed Control
     - ii. Ratify Contract with PLM Lake and Land Management for Curly-leaf Pondweed Treatment
   - C. Receive Correspondence from Former Commissioner Regarding Pending Environment

6. **COMMUNICATIONS**
   - A. Administrator's Report
     - i. Update on Minor Plan Amendment
   - B. Chair
   - C. Commissioners
     - i. Report on Plymouth Home Expo Event
   - D. TAC Members

E. Committees
   i. Report on March 27th Budget Committee Meeting
   ii. Upcoming Education and Budget Committees Meetings
F. Legal Counsel
G. Engineer

7. INFORMATION ONLY (Information online only)

A. CIP Project Updates: Now Available Online http://www.bassettcreekwmo.org/projects
B. Grant Tracking Summary and Spreadsheet
C. WMWA January and February Meeting Minutes
D. Impacts of Salt in the News
   i. Star Tribune Article
   ii. Channel 12 News Clip
E. WCA Notice of Decision, Golden Valley
F. WCA Notice of Decision, Plymouth Creek Restoration Project

8. ADJOURNMENT

Upcoming Meetings & Events

- Bassett Creek Park Clean Up: Saturday April 22, 9:30 a.m. – noon, by Minneapolis Park and Rec Board https://www.minneapolisparks.org/activities__events/events/earth_day_cleanup/#group_1_219258
- BCWMC Budget Committee Meeting: Monday April 24th, 8:00 a.m., Golden Valley City Hall
- BCWMC Education Committee Meeting: Monday April 24th, 1:00 p.m., Golden Valley City Hall
- BCWMC TAC Meeting: Thursday May 4th, 1:30 – 3:30 p.m., Council Conference Room, Golden Valley City Hall
- BCWMC Public Hearing and Regular Meeting: Thursday May 18th, 8:30 a.m., Council Conf Room, Golden Valley City Hall
- Woodland Restoration Event: Saturday June 3, 8:30 a.m. – 12:30 p.m., Westwood Hills Nature Center, St. Louis Park, volunteer pre-registration required: https://www.greatrivergreening.org/events/june-3-westwood-hills-nature-center/

Bassett Creek Watershed Management Commission

AGENDA MEMO
Date: April 13, 2016
To: BCWMC Commissioners
From: Laura Jester, Administrator
RE: Background Information for 4/20/17 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 16, 2017 Commission meeting- **ACTION ITEM with attachment**
   B. Approval of April 2017 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 Administrator Services
      ii. Keystone Waters, LLC – March Meeting Materials Distribution Expenses
      iii. Barr Engineering – March 2017 Engineering Services
      iv. Triple D Espresso – April 2017 Meeting Refreshments
      v. Wenck – March 2017 WOMP Monitoring
      vi. Wenck – March Routine Lake Monitoring
      vii. Lawn Chair Gardener – March 2017 Administrative Services
      viii. Kennedy & Graven – February Legal Services
      ix. Talbott Promotions – Dog Bag Dispensers
      x. MMKR – 2016 Financial Audit
      xi. Hamline University – 2017 Clean Water MN Campaign

   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. Accept Fiscal Year 2016 Financial Audit Report – **ACTION ITEM with attachment (full document online)** - *The audit of the Commission's finances for the period February 1, 2016 to January 31, 2017 is complete. The auditor found no deficiencies in internal financial control and not findings based on testing of the Commission's compliance with laws and regulations. Deputy Treasurer Virnig recommends the Commission accept the audit. Staff will submit the audit to the BWSR (due at the end of May).*

5. **BUSINESS**
   A. Receive Presentation and Discuss Draft Feasibility Study for Bassett Creek Park Pond/Winnetka Pond Dredging Project (BCP-2) – **DISCUSSION ITEM with attachment (appendices online)** – *At their July 2016 meeting the Commission approved a proposal from the Commission Engineer to prepare a feasibility study for the BCP-2 CIP project to dredge Bassett Creek Park Pond and added the study of dredging in Winnetka Pond. The study compares various options and the cost/benefit of each and includes input from technical stakeholders and residents. Multiple discussions and analysis of various options were also held with Crystal city staff and Commissioner Mueller. At this meeting, city staff will also relay input from the Crystal City Council resulting from a work session on April 13th. The Commission Engineer will present the results of the study and her recommendations. The Commission should discuss the findings and recommendations. A final feasibility study should be approved at the May Commission meeting.*

B. Receive Update on Curly-leaf Pondweed Control on Medicine Lake – **ACTION ITEM with attachments** – *At their meeting in February, the Commission approved a partnership with the City of Plymouth and Three Rivers Park District (TRPD) to perform herbicide treatments of curly-leaf pondweed in Medicine Lake in 2017 and to contribute up to $20,750 from its APM/AIS Budget for the treatment. I applied for a DNR permit for the herbicide treatment, and developed and distributed a request for proposals, project specifications, and a contract with assistance from Plymouth staff and the Commission attorney. Because the plant survey and water temperature readings need to happen in April, with an herbicide treatment likely in early May, the agreement with TRPD and the low-bid contractor was already executed so work could begin. Staff is seeking Commission ratification of the executed agreement and contract (attached).*
    i. Ratify Agreement with Three Rivers Park District for Cooperation of Curly-leaf Pondweed Control
    ii. Ratify Contract with PLM Lake and Land Management for Curly-leaf Pondweed Treatment

C. Receive Correspondence from Former Commissioner Regarding Pending Environment – **DISCUSSION ITEM with attachment** – *I received an email from former New Hope Commissioner Stauner regarding legislation passed by the MN House and Senate. In the attached email, Mr. Stauner requests the Commission discuss the impact of the legislation which is laid out in the letter from the Minnesota Environmental Partnership to legislators (attached to the email). The Commission could consider sending their concerns to Governor Dayton.*

6. COMMUNICATIONS

A. Administrator's Report – **INFORMATION ITEM with attachment**
    i. Update on Minor Plan Amendment
B. Chair
C. Commissioners
    i. Report on Plymouth Home Expo Event
D. TAC Members
E. Committees
    i. Report on March 27th Budget Committee Meeting
    ii. Upcoming Education and Budget Committees Meetings
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Item 4A.
BCWMC 4-20-17

Bassett Creek Watershed Management Commission

DRAFT Minutes of Regular Meeting
Thursday March 16, 2017
8:30 a.m.
Golden Valley City Hall, Golden Valley MN

Commissioners and city staff present:

City	Commissioner	Alternate Commissioner	Technical Advisory Committee Members (City Staff)
Crystal	Guy Mueller	NA	
Golden Valley	Stacy Harwell, Treasurer	*Absent*	Jeff Oliver
Medicine Lake	Clint Carlson	*Absent*	Susan Wiese
Minneapolis	Michael Welch	NA	*Absent*
Minnetonka	*Absent*	*Absent*	Tom Dietrich
New Hope	John Elder	Pat Crough	Chris Long
Plymouth	Jim Prom	John Byrnes	Derek Asche
St. Louis Park	Jim de Lambert	*Absent*	Erick Francis
Robbinsdale	Michael Scanlan	Wayne Sicora*	Richard McCoy
Staff and Others Present:			
Administrator	Laura Jester, Keystone Waters		
Engineer	Karen Chandler, Barr Engineering		
Legal Counsel	Troy Gilchrist, Kennedy & Graven		
Presenters/ Guests/Public	Former Alternate Commissioner Lisa Goodard		

*Denotes partial attendance

1. CALL TO ORDER AND ROLL CALL

On Thursday March 16, 2017 at 8:35 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. The City of Minnetonka was absent from the roll call.

2. CITIZEN FORUM ON NON-AGENDA ITEMS

No comments from citizens.

3. APPROVAL OF AGENDA

Administrator Jester requested the addition of item 5J – Consider Agreement with Hennepin County for 2017 River Watch Program. Commissioner Welch requested that item 5D be moved ahead of 5C.

MOTION: Commissioner Welch moved to approve the agenda as amended. Alt. Commissioner Crough seconded the motion. Upon a vote, the motion carried 8-0. [City of Minnetonka was absent from the vote.]

4. CONSENT AGENDA

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

The following items were approved as part of the consent agenda: the February 16, 2017 Commission Meeting Minutes, the March 2017 Financial Report, the payment of invoices, CenterPoint Energy 2017 MBLC Replacement Project, agreement with Hennepin County Environmental Response Fund Grant for Main Stem Erosion Repair CIP Project, Clean Water Fund Grant agreement for Plymouth Creek Restoration CIP Project and Harrison Neighborhood Project, agreement with Hennepin County for Opportunity Grant for Plymouth Creek Restoration CIP Project, development and execution of sub-grant agreements with City of Plymouth, Metro Blooms, and the City of Minneapolis.

The general and construction account balances reported in the February 2017 Financial Report are as follows:

Checking Account Balance	$805,484.90
TOTAL GENERAL FUND BALANCE	$805,484.90
TOTAL CASH & INVESTMENTS ON-HAND (3/8/17)	$2,374,618.24
CIP Projects Levied – Budget Remaining	($2,749,156.26)
Closed Projects Remaining Balance	($374,538.02)
2011-2015 Anticipated Tax Levy Revenue	$4,509.13
2016 Anticipated Tax Levy Revenue	$4,967.63
Anticipated Closed Project Balance	($365,061.26)

[Alternate Commissioner Sicora departs the meeting.]

5. BUSINESS

A. Consider Approval of Resolution of Appreciation for Alternate Commissioner Lisa Goddard

Chair de Lambert announced that Minneapolis Alternate Commissioner Lisa Goddard had changed jobs and now works for the City of Minneapolis. As such, she is no longer eligible to serve as a Commissioner from Minneapolis. Chair de Lambert read a resolution of appreciation for Lisa Goddard's work over 13 years on the Commission.

MOTION: Commissioner Welch moved adoption of the resolution of appreciation. Commissioner Mueller seconded the motion.

Commissioner Welch praised Ms. Goddard's commitment to the Commission and noted the Commission benefitted from her technical insights. Commissioner Mueller noted that Ms. Goddard brought a nice blend of talents including technical savvy and sensitivity to residents.

Upon a vote the motion carried 8-0. [City of Minnetonka was absent from the vote.]

[Former Alternate Commissioner Goddard departs the meeting.]

B. Consider Approval to Set May 4 Technical Advisory Committee Meeting and Assign Liaison

MOTION: Commissioner Welch moved to approve setting a May 4th Technical Advisory Committee meeting and appointing Commissioner Harwell as liaison at the meeting. Commissioner Scanlan seconded the motion. Upon a vote the motion carried 8-0. [City of Minnetonka was absent from the vote.]

Commissioner Prom noted that he also planned to attend the TAC meeting.

D. Consider Golden Valley Request to Transfer CIP Funds from 2013 Lakeview Park Pond Project to Project to Purchase of Flood Prone Properties

Administrator Jester reported that the City of Golden Valley is requesting the use of $184,410.50 of CIP funds previously slated for the 2013 Lakeview Park Pond Project to purchase three of four flood-prone homes near Lakeview Park in order to reduce flood damages. She noted that purchase and removal of the homes would make space for a water quality improvement project by the City. Administrator Jester reported that at their meeting in September 2012, the Commission entered an agreement with the City of Golden Valley to design and construct the Lakeview Park Pond Project based on the feasibility study developed in 2004 (and updated in 2011). The project was slated to improve the water quality of Medicine Lake by treating runoff from the immediate watershed. She further reported that at their meeting in April 2013, the Commission received information on various challenges with the site, its soils, and the possible effects of the project on the basements of homes in the vicinity of the park; and at their meeting in June 2013, the Commission received a letter from the City of Golden Valley indicating that after further analysis, the project was no longer considered feasible until flooding issues adjacent to the park are resolved. Administrator Jester reported there is a balance of $184,410.50 in the CIP account for the Lakeview Park Pond Project.

Jeff Oliver with the City of Golden Valley reported that the city has already purchased one of four homes and has willing sellers for the last three homes that regularly experience flooding and property damage. He reported the City has another $500,000 to use toward the purchase of the homes and requests a transfer of the $184,410 from the Lakeview Park Pond Project to a flood reduction project in the same subwatershed of Medicine Lake. He noted these homes cannot be viably flood protected and reported that once the homes are removed, the city will have space for a water quality treatment project. He noted this is the only viable place for a water quality project in the Medicine Lake subwatershed within Golden Valley.

There was discussion about how the future water quality project would be constructed by the city (with city funds) and would allow the city to meet the Commission's water quality standards (MIDS) for their 2016 and 2017 pavement management programs (PMPs) in the same area (the 2017 PMP is the subject of agenda item 5C). Commissioner Welch noted this was a gray area for the Commission's action because while the use of CIP funds for

flood reduction projects is allowed, the fact remains that the homes must be acquired and removed in order for the city to meet water quality requirements for its own project. He indicated that there did not seem to be a clear definition between a proposed new CIP project and the city's required project. Other Commissioners agreed it was a gray area but noted it was a good use of public funds due because the timing of the projects resulted in an overall lowering of public costs.

There was further discussion about how the pollutant removal abilities of the future water quality treatment project are unknown and whether or not there would be any treatment beyond requirements for the city's PMPs. Further, Administrator Jester noted that unlike pollutant removal comparisons made between the original Four Seasons Mall Project and the Agora Project, there was not a similar comparison that could be made between the Lakeview Park Pond Project (a water quality improvement project) and the proposed flood reduction project.

Derek Asche with the City of Plymouth and Commissioner Prom asked if there was a different location in Golden Valley where the CIP funds could be spent rather than purchasing homes. They indicated concern about setting precedence with regard to purchasing property. Mr. Oliver noted that flood proofing of homes had been done by the Commission in the past. Administrator Jester noted that purchase of property was an eligible CIP project cost (to be considered on a project by project basis).

MOTION: Commissioner Scanlan moved to approve the transfer of CIP funds from the Lakeview Park Pond Project to a project to purchase flood-prone homes in the same subwatershed as the original project and to direct the Administrator to begin a Plan amendment process. Commissioner Carlson seconded the motion.

Asked if the City would come back to the Commission requesting additional CIP funds for projects in this area, Mr. Oliver replied, "no," and noted the future water quality improvement project developed for the site would be reviewed by the Commission. Commissioner Welch noted that while it's important not to miss opportunities for improvements in this highly-developed watershed, it is still unclear if the purchase of the properties (and use of CIP funds) would constitute the Commission paying for the City's regulatory compliance requirements for their PMPs.

The Commission also discussed the overlapping goals and issues among the City's need for space for water quality improvement projects in this area (even if PMPs weren't planned here), the need for flood damage reduction, and the Commission's goals to use CIP funds for the best possible project (without paying for compliance), and the difficulty in meeting MIDS in linear projects.

MOTION: Commissioner Carlson moved to call the question on the original motion. Commissioner Harwell seconded the motion. Upon a vote, the motion carried 8-0. [City of Minnetonka was absent from the vote.]

The original motion carried 6-2 upon by roll call:
City of Crystal: aye
City of Golden Valley: aye
City of Medicine Lake: aye
City of Minneapolis: no
City of Minnetonka: absent
City of New Hope: aye
City of Plymouth: no
City of Robbinsdale: aye
City of St. Louis Park: aye

C. Consider Approval of Golden Valley 2017 Pavement Management Plan and Request for Temporary Variance
Commission Engineer Chandler reviewed the project including the City of Golden Valley's request for a temporary variance, similar to the temporary variance granted to the City in March 2016 for that year's Pavement Management Program (PMP). She noted that the project will remove 0.62 acres of impervious surface but will not be able to meet performance standards (MIDS) until offsite mitigation is complete (through construction of the proposed project in the area where flood-prone homes are to be removed).

MOTION: Commissioner Harwell moved to approve Golden Valley's 2017 Pavement Management Program with Commission Engineer's comments and to adopt the resolution granting the temporary variance from performance standards. Commissioner Scanlan seconded the motion.

Commissioner Welch noted that he cannot support the motion due to involvement of Commission's CIP funds to purchase properties which provides space for the future water quality treatment project to allow the City to meet MIDS in the future.

Upon a vote the motion carried 6-2 with Commissioners Welch and Prom voting against the motion. [City of Minnetonka was absent from the vote.]

E. Consider Commission Engineer Recommendations on BCWMC Performance Standards for Linear Projects

Commission Engineer Chandler reminded the Commission that at their January meeting, the Commission heard recommendations from the TAC regarding proposed revisions to the water quality performance standards (MIDS) in linear projects. At that meeting, the Commission directed the Commission Engineer to further evaluate the issue and come to the Commission with their own recommendations.

Commission Engineer Chandler walked through the memo and noted the recommendations came from review of different watershed organizations' standards, also noting that the Commission is the only organization that adopted MIDS in full. She noted that many organizations only require treatment from new impervious surfaces, rather than from all reconstructed impervious surfaces. Engineer Chandler reported that she recommends using a cost cap per acre for linear projects so that project proposers have a "high end" cost for the project (a known expectation) and can plan for treatment up to that cost but not over. She recommended the cost cap be re-evaluated each year and adjusted as needed. She noted that more research and analysis would be needed to determine an appropriate initial cost cap and that that effort could cost between $5,000 - $10,000.

Commissioner Welch noted that reduction of impervious surface is a good goal and provided an idea for consideration: that the Commission Engineer provide an analysis with real examples of projects (including the Golden Valley PMP) to compare the Commission's water quality standard from 2004 (simply to improve conditions) to various scenarios such as using a tiered approach like requiring the old standards for projects that add less than 5,000 ft^2 of impervious, then requiring MIDS for projects that create more than 5,000 ft^2. Other Commissioners thought this was a good idea, particularly noting a TAC concern that in some cases there just isn't space for viable treatment practices. Commissioners also noted that the cost cap idea should be further analyzed, in conjunction with this new idea of a tiered approach to requirements.

MOTION: Commissioner Mueller moved to direct the Commission Engineer to spend up to $5,000 to analyze the cost cap idea and the tiered approach with actual projects. Seconded by Commissioner Scanlan.

Engineer Chandler reported that she could bring some initial research results to the April Commission meeting but that TAC input might also be needed (the TAC meeting in early May). There was further discussion with TAC members and Commissioners providing support for Commissioner Welch's idea of a tiered approach, with TAC members noting that linear projects present unique challenges, that sensible opportunities to improve conditions within linear projects aren't being passed up, and that the money spent on water quality treatments in linear projects could likely be better spent on better projects with lower costs elsewhere in the watershed.

Commissioner Mueller withdrew his motion; Commissioner Scanlan agreed.

Commissioner Welch noted that the term "good faith effort" (as was used in the Commission's 2004 Standard) is problematic and wondered if the term "reasonable technology" might be easier to review a project against.

MOTION: Commissioner Welch moved to direct the Commission Engineer to prepare examples of tiered approaches to MIDS in linear projects for review by the Technical Advisory Committee at their May 4th meeting. Commissioner Mueller seconded the motion. Upon a vote the motion carried 8-0. [City of Minnetonka was absent from the vote.]

[Commissioner Harwell departs the meeting. Commissioner Elder departs the meeting.]

F. Consider Technical Advisory Committee Recommendations

TAC Chair, Erick Francis, reported that the TAC met on February 3rd and March 2nd to discuss several topics.

i. **Channel Maintenance Funds and Request from City of New Hope**

Mr. Francis provided an overview of the TAC's recommendation to allow the City of New Hope to use Channel Maintenance Funds for a project that was completed in 2016 to clean out accumulated sediment just downstream of the pipe that discharges into the west end of Northwood Lake. He noted that although BCWMC policies state the city should first enter into an agreement with the Commission for use of funds, the TAC took into consideration that the Commission approved the same project in 2010 but the city did not ultimately seek reimbursement for that work.

MOTION: Commissioner Prom moved to approve a reimbursement of $29,240 of Channel Maintenance Funds to the City of New Hope for the 2016 project to clean out accumulated sediment at the west end of Northwood Lake. Commissioner Scanlan seconded the motion. Upon a vote the motion carried 6-0. City of Minneapolis abstained from the vote due to absence from the discussion. [Cities of Minnetonka and Golden Valley were absent from the vote.]

ii. **5-year CIP List and Project Fact Sheets**

Mr. Francis and Administrator Jester provided an overview of the TAC's recommendation for the 5-year CIP (2019 – 2023). Administrator Jester reviewed the changes from the 2018 – 2022 CIP including a request from the City of Medicine Lake for a water quality improvement project within Jevne Park. She noted that although it is difficult to know the impact of the proposed project and/or if a project is permittable and feasible given existing wetlands and groundwater levels, the TAC felt the project warranted more review through a complete feasibility study and recommended that it be added to the CIP list.

Administrator Jester also reviewed the request from the City of Golden Valley to combine BC-2/8 and BC-3 into one large project to begin implementing components of the Medicine Lake Rd and Winnetka Ave (DeCola Ponds) Long Term Flood Mitigation Plan Project. She noted that the Commission received a presentation at their November 2016 meeting regarding this plan that included over $20M in needed flood mitigation projects. Commissioners recommended that the BC-2,8,3 Project be combined with the BC-10 Project in the CIP list since they are all slated to implement the same flood mitigation plan, just in different years.

Administrator Jester also noted the addition of 2 projects in the City of Plymouth to benefit Medicine Lake and Parkers Lake and the shifting of two projects (SL-11 and 2021CR-M) to beyond 2023. She also noted that the TAC recommended that a future discussion should include a review of the overall process of CIP project implementation including a better method for prioritizing and scheduling CIP projects, and possibly adjusting the annual levy amount, and putting the amount in context with city budgets for other stormwater projects.

MOTION: Commissioner Prom moved approval of the 2019-2023 CIP as presented. Commissioner Mueller seconded the motion. Upon a vote the motion carried 7-0. [Cities of Minnetonka and Golden Valley were absent from the vote.]

iii. **Update on Discussions of XP-SWMM Model**

Mr. Francis noted that the TAC also discussed the technical aspects of the XP-SWMM model results and began discussing policy implications, communication needs, and areas within the watershed where the new flood elevations should be enforced. He noted that staff from most member cities will be meeting individually with the Commission Engineer to review technical questions related to their specific cities and that the TAC will continue to discuss the model at their next meeting.

G. Consider Adding Sediment Monitoring to Sweeney Lake Aeration Study

Commission Engineer Chandler reported that at a meeting with Golden Valley city staff, Commissioners Harwell and McDonald Black, a Sweeney Lake representative, and Administrator Jester regarding the study, a question was raised about the possible addition of sediment sampling in Sweeney Lake. She noted that confidence in the study results would be strengthened with sediment data, that sediment data could be utilized in future decisions about the lake, and would cost approximately $3,000. She recommended using funding from the "survey and studies" budget line for the addition of sediment sampling for Sweeney Lake.

[Commissioner Prom departs the meeting; Alt. Commissioner Byrnes assumes representation for City of Plymouth.]

MOTION: Commissioner Scanlan moved to conduct sediment sampling in Sweeney Lake in conjunction with the Sweeney Lake Aeration Study for a cost not to exceed $3,000. Alt. Commissioner Byrnes seconded the motion. Upon a vote the motion carried 7-0. [Cities of Minnetonka and Golden Valley were absent from the vote.]

H. Consider Directing Staff to Begin Minor Plan Amendment Process for CIP Projects

Administrator Jester reported that an amendment from the 2015 BCWMC Watershed Management Plan must be proposed in order to update the CIP according to action taken in Items 5D and 5Fii above. She indicated she would seek BWSR's approval to work through a minor amendment process rather than the general (major) plan amendment process. She recommended that the Commission set a public hearing date for May 18th, which would allow a 45-day notice to member cities about the hearing.

MOTION: Commissioner Crough moved to set a public hearing for May 18, 2017 during the Commission's regular meeting and to begin the Plan amendment process. Commissioner Mueller seconded the motion. Upon a vote the motion carried 6-1. Commissioner Welch voted against the motion due to his opposition of the transfer of CIP funds from the Lakeview Park Pond Project. [Cities of Minnetonka and Golden Valley were absent from the vote.]

I. Consider Education Committee Recommendations on 2017 Education Budget and Work Plan

Administrator Jester reported that the Education Committee met on March 6th to discuss the budget and work plan for 2017. She reported that the Committee recommends expenditures shown in the table included with meeting materials and that many programs and expenditures are the same as previous years. She noted that there is $5,327 in unallocated funds and that the committee will further discuss projects or programs for the use of those funds. She reported that the committee's recommendation includes approval to reimburse Commissioner Prom and two CAMP volunteers for the $175 registration fee to attend a DNR AIS Detection training and certification course.

MOTION: Alt. Commissioner Byrnes moved approval of the Education Committee's recommendations. Commissioner Scanlan seconded the motion.

Discussion: Chair de Lambert expressed some concern about the use of funds slated for Commissioner training to reimburse non-Commissioners for attendance at programs because of the limited funds available and multiple opportunities for training and conferences in the coming year. Administrator Jester indicated that the action approving reimbursement to CAMP volunteers for AIS detection training is likely money well spent as these volunteers are on BCWMC lakes regularly. She noted that this situation of reimbursing non-Commissioners is likely a one-time request and would not become a regular practice.

Upon a vote a motion carried 7-0. [Cities of Minnetonka and Golden Valley were absent from the vote.]

J. Consider Agreement with Hennepin County for 2017 River Watch Program – added item

Administrator Jester reported that the agreement with Hennepin County for the River Watch Program was an annual agreement and usually on the consent agenda (but was received too late to get in the regular meeting packet). She reported the Commission Legal Counsel had reviewed the agreement and had one comment that was incorporated into the agreement.

MOTION: Commissioner Welch moved approval of the agreement with Hennepin County for the 2017 River Watch Program. Alt. Commissioner Byrnes seconded the motion. Upon a vote the motion carried 7-0. [Cities of Minnetonka

and Golden Valley were absent from the vote.]

6. COMMUNICATIONS

A. Administrator's Report

Administrator Jester reported that volunteers are still needed for the Plymouth Home Expo and that she would send another email requesting volunteers. She also reported that the agreement with Rock Hill Management was signed by all parties but she wasn't aware if the property was yet purchased by the developer and when development plans would be resubmitted for review.

B. Chair

No report.

C. Commissioners

No report.

D. TAC Members

No report.

E. Committees

Administrator Jester noted the upcoming Budget Committee Meeting on March 27th.

F. Legal Counsel

No report.

G. Engineer

No report.

7. **INFORMATION ONLY (**Available at **http://www.bassettcreekwmo.org/document/meeting-materials-minu/meeting-materials/thursday-march-16-2017**)

A. CIP Project Updates: Now Available Online http://www.bassettcreekwmo.org/projects
B. Grant Tracking Summary and Spreadsheet
C. World Water Day Event, Harrison Neighborhood March 22
D. WCA Notice of Application and Delineation Report, Golden Valley
E. WCA Notice of Application, Plymouth Creek Restoration Project

8. ADJOURNMENT – Chair de Lambert adjourned the meeting at 11:05 a.m.

_____ _____

Signature/Title Date Signature/Title Date

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report
Fiscal Year: February 1, 2017 through January 31, 2018
MEETING DATE: April 20, 2017

Item 4B.
BCWMC 4-20-17

(UNAUDITED)

BEGINNING BALANCE	**8-Mar-17**				**805,484.90**
ADD:					
General Fund Revenue:					
Interest less Bank Fees			(0.41)		
Assessments:					
Medicine Lake			3,561.00		
St Louis Park			19,463.00		
Met Council - Blue Line LRT			6,933.59		
Permits:					
Henn County		BCWMC 2016-32	1,100.00		
Centerpoint Energy		BCWMC 2017-03	1,700.00		
Loucks		BCWMC 2017-05	2,200.00		
CEI Engineering		BCWMC 2017-06	1,700.00		
Dakota Growers Pasta		BCWMC 2017-04	2,200.00		
Market 212 LLC		BCWMC 2017-07	1,700.00		
Merjent Inc		BCWMC 2017-08	1,100.00		
Reimbursed Construction Costs			53,337.50		
		Total Revenue and Transfers In			**94,994.68**
DEDUCT:					
Checks:					
2950	Barr Engineering	March Engineering	51,348.18		
2951	Kennedy & Graven	Feb Legal	3,064.60		
2952	Keystone Waters LLC	Mar Admin/Mtg Material	7,086.47		
2953	Lawn Chair Gardener	Newsletter/Social Media	562.47		
2954	Tripple D Expresso	Apr Meeting	103.98		
2955	Wenck Associates	Outlet Monitor/Lake Mor	2,483.41		
2956	City of Crystal	Channel Maintenance	6,675.00		
2957	City of New Hope	Northwood Lake	29,240.00		
2958	Hamline University	2017 Membership	3,500.00		
2959	MMKR	Audit-Progress Billing	1,600.00		
2960	Void	Void			
2961	Robert White	Registration-AIS Detector	175.00		
2962	Talbott Promotions	Pet Waste Disposal Bags	282.29		
		Total Checks/Deductions			**106,121.40**
ENDING BALANCE	**12-Apr-17**				**794,358.18**

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report **(UNAUDITED)**
Fiscal Year: February 1, 2017 through January 31, 2018
MEETING DATE: April 20, 2017

	2017 / 2018 BUDGET	CURRENT MONTH	YTD 2017 / 2018	BALANCE
OTHER GENERAL FUND REVENUE				
ASSESSEMENTS TO CITIES	500,000	23,024.00	500,001.00	(1.00)
PROJECT REVIEW FEES	60,000	11,700.00	15,600.00	44,400.00
WOMP REIMBURSEMENT	5,000	0.00	4,500.00	500.00
MET COUNCIL REIMBURSEMENTS-LRT PROJECTS	7,000	6,933.59	6,933.59	66.41
MET COUNCIL - METRO BLOOMS	0	0.00	17,272.51	(17,272.51)
TRANSFERS FROM LONG TERM FUND & CIP	38,072	0.00	0.00	38,072.00
REVENUE TOTAL	**610,072**	**41,657.59**	**544,307.10**	**65,764.90**
EXPENDITURES				
ENGINEERING & MONITORING				
TECHNICAL SERVICES	125,000	18,301.50	25,683.00	99,317.00
DEV/PROJECT REVIEWS	65,000	9,520.80	18,945.18	46,054.82
NON-FEE/PRELIM REVIEWS	15,000	1,334.89	3,284.94	11,715.06
COMMISSION AND TAC MEETINGS	14,000	1,564.00	3,106.00	10,894.00
SURVEYS & STUDIES	20,000	0.00	0.00	20,000.00
WATER QUALITY/MONITORING	74,300	2,823.21	12,086.58	62,213.42
WATER QUANTITY	11,500	844.72	1,303.08	10,196.92
WATERSHED INSPECTIONS -EROSION CONTROL	1,000	0.00	0.00	1,000.00
ANNUAL FLOOD CONTROL INSPECTIONS	12,000	0.00	0.00	12,000.00
REVIEW MUNICIPAL PLANS	8,000	0.00	0.00	8,000.00
WOMP	15,500	1,632.47	2,116.80	13,383.20
XP-SWMM MODEL UPDATES/REVIEWS	10,000	0.00	0.00	10,000.00
APM / AIS WORK	35,000	0.00	0.00	35,000.00
ENGINEERING & MONITORING TOTAL	**406,300**	**36,021.59**	**66,525.58**	**339,774.42**
ADMINISTRATION				
ADMINISTRATOR	67,200	6,877.50	12,520.00	54,680.00
LEGAL COSTS	18,500	3,064.60	3,064.60	15,435.40
AUDIT, INSURANCE & BONDING	15,500	1,600.00	3,100.00	12,400.00
FINANCIAL MANAGEMENT	3,200	0.00	40.76	3,159.24
MEETING EXPENSES	2,000	103.98	311.94	1,688.06
ADMINISTRATIVE SERVICES	18,000	771.44	1,439.71	16,560.29
ADMINISTRATION TOTAL	**124,400**	**12,417.52**	**20,477.01**	**103,922.99**
OUTREACH & EDUCATION				
PUBLICATIONS/ANNUAL REPORT	2,500	0.00	0.00	2,500.00
WEBSITE	4,400	0.00	0.00	4,400.00
PUBLIC COMMUNICATIONS	2,500	0.00	0.00	2,500.00
EDUCATION AND PUBLIC OUTREACH	20,000	457.29	10,207.29	9,792.71
WATERSHED EDUCATION PARTNERSHIPS	15,500	3,500.00	3,500.00	12,000.00
OUTREACH & EDUCATION TOTAL	**44,900**	**3,957.29**	**13,707.29**	**31,192.71**
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	20,000	387.50	387.50	19,612.50
TMDL WORK TOTAL	**20,000**	**387.50**	**387.50**	**19,612.50**
TOTAL EXPENSES	**645,600**	**52,783.90**	**101,097.38**	**544,502.62**

BCWMC Construction Account
Fiscal Year: February 1, 2017 through January 31, 2018 **(UNAUDITED)**
April 2017 Financial Report

Cash Balance 03/08/2017				
Cash		1,382,618.24		
	Total Cash		1,382,618.24	
Ally Bk Midvale Utah C/D (9/25/2017 1.25%)		248,000.00		
Capital One Bk-McLean VA C/D (9/25/2017 1.15%)		248,000.00		
Capital One Bk-Glen Allen VA C/D (9/25/2017 1.15%)		248,000.00		
Key Bk Natl Assn Ohio C/D (10/02/2017 1.15%)		248,000.00		
	Total Investments		992,000.00	
	Total Cash & Investments			2,374,618.24
Add:				
Interest Revenue (Bank Charges)		(1.29)		
Ally Bk Midvale Utah C/D -Interest		1,537.26		
Capital One Bk-McLean VA -Interest		1,414.28		
Capital One Bk-Glen Allen VA -Interest		1,414.28		
Key Bk Natl Assn Ohio -Interest		1,414.28		
	Total Revenue			5,778.81
Less:				
CIP Projects Levied - Current Expenses - TABLE A		(1,441.50)		
Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B		(12,226.00)		
	Total Current Expenses			(13,667.50)
	Total Cash & Investments On Hand	**04/12/17**		**2,366,729.55**
Total Cash & Investments On Hand		2,366,729.55		
CIP Projects Levied - Budget Remaining - **TABLE A**		(4,494,990.84)		
Closed Projects Remaining Balance		**(2,128,261.29)**		
2012 - 2016 Anticipated Tax Levy Revenue - **TABLE C**		9,476.76		
2017 Anticipated Tax Levy Revenue - TABLE C		1,303,600.00		
Anticipated Closed Project Balance		**(815,184.53)**		
Proposed & Future CIP Project Amount to be Levied - **TABLE B**		0.00		

TABLE A - CIP PROJECTS LEVIED

			Approved Budget	Current Expenses	2017 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	95.00	1,553.00	143,404.84	846,595.16	
2014								
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)			612,000	928.50	1,083.50	304,346.95	307,653.05	
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	946,447.15	556,552.85	
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	156.00	286.00	1,438,559.98	(4,819.98)	470,000.00
2017								
Main Stem Cedar Lk Rd-Dupont (2017CR-M)	2017 Levy	580,930	863,573	145.00	196.00	114,757.79	748,815.21	
	2018 Levy	282,643						
Plymouth Creek Restoration (CR-P)	2017 Levy	400,000	1,064,472	117.00	669.00	66,273.13	998,198.87	
	2018 Levy	664,472						
			7,886,715	1,441.50	3,787.50	3,391,724.16	4,494,990.84	

TABLE B - PROPOSED & FUTURE CIP PROJECTS TO BE LEVIED

	Approved Budget - To Be Levied	Current Expenses	2017 YTD Expenses	**INCEPTION** To Date Expenses	Remaining Budget
2018					
Bassett Creek Park & Winnetka Ponds Dredging (BCP-2)		12,226.00	17,074.27	48,393.32	(48,393.32)
2018 Project Totals	0	12,226.00	17,074.27	48,393.32	(48,393.32)
2019					
Bryn Mawr Meadows (BC-5)	0	0.00	0.00	5,282.80	(5,282.80)
2019 Project Totals	0	0.00	0.00	5,282.80	(5,282.80)
Total Proposed & Future CIP Projects to be Levied	0	12,226.00	17,074.27	53,676.12	(53,676.12)

BCWMC Construction Account
Fiscal Year: February 1, 2017 through January 31, 2018 **(UNAUDITED)**
April 2017 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
2017 Tax Levy	1,303,600.00		1,303,600.00	0.00			1,303,600.00	1,303,600.00
2016 Tax Levy	1,222,000.00	(6,075.91)	1,215,924.09	0.00		1,210,956.46	4,967.63	1,222,000.00
2015 Tax Levy	1,000,000.00	1,935.37	1,001,935.37	0.00		1,000,037.76	1,897.61	1,000,000.00
2014 Tax Levy	895,000.00	(7,436.49)	887,563.51	0.00		886,182.01	1,381.50	895,000.00
2013 Tax Levy	986,000.00	(10,440.29)	975,559.71	0.00		974,717.80	841.91	986,000.00
2012 Tax Levy	762,010.00	(7,488.24)	754,521.76	0.00		754,133.65	388.11	762,010.00
				0.00			**1,313,076.76**	

OTHER PROJECTS:

	Approved Budget	**Current Expenses / (Revenue)**	**2017 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	673,373.00	3,755.00	5,640.50	311,470.91	
Less: State of MN - DNR Grants				(83,700.00)	
	673,373.00	3,755.00	5,640.50	227,770.91	445,602.09
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	350,000.00	35,915.00	35,915.00	157,157.95	192,842.05
Total Other Projects	1,658,373.00	39,670.00	41,555.50	492,694.01	1,165,678.99

Cash Balance 03/08/2017		**1,102,847.94**
Add:		
Transfer from GF		0.00
Less:		
Current (Expenses)/Revenue		(39,670.00)
Ending Cash Balance	**04/12/17**	**1,063,177.94**
Additional Capital Needed		(102,501)

Bassett Creek Construction Project Details 4/12/2017

CIP Projects Levied

	Total CIP Projects Levied	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	2017 Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)
Original Budget	**7,275,115**	**196,000**	**990,000**	**612,000**	**250,000**	**163,000**	**1,503,000**	**810,930**	**822,140**	**863,573**	**1,064,472**
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		
Feb 2015-Jan 2016	**313,510.98**		25,866.35			432.00	93,862.65	6,442.53	94,823.44	42,671.88	49,412.13
Feb 2016-Jan 2017	**2,804,454.00**		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
Feb 2017-Jan 2018	**3,787.50**		1,553.00	1,083.50					286.00	196.00	669.00
Total Expenditures:	**3,391,724.16**	**11,589.50**	**143,404.84**	**304,346.95**	**250,000.00**	**91,037.82**	**946,447.15**	**25,307.00**	**1,438,559.98**	**114,757.79**	**66,273.13**
Project Balance	**4,494,990.84**	**184,410.50**	**846,595.16**	**307,653.05**		**71,962.18**	**556,552.85**	**785,623.00**	**(4,819.98)**	**748,815.21**	**998,198.87**

	Total CIP Projects Levied	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	2017 Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)
Project Totals By Vendor											
Barr Engineering	**380,981.23**	6,338.95	44,573.54	76,335.00	13,089.74	15,712.00	15,825.00	13,157.98	17,836.00	111,939.39	66,173.63
Kennedy & Graven	**11,902.00**	1,200.55	2,471.95	993.40	1,038.35	1,058.65	2,223.75	796.00	1,701.45	318.40	99.50
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	**75,759.35**		75,759.35								
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	**83,378.02**	4,050.00	20,600.00	13,350.00	5,470.00	3,555.00	25,000.00	11,353.02			
Transfer to General Fun											
Total Expenditures	**3,385,969.18**	**11,589.50**	**143,404.84**	**304,346.95**	**250,000.00**	**91,037.82**	**946,447.15**	**25,307.00**	**1,432,805.00**	**114,757.79**	**66,273.13**

	Total CIP Projects Levied	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	2017 Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)
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											
Construction Fund Balance	**703,000**	34,000	166,000				503,000				
BWSR Grant- BCWMO	**470,000**								470,000		
DNR Grants-LT Maint											
Total Levy/Grants	**6,579,600**	196,000	990,000	534,000	218,800	142,200	1,503,000	810,930	1,203,740	580,930	400,000
BWSR Grants Received									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)				Other Projects					
	Total Proposed & Future CIP Projects (to be Levied)	2018 Bassett Cr Pk & Winnetka Ponds Dredging (2018 BCP-2)	2019 Bryn Mawr Meadows		Total Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long-Term Maint	Channel Maint	Totals - All Projects
Original Budget					**1,278,373.00**	**105,000.00**	**500,000.00**	**748,373.00**	**175,000.00**	**8,553,488.00**
Added to Budget					**(250,000.00)**			(250,000.00)		**361,600.00**
				DNR Grant	**83,700.00**			83,700.00		83,700.00
				From GF	**380,000.00**	30,000.00		175,000.00	175,000.00	380,000.00
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	**31,319.05**	31,319.05			**152,070.74**			152,070.74		2,987,843.79
Feb 2017-Jan 2018	**17,074.27**	17,074.27			**41,539.50**			5,624.50	35,915.00	62,401.27
Total Expenditures:	**53,676.12**	**48,393.32**	**5,282.80**		**576,394.01**	**107,765.15**		**311,470.91**	**157,157.95**	**4,021,794.29**
Project Balance	**(53,676.12)**	**(48,393.32)**	**(5,282.80)**		**1,165,678.99**	**27,234.85**	**500,000.00**	**445,602.09**	**192,842.05**	**5,606,993.71**

	Total Proposed & Future CIP Projects (to be Levied)	2018 Bassett Cr Pk & Winnetka Ponds Dredging (2018 BCP-2)	2019 Bryn Mawr Meadows	Total Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long-Term Maint	Channel Maint	Totals - All Projects
Project Totals By Vendor									
Barr Engineering	**53,676.12**	48,393.32	5,282.80	**378,668.00**	104,888.70		273,779.30		813,325.35
Kennedy & Graven				**2,648.25**	1,164.30		1,099.35	384.60	14,550.25
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				**26,747.50**				26,747.50	102,506.85
City of New Hope									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									83,378.02
Transfer to General Fun				**32,600.00**			32,600.00		32,600.00
Total Expenditures	**53,676.12**	**48,393.32**	**5,282.80**	**540,479.01**	**107,765.15**		**311,470.91**	**121,242.95**	**3,980,124.31**

	Total Proposed & Future CIP Projects (to be Levied)	2018 Bassett Cr Pk & Winnetka Ponds Dredging (2018 BCP-2)	2019 Bryn Mawr Meadows		Total Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long-Term Maint	Channel Maint	Totals - All Projects
Levy/Grant Details										
2010 -2014 Levies				2010-2013		30,000		100,000	100,000	1,881,000
2014/2015 Levy				2014/2015	**50,000.00**			25,000	25,000	1,050,000
2015-2016 Levy				2015/2016						
2016-2017 Levy				2016/2017						
2017-2018 Levy				2017/2018						
Construction Fund Balance				2015/2016	**50,000.00**			25,000	25,000	753,000
BWSR Grant- BCWMO				2016/2017	**50,000.00**			25,000	25,000	520,000
DNR Grants-LT Maint				DNR Grant	**83,700.00**			83,700		
Total Levy/Grants					**463,700.00**	30,000		258,700	175,000	4,204,000

LEAGUE OF MINNESOTA CITIES

Item 4D.
BCWMC 4-20-17

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_____

145 UNIVERSITY AVE. WEST
ST. PAUL, MN 55103-2044

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CERTIFIED PUBLIC ACCOUNTANTS

Item 4E.
BCWMC 4-20-17
Full document online

PRINCIPALS
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Paul A. Radosevich, CPA
William J. Lauer, CPA
James H. Eichten, CPA
Aaron J. Nielsen, CPA
Victoria L. Holinka, CPA/CMA

April 10, 2017

Board of Commissioners and Management
Bassett Creek Watershed Management Commission

The following is a summary of our audit work, key conclusions, and other information that we consider important or that is required to be communicated to the Board of Commissioners, administration, or those charged with governance of the Bassett Creek Watershed Management Commission (the Commission).

OUR RESPONSIBILITY UNDER AUDITING STANDARDS GENERALLY ACCEPTED IN THE UNITED STATES OF AMERICA AND *GOVERNMENT AUDITING STANDARDS*

We have audited the financial statements of the governmental activities and each major fund of the Commission as of and for the year ended January 31, 2017, and the related notes to the financial statements. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information to you verbally and in our audit engagement letter. Professional standards also require that we communicate to you the following information related to our audit.

PLANNED SCOPE AND TIMING OF THE AUDIT

We performed the audit according to the planned scope and timing previously discussed and coordinated in order to obtain sufficient audit evidence and complete an effective audit.

AUDIT OPINION AND FINDINGS

Based on our audit of the Commission's financial statements for the year ended January 31, 2017:

- We have issued an unmodified opinion on the Commission's financial statements. The Commission has elected not to present management's discussion and analysis, which accounting principles generally accepted in the United States of America have determined necessary to supplement, although not required to be a part of, the basic financial statements. Our opinion on the Commission's basic financial statements is not affected by this missing information.

- We reported no deficiencies in the Commission's internal control over financial reporting that we considered to be material weaknesses.

- The results of our testing disclosed no instances of noncompliance required to be reported under *Government Auditing Standards.*

- We reported no findings based on our testing of the Commission's compliance with Minnesota laws and regulations.

SIGNIFICANT ACCOUNTING POLICIES

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Commission are described in Note 1 of the notes to basic financial statements. No new accounting policies were adopted, and the application of existing policies was not changed during the year.

We noted no transactions entered into by the Commission during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

ACCOUNTING ESTIMATES AND MANAGEMENT JUDGMENTS

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

We evaluated the key factors and assumptions used to develop these accounting estimates in determining that they are reasonable in relation to the basic financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

CORRECTED AND UNCORRECTED MISSTATEMENTS

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. Where applicable, management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management, when applicable, were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

DIFFICULTIES ENCOUNTERED IN PERFORMING THE AUDIT

We encountered no significant difficulties in dealing with management in performing and completing our audit.

DISAGREEMENTS WITH MANAGEMENT

For purposes of this report, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

MANAGEMENT REPRESENTATIONS

We have requested certain representations from management that are included in the management representation letter dated April 10, 2017.

MANAGEMENT CONSULTATIONS WITH OTHER INDEPENDENT ACCOUNTANTS

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Commission's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no consultations with other accountants.

OTHER AUDIT FINDINGS OR ISSUES

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Commission's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

OTHER MATTERS

We were not engaged to report on the introductory section, which accompanies the financial statements but is not required supplementary information. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

CLOSING

We would be pleased to further discuss any of the information contained in this report or any other concerns that you would like us to address. We would also like to express our thanks for the courtesy and assistance extended to us during the course of our audit.

The purpose of this report is solely to provide those charged with governance of the Commission, management, and those who have responsibility for oversight of the financial reporting process required communications related to our audit process. Accordingly, this report is not suitable for any other purpose.

Malloy, Montague, Karnowski, Radosevich & Co., P.A.

Minneapolis, Minnesota
April 10, 2017

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

Financial Statements and
Supplemental Information

Year Ended
January 31, 2017

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Table of Contents

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Statement of Net Position
as of January 31, 2017
(With Partial Comparative Information as of January 31, 2016)

	Governmental Activities	
	2017	2016
Assets		
Cash and temporary investments	$ 4,267,929	$ 5,454,328
Interest receivable	4,088	4,088
Delinquent taxes receivable	9,414	9,658
Due from other governments	426,702	108,750
Prepaids	1,810	1,326
Total assets	$ 4,709,943	$ 5,578,150
Liabilities		
Accounts payable	$ 448,201	$ 207,264
Unearned revenue	224,247	269,370
Total liabilities	672,448	476,634
Net position		
Restricted for watershed improvements	3,686,556	4,746,010
Unrestricted	350,939	355,506
Total net position	4,037,495	5,101,516
Total liabilities and net position	$ 4,709,943	$ 5,578,150

See notes to basic financial statements

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Statement of Activities
Year Ended January 31, 2017
(With Partial Comparative Information for the Year Ended January 31, 2016)

	Governmental Activities	
	2017	2016
Expenses		
Watershed management		
Administration	$ 559,831	$ 556,970
Improvement projects	2,980,686	1,119,889
Total expenses	3,540,517	1,676,859
Program revenues		
Watershed management		
Charges for services – member assessments	490,344	490,342
Charges for services – permit fees	55,900	55,700
Capital grants and contributions	664,973	188,750
Total program revenues	1,211,217	734,792
Net program revenue (expense)	(2,329,300)	(942,067)
General revenues		
Property taxes	1,209,273	1,006,799
Unrestricted state aids	2	2
Investment earnings	14,328	10,133
Other	41,676	6,219
Total general revenues	1,265,279	1,023,153
Change in net position	(1,064,021)	81,086
Net position		
Beginning of year	5,101,516	5,020,430
End of year	$ 4,037,495	$ 5,101,516

See notes to basic financial statements

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Balance Sheet
Governmental Funds
as of January 31, 2017
(With Partial Comparative Information as of January 31, 2016)

	General Fund	Improvement Capital Projects Fund	Total Governmental Funds 2017	Total Governmental Funds 2016
Assets				
Cash and temporary investments	$ 642,045	$ 3,625,884	$ 4,267,929	$ 5,454,328
Interest receivable	–	4,088	4,088	4,088
Delinquent taxes receivable	–	9,414	9,414	9,658
Due from other governments	4,500	422,202	426,702	108,750
Prepaids	1,810	–	1,810	1,326
Total assets	$ 648,355	$ 4,061,588	$ 4,709,943	$ 5,578,150
Liabilities				
Accounts payable	$ 73,169	$ 375,032	$ 448,201	$ 207,264
Unearned revenue	224,247	–	224,247	269,370
Total liabilities	297,416	375,032	672,448	476,634
Deferred inflows of resources				
Unavailable revenue – property taxes	–	9,414	9,414	9,658
Fund balances				
Nonspendable for prepaids	1,810	–	1,810	1,326
Restricted for watershed improvements	–	3,677,142	3,677,142	4,736,352
Unassigned	349,129	–	349,129	354,180
Total fund balances	350,939	3,677,142	4,028,081	5,091,858
Total liabilities, deferred inflows of resources, and fund balances	$ 648,355	$ 4,061,588		

Amounts reported for governmental activities in the Statement of Net Position are different because:

Certain revenues (including delinquent taxes) are included in net position, but are excluded from fund balances until they are available to liquidate liabilities of the current period.	9,414	9,658
Net position of governmental activities	$ 4,037,495	$ 5,101,516

See notes to basic financial statements

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Statement of Revenue, Expenditures, and Changes in Fund Balances
Governmental Funds
Year Ended January 31, 2017
(With Partial Comparative Information for the Year Ended January 31, 2016)

	General Fund	Improvement Capital Projects Fund	Total Governmental Funds 2017	Total Governmental Funds 2016
Revenue				
Member contributions	$ 490,344	$ –	$ 490,344	$ 490,342
Permit fees	55,900	–	55,900	55,700
Property taxes	–	1,209,517	1,209,517	1,001,745
Intergovernmental	9,000	655,975	664,975	188,752
Investment earnings	69	14,259	14,328	10,133
Miscellaneous	41,676	–	41,676	6,219
Total revenue	596,989	1,879,751	2,476,740	1,752,891
Expenditures				
Current				
Engineering	377,079	–	377,079	380,732
Legal	15,470	–	15,470	12,969
Professional services	14,122	–	14,122	13,012
Administrative services	70,616	–	70,616	89,238
Public relations and outreach	21,810	–	21,810	31,290
Financial management	3,278	–	3,278	3,200
Education	52,375	–	52,375	23,530
Miscellaneous	3,964	1,117	5,081	2,999
Capital outlay				
Improvement projects	18,950	2,961,736	2,980,686	1,119,889
Total expenditures	577,664	2,962,853	3,540,517	1,676,859
Excess (deficiency) of revenue over expenditures	19,325	(1,083,102)	(1,063,777)	76,032
Other financing sources (uses)				
Transfers in	26,108	50,000	76,108	81,600
Transfers (out)	(50,000)	(26,108)	(76,108)	(81,600)
Total other financing sources (uses)	(23,892)	23,892	–	–
Net change in fund balances	(4,567)	(1,059,210)	(1,063,777)	76,032
Fund balances				
Beginning of year	355,506	4,736,352		
End of year	$ 350,939	$ 3,677,142		
Amounts reported for governmental activities in the Statement of Activities are different because:				
Certain revenues (including delinquent taxes) are included in net position, but are excluded from fund balances until they are available to liquidate liabilities of the current period.			(244)	5,054
Change in net position of governmental activities			$ (1,064,021)	$ 81,086

See notes to basic financial statements

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

Statement of Revenue, Expenditures, and Changes in Fund Balances
Budget and Actual
General Fund
Year Ended January 31, 2017

	Original and Final Budget	Actual	Over (Under) Budget
Revenue			
Member contributions	$ 490,345	$ 490,344	$ (1)
Permit fees	60,000	55,900	(4,100)
Intergovernmental	5,000	9,000	4,000
Investment earnings	–	69	69
Miscellaneous	38,900	41,676	2,776
Total revenue	594,245	596,989	2,744
Expenditures			
Current			
Engineering	344,500	377,079	32,579
Legal	18,500	15,470	(3,030)
Professional services	15,500	14,122	(1,378)
Administrative services	87,000	70,616	(16,384)
Public relations and outreach	25,500	21,810	(3,690)
Financial management	3,200	3,278	78
Education	38,000	52,375	14,375
Miscellaneous	7,200	3,964	(3,236)
Capital outlay			
Improvement projects	20,000	18,950	(1,050)
Total expenditures	559,400	577,664	18,264
Excess (deficiency) of revenue over expenditures	34,845	19,325	(15,520)
Other financing sources (uses)			
Transfers in	27,055	26,108	(947)
Transfers (out)	(50,000)	(50,000)	–
Total other financing sources (uses)	(22,945)	(23,892)	(947)
Net change in fund balances	$ 11,900	(4,567)	$ (16,467)
Fund balances			
Beginning of year		355,506	
End of year		$ 350,939	

See notes to basic financial statements

MMKR
CERTIFIED PUBLIC ACCOUNTANTS

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Victoria L. Holinka, CPA/CMA

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Board of Commissioners and Management
Bassett Creek Watershed Management Commission

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the governmental activities and each major fund of the Bassett Creek Watershed Management Commission (the Commission) as of and for the year ended January 31, 2017, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements, and have issued our report thereon dated April 10, 2017.

INTERNAL CONTROL OVER FINANCIAL REPORTING

In planning and performing our audit of the financial statements, we considered the Commission's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. Accordingly, we do not express an opinion on the effectiveness of the Commission's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Commission's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

(continued)

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COMPLIANCE AND OTHER MATTERS

As part of obtaining reasonable assurance about whether the Commission's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

PURPOSE OF THIS REPORT

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Commission's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Commission's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

Malloy, Montague, Karnowski, Radosevich & Co., P.A.

Minneapolis, Minnesota
April 10, 2017

MMKR
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INDEPENDENT AUDITOR'S REPORT

ON MINNESOTA LEGAL COMPLIANCE

Board of Commissioners and Management
Bassett Creek Watershed Management Commission

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the basic financial statements of the governmental activities and each major fund of the Bassett Creek Watershed Management Commission (the Commission) as of and for the year ended January 31, 2017, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements, and have issued our report thereon dated April 10, 2017.

MINNESOTA LEGAL COMPLIANCE

The *Minnesota Legal Compliance Audit Guide for Cities*, promulgated by the State Auditor pursuant to Minnesota Statute § 6.65, contains seven categories of compliance to be tested: contracting and bidding, deposits and investments, conflicts of interest, public indebtedness, claims and disbursements, miscellaneous provisions, and tax increment financing. Our audit considered all of the listed categories, except that we did not test for compliance in public indebtedness and tax increment financing, because the Commission has issued no public indebtedness and does not utilize tax increment financing.

In connection with our audit, nothing came to our attention that caused us to believe that the Commission failed to comply with the provisions of the *Minnesota Legal Compliance Audit Guide for Cities*. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the Commission's noncompliance with the above referenced provisions.

PURPOSE OF THIS REPORT

The purpose of this report is solely to describe the scope of our testing of compliance and the results of that testing, and not to provide an opinion on compliance. Accordingly, this report is not suitable for any other purpose.

Malloy, Montague, Karnowski, Radosevich & Co., P.A.

Minneapolis, Minnesota
April 10, 2017

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Item 5A.
BCWMC 4-20-17
Appendices online

DRAFT

Feasibility Report for Bassett Creek Park Pond and Winnetka Pond East Dredging Project

Crystal, Minnesota

April 2017

Prepared for
Bassett Creek Watershed Management Commission

4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Phone: 952.832.2600
Fax: 952.832.2601

DRAFT

Feasibility Report for Bassett Creek Park Pond and Winnetka Pond East Dredging Project

April 2017

Contents

List of Tables

List of Figures

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Certifications

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.

Karen Chandler
PE #: 19252

Date

1.0 Executive summary

1.1 Background

The Bassett Creek Watershed Management Commission's (BCWMC) current Capital Improvement Program (CIP) (Table 5-3 in the 2015-2025 Bassett Creek Watershed Management Plan) includes project BCP-2 Bassett Creek Park Pond dredging. The BCWMC approved the 5-year (working) CIP at their March 17, 2016 meeting, and at their May 19, 2016 meeting, the BCWMC approved adding the Winnetka Pond dredging project to this feasibility study.

This study examines the feasibility of dredging accumulated sediment from Bassett Creek Park Pond and Winnetka Pond (see Figure 2-1). The project will improve water quality downstream by trapping sediment in the ponds, thus minimizing sediment passing downstream to Bassett Creek. Based on the CIP (and if ordered), the project will be implemented in 2018. Funding for the project will be through an ad valorem tax levied by Hennepin County on behalf of the BCWMC.

1.2 Site conditions

Both ponds are located in the City of Crystal along the North Branch of Bassett Creek and are Minnesota Department of Natural Resources (MDNR) public waters—Bassett Creek Park Pond is MDNR #27064600P and Winnetka Pond is MDNR #27062900P. Bassett Creek Park Pond is located west of Highway 100 and north of 29th Avenue North (see Figure 2-2). Winnetka Pond is located east of Winnetka Avenue and north of 36th Avenue North (see Figure 2-3).

Bassett Creek Park Pond is located in Bassett Creek Park, which consists of open grassy fields used for sports and recreation, wooded uplands, and various wetland communities. Bassett Creek Park is surrounded by medium density residential area. Winnetka Pond is located south of the Winnetka Village Apartments and is partially surrounded by a narrow buffer of hardwood trees, and grasses with manicured lawn further upslope. Areas surrounding Winnetka Pond consist of commercial and industrial land with medium density residential land located further beyond.

Bassett Creek Park Pond and Winnetka Pond were field delineated in October 2016 to identify the wetland extent of each pond. Wetland plant communities within each delineated pond were also identified. The delineation report is included as Appendix C. Wetlands delineated at Bassett Creek Park Pond totaled approximately 11.3 acres and were made up of five wetland communities: Shallow Open Water, Type 5; Shrub Swamp, Type 6; Shallow Marsh, Type 3; Floodplain Forest, Type 1L; and Deep Marsh, Type 4. Wetlands delineated at Winnetka Pond East totaled approximately 3.5 acres and were made up of two wetland communities: Shallow Open Water, Type 5 and Floodplain Forest, Type 1L.

1.3 Recommended project alternatives

Multiple alternatives were evaluated for removing sediment, improving water quality, and improving habitat along the North Branch of Bassett Creek within the project area. The measures considered for potential implementation include the following:

- Removing accumulated sediment to restore water quality treatment capability
- Removing native material to deepen the permanent pool of the ponds to provide additional water quality treatment or fish habitat
- Installing a native vegetative buffer to improve wildlife habitat and provide water quality treatment
- Installing a sediment forebay to isolate sediment deposition and improve ease of maintenance

The recommended alternatives are discussed in Section 8.

1.4 Project impacts and estimated costs

Potential impacts from the dredging project are discussed in Section 1.0 and include temporary impacts to wetlands, temporary trail closures (at Bassett Creek Park), tree loss, and impacts to bat habitat. Of these, the most significant consideration for the project is the need to manage trail usage to maintain pedestrian safety and park use at Bassett Creek Park during the project. Continued coordination with the Crystal Parks and Recreation Department will be required during final design to address this issue.

The proposed project will result in increased permanent pool volume and sediment storage volume in both ponds and, therefore, reduced sediment and phosphorus loading to the North Branch of Bassett Creek and all downstream water bodies, including the Mississippi River. Estimates of existing pollutant loading are presented in Section 6. P8 model results estimate the total reduction in pollutant loading as a result of deepening Bassett Creek Park Pond would be 1,792 pounds per year of total suspended sediment and 7 pounds per year of total phosphorus. For deepening Winnetka Pond East, the model estimates the pond would remove 1,271 pounds per year of total suspended sediment and 5.0 pounds per year of total phosphorus. If both projects are implemented, the estimated treatment effectiveness of Bassett Creek Park Pond is reduced to 1,217 pounds per year of total suspended sediment and 4.7 pounds per year of total phosphorus.

The feasibility-level opinion of cost for implementing the 2018 Bassett Creek Park Pond Alternative 2 (deepening) project and the Add-ons (construction of a forebay and native vegetation buffer) is $2,393,000. This cost includes an estimated $1,496,000 in construction costs, $450,000 in construction contingency, and $450,000 in design, permitting, and construction observation costs (all costs rounded to the nearest $1,000). The costs result in a 30-year annualized cost of approximately $17,040 per pound of phosphorus reduction and approximately $67 per pound of TSS reduction.

The feasibility-level opinion of cost for implementing the Winnetka Pond East Alternative 2 (deepening) project is $910,000. This cost includes an estimated $569,000 in construction costs, $171,000 in construction contingency, and $171,000 in design, permitting, and construction observation costs. The costs result in a 30-year annualized cost of approximately $10,100 per pound of phosphorus reduction and approximately $40 per pound of TSS reduction.

The cost per pound of phosphorus removed for these dredging projects using the current analysis is high compared to other BCWMC CIP projects – for example, the previous highest cost per pound of

phosphorus removed for a BCWMC CIP project was $4,800for the Northwood Lake Improvement Project (project NL-1). This high cost per pound of phosphorus removed for this project is likely due to several factors. The P8 model was developed at the watershed scale, this means that many of the watersheds are relatively large and the model may not be accurately reflecting the time it takes runoff to reach the ponds. This could be causing the model to over-predict flows and thus under-predict pollutant removals because the model is flushing more pollutants downstream and not allowing them to settle in the ponds. The P8 model does not account for pollutant load from the creek upstream of the ponds. There are sections of Bassett Creek, upstream of Bassett Creek Park Pond, which have eroded banks that are contributing sediment and pollutants to the creek. This additional pollutant load is not included in the P8 model and the ponds are likely removing some of this additional load, providing a pollutant removal benefit that is not reflected in the modeling. This creek bank erosion could contribute an additional phosphorus load estimated between 3 and 92 pounds per year to Bassett Creek upstream of Bassett Creek Park Pond depending on the severity of the erosion. This additional potential phosphorus load represents 15 percent – 450 percent of the P8 modeled phosphorus inflow to Bassett Creek Park Pond. The P8 model does not account for resuspension of the sediment accumulated in the ponds. Once sediment (and the associated pollutants) have settled in the pond, the P8 model assumes they remain trapped. Calculations to determine the velocity of water through the ponds indicate that particularly in Winnetka Pond under current conditions, the velocities are high enough to resuspend sediment particles and carry them downstream. This means that the model is over-estimating the current performance of the ponds. Constructing the projects to remove the accumulated sediment and deepen the ponds would reduce the velocities through the ponds, reducing the potential for resuspension and increasing the actual pollutant removal efficiency of the ponds.

In addition to providing pollutant removal benefits, removing accumulated sediment from Bassett Creek Park Pond and Winnetka Pond East is necessary to continue to provide flood storage in these areas along the trunk line of the North Branch of Bassett Creek. An area near the center of Winnetka Pond East just downstream of two inlets to the pond is fairly shallow due to sediment buildup. As additional sediment accumulates, the sediment will form an island near the center of the pond, thus reducing the flood storage available in the area. This could lead to additional flooding on other areas that would normally not be inundated. The sediment islands may deflect flow creating erosion along the banks and may also cause flow restrictions, resulting in additional flooding during smaller storm events. A similar situation will eventually occur at Bassett Creek Park Pond, though the island formation is not as dramatic at this time. Eventually some sediment will need to be removed to maintain flood storage capacity, regardless of the water quality benefit provided. Furthermore, when the flood control project at Bassett Creek Park Pond was designed and constructed, it assumed additional excavation volume to allow for sediment storage that would not interfere with providing the flood control designed during the project. Maintenance removal of the accumulated sediment is necessary to maintain functionality of the flood control project. The methodology and assumptions used for the cost estimates are discussed in Section 1.0, and the cost estimates for all alternatives considered for this study are provided in Table 7-1.

1.5 Recommendations

Because the modeling results do not show the expected pollutant removals from completing the projects, the BCWMC Engineer recommends completing the Winnetka Pond East deepening project first, completing further investigation on Bassett Creek Park Pond, and ordering a project at this location in the future if it is determined to be feasible. This additional analysis on Bassett Creek Park Pond would allow time for the City of Crystal to complete its parks planning process at this location, which may result in identifying other feasible options for improvements at Bassett Creek Park Pond. The P8 model could be calibrated using City of Plymouth/Three Rivers Park District information and using BCWMC information that will be collected as part of a proposed 2018 monitoring program on the North Branch of Bassett Creek. After calibrating the model, the pollutant removal efficiencies for this project could be updated to more accurately predict the pollutant removals provided by the proposed project.

Removing accumulated sediment and deepening the permanent pool at Winnetka Pond East will provide water quality improvement by 1) providing additional permanent pool storage for increased sedimentation and 2) minimizing downstream transport of sediment. We recommend that the opinions of cost identified in this study be used to develop a levy request for the selected project and that the Winnetka Pond East project proceeds to the design and construction phase.

2.0 Background and objectives

The BCWMC's 2015-2025 Watershed Management Plan (Plan, Reference (1)) addresses the need to remove accumulated sediment from ponds on the trunk system of Bassett Creek to provide increased storage and decreased downstream sediment transport. 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 CIP (Table 5 3 in the Plan) includes project BCP-2 Bassett Creek Park Pond dredging. The BCWMC approved the 5-year (working) CIP at their March 17, 2016 meeting, which included implementation of the Bassett Creek Park Pond dredging project in 2018. Although not currently listed as a separate project in the BCWMC CIP, the BCWMC approved adding the Winnetka Pond dredging project to this feasibility study at their May 19, 2016 meeting.

This feasibility study follows the protocols developed by the U.S. Army Corps of Engineers (USACE) and the BCWMC for projects within the BCWMC Resource Management Plan (RMP). Although these pond dredging projects were not included in the RMP, the USACE has allowed the RMP protocols to be applied to other projects not specifically included in the RMP.

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2.1 Project area description

The Bassett Creek Park Pond project area (Figure 2-2) is located in Bassett Creek Park between the north-south streets of Brunswick Avenue and Highway 100 and north of 29th Avenue North. The North Branch of Bassett Creek enters the pond at the northwest corner of the pond. The outlet structure from the pond is located at the southeast corner of the pond and connects to the Main Stem of Bassett Creek, which flows to the east under Highway 100. There is a heavily used pedestrian trail surrounding the pond and the park includes other amenities such as volleyball courts, baseball fields, a dog park, and a playground. Bassett Creek Park Pond is approximately 11 acres in area.

The Winnetka Pond project area (Figure 2-3) is located in the northeast quadrant of the intersection of Winnetka Avenue and 36th Avenue North. The pond is south of the Winnetka Village Apartments. The pond is bisected by the driveway to the apartment complex forming two ponds considered as Winnetka Pond West and Winnetka Pond East. The North Branch of Bassett Creek flows into the west side of Winnetka Pond West, through a culvert under the driveway to the apartment complex, into Winnetka Pond East, and through an outlet structure at the southeast corner of Winnetka Pond East where it continues downstream to Bassett Creek Park Pond. The area surrounding Winnetka Pond includes mowed turf grass and some trees. Both Winnetka Pond West and East were considered for the bathymetric survey as part of this feasibility study; however, the results of the survey and comparison to drawings from the construction of the ponds indicated that very little sediment had accumulated in Winnetka Pond West. Therefore, further investigation focused only on Winnetka Pond East. Winnetka Pond East is approximately 3 acres in area.

The BCWMC Engineer visited both project sites in August 2016 and identified areas of greatest sediment deposition, surrounding site characteristics, and site access options.

2.2 Goals and objectives

The goals and objectives of the feasibility study are to:

1. Review the feasibility of removing accumulated sediment at Bassett Creek Park Pond and Winnetka Pond and identify multiple alternatives for each site.
2. Develop conceptual designs.
3. Provide an opinion of cost for design and construction of the alternatives.
4. Identify potential project impacts and permitting requirements.

The goals and objectives of the dredging projects are to:

1. Reduce sediment loading to the North Branch of Bassett Creek and improve downstream water quality by providing additional permanent pool storage in the ponds.
2. Preserve natural beauty along the North Branch of Bassett Creek and contribute to natural habitat quality and species diversification by improving the native vegetated buffer around Bassett Creek Park Pond.
3. Maintain Bassett Creek Park Pond in accordance with the Flood Control Project Operations and Maintenance Manual (U.S. Army Corps of Engineers).
4. Improve fish habitat by deepening a portion of Bassett Creek Park Pond.

2.3 Scope

Bassett Creek Park Pond is a BCWMC-identified storage area along the North Branch of Bassett Creek. Due to the significant amount of sediment that has accumulated in the pond, the BCWMC included in its CIP a project to remove the accumulated sediment (CIP project BCP-2). As originally described in the CIP, the project was to cover the portion of the pond that was part of the 1995 BCWMC Flood Control Project. City staff recommended expanding the scope of the feasibility study to include all of Bassett Creek Park Pond. Winnetka Pond is also on the North Branch of Bassett Creek, so City staff recommended adding this location to the feasibility study to evaluate the need to perform similar work. The BCWMC approved the City's recommendations.

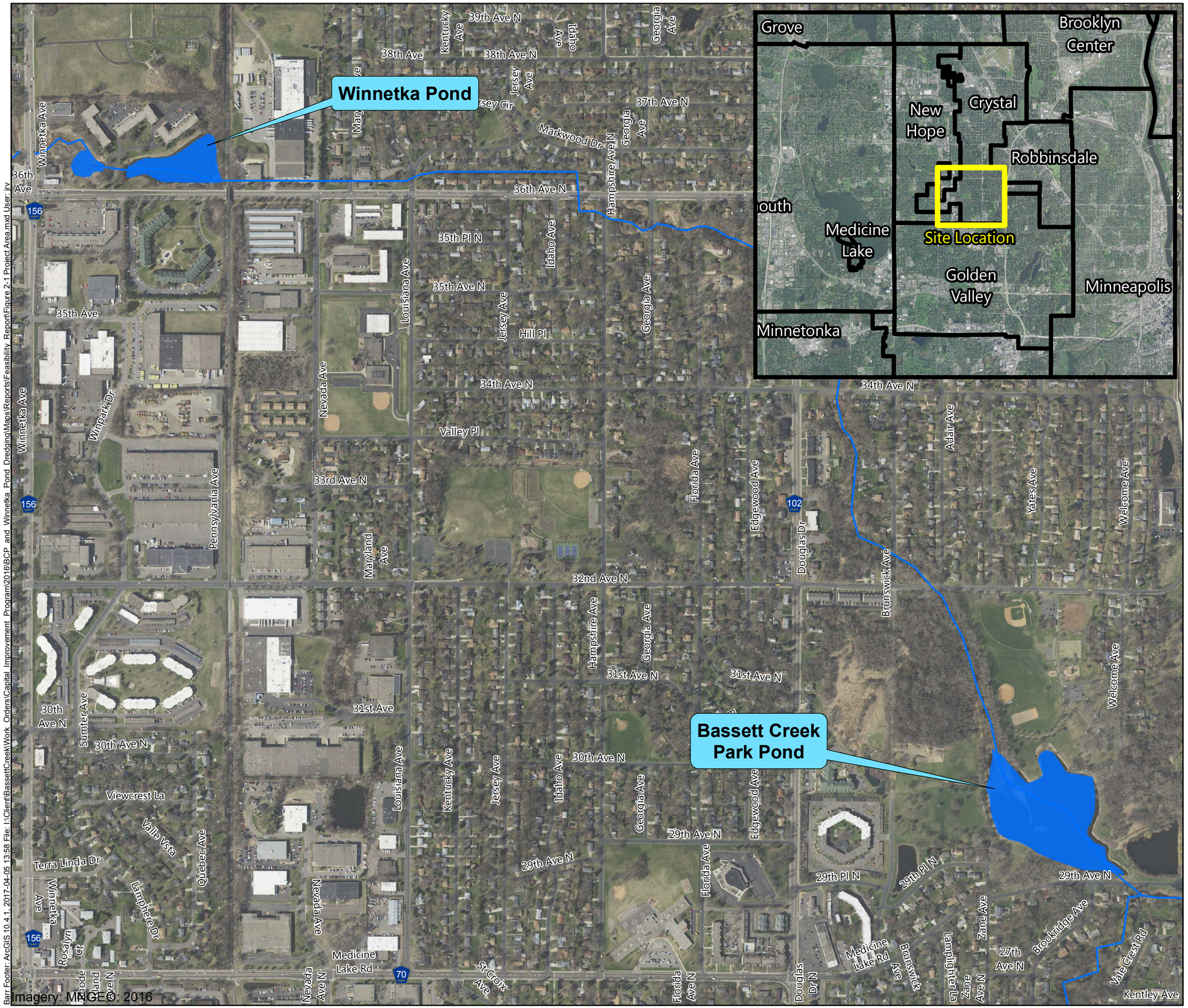
2.4 Considerations

Key considerations for project alternatives included:

1. Maximizing the amount of permanent pool storage and water quality benefit.
2. Minimizing the permitting required to construct the project.
3. Maintaining the functionality of Bassett Creek Park Pond and Winnetka Pond.
4. Minimizing wetland impacts.

5. Minimizing tree loss.

The considerations listed above played a key role in determining final recommendations and will continue to play a key role through final design.



Barr Footer: ArcGIS 10.4.1, 2017-04-05 13:58 File: i:\Client\BassettCreek\Work_Orders\Capital_Improvement_Program\2016\BCP_and_Winnetka_Pond_Dredging\Maps\Reports\Feasibility_Report\Figure 2-1 Project Area.mxd User: jrv

Imagery: MnGEO; 2016

Legend

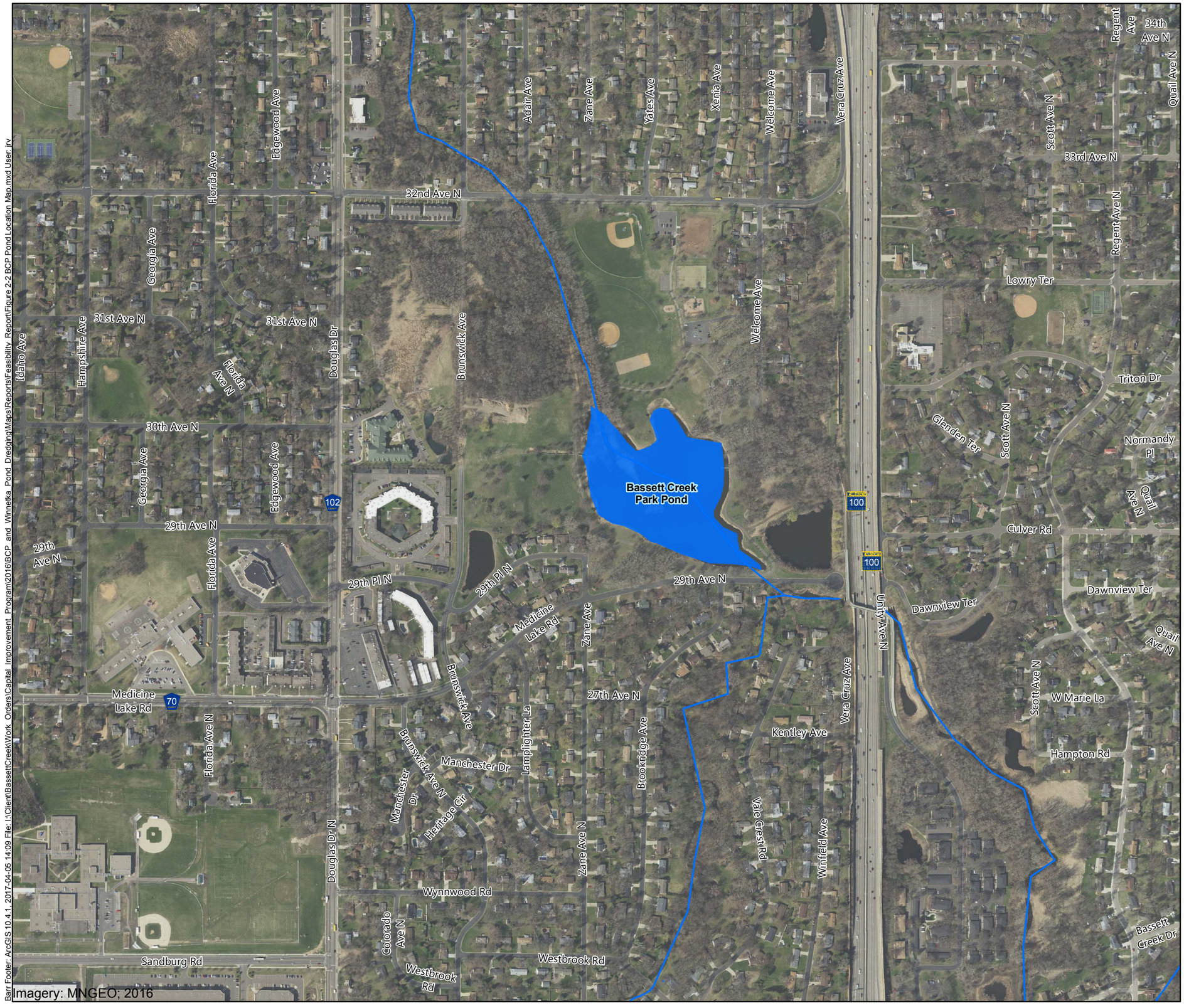
- Project Ponds
- Bassett Creek

Feet
325 0 325 650

Meters
100 0 100 200

Figure 2-1

LOCATION MAP
Bassett Creek Park Pond &
Winnetka Pond Dredging
Bassett Creek Watershed
Management Commission



Barr Footer: ArcGIS 10.4.1, 2017-04-05 14:09 File: I:\Client\BassettCreek\Work_Orders\Capital_Improvement_Program\2016\BCP_and_Winnetka_Pond_Dredging\Maps\Reports\Feasibility_Report\Figure 2-2 BCP Pond Location Map.mxd User: jry

Legend

- Project Area
- Bassett Creek

Feet
250 0 250 500

Meters
80 0 80 160

Figure 2-2

LOCATION MAP
Bassett Creek Park Pond
Bassett Creek Watershed
Management Commission

Barr Footer: ArcGIS 10.4.1, 2017-04-05 14:13 File: I:\Client\BassettCreek\Work_Orders\Capital_Improvement_Program\2016\BCP_and_Winnetka_Pond_Dredging\Maps\Reports\Feasibility_Report\Figure 2-3 Winnetka Pond Location Map.mxd User: jrv

Legend

- Project Area
- Bassett Creek

Feet
150 0 150 300

Meters
50 0 50 100

Figure 2-3

LOCATION MAP
Winnetka Pond
Bassett Creek Watershed
Management Commission

3.0 Site conditions

3.1 North Branch Bassett Creek Watershed

The watershed area tributary to Winnetka Pond East along the North Branch of Bassett Creek (downstream of Northwood Lake) is approximately 243 acres and drains portions of the cities of Crystal and New Hope. The watershed area tributary to Bassett Creek Park Pond along the North Branch of Bassett Creek (downstream of Winnetka Pond East) is approximately 847 acres and drains portions of the cities of Crystal and New Hope. The watershed is nearly fully developed; existing land use includes single-family residential, commercial/industrial, highway, parks and undeveloped land, multi-family residential, and water surface. Exact percentages for land-use type in this subwatershed have not been determined.

3.2 Proposed project location characteristics

The Bassett Creek Park Pond project area (Figure 2-2) is located in Bassett Creek Park, and the Winnetka Pond project area (Figure 2-3) is located in the northeast quadrant of the intersection of Winnetka Avenue and 36th Avenue North.

3.2.1 Available hydrologic and hydraulic models and water quality models

Hydrologic and hydraulic information and water quality information is available for Bassett Creek Park Pond and Winnetka Pond in the form of an XP-SWMM hydrologic and hydraulic model and a P8 water quality model. The BCWMC completed the XP-SWMM model in 2016 for Bassett Creek and its contributing watersheds. The BCWMC developed the P8 model in 2012 for Bassett Creek and its contributing watersheds, and updates the model annually.

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 (i.e., work is only occurring below the normal water level of the ponds). However, the XP-SWMM model information was used to determine the watershed areas to the ponds for consideration in conceptual design of sediment forebays.

This study included updating the P8 model with current site conditions for Bassett Creek Park Pond and Winnetka Pond, and used the P8 water quality model to estimate the water quality improvement expected from each proposed alternative at each pond location.

Final design efforts should include additional refinements to the P8 water quality modeling as the design components are finalized and incorporation of the constructed improvements into the P8 model after completion of the project.

3.2.2 Site access

Because the project locations are on public property (Bassett Creek Park) or within City of Crystal easements, construction access will be fairly straightforward. Relatively few obstacles or infrastructure

elements block access to the proposed work areas. Potential site access locations and staging areas are presented in the figures in Section 5.

3.2.3 Sediment sampling

The purpose of sediment sampling and characterization is to determine whether the sediment in the pond, when excavated or dredged, could potentially be reused as "Unregulated Fill" (e.g., serve as a beneficial reuse), or if other management methods such as landfill disposal would be required. The use and/or disposal of excavated or dredged material is determined based on concentrations of potential contaminants in the sediments, including metals and polycyclic aromatic hydrocarbons (PAHs). Excavated sediment and soils that do not exhibit field screening impacts and do not exceed the Minnesota Pollution Control Agency's (MPCA) Soil Reference Values (SRV) or applicable Screening Soil Leaching Values (SLVs) may be considered Unregulated Fill that is suitable for off-site reuse according to the MPCA document *Best Management Practices for the Off-Site Reuse of Unregulated Fill*. Sediment or soil excavated from stormwater ponds with constituents that exceed SRVs or applicable Screening SLVs are often disposed at a solid waste landfill, but other options involving specific land uses (e.g., non-residential) could be explored if there are suitable disposal locations elsewhere on city-owned property.

Sediment sampling was conducted in accordance with the MPCA's *Managing Stormwater Sediment, Best Management Practice Guidance June 2015* (Reference (2)). This document provides technical guidance for characterizing sediment in stormwater ponds, including the number of samples that should be collected and potential contaminants to be analyzed.

The MPCA guidance for stormwater pond sediment management lists the baseline parameters that should be analyzed to determine whether excavated sediment is contaminated or could be considered Unregulated Fill. The baseline parameters listed in the MPCA guidance are arsenic, copper, and PAHs. PAHs are organic compounds that are formed by the incomplete combustion of organic materials, such as wood, oil, and coal. They are also naturally occurring in crude oil and coal.

The analyzed PAHs are grouped into two categories: cancer-causing and non-cancer-causing. To assess the contamination level of the cancer-causing PAHs in stormwater pond sediment, the MPCA requires the calculation of a "BaP equivalents value." The BaP equivalents value is a single value representing the combined potency of 17 individual cancer-causing PAH compounds with BaP (benzo[a]pyrene) acting as the reference compound.

3.2.3.1 Bassett Creek Park Pond

The BCWMC Engineer collected four sediment samples; each sample was the composite of five coring locations, consistent with MPCA guidance recommendations for ponds 4 acres in size or larger. A plastic coring tube was used to collect sediment cores where it was possible to push the coring tube manually; a stainless steel auger was used where sediment was too firm to manually push the coring tube. Collected sediment was then composited in a clean plastic 5-gallon bucket. A GPS unit was used to record the locations of each sample, which are shown in Figure 1 in Appendix A. Sediment sample BCPP-1 is the composite of coring locations BCPP-1A, BCPP-1A, BCPP-1C, BCPP-1D, and BCPP-1E; sediment sample

BCPP-2 is the composite of coring locations BCPP-2A, BCPP-2B, etc. Samples were sent to Pace Analytical laboratory in Minneapolis for analyses of potential contaminants. In addition, a composite of all sampling locations was created (BCPP 1-4 Comp) for waste characterization sampling in the event that material is disposed in a landfill (landfills often require Toxicity Characteristic Leaching Procedure, or TCLP, testing for metals).

Results of laboratory analytical testing on the sediment samples were compared to the MPCA's current SRVs and Screening SLVs. Results of field screening for staining, sheen, or odor, were negative for all four sediment samples. Therefore, no additional analytical testing was conducted beyond the baseline parameter list for stormwater pond sediment characterization.

One of the four sediment samples collected in the pond had a BaP equivalents value exceeding the Screening SLV. Sediment sample BCPP-1 (composite of sampling locations BCPP-1A through BCPP-1E) had a BaP equivalents value of 1.7 mg/kg, exceeding the Screening SLV of 1.4 mg/kg. Results in the other three sediment samples collected from Bassett Creek Park Pond were below Minnesota's SRVs and Screening SLV. The sediment sampling results indicate that the sediment to be removed from the northwest portion of the Bassett Creek Park Pond may need to be taken to a landfill for disposal, and that the remaining sediment to be removed from the pond is suitable for off-site reuse under MPCA's Unregulated Fill Best Practice.

Screening SLVs represent conservative criteria. The BCWMC could evaluate other potential re-use sites for the sediment from the northwest portion of the pond, taking into account site-specific factors for the receiving site (e.g., property ownership, depth to groundwater, soil type, etc.). If successful, additional evaluation might reduce the transportation and disposal costs associated with landfilling the sediment.

The MPCA has proposed changes to SRVs that could impact the interpretations in this analysis. The MPCA had originally intended that the SRV changes would be implemented later this year (2017), but recent conversations with MCPA staff indicated that the timing of these potential changes may not occur in 2017. The proposed changes to the SRVs would result in the material at sample BCPP-1 exceeding the proposed SRV of 1.0 mg/kg. The status of MPCA's SRV revisions should be reassessed prior to proceeding with the sediment excavation and management.

A full summary of the sediment sampling process and results at Bassett Creek Park Pond, including figures and tables, is in Appendix A.

3.2.3.2 Winnetka Pond East

The BCWMC Engineer collected three sediment samples, consistent with MPCA guidance recommendations for ponds 2 to 3 acres in size. Sampling locations were recorded with a handheld GPS unit; locations are shown on Figure 1 in Appendix B. Aluminum coring tubes were used to collect sediment cores. The entire depth of the sediment core was homogenized in a clean stainless steel bowl before transferring portions to sample containers provided by the laboratory. Samples were sent to Pace Analytical laboratory in Minneapolis for analyses of potential contaminants.

Results of laboratory analytical testing on the sediment samples were compared to the MPCA's current SRVs and Screening SLVs. Results of field screening for staining, sheen, or odor, were negative for all three sediment samples; therefore, no additional analytical testing was conducted beyond the baseline parameter list for stormwater pond sediment characterization. Results of arsenic, copper, and PAHs in the sediment of Winnetka Pond East were below Minnesota's SRVs and Screening SLVs for all three samples collected from the pond, with the exception of the arsenic Screening SLV. Sample WPE-01 had an arsenic concentration of 6.3 mg/kg, which is slightly above the SLV of 5.8 mg/kg. However, MPCA guidance for Screening SLVs states that SLVs for metals should only be applied if there has been a significant release of metals documented. Since no significant release of metals has been documented in the pond's watershed, the observed arsenic concentration of 6.3 mg/kg in sample WPE-01 should not preclude the reuse of the material as Unregulated Fill. Overall, the sediment sampling results indicate that the sediment to be removed from Winnetka Pond East is suitable for off-site reuse under MPCA's Unregulated Fill Best Practice.

Results of sediment testing were also compared to the MPCA's proposed changes to SRVs. Results of arsenic, copper, and PAHs were below the proposed changes to SRVs for all three of the sediment samples collected from Winnetka Pond East. The MPCA had originally intended that the SRV changes would be implemented later this year (2017), but recent conversations with MPCA staff indicated that the timing of these potential changes may not occur in 2017. The status of MPCA's SRV revisions should be reassessed prior to proceeding with the sediment excavation and management.

A full summary of the sediment sampling process and results at Winnetka Pond East, including figures and tables, is in Appendix B.

3.2.4 Wetland delineation

Bassett Creek Park Pond and Winnetka Pond East were field delineated to identify the wetland extent of each pond. Wetland plant communities within each delineated pond were also identified.

The Wetland Delineation Report was prepared in accordance with the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual ("1987 Manual," USACE, 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2010) and the requirements of the Minnesota Wetland Conservation Act (WCA) of 1991. The BCWMC Engineer delineated the wetland boundaries and determined wetland types within the evaluation areas on October 11, 2016.

A full summary of the wetland delineation, including figures and field data sheets, is in Appendix C.

3.2.4.1 Bassett Creek Park Pond

The Bassett Creek Park Pond project site generally has steep topography in areas leading into the pond along the delineated edges. Topography within the basin generally has moderate undulations in areas that are not open water. Adjacent upland areas are generally flat or moderately undulating throughout most of the park area with the exception of some steep hilly areas to the west.

Bassett Creek Park Pond is an 11.3-acre wetland complex made up of five wetland communities: Shallow Open Water (Type 5), Shrub Swamp (Type 6), Shallow Marsh (Type 3), Floodplain Forest (Type 1L), and Deep Marsh (Type 4).

A Minnesota Rapid Assessment Method (MNRAM) analysis was not performed as part of this feasibility study. However, based on general observations made during the wetland delineation and general knowledge of the site, it is expected that the wetland would be considered a Manage 1 wetland.

Shallow open water community is the dominant wetland type within Bassett Creek Park Pond and totals approximately 9.3 acres. Shallow open water community is mostly located in the central and southern areas of Bassett Creek Park Pond and generally has a steep and abrupt wetland boundary.

Shrub swamp community is located on the northwest side of Bassett Creek Park Pond (0.9 acres), and in the west-central (0.3 acres) and southwest-central (0.1 acres) areas of the pond surrounded by shallow open water community. The total area of shrub swamp community located in Bassett Creek Park Pond is 1.2 acres.

Floodplain forest community is located at the northwest tip of Bassett Creek Park Pond and totals approximately 0.3 acres. There is moderately undulating topography throughout the floodplain forest community but steep and abrupt slopes leading into it from the east side. The North Branch of Bassett Creek extends south through floodplain forest community and then through shrub swamp community toward the shallow open water areas of Bassett Creek Park Pond.

Shallow marsh community fringes portions of Bassett Creek Park Pond on the northeast, and western sides. The two shallow marsh areas are approximately 0.1 acres each totaling 0.2 acres.

Deep marsh community is located within the shrub swamp community on the northwest side of Bassett Creek Park Pond and totals approximately 0.2 acres. This area was likely excavated based on the steep and abrupt slopes leading into it from the shrub swamp community and its regular oval shape.

3.2.4.2 Winnetka Pond East

The Winnetka Pond East project area generally has steep topography in areas leading into the pond along the delineated edges. Floodplain forest wetland has a more gradual topographic transition from upland to wetland and moderate undulations within it. Adjacent upland areas are generally flat in developed areas and hillier in greenspace areas.

Winnetka Pond East is a 3.5-acre wetland complex made up of two wetland communities: Shallow Open Water (Type 5) and Floodplain Forest (Type 1L).Shallow open water community is the dominant wetland type within Winnetka Pond East and totals approximately 3.2 acres. Topography is generally steep and abrupt along the wetland boundary leading into the pond.

Floodplain forest community is located along the eastern fringe of Winnetka Pond East and totals approximately 0.3 acres. Topography is mostly flat throughout the floodplain forest community but is steep and abrupt leading into it from upland areas on the east side.

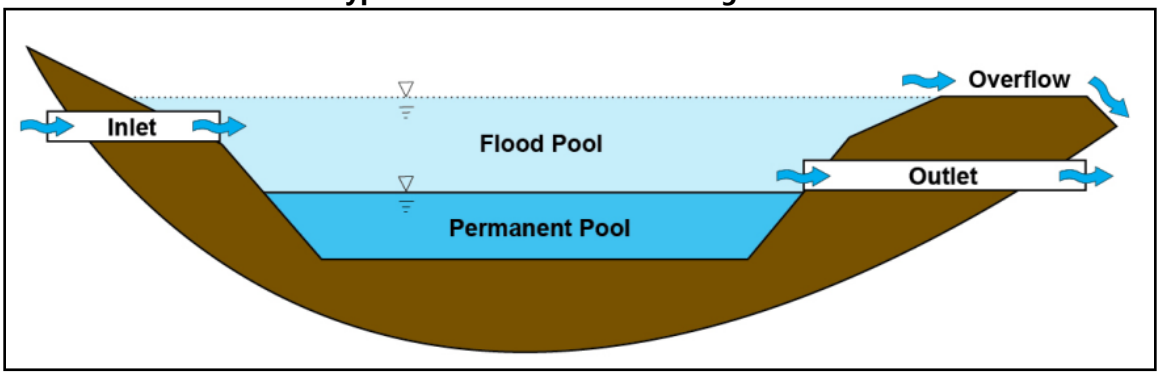
3.2.5 Bathymetric survey results

The BCWMC Engineer performed a field survey of Bassett Creek Park Pond and Winnetka Pond (West and East) in August 2016. The field survey generally included performing a bathymetric survey of the pond, surveying the current water level, collecting data for each pond inlet and outlet, and photographing each pond's inlet and outlet structures and banks. Appendix D shows the results of the bathymetric surveys. The bathymetric survey was performed by physically measuring the depth from the water surface to the pond bottom using a survey rod at various locations within the pond and recording the measurements using a Global Positioning System (GPS) data logger that tracks latitude and longitude. Sonar/radar was not used to characterize the pond bottom because vegetation and floating organic material has been found to, at times, introduce significant error in these types of shallow water surveys. The perimeter of each pond at its waters edge was also recorded using a GPS data logger and the water surface elevation was surveyed. The outlet control elevation was surveyed at each pond. Field technicians also photographed and recorded the type and size of the ponds' inlet(s) and outlet(s). Elevations recorded during the field surveys were referenced to a unique benchmark at each pond. These benchmarks were surveyed using GPS and all field elevations were recorded in mean sea level (NAVD 1988 datum). The horizontal coordinates were referenced to Hennepin County Coordinates, NAD83 (1996) datum.

GPS and elevation data from the stormwater pond surveys were imported into AutoCAD Civil3D software. The geographically-referenced survey data points, including water surface, pond bottom transects, and outlet location points were used to create elevation contours, which represent the current pond bottom conditions. These contours could then be used to calculate sedimentation volumes by making a comparison to previous survey or design data.

The figure below shows a conceptual profile of a typical stormwater pond. The permanent pool, or dead storage volume, is the volume below the pond's outlet elevation. The flood pool is the volume between the outlet elevation and the flood elevation or overflow point. Using the contours created of each pond in AutoCAD Civil 3D, AutoCAD Civil 3D volume calculation tools, and the outlet elevation data, the permanent pool volume and wetted surface area of each pond were determined.

Typical Stormwater Pond Configuration



3.2.5.1 Bassett Creek Park Pond

The BCWMC Engineer compared the bathymetric survey data from August 2016 to design contours available from the 1995 BCWMC Flood Control Project. CAD data was not available for the 1995 project. A PDF copy of the design information was georeferenced to the location using ArcMap GIS software. The design contours generally reflected the current shape of the pond; however, it appears that there were some modifications made during construction of the project which resulted in a slightly larger permanent pool area in the southeastern area of the pond. Based on the comparison, approximately 13,500 cubic yards of sediment has accumulated in Bassett Creek Park Pond with the largest areas of accumulation near the inlet at the northwest corner of the pond. Little material has accumulated in the northeastern portion of the pond; this is likely due to the inflows following the deeper channel area excavated during the 1995 BCWMC Flood Control Project.

3.2.5.2 Winnetka Pond West

The BCWMC Engineer compared the bathymetric survey data from August 2016 to design contours available from the original construction of the Winnetka Village Apartment Complex in 1968. CAD data was not available for the 1968 project. A PDF copy of the design information was georeferenced to the location using ArcMap GIS software. The design contours generally reflected the current shape of the pond. Based on the comparison, it was evident that little sediment has accumulated in Winnetka Pond West. Winnetka Pond West is heavily vegetated with cattails. Due to the minimal sediment accumulation and the effort necessary to remove the cattails, it would not be cost effective to remove the small volume of sediment from Winnetka Pond West. As a result, no additional site investigation was performed at Winnetka Pond West.

3.2.5.3 Winnetka Pond East

The BCWMC Engineer compared the bathymetric survey data from August 2016 to design contours available from the original construction of the Winnetka Village Apartment Complex in 1968. CAD data was not available for the 1968 project. A PDF copy of the design information was georeferenced to the location using ArcMap GIS software. The design contours generally reflected the current shape of the pond; however, it appears that there were some modifications made during construction of the project which resulted in a slightly smaller permanent pool area in the southwestern area of the pond where an existing hill was not removed during construction. Based on the comparison, approximately 4,100 cubic yards of sediment has accumulated in Winnetka Pond East. There is general sedimentation throughout the pond with larger sediment deltas identified at the northern and southern storm sewer inlets.

4.0 Stakeholder input

4.1 Public stakeholder meeting

A public stakeholder open house was held at the Heathers Manor in Crystal on February 16, 2017, from 5:30 pm to 7:30 p.m. Approximately 19 residents attended the open house, where preliminary design concepts were presented to the attendees. The open house was held in conjunction with a City of Crystal parks master planning open house for Bassett Creek Park. The attendees asked questions and provided some of their observations of the ponds. There were no significant concerns raised about the projects. Some attendees did indicate concern about the duration of project construction and that the public trail in Bassett Creek Park would require closure during construction. Some attendees expressed concern about the height of native vegetated buffer plants around Bassett Creek Park Pond and concerns that trees would grow in the buffer, obstructing the view of the pond. Some residents commented on the changes to Winnetka Pond over the years including degradation over time, the increasing shallowness of the pond, loss of trees and riparian plants around the banks, debris (branches, etc.) clogging the pond outlet with each rain event, and the creek downstream of the pond appearing very muddy and turbid with every rain event.

4.2 Technical stakeholder meeting

A technical stakeholder meeting was held at Crystal City Hall on January 17, 2017. Attendees included representatives from the City of Crystal, Bassett Creek Watershed Management Commission, USACE, MDNR, MPCA, and the BCWMC Engineer. The attendees reviewed the design concepts for each of the two locations and provided technical feedback and permitting input. Items discussed included:

1. Review of the project schedule and meeting objectives.
2. Review of the site investigation work completed.
3. Review and discussion of the design concepts.
4. Discussion of permit requirements.
5. Discussion of additional alternatives to consider.

The meeting provided an opportunity to review the two project sites and discuss options, considering both ideal project design and permitting limitations. The USACE, MDNR, and MPCA expressed their preference for including pre-treatment (preferably off-line treatment) that would reduce the frequency and scope of future projects in the ponds. The MDNR and USACE indicated that maintenance activities to restore Bassett Creek Park Pond to the extent of the 1995 Flood Control Project should be considered maintenance of an existing project and would require the least amount of permitting. Although there was no previous permit for the work at Winnetka Pond East (work pre-dates permitting), the USACE may consider the pond a "previously-authorized structure," which would simplify permitting. Additional specific outcomes of the discussion are incorporated into the appropriate sections below. Formal minutes from the meeting are included in Appendix E.

4.3 BCWMC stakeholder comments

A draft version of this report was provided to the BCWMC administrator, Commissioner Mueller, and City of Crystal staff. The feasibility study was revised in response to the comments received. Additional review of the technical comments is recommended during final design.

5.0 Potential improvements

This section provides a summary of the alternatives for dredging accumulated sediment and other improvements at Bassett Creek Park Pond (Section 5.1) and Winnetka Pond East (Section 5.2).

Each pond dredging location includes a baseline alternative and a second alternative for additional dredging. Bassett Creek Park Pond also includes several "add-ons." In determining the final scope of the project, either the baseline alternative or the second alternative would be selected. The add-ons are all independent and any or all of them could be added to the final project scope. Table 5-1 in the BCWMC Plan lists project costs eligible for BCWMC reimbursement and other project costs that will be considered for whole or partial reimbursement on a project-by-project basis. The BCWMC may consider some of the add-ons as "other project costs," which means those add-ons could involve contributions from the city, other stakeholders and/or MDNR to fund the work.

5.1 Analyzed alternatives at Bassett Creek Park Pond

When selecting alternatives for detailed design and construction, the BCWMC and the City of Crystal may select one of the alternatives, and any number of the add-ons, to best meet the overall project budget and goals. Furthermore, detailed design efforts may identify and include additional improvements that are not specifically included in this feasibility study. Figure 5-1 shows the location and a brief summary of each alternative and add-on.

5.1.1 Baseline alternative – remove accumulated sediment

The baseline alternative includes removal of the accumulated sediment in the main channel area of Bassett Creek Park Pond (the portion that was excavated during the 1995 Flood Control Project). This alternative would restore the permanent pool volume and water quality benefits to what was previously in place. This alternative would have the fewest permitting considerations because it would be considered a maintenance activity to restore the pond to an excavation that was already permitted by the MDNR and USACE.

5.1.2 Alternative 2 – deepen southeast section

Alternative 2 would deepen the southeastern section of the pond to a maximum ten-foot depth. This area was approximately seven feet deep following the construction of the 1995 Flood Control Project. Increasing the depth would provide additional water quality treatment volume; it would also create a deeper section of the pond to promote fish habitat and increase the potential for fish to over-winter in the pond. City of Crystal staff have been in contact with the MDNR about the possibility of a partnership where the MDNR would install a new fishing pier and provide an aerator for the pond, if this deeper section is created. This alternative would have additional permitting requirements because it would require excavating into native material in a MDNR public water wetland, which is also under jurisdiction of the USACE. Because the original depth in this area was seven feet, the additional excavation would not likely change the wetland type in that area (areas are typically not considered wetland if they are deeper

than six feet). However, there may still be permitting challenges with this alternative compared to the baseline alternative.

5.1.3 Add-on 1 – create sediment forebay in northern section of pond

A method to improve the water quality treatment and reduce on-going maintenance costs is to create a sediment forebay. A sediment forebay is a small pool, separated from the main pond by a barrier such as a berm, where initial settling of heavier particulates can occur. Construction of a sediment forebay would allow the city to perform more frequent, smaller maintenance projects to remove sediment from only the forebay area and would prevent the larger scale sedimentation that has occurred over the past 20 years.

The BCWMC Engineer reviewed the Minnesota Stormwater Manual recommendations for sizing a sediment forebay. These recommendations are based on the watershed area tributary to the pond. Based on the drainage area to Bassett Creek Park Pond downstream of Winnetka Pond, a sediment forebay with a surface area of 0.85 acres with a depth of four to six feet is recommended.

Construction of an off-line sediment forebay is preferred so that maintenance projects do not impact wetlands or the MDNR public water. At this location, the primary inflows to the pond are not storm sewer pipes; it is flow from the North Branch of Bassett Creek. The creek elevation is low compared to the elevation of the surrounding park areas. Significant excavation would be required to construct a four to six foot deep sediment forebay. Due to the location of pedestrian trails surrounding the pond, two potential areas were identified for constructing an off-line sediment forebay: the peninsula at the north side of the pond and the volleyball court area. The peninsula area is not large enough to provide the recommended footprint for the sediment forebay and construction of the forebay would likely result in steep slopes adjacent to the pedestrian trail, posing a safety concern for residents and making future maintenance difficult. The volleyball courts are heavily used and cannot be moved or removed to facilitate construction of a sediment forebay. Due to site grades and site considerations, there are no feasible areas for construction of an off-line sediment forebay.

A sediment forebay within Bassett Creek Park Pond could be achieved by constructing an earthen berm or using rock gabion baskets to create a berm. The top of the berm would be located below the normal water level and would force water to slow and pool in the forebay area before spreading over the berm and into the remainder of the pond. Because the berm would be below the normal water level, it would not be visible above the water surface. This would increase sedimentation in the forebay and would trap more of the sediment in a smaller area that could be accessed relatively easily from the banks of the pond. The main area of the pond has sufficient space to construct an appropriately sized sediment forebay. Construction of the sediment forebay would involve a small increase in depth in the northern portion of the pond, and would require access to be provided for construction. This add-on would involve additional permitting considerations because it is work not previously permitted and would impact flows within the MDNR public water.

Two versions of this add-on are represented in the cost section. The first assumes that construction of the forebay will occur with either removing all accumulated sediment from the pond or with removing accumulated sediment and deepening the southeastern section of the pond. This version includes a small

volume of additional excavation to achieve the ideal depth for a forebay and construction of a berm to separate the forebay from the pond. No additional erosion control or restoration is needed with this add-on. The second version assumes that only the forebay will be constructed. This version includes an excavation volume to achieve the ideal depth for a forebay (which includes excavation of accumulated sediment in the proposed forebay area), construction of a berm, erosion control, restoration, and mobilization.

5.1.4 Add-on 2 – create native vegetation buffer around pond

Section 4.2.6 of the BCWMC Plan outlines the BCWMC policies related to wetland buffers. The policies include a requirement that cities develop buffer requirements for new or redevelopment projects installing more than one acre of new or reconstructed impervious surface. While this project will have relatively little impervious surface impact, it does involve a public water wetland. Therefore, an add-on to the project would be to designate and improve the vegetated buffer around the wetland. The width of the wetland buffer is typically based on the wetland classification, which is determined using a Minnesota Rapid Assessment Method (MNRAM) analysis. A MNRAM analysis was not performed as part of this feasibility study. However, based on general observations made during the wetland delineation and general knowledge of the site, it is expected that the wetland would be considered a Manage 1 wetland. If this were a redevelopment project, a 50-foot wide average, 30-foot wide minimum buffer width would be required. The buffer would be designated around the entire pond and would be improved and managed to promote growth of native plants. The presence of a native vegetated buffer would filter pollutants from stormwater runoff from park areas reaching the pond, improving the water quality of the pond. It would also provide habitat for wildlife and pollinators.

5.1.5 Add-on 3 – dispose of Unregulated Fill material on-site

The City indicated that there may be potential to dispose of some of the Unregulated Fill material (material excavated from the southeastern portion of the pond) on-site. There is an area near Brunswick Avenue where the City is investigating restoring a natural hillside that had been cut to provide a road access which is no longer used. On-site disposal would reduce hauling and disposal costs significantly. A detailed analysis has not been completed regarding the amount of material that could be reused on-site and the dewatering requirements to provide fill for this area. Final design should consider this possibility and the potential risks and cost savings achieved by disposing the material on-site.

5.1.6 Add-on 4 – construct new fishing pier at deepened southeast section (City/MDNR responsibility)

The City and the MDNR have been in discussions about the MDNR providing a new fishing pier at the southeastern portion of the pond, if this portion of the pond is deepened to ten feet (Alternative 2). This would allow increased recreational use of the pond by local residents. Construction of this add-on may need to be funded entirely or in part by the city and/or MDNR, based on Table 5-1 in the BCWMC Plan. If so, construction of the fishing pier would be considered a city improvement associated with the project but not directly tied to the goals of the BCWMC (e.g. trails, pedestrian bridges, signage).

Figure 5-1

BASSETT CREEK PARK POND ALTERNATIVES

Feasibility Report for Bassett Creek Park Pond and Winnetka Pond East Dredging
Bassett Creek Watershed Management Commission

CONSTRUCTION ZONE

TEMPORARY TRAIL CLOSURE FOR CONSTRUCTION

POTENTIAL SEDIMENT DISPOSAL LOCATION

POTENTIAL FOREBAY (BCWMC)

Definition: A small pool, separated from the main pond by a barrier such as a berm, where initial settling of heavier particulates can occur.

Benefits:
- Minimize future impacts to entire pond
- Centralize area for future sediment removal
- Improve sediment removal and reduce sediment traveling downstream in creek

BASE ALTERNATIVE (BCWMC)

Benefits:
- Improve water quality treatment to reduce sediment traveling downstream in creek

ALTERNATIVE 2 (BCWMC)

Deepen Southeastern Portion of Pond to 10 Feet

*Additional Benefits: Improve fish habitat

POTENTIAL NEW FISHING PIER (CITY/DNR)

Benefits:
- Provide fishing access in the area with improved, deeper fish habitat

BASSETT CREEK PARK POND

EXISTING FISHING PIER

TEMPORARY TRAIL CLOSURE

POTENTIAL NATIVE BUFFER (BCWMC/CITY)

Benefits:
- Filter runoff (remove sediment and pollutants such as phosphorus)
- Create habitat
-Create a source of food for pollinators

LEGEND

- Base Alternative
- Alternative 2
- Forebay
- Native Buffer
- Fishing Pier
- Potentail Disposal Location
- Temporary Trail Closure
- Construction Zone

BCWMC | BASSETT CREEK PARK POND
CRYSTAL, MN

5.2 Analyzed alternatives at Winnetka Pond East

When selecting alternatives for detailed design and construction, the BCWMC and the City of Crystal may select one of the alternatives to best meet the overall project goals. Furthermore, detailed design efforts may identify and include additional improvements that are not specifically included in this feasibility study. Figure 5-2 shows the location and a brief summary of each alternative. A native wetland buffer is not recommended for Winnetka Pond East because the City of Crystal has limited property rights over the area of the pond—the pond spans two parcels, one owned by the City and one not owned by the City does not (the pond is located at an apartment complex, not in a park or larger city parcel). Therefore, the city can maintain the pond but cannot make changes outside the pond footprint.

5.2.1 Baseline alternative – remove accumulated sediment

The baseline alternative includes removal of the accumulated sediment in the entire pond. This alternative would restore the permanent pool volume and water quality benefits to what was previously in place. MDNR or USACE permits were not issued for Winnetka Pond East (project pre-dates permitting); therefore, any project at this location would require a new permitting effort. However, as noted in Section 4.2, the USACE may consider the pond a "previously-authorized structure," which would simplify permitting. Typically, removal of accumulated sediment is permitted with some documentation, such as the available original construction drawings for the site.

5.2.2 Alternative 2 – deepen entire pond

Alternative 2 would deepen the entire pond to 4.2 feet. This is the maximum possible depth that can be achieved while keeping the cost of the construction project and other associated fees within the $1,000,000 currently budgeted in the BCWMC CIP. Increasing the depth to 4.2 feet should preserve the wetland characteristics of the current site. Deepening the pond to 4.2 feet would provide additional permanent pool volume and associated water quality improvements for additional sedimentation. This alternative 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.

LEGEND

Construction Zone

Base Alternative/
Alternative 2

BASE ALTERNATIVE

Remove accumulated sediment

Benefits:
- Improve water quality
- Minimize sediment passing downstream to Bassett Creek

ALTERNATIVE 2

Deepen pond
(If modeling shows increased water quality benefit)

WINNETKA POND EAST

36TH AVE N

Figure 5-2

WINNETKA POND EAST ALTERNATIVES

Feasibility Report for Bassett Creek Park Pond and Winnetka Pond East Dredging
Bassett Creek Watershed Management Commission

BCWMC | WINNETKA POND EAST
CRYSTAL, MN

6.0 Project impacts

This section discusses the impacts of the dredging project, including the land ownership and permitting requirements and the estimated pollutant reduction resulting from each alternative.

6.1 Easement acquisition

Nearly all of the proposed work is located on City of Crystal property, or within existing easements. Temporary construction easements are not included in the opinion of cost and are not expected to have significant effect on cost along the City property. Temporary construction easements would potentially be necessary at Winnetka Pond East to facilitate access to the site, construction staging, and material dewatering.

6.2 Permits required for the project

The proposed projects will require 1) a Clean Water Act Section 404 permit from the USCAE, or Letter of Permission under a General Permit, and Section 401 certification from the Minnesota Pollution Control Agency (MPCA), 2) compliance with the Minnesota Wetland Conservation Act, 3) a Construction Stormwater General Permit from the MPCA and compliance with the MPCA's guidance for managing dredged materials and 4) a Public Waters Work Permit from the MDNR.

Section 404 Permit and Section 401 Certification

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

As discussed in Section 2.0, the BCWMC developed its Resource Management Plan (RMP) with the goal of completing a conceptual-level USACE permitting process for proposed projects. The RMP was submitted to the USACE in April 2009 and revised in July 2009. This feasibility study follows the protocols for projects within the BCWMC RMP.

Minnesota Wetland Conservation Act

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

The WCA may be applicable depending on the alternative and add-ons selected and the associated types of wetland impacts that will be a part of each project. A permit related to wetland impacts will likely be required; however the LGU will have the final determination.

The MDNR will likely determine that each project area qualifies as a public waters wetland and require permitting. Each of the proposed projects will involve excavation in a wetland and access to the site through wetland areas.

Minnesota Pollution Control Agency (MPCA) Permits

Construction of the proposed project may require a National Pollutant Discharge Elimination System/ State Disposal System Construction Stormwater (CSW) General Permit issued by the MPCA. The CSW permit requires the preparation of a stormwater pollution prevention plan that explains how stormwater will be controlled within the project area during construction. This permit will likely only be needed if material is disposed of on-site at Bassett Creek Park Pond.

MDNR Public Waters Work Permit

The MDNR regulates projects constructed below the ordinary high water level of public waters, watercourses, or wetlands, which alter the course, current, or cross section of the water body. Public waters regulated by the MDNR are identified on published public waters inventory maps. Bassett Creek Park Pond and Winnetka Pond East are public waters wetlands, so the proposed work will require a MDNR public waters work permit for each project. Typically, the MDNR public waters work permit includes a condition that "no activity affecting the bed of the protected water may be conducted between April 1 and June 1, to minimize impacts on fish spawning and migration. If work during this time is essential, it shall be done only upon written approval of the Area Fisheries Manager." Without such approval, work on these projects would need to occur outside the fish spawning and migration dates.

6.3 Other project impacts

Temporary Closure of Park Trail

Bassett Creek Park Pond is located within Bassett Creek Park and is surrounded by a trail. The likely construction access for the site would be to use the park trail to access the pond from 29th Avenue North. Because the trail is in close proximity to the pond, it will be necessary to close the trail during construction activities. Using the trail for a construction access will minimize restoration needed as part of the project. During final design, the trail section and access routes will be evaluated to determine if the trail should be reconstructed with a more robust section to support the large truck and equipment traffic necessary to construct the project. The extents of the trail closure will depend on if material disposal occurs on-site. Trail closure signs and barricades will be installed and a pedestrian detour route will be determined during final construction. Every effort will be made to minimize the duration of the trail closure.

Impacts to Bats

Preservation of bat species in Minnesota has recently become an important issue. White Nose Syndrome (WNS) has been attributed to the deaths of millions of bats in recent years across the United States, and

all four species that hibernate in Minnesota are susceptible to the disease (Reference (4)). Bats typically hibernate in sheltered areas such as caves, but some bats nest in trees during summer months. Extensive tree removals are to be avoided when bats are not hibernating to avoid inadvertently destroying nests. During final design, there should be additional consultation with the US Fish and Wildlife Service or MDNR regarding the timing of any tree removals and the potential impacts to bats.

Impacts to Bassett Creek Park

Due to the location of Bassett Creek Park Pond within the park, some areas of the park may need to be temporarily closed during construction to facilitate construction staging and/or material dewatering. During final design, the City may identify areas that need to remain functional and accessible and areas that could be used for access, staging, and dewatering.

6.4 Anticipated pollutant removal

The pollutant removals at Bassett Creek Park Pond and Winnetka Pond East for each alternative were estimated using the BCWMC P8 model. The model was first updated to reflect existing conditions, using the bathymetric survey data collected during this study. The model was then updated to reflect the additional permanent pool volume provided by each of the alternatives. Because Bassett Creek Park Pond is downstream from Winnetka Pond East, and its pollutant removal is therefore affected by changes to Winnetka Pond East, scenarios were run for completion of each individual project and for completing both projects.

6.4.1 Bassett Creek Park Pond

6.4.1.1 Remove Accumulated Sediment at Bassett Creek Park Pond – No Winnetka Pond East Improvement

The baseline alternative at Bassett Creek Park Pond involves removing accumulated sediment from the portion of the pond where the flood control project was constructed in 1996. This will restore the permanent pool volume in the pond and provide more water quality treatment volume. The permanent pool (area below the normal water level) is where water slows as it enters the pond, which allows for sediment particles to settle from the water, removing the pollutants associated with the sediment from the water conveyed downstream to the Main Stem of Bassett Creek. By providing a larger permanent pool volume, the water is stored in the pond longer which allows for increased sedimentation. Over time, as sediment accumulates in the pond, the permanent pool volume is reduced.

The MPCA Minnesota Stormwater Manual recommends a permanent pool volume of 1,800 cubic feet per acre of watershed area tributary to a pond. The direct drainage area to Bassett Creek Park Pond is approximately 137 acres. This results in a recommended permanent pool volume of 5.7 acre-feet. The permanent pool volume in Bassett Creek Park Pond after the construction of the baseline alternative would be 24.2 acre-feet. However, because Bassett Creek Park Pond is on the North Branch of Bassett Creek, there is additional watershed area tributary to the pond. The entire drainage area for the North Branch of Bassett Creek between Winnetka Pond East (the next upstream storage area) and Bassett Creek Park Pond is approximately 847 acres. This results in a recommended permanent pool volume of 35.0

acre-feet. This larger volume is more consistent with the permanent pool volume provided by constructing Alternative 2; see the discussion in Section 6.4.2 below.

Under current conditions, the P8 model estimates that Bassett Creek Park Pond removes 70,508 pounds of total suspended solids per year and 151.3 pounds of total phosphorus per year. Upon construction of the baseline alternative, the P8 model estimates that Bassett Creek Park Pond would remove 71,735 pounds of total suspended solids per year (TSS) (1.7% increase to 67.5% removal efficiency) and 156.1 pounds of total phosphorus (TP) per year (3.2% increase to 23.6% removal efficiency). Based on the MPCA Minnesota Stormwater Manual, the expected average performance for a stormwater pond is 84% TSS removal and 50% TP removal. This system is not the typical stormwater pond configuration because the inflows are not limited to stormwater runoff from a parking lot or roadway, they are inflows from the entire North Branch of Bassett Creek; therefore, the anticipated pollutant removals may not be achievable even with typical sizing guidance.

6.4.1.2 Deepen Bassett Creek Park Pond – No Winnetka Pond East Improvement

Alternative 2 at Bassett Creek Park Pond involves deepening the southeastern portion of the pond to 10 feet to provide additional permanent pool volume and create a deeper habitat area to promote fish habitat and over-wintering of fish in the pond.

The permanent pool volume in Bassett Creek Park Pond after the construction of Alternative 2 would be 29.6 acre-feet. This is an additional excavation of 5.4 acre-feet of material from the pond, when compared to the baseline alternative. This alternative is 5.4 acre-feet short of the MPCA recommended volume for the pond based on the entire contributing drainage area between Winnetka Pond East and Bassett Creek Park Pond. It would be challenging to perform additional excavation in other, shallower areas of the pond, as there could be wetland impacts if excavation were to result in depths greater than six feet. This additional impact would likely involve costly wetland mitigation and permitting for a large portion of the pond and may not be approved by the regulators. Therefore additional excavation was not pursued based on the additional costs and the incremental pollutant removal observed from the baseline alternative to Alternative 2.

Under current conditions, the P8 model estimates that Bassett Creek Park Pond removes 70,508 pounds of TSS per year and 151.3 pounds of TP per year. Upon construction of Alternative 2, the P8 model estimates that Bassett Creek Park Pond would remove 72,300 pounds of TSS per year (2.5% increase to 68.1% removal efficiency) and 158.3 pounds of TP per year (4.6% increase to 23.9% removal efficiency). Based on the MPCA Minnesota Stormwater Manual, the expected average performance for a stormwater pond is 84% TSS removal and 50% TP removal. This system is not the typical stormwater pond configuration because the inflows are not limited to stormwater runoff from a parking lot or roadway, they are inflows from the entire North Branch of Bassett Creek; therefore, the anticipated pollutant removals may not be achievable even with typical sizing guidance.

6.4.1.3 Sediment Forebay Add-on at Bassett Creek Park Pond

Construction of a forebay within Bassett Creek Park Pond will not significantly affect the pollutant removal of Bassett Creek Park Pond because it does not change the permanent pool volume of the pond.

However, construction of a forebay will provide increased pollutant removals (sedimentation) within the forebay area, which will prevent sediment from migrating downstream into the larger pond area. This will allow for smaller, more frequent, and more cost-effective maintenance projects in the future, which will improve the long-term cost of providing water quality treatment at Bassett Creek Park Pond. The primary goal of constructing a forebay would be to improve the ease of maintenance such that the City could perform smaller, more frequent maintenance projects as is required because Bassett Creek Park Pond is part of the BCWMC Flood Control Project. The expectation would be that the City would take over the smaller, frequent maintenance projects, therefore reducing the maintenance burden on the BCWMC. Because Bassett Creek Park Pond is a MDNR public water, there would likely be permitting requirements each time maintenance is performed. The BCWMC may need to assist the City with applying for the MDNR and/or USACE permit on an annual basis to facilitate the City's maintenance. The anticipated long-term benefits cannot be reasonably estimated at this time because they are based on the rate of sediment accumulation, future construction costs, and future cost of material disposal, all of which are likely largely variable and likely to increase over time.

6.4.1.4 Remove Accumulated Sediment at Bassett Creek Park Pond – With Winnetka Pond East Improvement

Because Winnetka Pond East is upstream of Bassett Creek Park Pond on the North Branch of Bassett Creek, improvements to Winnetka Pond East may have impacts on the pollutant load reaching Bassett Creek Park Pond and the pollutant removal efficiency of Bassett Creek Park Pond.

Under current conditions, the P8 model estimates that Bassett Creek Park Pond removes 70,508 pounds of TSS per year and 151.3 pounds of TP per year. Upon construction of the baseline alternative in both Winnetka Pond East and Bassett Creek Park Pond, the P8 model estimates that Bassett Creek Park Pond would remove 71,595 pounds of TSS per year (1.5% increase to 67.7% removal efficiency) and 155.5 pounds of TP per year (2.8% increase to 23.6% removal efficiency).

6.4.1.5 Deepen Bassett Creek Park Pond – With Winnetka Pond East Improvement

Because Winnetka Pond East is upstream of Bassett Creek Park Pond on the North Branch of Bassett Creek, improvements to Winnetka Pond East may have impacts on the pollutant load reaching Bassett Creek Park Pond and the pollutant removal efficiency of Bassett Creek Park Pond.

Under current conditions, the P8 model estimates that Bassett Creek Park Pond removes 70,508 pounds of TSS per year and 151.3 pounds of TP per year. Upon construction of Alternative 2 in both Winnetka Pond East and Bassett Creek Park Pond, the P8 model estimates that Bassett Creek Park Pond would remove 71,725 pounds of TSS per year (1.7% increase to 68.6% removal efficiency) and 156.0 pounds of TP per year (3.1% increase to 23.8% removal efficiency).

6.4.2 Winnetka Pond East

6.4.2.1 Remove Accumulated Sediment at Winnetka Pond East

The baseline alternative at Winnetka Pond East involves removing accumulated sediment from the entire pond to the same depth as the original construction contours. This will restore the permanent pool

volume in the pond and provide more water quality treatment volume. The permanent pool (area below the normal water level) is where water slows as it enters the pond, which allows for sediment particles to settle from the water, removing the pollutants associated with the sediment from the water conveyed downstream to the North Branch of Bassett Creek. By providing a larger permanent pool volume, the water is stored in the pond longer which allows for increased sedimentation. Over time as sediment accumulates in the pond, the permanent pool volume is reduced.

The MPCA Minnesota Stormwater Manual recommends a permanent pool volume of 1,800 cubic feet per acre of watershed area tributary to a pond. The direct drainage area to Winnetka Pond East is approximately 20 acres. This results in a recommended permanent pool volume of 0.8 acre-feet. The permanent pool volume in Winnetka Pond East after the construction of the baseline alternative would be 5.7 acre-feet. However, because Winnetka Pond East is on the North Branch of Bassett Creek, there is additional watershed area tributary to the pond. The entire drainage area for the North Branch of Bassett Creek between Northwood Lake (the next upstream storage area) and Winnetka Pond East is approximately 243 acres. This results in a recommended permanent pool volume of 10.0 acre-feet. This larger volume is more consistent with the permanent pool volume provided by constructing Alternative 2; see the discussion in Section 6.4.7 below.

Under current conditions, the P8 model estimates that Winnetka Pond East removes 19,286 pounds of TSS per year and 55.7 pounds of TP per year. Upon construction of the baseline alternative, the P8 model estimates that Winnetka Pond East would remove 19,724 pounds of TSS per year (1.0% increase to 43.6% removal efficiency) and 57.4 pounds of TP per year (0.4% increase to 13.9% removal efficiency). Based on the MPCA Minnesota Stormwater Manual, the expected average performance for a stormwater pond is 84% TSS removal and 50% TP removal. This system is not the typical stormwater pond configuration because the inflows are not limited to stormwater runoff from a parking lot or roadway, they are inflows from the entire North Branch of Bassett Creek; therefore, the anticipated pollutant removals may not be achievable even with typical sizing guidance.

6.4.2.2 Deepen Winnetka Pond East

Alternative 2 at Winnetka Pond East involves deepening the entire pond section to 4.2 feet to provide additional permanent pool volume.

The permanent pool volume in Winnetka Pond East after the construction of Alternative 2 would be 14.6 acre-feet. This is an additional excavation of 8.9 acre-feet of material from the pond, when compared to the baseline alternative. This alternative exceeds the MPCA recommended volume for the pond based on the entire contributing drainage area between Northwood Lake and Winnetka Pond East. However, the modeled pollutant removal efficiencies with the additional volume do not provide the average expected pollutant removal for a stormwater pond based on the contributing drainage area. This is likely due to other upstream storage areas and BMPs being undersized for the contributing drainage area, and the P8 model not taking this into account.

Under current conditions, the P8 model estimates that Winnetka Pond East removes 19,286 pounds of TSS per year and 55.7 pounds of TP per year. Upon construction of Alternative 2, the P8 model estimates that

Winnetka Pond East would remove 20,557 pounds of TSS per year (2.8% increase to 45.4% removal efficiency) and 60.7 pounds of TP per year (1.2% increase to 14.6% removal efficiency). Based on the MPCA Minnesota Stormwater Manual, the expected average performance for a stormwater pond is 84% TSS removal and 50% TP removal. This system is not the typical stormwater pond configuration because the inflows are not limited to stormwater runoff from a parking lot or roadway, they are inflows from the entire North Branch of Bassett Creek; therefore, the anticipated pollutant removals may not be achievable even with typical sizing guidance.

7.0 Project cost considerations

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

7.1 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. Construction easements may be necessary to construct the project; however, the cost is expected to be negligible.
4. Additional work may be required to determine if cultural and/or historical resources are present at any project site.

The total construction and 30-year cost estimates for each recommended alternative are summarized in Table 7-1. Detailed cost-estimate tables for all alternatives considered are provided in Appendix F.

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 Crystal, 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.

An opinion of cost was prepared for each considered alternative and add-on discussed in the sections above. The details of the cost estimate are presented in Table 7-1. The total capital cost for construction of removing accumulated sediment at Bassett Creek Park Pond is $1,500,000, which includes estimated construction costs of $938,000, plus $282,000 for construction contingency and $282,000 for engineering (all costs rounded to the nearest $1,000). The total capital cost for construction of deepening Bassett Creek Park Pond is $2,082,000, which includes estimated construction costs of $1,302,000, plus $391,000 for construction contingency and $391,000 for engineering. The total capital cost for construction of the forebay at Bassett Creek Park Pond is $226,000, which includes estimated construction costs of $141,000, plus $43,000 for construction contingency and $43,000 for engineering. The total capital cost for construction of the forebay at Bassett Creek Park Pond as a stand-alone project is $1,173,000, which includes estimated construction costs of $733,000, plus $220,000 for construction contingency and $220,000 for engineering. The total capital cost for construction of a native vegetation buffer at Bassett

Creek Park Pond is $85,000, which includes estimated construction costs of $53,000, plus $16,000 for construction contingency and $16,000 for engineering. Costs were not determined for reusing Level 1 material at Bassett Creek Park Pond; this add-on will reduce the construction cost of removing accumulated sediment or deepening the pond. However, a cost savings cannot be determined at this time because additional investigation outside the scope of this feasibility study is necessary, including determining the volume of material that could be reused and additional testing and engineering to determine if the excavated material is suitable for reuse and could be sufficiently dewatered onsite to be used as fill. A cost for construction of a fishing pier at Bassett Creek Park Pond was not determined because this add-on would likely be funded by the City of Crystal with cooperation from the MDNR and the possible use of grant funds.

The total capital cost for construction of removing accumulated sediment at Winnetka Pond East is $352,000, which includes estimated construction costs of $220,000, plus $66,000 for construction contingency and $66,000 for engineering. The total capital cost for construction of deepening Winnetka Pond East is $910,000, which includes estimated construction costs of $569,000, plus $171,000 for construction contingency and $171,000 for engineering.

7.1.1 Temporary easements

Most of the project is located on property owned by the City of Crystal or in areas where the City has access easements. The costs associated with temporary construction easements, if required, are typically negligible; no costs for temporary construction easements are included in this estimate.

7.1.2 Off-site sediment disposal

Most alternatives assume off-site disposal of excavated sediment. Based on the sediment sampling and investigation conducted during this study, it is assumed that sediment disposed off-site will not require additional testing. As such, these costs are not included in this estimate. If the projects are not constructed in 2018, additional testing should be considered to determine if the level of contaminants present in the material has increased such that the material would require different material management and disposal considerations.

7.1.3 Wetland mitigation

The wetland delineation for both Winnetka Pond East and Bassett Creek Park Pond identified wetlands around the perimeter of the pond and in the pond. The goal of the proposed alternatives is to minimize the amount of wetland impacts and to limit impacts to areas where the work would not change the wetland type from what is in place now or was in place following the original construction or previous work in the ponds. Therefore, it is not anticipated that the projects will require additional costs for wetland mitigation. The project alternatives were selected to minimize wetland impacts to preserve existing wetlands and minimize additional project cost.

7.1.4 30-year cost

The 30-year cost for each alternative is based on anticipated maintenance and replacement costs. For alternatives with an estimated life span less than 30 years, significant maintenance is assumed to occur at

the end of the estimated life span shown in Table 7-1. The 30-year cost for each alternative is calculated as the future worth of the initial capital cost (including contingency and engineering costs) plus the future worth of annual maintenance and significant maintenance at the end of the alternative's life span. A 3% rate of inflation is assumed. The annualized cost for each alternative is calculated as the value of 30 equal, annual payments of the same future worth as the 30-year cost.

The estimated total 30-year cost for removing accumulated sediment at Bassett Creek Park Pond is $4,263,200; the equivalent annualized cost is $89,600. The estimated total 30-year cost for deepening Bassett Creek Park Pond is $5,675,200; the equivalent annualized cost is $119,300. The estimated total 30-year cost for construction of a forebay at Bassett Creek Park Pond is $1,094,400; the equivalent annualized cost is $23,000. The estimated total 30-year cost for construction of a forebay at Bassett Creek Park Pond as a stand-alone project is $3,393,800; the equivalent annualized cost is $71,300. The estimated total 30-year cost for construction of a native vegetation buffer at Bassett Creek Park Pond is $1,021,100; the equivalent annualized cost is $21,500.

The estimated total 30-year cost for removing accumulated sediment at Winnetka Pond East is $1,049,200; the equivalent annualized cost is $22,100. The estimated total 30-year cost for deepening Winnetka Pond East is $2,401,900; the equivalent annualized cost is $50,500.

7.1.5 Annualized pollutant reduction cost

Estimated annual loading reductions for TSS and TP are included for each recommended alternative in Table 7-1. The BCWMC Engineer computed the loading reductions by modifying the BCWMC P8 model to include the proposed alternatives. The annualized pollutant-reduction cost for each alternative is the annualized 30-year cost divided by the annual load reduction.

The estimated total annualized pollutant reduction costs for removing accumulated sediment at Bassett Creek Park Pond without improvements at Winnetka Pond East are $18,670 per pound TP and $73 per pound TSS. The estimated total annualized pollutant reduction costs for deepening Bassett Creek Park Pond without improvements at Winnetka Pond East are $17,040 per pound TP and $67 per pound TSS.

The estimated total annualized pollutant reduction costs for removing accumulated sediment at Bassett Creek Park Pond with improvements at Winnetka Pond East are $21,330 per pound TP and $82 per pound TSS. The estimated total annualized pollutant reduction costs for deepening Bassett Creek Park Pond with improvements at Winnetka Pond East are $25,380 per pound TP and $98 per pound TSS.

Annualized pollutant reduction costs were not determined for the add-ons at Bassett Creek Park Pond because the add-ons will facilitate more cost-effective long term maintenance, but not provide additional pollutant removal (construction of a forebay), or will provide habitat and recreational benefit (native vegetation buffer and fishing pier), or will reduce the construction cost (disposal of material on-site).

The estimated total annualized pollutant reduction costs for removing accumulated sediment at Winnetka Pond East are $13,000 per pound TP and $50 per pound TSS. The estimated total annualized pollutant reduction costs for deepening Winnetka Pond East are $10,100 per pound TP and $40 per pound TSS.

The cost per pound of phosphorus removed for these dredging projects using the current analysis is very high compared to other BCWMC CIP projects – for example, the previous highest cost per pound of phosphorus removed for a BCWMC CIP project was $4,800for the Northwood Lake Improvement Project (project NL-1). This high cost per pound of phosphorus removed for this project is likely due to several factors. The P8 model was developed at the watershed scale; this means that many of the watersheds are very large and the model may not be accurately reflecting the time it takes runoff to reach the ponds. This could be causing the model to over-predict flows and thus under-predict pollutant removals because the model is flushing more pollutants downstream and not allowing them to settle in the ponds. The P8 model does not account for pollutant load from the creek upstream of the ponds. There are sections of the North Branch of Bassett Creek, upstream of Bassett Creek Park Pond, which have eroded banks that are contributing sediment and pollutants to the creek. This additional pollutant load is not included in the P8 model and the ponds are likely removing some of this additional load, providing a pollutant removal benefit that is not reflected in the modeling. This creek bank erosion could contribute an additional phosphorus load estimated between 3 and 92 pounds per year to the North Branch of Bassett Creek upstream of Bassett Creek Park Pond, depending on the severity of the erosion. This additional potential phosphorus load represents 15 percent – 450 percent of the P8 modeled phosphorus inflow to Bassett Creek Park Pond. The P8 model does not account for resuspension of the sediment accumulated in the ponds. Once sediment (and the associated pollutants) has settled in the pond, the P8 model assumes they remain trapped. Calculations to determine the velocity of water through the ponds indicate that particularly in Winnetka Pond under current conditions, the velocities are high enough to resuspend sediment particles and carry them downstream. This means that the model is over-estimating the current performance of the ponds. Constructing the projects to remove the accumulated sediment and deepen the ponds would reduce the velocities through the ponds, reducing the potential for resuspension and increasing the actual pollutant removal efficiency of the ponds.

7.1.6 Miscellaneous costs

Most site costs include erosion control and other miscellaneous items needed during construction (e.g., a rock construction entrance, silt fence or biologs, and restoration of access paths). Based on previous project experience, the estimate for each alternative includes some costs that could be applied to these miscellaneous items.

7.2 Funding sources

The City of Crystal proposes to use BCWMC CIP funds to pay for the Bassett Creek Park Pond and Winnetka Ponds dredging projects. The source of these funds is an ad valorem tax levied by Hennepin County over the entire Bassett Creek watershed. The City may pursue grants related to the recreation components of the project, such as deepening the southeastern portion of Bassett Creek Park Pond and installing a new fishing pier and aerator. The sediment removal portion of the project is typically considered standard maintenance by grantors and is usually not eligible for grant funding.

7.3 Project schedule

For project construction to occur in 2018, project design would be scheduled to begin in winter 2017. The construction work would likely be completed during the fall of 2018 and into 2019. This would require the BCWMC to hold a public hearing and order the project in time to submit its ad valorem tax levy request to Hennepin County. If project construction is scheduled for fall or winter, spring or summer 2018 bidding is recommended. This will allow contractors to schedule to complete the project at a reasonable price. In the intervening time, the City would gather public input, prepare the final design, and obtain permits.

Table 7-1 **Bassett Creek Park Pond and Winnetka Pond East feasibility study alternatives cost estimates**

Site	Alternative	Alternative Description	Construction Cost Estimate (1)	Construction Contingency (2)	Engineering (3)	Capital Cost Estimate (4)(5)	Estimated Life Span(6) (years)	Annual Maintenance Cost Estimate	Major Maintenance Cost Estimate (7)	30-Year Future Worth Cost Estimate(8)(9)	Annualized Cost(9)(10)	Total Phosphorus (TP) Loading		Total Suspended Sediment (TSS)	
												Load Reduction Improvement (lb/yr)	Cost/lb TP Reduction (11)	Load Reduction Improvement (lb/yr)	Cost/lb TSS Reduction(11)
Bassett Creek Park Pond (No Winnetka Pond Improvement)	Baseline Alternative	Remove accumulated sediment	$ 938,000	$ 282,000	$ 282,000	$ 1,500,000	30	$ -	$ 256,335	$ 4,263,200	$ 89,600	4.8	$ 18,670	1,227	$ 73
Bassett Creek Park Pond (No Winnetka Pond Improvement)	Alternative 2	Deepen SE section to 10 feet	$ 1,302,000	$ 391,000	$ 391,000	$ 2,082,000	30	$ -	$ 256,000	$ 5,675,200	$ 119,300	7.0	$ 17,040	1,792	$ 67
Bassett Creek Park Pond	Baseline Alternative	Remove accumulated sediment	$ 938,000	$ 282,000	$ 282,000	$ 1,500,000	30	$ -	$ 256,335	$ 4,263,200	$ 89,600	4.2	$ 21,330	1,087	$ 82
Bassett Creek Park Pond	Alternative 2	Deepen SE section to 10 feet	$ 1,302,000	$ 391,000	$ 391,000	$ 2,082,000	30	$ -	$ 256,000	$ 5,675,200	$ 119,300	4.7	$ 25,380	1,217	$ 98
Bassett Creek Park Pond	Add-on 1	Construct sediment forebay in northwest section (forebay in addition to baseline alternative or alternative 2)	$ 141,000	$ 43,000	$ 43,000	$ 226,000	30	$ 11,500	$ -	$ 1,094,400	$ 23,000	0.0	$ -	0	$ -
Bassett Creek Park Pond	Add-on 1a	Construct sediment forebay in northwest section (forebay only, no other pond construction)	$ 733,000	$ 220,000	$ 220,000	$ 1,173,000	30	$ 11,500	$ -	$ 3,393,800	$ 71,300	0.0	$ -	0	$ -
Bassett Creek Park Pond	Add-on 2	Create native vegetation buffer around pond	$ 53,000	$ 16,000	$ 16,000	$ 85,000	30	$ 17,200	$ -	$ 1,021,100	$ 21,500	0.0	$ -	0	$ -
Bassett Creek Park Pond	Add-on 3 (12)	Dispose of Level 1 material onsite	$ -	$ -	$ -	$ -	0	$ -	$ -	$ -	$ -	0.0	$ -	0	$ -
Bassett Creek Park Pond	Add-on 4 (13)	Construct new fishing pier at deepened southeast section	$ -	$ -	$ -	$ -	0	$ -	$ -	$ -	$ -	0.0	$ -	0	$ -
Winnetka Pond East	Baseline Alternative	Remove accumulated sediment	$ 220,000	$ 66,000	$ 66,000	$ 352,000	30	$ -	$ 80,000	$ 1,049,200	$ 22,100	1.7	$ 13,000	438	$ 50
Winnetka Pond East	Alternative 2	Deepen entire pond to 4.1 feet	$ 569,000	$ 171,000	$ 171,000	$ 910,000	30	$ -	$ 80,000	$ 2,401,900	$ 50,500	5.0	$ 10,100	1,271	$ 40

(1) A Class 4 screening-level opinion of probable cost, as defined by the American Association of Cost Engineers International (AACI International), has been prepared for these alternatives. The opinion of probable construction cost provided in this table is made based on Barr's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. The cost opinion is based on project-related information available to Barr at this time and includes a conceptual-level design of the project.

(2) Assumed 30% contingency on construction costs.

(3) Assumed 30% of construction costs for design, permitting, and adminstration.

(4) Includes estimated initial construction cost (with 30% contingency) and design, permitting, and adminstration costs (30% of construction cost).

(5) Many of the alternatives in this table are mutually exclusive. The total project cost will not be a sum of each of these alternatives, rather a sum of a unique combination of a portion of these alternatives.

(6) Estimated life span until significant maintenance is required.

(7) Future value of significant maintenance at the end of the lifespan of the project (i.e. future cost at 20 years for a project with a 20 year life span)

(8) Future value of initial capital cost, annual maintenance cost, and major maintenance cost at end of expected life span.

(9) Assumes 3% inflation rate.

(10) Annualized 30-year future worth.

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

(12) This alternative would provide no additional pollutant removal, but would reduce the construction cost associated with the Bassett Creek Park Pond Baseline Alternative and Alternative 2. The quantified cost savings cannot be determined until more information is known about the volume of material that could be reused and if the sediment could be sufficiently dewatered onsite to be suitable for fill.

(13) This alternative would likely be funded by the City of Crystal/MDNR/Grant Funds, not the BCWMC.

8.0 Alternatives assessment and recommendations

The final project will consist of a combination of the alternatives discussed below. The costs of the alternatives recommended for the final design are summarized in Table 8-1. Alternatives that could be implemented in combination were chosen if they presented cost-effective TP and TSS loading reductions and appear feasible to permit for construction. The ability of alternatives to improve habitat and recreation (identified as priorities in stakeholder meetings and goals of the BCWMC) was also taken into consideration in choosing the final alternatives.

The final design process should include continuing to work closely with the City of Crystal Parks and Recreation Department to develop a plan to successfully combine efforts to improve Bassett Creek Park Pond with the Bassett Creek Park System Master Plan.

The annualized pollutant reduction costs indicate that the improvements at Winnetka Pond East are the most cost effective and that improvements at Bassett Creek Park Pond are more cost effective when work at Winnetka Pond East is not completed. Because Bassett Creek Park Pond is in a prominent park in the City of Crystal, completion of a project at this location would provide the opportunity to complete additional work such as the creation of a native vegetation buffer and enhancements to fish habitat and recreational use of the pond.

Because the modeling results do not show the expected pollutant removals from completing the projects, the BCWMC Engineer recommends completing the Winnetka Pond East Alternative 2 (deepening) project first, completing further investigation on Bassett Creek Park Pond, and ordering a project at this location in the future if it is determined to be feasible. This additional analysis on Bassett Creek Park Pond would allow time for the City of Crystal to complete its parks planning process at this location, which may result in identifying other feasible options for improvements at Bassett Creek Park Pond. These additional options may include options for increasing flood storage in the park to reduce the flood elevation of Bassett Creek Park Pond and reduce flooding downstream or identify other locations and alternatives for other water quality treatment alternatives at the site. The P8 model could be calibrated using City of Plymouth/Three Rivers Park District information and using BCWMC information that will be collected as part of a proposed monitoring program on the North Branch of Bassett Creek. After calibrating the model, the pollutant removal efficiencies for this project could be updated to more accurately predict the pollutant removals provided by the proposed project (updated model results would likely show more pollutant removal provided by completing the project).

In addition to providing pollutant removal benefits, removing accumulated sediment from Bassett Creek Park Pond and Winnetka Pond East is necessary to continue to provide flood storage in these areas along the trunk line of the North Branch of Bassett Creek. An area near the center of Winnetka Pond East just downstream of two inlets to the pond is becoming very shallow. As additional sediment accumulates, the sediment will form an island near the center of the pond. Once the island forms above the normal water level, the sediment island reduces the flood storage available in the area, which could lead to additional flooding in other areas that would normally not be inundated. The sediment islands may also cause flow restrictions and therefore additional flooding during smaller storm events where flooding may not

normally occur. A similar situation will eventually occur at Bassett Creek Park Pond, though the island formation is not as dramatic at this time. Eventually, some sediment removal will need to be performed to maintain flood storage capacity, regardless of the water quality benefit provided. Furthermore, when the flood control project at Bassett Creek Park Pond was designed and constructed, it assumed some additional excavation volume to allow for sediment storage that would not interfere with providing the flood control designed during the project. Maintenance removal of the accumulated sediment is necessary to maintain functionality of the flood control project.

Removing accumulated sediment and deepening the permanent pool at Winnetka Pond East will provide water quality improvement by 1) providing additional permanent pool storage for increased sedimentation and 2) minimizing downstream transport of sediment. If the BCWMC decides to support the Winnetka Pond East Alternative 2 project, we recommend completing it in 2018, which fits into the City's CIP schedule and the BCWMC CIP schedule. The total estimated project capital cost to implement deepening Winnetka Pond East is $910,000. This cost includes an estimated $569,000 in construction costs, $171,000 in construction contingency, and $171,000 design, permitting, and construction observation costs (all costs rounded to the nearest $1,000). We recommend that the opinions of cost identified in this study be used to develop a levy request for the selected project and that the Winnetka Pond East project proceeds to the design and construction phase.

Table 8-1 Bassett Creek Park Pond and Winnetka Pond East recommended alternatives cost summary

Alternative	Construction Cost Estimate (1)	Construction Contingency (2)	Engineering (3)	Capital Cost Estimate (4)	Annualized Cost(5)	TP Loading		TSS Loading	
						Load Reduction (lb/yr)	Cost/lb Reduced(6)	Load Reduction (lb/yr)	Cost/lb Reduced(6)
Bassett Creek Park Pond Alternative 2 (No Winnetka Pond)	$ 1,302,000	$ 391,000	$ 391,000	$ 2,082,000	$ 119,300	7.0	$ 17,040	1,792	$ 67
Bassett Creek Park Pond Add-on 1	$ 141,000	$ 43,000	$ 43,000	$ 226,000	$ 23,000	0.0	$ -	0	$ -
Bassett Creek Park Pond Add-on 1 (no other alternatives)	$ 733,000	$ 220,000	$ 220,000	$ 1,173,000	$ 71,300	0.0	$ -	0	$ -
Bassett Creek Park Pond Add-on 2	$ 53,000	$ 16,000	$ 16,000	$ 85,000	$ 30	0.0	$ -	0	$ -
Bassett Creek Park Pond Add-on 3	$ -	$ -	$ -	$ -	$ -	0.0	$ -	0	$ -
Bassett Creek Park Pond Add-on 4	$ -	$ -	$ -	$ -	$ -	0.0	$ -	0	$ -
Winnetka East Pond Alternative 2	$ 569,000	$ 171,000	$ 171,000	$ 910,000	$ 30	5.0	$ 10,100	1,271	$ 40

(1) A Class 4 screening-level opinion of probable cost, as defined by the American Association of Cost Engineers International (AACI International), has been prepared for these alternatives. The opinion of probable construction cost provided in this table is made based on Barr's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. The cost opinion is based on project-related information available to Barr at this time and includes a conceptual-level design of the project.

(2) Assumed 30% contingency on construction costs.

(3) Assumed 30% of construction costs for design, permitting, and adminstration.

(4) Includes estimated initial construction cost (with 30% contingency) and design, permitting, and adminstration costs (30% of construction cost).

(5) Future value of capital cost, annual maintenance cost, and major maintenance cost at end of expected life span, annualized to 30-year value

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

9.0 References

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

2. **Minnesota Department of Natural Resources.** White-nose Syndrome and Minnesota's bats. [http://www.dnr.state.mn.us/wns/index.html]. 2015.

3. **Minnesota Pollution Control Agency.** Managing Stormwater Sediment Best Management Practice Guidance. June 2015. [https://www.pca.state.mn.us/sites/default/files/wq-strm4-16.pdf].

4. **Minnesota Department of Natural Resources.** White-nose Syndrome and Minnesota's bats. [http://www.dnr.state.mn.us/wns/index.html]. 2015.

Appendices

Appendix A

Sediment Sampling Memo – Bassett Creek Park Pond

Appendix B

Sediment Sampling Memo – Winnetka Pond East

Appendix C

Wetland Delineation Report

Appendix D

Bathymetric Survey Figures

Appendix E

Technical Stakeholder Meeting Minutes

Appendix F

Detailed Cost Estimates

Item 5Bi.
BCWMC 4-20-17

COOPERATIVE WATER RESOURCES MANAGEMENT PROJECT
JOINT POWERS AGREEMENT
BETWEEN
Three Rivers Park District
AND
Bassett Creek Watershed Management Commission

1. PARTIES

Bassett Creek Watershed Management Commission (hereinafter referred to as "the Commission") and the Three Rivers Park District (hereinafter referred to as "the Park District"), both being governmental units of the State of Minnesota, and acting through their respective governing bodies, hereby enter into this Joint Powers Agreement ("agreement"). The Commission and the Park District from time to time may be referred to hereinafter as "the parties."

2. PURPOSE

The Park District and the Commission recognize that intergovernmental cooperation in preventing degradation of aquatic resources, assessing the quality of Medicine Lake in the Bassett Creek Watershed, and implementing the Medicine Lake TMDL plan is in the mutual interest of the citizens of Hennepin County and the metropolitan area. The parties enter into this Agreement to facilitate the improvement of Medicine Lake water quality through the implementation of the Medicine Lake TMDL, and to assess the quality of the lake as implementation proceeds.

3. AUTHORITY

The parties enter into this agreement pursuant to Minn. Stat. § 471.59, regarding joint exercise of powers which allows two or more governmental units, by agreement entered into through action of their governing bodies, to jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised.

4. DUTIES OF THE PARK DISTRICT

In recognition of the staff resources and capabilities of the Park District, the Park District will be responsible for:

a. Completion of an early season assessment to determine herbicide treatment areas for control of CLP in Medicine Lake with GPS coordinates of areas in need of treatment.

b. Completion of spring and fall littoral zone aquatic plant surveys to monitor native macrophyte response to the CLP control program in Medicine Lake.

c. Completion of annual water quality monitoring to determine the effectiveness of the CLP control program in reducing phosphorus loading to the lake.

d. Participation in a project advisory capacity to guide the project implementation and review project results.

e. Adhering to a Performance Criteria that ensures that all work meets the requirements of the Minnesota Department of Natural Resources approved permit for control of curly-leaf pondweed in Medicine Lake.

f. Provide a cash contribution of 17% of the non-grant covered cost of the CLP treatment contract up to a maximum amount of $5,000/year. An amendment to the agreement will be required if the TRPD project contribution is estimated to exceed $5000. Reimbursement shall be upon an invoice submitted by the Commission.

5. DUTIES OF THE COMMISSION

In recognition of the staff resources and capabilities of the Commission, the Commission will be responsible for:

a. Coordinating the development and implementation of a curly-leaf pondweed control strategy for Medicine Lake, as per the approved Medicine Lake TMDL implementation plan.

b. Coordinate the permitting process with the MNDNR and securing a contractor for performing an herbicide treatment to control curly-leaf pondweed in Medicine Lake.

c. Ensuring compliance with monitoring and evaluation requirements outlined in MDNR's approved Permit for controlling CLP.

d. Coordinating communications with all affected parties regarding the treatment and securing funding from the parties to this agreement.

e. The Commission shall be responsible for providing the additional funding beyond what the municipalities, grants, and the Park District provide to support the Medicine Lake curly-leaf pondweed control project, consistent with the approved cost-share policy at the time of approval of this agreement.

6. AMENDMENT

Any amendment to this agreement must be in writing and approved by the Commission and the Park District. The parties shall have full power to amend this agreement to add or delete items from the scope of this agreement upon such terms as are agreed to between the parties.

7. TERMINATION

This agreement will terminate upon completion of the Medicine Lake CLP Control Project in 2017. Notwithstanding, either party may terminate this Agreement for any reason by providing 90 days written notice to the other party. In the event of termination, the Park District will pay pro rata for that portion of the Curly-leaf Pondweed Control Project completed in accordance with Section 5.

IN WITNESS WHEREOF, the parties have caused this joint powers agreement executed and effective as of the date of signature of the last party to the agreement.

Basset Creek Watershed Management Commission

Dated: _____, _____
Jim de Lambert, chair

_____
Laura Jester, Administrator

Three Rivers Park District

Dated: _____, _____
John Gunyou, Chair

_____
Boe Carlson, Superintendent/Secretary to the Board

Item 5Bii.
BCWMC 4-20-17

CURLY-LEAF PONDWEED TREATMENT PROGRAM SERVICES AGREEMENT

THIS CURLY-LEAF PONDWEED TREATMENT PROGRAM SERVICES AGREEMENT ("Agreement") made and entered into by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization (the "Commission"), and PLM Lake and Land Management (the "Contractor"). The Commission and the Contractor may hereinafter be referred to individually as a "party" or collectively as the "parties."

1. **SERVICES**. The Contractor will provide all labor, materials, supplies, and equipment needed to perform the Curly-leaf pondweed treatment services as set out in the attached Exhibit 1 in accordance with the terms and conditions of this Agreement (collectively, the "Services").

2. **TIMING OF SERVICES**. The Contractor shall fully perform and complete delivery of the Services to the reasonable satisfaction of the Commission by June 1, 2017.

3. **PAYMENT FOR SERVICES**. The Contractor shall be paid based on the price in its quote, attached hereto as Exhibit 2, and in accordance with the provisions in Exhibit 1. The Contractor shall provide the Commission a detailed invoice for the completed Services in accordance with the requirements of Minnesota Statutes, section 471.38. The Commission shall pay the Contractor within 40 days of receipt of the invoice.

4. **INSURANCE**. The Contractor shall carry, during the entire term of this Agreement, insurance coverage in values indicated below and shall furnish a certificate of insurance to the Commission prior to commencing the Services. The Commission shall be named an additional insured on the Contractor's Commercial General Liability policy.

TYPE	MINIMUM LIMITS
Commercial General Liability	$1,000,000
Automobile Liability	$1,000,000
Workers Compensation	State of MN Statutory Limits
Employer's Liability	$500,000

5. **INDEPENDENT CONTRACTOR**. The Contractor acknowledges and agrees that it is an independent contractor and that nothing herein shall be construed to create the relationship of employer and employee between the Commission and the Contractor. No employee related withholdings or deductions shall be made from payments due the Contractor. The Contractor shall not be entitled to receive any benefits from the Commission and shall not be eligible for workers' compensation or unemployment benefits. The Contractor shall at all times be free to exercise initiative, judgment, and discretion in how best to perform or provide the Services identified herein.

6. **COMPLIANCE WITH LAWS**. The Contractor shall comply with all applicable federal, state and local laws, regulations or ordinances in performance of the Contractor's duties hereunder, such laws including but not limited to those relating to non-discrimination in hiring or labor practices. The Contactor shall also be required to, at its own cost, obtain any permits, licenses, or

permissions that may be required to provide the Services, except that the Commission shall obtain, at its own cost, a permit from the MnDNR for the treatment. The Contractor shall adhere to the MnDNR permit issued for this project. Any violation of federal, state, or local laws, statutes, ordinances, rules or regulations, as well as loss of any applicable license, permit, or certification by the Contractor shall constitute a material breach of this Agreement, regardless of the reason and whether or not intentional, and shall entitle the Commission to terminate this Agreement effective as of the date of such violation, failure, or loss.

7. **TERM AND TERMINATION**. This Agreement shall be effective as of the date of the last party to execute it and it shall continue in effect until final payment by the Commission after satisfactory completion of the Services. The Commission may terminate this Agreement if the Contractor fails to make sufficient progress toward completion, or fails to complete, the Services in accordance with the timeline established herein. Either party may terminate this Agreement if the other party is in breach of any material term of this Agreement if the breaching party fails to complete the cure the breach within 20 days' written notice of breach provided by the non-breaching party.

8. **AMENDMENTS**. This document, together with the attached exhibits and quote (which are incorporated herein by reference), constitutes the entire Agreement between the parties and no modifications of its terms shall be valid unless reduced to writing and signed by both parties.

9. **DATA PRACTICES**. Any data created, collected, received, stored, used, maintained, or disseminated by the Contractor in performing the Services is subject to the requirements of the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, ("Act") and the Contractor must comply with those requirements as if it were a government entity. The Contractor does not have a duty to provide access to public data to the public if the public data is available from the Commission. The Contractor shall immediately notify the Commission if it receives a request under the Act and shall work with the Commission to ensure the response complies with the Act.

10. **AUDIT**. The Contractor agrees that for a period of six years after completion of the Services the Commission, the State Auditor, and the Legislative Auditor, or any of their duly authorized representatives, shall have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, and records that are relevant to and involve transactions relating to this Agreement.

11. **INDEMNIFICATION**. Any and all claims that arise or may arise against the Contractor, it agents, servants, or employees as a consequence of any act or omission on the part of the Contractor or its agents, servants, or employees while engaged in the performance of the Agreement shall in no way be the obligation or responsibility of the Commission. The Contractor shall indemnify, hold harmless, and defend the Commission, its officers, agents, and employees against any and all liability, loss, costs, damages, expenses, claims or actions, including attorney fees which the Commission, its officers, agents, or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of the Contractor, its agents, servants or employee, in the execution, performance, or failure to adequately perform the Contractor's obligations pursuant to this Agreement. Nothing in this

Agreement shall constitute a waiver by the Commission of any statutory limits or immunities from liability.

12. **APPLICABLE LAW**. The law of the State of Minnesota shall govern all interpretations of this Agreement, and the appropriate venue and jurisdiction for any litigation that may arise under this Agreement will be in and under those courts located within the County of Hennepin, State of Minnesota, regardless of the place of business, residence, or incorporation of the Contractor.

13. **NO AGENCY**. The Contractor is an independent contractor and shall not be considered to be the agent or servant of the Commission for any purpose and shall have no authority to enter into any contracts, create any obligations, or make any warranties or representations on behalf of the Commission.

14. **NOTICES**. Any notice or demand, authorized or required under this Agreement shall be in writing and shall be sent by certified mail to the other party as follows:

To the Contractor:	PLM Lake and Land Management Patrick Selter, 1511 Maras Ave, Shakopee MN 55379
To the Commission:	Chairperson Bassett Creek Watershed Management Commission Commission of Golden Valley Commission Hall 7800 Golden Valley Road Golden Valley, MN 55427

15. **AUTHORITY**. Each of the undersigned parties warrants that it has the full authority to execute this Contract, and each individual signing this Contract on behalf of a corporation hereby warrants that he or she has full authority to sign on behalf of the corporation and that he or she represents and binds such corporation thereby.

16. **NO WAIVER**. The waiver by any party of a breach or violation of, or failure of any party to enforce, any provision of this Contract shall not operate or be construed as a waiver of any subsequent breach or violation or as a relinquishment of any rights hereunder.

17. **SERVERABILITY**. If any part of this Contract is invalid or unenforceable under applicable law, that part shall be ineffective only to the extent of such invalidity or unenforceability without in any way affecting the remaining parts of the provision or this Contract.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the date of the last party to execute it.

CONTRACTOR

By: _____

Its: _____

Date: _____

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

By: _____
Chairperson

Date: _____

By: _____
Secretary

Date: _____

EXHIBIT 1
General Service Requirements

1. LOCATION & SCOPE OF SERVICES

The purpose of the Services is to do follow up control of Curly-leaf pondweed regrowth. The location of the Services shall only be on Medicine Lake within the Cities of Plymouth and Medicine Lake, Minnesota. The Services shall include furnishing and applying herbicide, furnishing and installing signage throughout the project area during the spring of 2017. The work shall be done in accordance with Minnesota Department of Natural Resources (MnDNR) guidelines for herbicide application.

The report prepared by Blue Water Science for the Commission of Plymouth dated November 2016 is incorporated herein by reference, shall be provided to the Contractor, and shall serve as reference to the Contractor related to the provision of the Services.

2. MATERIALS

A. Herbicide. The herbicide used will be Aquathol K (dipotassium salt of endothall) at a minimum concentration of 1.0 parts per million (ppm) in areas with a water depth of less than 6-feet and a maximum concentration of 1.5 parts per million (ppm) concentrations in areas of over 6-foot depth of water.

B. Signage. The Contractor will place all necessary signage in the project area according to approved MnDNR standards.

3. APPLICATION

A. MnDNR Guidelines. The Contractor shall follow all of MnDNR's guidelines for herbicide application and will install all necessary signage throughout the project area and public access areas.

B. Treatment Times. The herbicide treatment, if feasible, will be conducted during mid-week (Tuesday-Thursday) to minimize impact on lake users. Once the herbicide application has begun, it must be completed within seven days. Treatment should be done between 4/1/2017 and 6/1/2017. No treatment should be done 5/27/16 to 5/31/16 for the Memorial Day holiday.

4. TREATMENT AREA

Specific locations for treatment will be determined by an early spring aquatic vegetation survey. Total treated areas will not exceed 45 acres on Medicine Lake. There will be no treatment of the lake closer than 150 feet off the shore.

5. WEATHER AND TEMPERATURE LIMITATIONS

The treatment must happen when the lake water temperature is between 50 and 60 degrees Fahrenheit. The Contractor is responsible to take lake water temperature readings at approximately 2-3 feet depth, at least once every day starting April 1, 2017 and each day until the project is completed. If the temperature of the lake water is at 50 degrees Fahrenheit and there is a risk that it may decrease below 50 degrees Fahrenheit, then the herbicide application must be postponed. All water temperature readings must be provided to the Commission of Plymouth on a daily basis. The decision to begin, postpone, or continue the herbicide application will be made by the Bassett Creek Watershed Management Commission in consultation with the MnDNR. There will be no Aquathol application if the water temperature stays over 60 degrees Fahrenheit over four consecutive days.

6. GPS DOCUMENTATION

The Contractor must have Global Positioning System (GPS) technology to record all areas of the lake that are treated and provide the records to the Commission.

7. QUESTIONS

Any questions with regard to these requirements should be directed to Laura Jester, Administrator, Bassett Creek Watershed Management Commission, (952) 270-1990. All questions should be in writing, if time permits. Verbal interpretations shall not be considered binding.

8. PAYMENT

A. Basis. Payment for Curly-leaf pondweed treatment shall be made based on the total number of acres treated, which shall include all labor, equipment, signage, and application.

B. The amounts shown in the quote are estimates only. Final payment for the Services shown in the quote will be determined by final amount of acres treated.

C. Subcontractors. The Contractor shall pay any subcontractors in accordance with Minnesota Statutes, section 471.25, subdivision 4a.

Exhibit 2.

QUOTE FORM

QUOTE FOR THE 2017 CURLY-LEAF PONDWEED TREATMENT PROGRAM ON MEDICINE LAKE

Bassett Creek Watershed Management Commission
Laura.jester@keystonewaters.com

To: Laura Jester, Bassett Creek Watershed Management Commission

The undersigned, being familiar with your local conditions, having made the field inspection and investigation, I/we deem necessary, having studied the plans and specifications for the work and being familiar with all factors and other conditions affecting the work and cost thereof, hereby propose to furnish all labor, tools, materials, skills, equipment and all else necessary to complete the treatment in accordance with the instructions to quoters and the service agreement. To be considered, such quotes must be received by **Wednesday March 29, 2017** by 4:30 p.m.

CURLY-LEAF TREATMENT

TOTAL QUOTE Total cost, inclusive of tax, to treat one (1) surface acre on Medicine Lake, assuming up to Forty Five (45) acres* maximum application, based on an estimated quantity of chemical applied per acre of 6.7 gals/acre. $ 430.01 **Per Acre**

***NOTE: Total actual acres to be treated as determined by early spring aquatic vegetation survey.**

FIRM NAME: PLM Lake + Land Management

ADDRESS: 1511 Maras Ave Shakopee, MN 55379

PHONE NO.: 651- 383-1150-office 218-838-2680-cell

SIGNED BY: Patrick Selter

DATE: 3-29-2017

HERBICIDE SUPPLIER

FIRM NAME: Helena Chemical

ADDRESS: 2905 Lexington Ave Eagan, MN 55121

PHONE NO.: 651 - 994-7025

Item 5C.
BCWMC 4-20-17

From: DANIELSTAUNER@comcast.net
To: laura.jester@keystonewaters.com
Cc: mjwelch@gmail.com; jelder@ci.new-hope.mn.us
Subject: Fwd: Omnibus ("Ominous") Environment Bills
Date: Monday, April 3, 2017 2:58:56 PM
Attachments: MEP - HF 888 Floor Letter (3-30-17).pdf
MEP - SF 723 - Senate Floor Letter.pdf

Ms. Jester:

I am a former commissioner for New Hope. Even though I no longer serve on the commission I remain very interested in water quality issues and continue to pursue opportunities to learn about those issues.

My wife and I are members of the Minnesota Native Plant Society. At their annual symposium on Saturday there was discussion of the Omnibus Environmental Bill that is working its way through the legislature. I had a chance to discuss this with the chair of the Society's conservation committee and he sent me by e-mail the letters the Society and other organizations have joined in sending concerning both the Senate and House versions of the bill. I am passing them on to you because I think the issue of the impact of these bills upon the business of the commission is one that should be discussed by the commission. The letters lay out the concerns about these bills. Both of which have passed there respective houses. I ask you to bring this matter to the attention of the commission at its next meeting.

Given the time critical aspect of this matter I would appreciate it if the commissioners would discuss this matter and not simply shunt it off to the TAC for future consideration. Although TAC input is important on this matter it is equally important that the citizen members of the commission have the chance to discuss this. The TAC is always well represented at commission meetings and will have ample opportunity for input at the meeting.

I thank you for your consideration of this matter.

Daniel Stauner
Attorney at Law
8424 Meadow Lake Rd. E
Minneapolis, MN 55428
763-536-1415

Minnesota
Environmental
Partnership

www.MEPartnership.org
Suite 100
546 Rice Street
St. Paul, MN 55103
Phone 651.290.0154
Fax 651.290.0167

March 30, 2017

Note: Same letter also sent to Senate members re: SF723

Dear Members of the Minnesota House:

We, the undersigned organizations and the citizens we represent, ask you to vote NO on the Omnibus Environment and Natural Resources Budget Bill, H.F. 888. We do not make this request lightly. This bill will roll back environmental protections and erode the basic foundation of Minnesota's legacy of protecting our Great Outdoors. The bill contains many provisions that undo existing protections and make it more costly and time consuming to adopt new protections for our state's air, land, lakes, rivers and streams.

In addition, at a time when the state's coffers are full, this bill makes historic cuts, effectively raiding $21 million in general public support from the core work of protecting our Great Outdoors. The impacts of this nearly 7% cut in support will be compounded if the significant cuts in grant funds to the state, proposed by the Trump Administration, are adopted. These combined cuts threaten the long term viability of major areas of work for the citizens of our state.

This bill is out of sync with Minnesota voters. Just last month, our extensive statewide issue poll found that 20% of voters think our environmental laws are at the right levels and fully 62%, from all corners of the state, would like to see environmental laws be made tougher or enforced better. Yet this bill goes in the opposite direction.

House File 888 includes a large number of policy provisions that obstruct or prohibit the state agencies, charged with protecting our water and controlling pollution, from carrying out their functions and duties. Some of these duties are delegated to Minnesota under the Federal Clean Water Act, and legislative action interfering with the state's ability to carry out delegated duties puts Minnesota at odds with the Clean Water Act.

Though what follows is not a comprehensive list, we are deeply concerned that this bill:

Unravels Buffer Protections for Habitat and Water Quality (Art. 2, Sec. 80, 81.)

- Limits the 50-foot buffer requirement to only those waterways that have a shoreland classification, leaving all other waterways subject to only the 16.5 foot buffer requirement. This exempts 200,000 acres and 24,000 miles of watercourses from 50-foot buffer requirements, rolling back water protections that were in place before passage of the 2015 buffer law.

- Eliminates the buffer requirement altogether unless the state or federal government pays for the entire cost of establishing the buffer.

- Delays implementation of 50-foot buffers for one year, despite Board of Water and Soil (BWSR) and local Soil and Water Conservation District (SWCD) reports that most counties already have 60 – 100% compliance with the law.

Hobbles the MPCA and DNR from carrying out their duties. (Art. 2, Sec. 6, 110, 111):

- Bars the MPCA and DNR from enforcing against any permittee or polluter any guidance, policy, or interpretation that meets the definition of a rule under Minn. Stat. 14.02, without first conducting full Chapter 14 rulemaking, and creates a presumption against the agency in any challenges alleging that MPCA is enforcing an unadopted rule. The guidance, policy, and other interpretations provided by the MPCA is intended to answer common questions, typically from regulated parties, about how the MPCA's rules and state law would be applied, without resorting to court action.
- Establishes presumption that DNR and PCA guidance documents are invalid, unpromulgated "rules." This makes environmental regulation much more complex, time consuming and expensive – it's the opposite of streamlining. It also invites litigation. Guidance documents that are truly being used inappropriately can already be challenged in court under existing law.

Takes the science out of agency decisions. (Art 2, Sec. 98):

- Eliminates deference to PCA's science when a water quality decision is challenged, and creates a special process for municipalities to end run existing expertise and challenge agency decisions. This is a favor for a few municipalities that want to re-fight a losing battle over the state's river eutrophication standards. Their science and arguments haven't held up in front of agencies or courts, and this section creates a new opportunity to rehash the same arguments at taxpayer expense.

Delays actions to clean-up polluted drinking water. (Art. 2, Sec. 132):

Exempts cities that build new facilities from future technology updates to meet standards for clean water for 16 years. This provision broadly delays actions to clean-up pollution and creates more uncertainty for operators because it puts state-issued water pollution permits at odds with federal Clean Water Act requirements.

Eliminates public participation in mining permits (DNR). (Art. 2, Sec. 51, 52):

- Limits the right of affected citizens and local governments to have a "contested case" hearing on mining permits, allowing it only for adjacent property owners and affected governments. A contested case is an opportunity to present evidence, question industry and agency experts, and build a solid record to support smart decisions, including how lands can be reclaimed and what type and amount of financial assurance should be required from mining companies. Since 1969 this has been a right of citizens, guaranteeing public participation in important decisions that affect the whole state.

Allows corporations to write their own environmental impact statements. (Art. 2, Sec. 117, Lines 106.2 – 106.27):

- Puts the fox in charge of the hen house, allowing corporations to author their own environmental impact statements and restricting the government's role to "review, modification and determination of completeness and adequacy" of an EIS. This is antithetical to the whole point of environmental review, which is to allow the regulator (and public) to gather information about environmentally destructive projects and alternatives. It also prevents the public from accessing all of the underlying data and analyses that support the EIS because private companies are not subject to data practices laws.

Undermines effective environmental review by requiring agencies to begin action on permits before environmental review is complete. (Art. 2, Sec. 115, 105.8 – 105.11)

- This undermines the core purpose of environmental review which is to do an assessment of potential environmental harm to see if it can be mitigated through conditions on the permit. To be effective, action on the permit must wait until environmental review is complete.

Requires DNR and PCA to issue draft permits within 150 days. (Art. 2, Sec. 3, 106):

- DNR and PCA are already issuing more than 90% of permits in line with statutory streamlining goals. This mandate is a one-size-fits-all requirement that does not recognize that some projects are located in sensitive areas or are simply too big or too complex to be permitted within such a short period.

Eliminates requirement to adopt air quality rules and environmental review standards for frac sand facilities. (Art. 2, Sec. 121, Lines 108.1-108.17):

- Removes the requirement that the MPCA must develop ambient air quality standards for frac sand mines. Long-term low level exposure to silica dust can cause silicosis, which is fatal.

Prohibits rules regarding use of lead shot. (Art.2, S. 71):

- Restricts the DNR from using existing authorities to reduce non-target mortality of birds (including Bald Eagles) and wildlife exposed to lead shot. Steel shot is readily available, performs similarly as lead, costs the same or less, and is non-toxic to birds and wildlife that ingest it. Modern ballistics have developed many superior ammunition loads and restricting the use of toxic lead shot makes environmental sense and does not impact Second Amendment rights.

Interferes with science-based forest planning process at Sand Dunes State Forest. (Art. 2, Sec. 126, Lines 110.17 – 111.13):

- This provision does an end run around the existing well-established, science-based forest planning process that includes the involvement of local representatives. It also suspends the authority to restore any part of the forest to native oak savannah, of which less than 1% of Minnesota's original oak savannah forest remains. Finally, it improperly delegates approval of the state forest plan to an unspecified county board.

Lastly we would like to object to the insertion of the large amount of unrelated policy language into this biennial appropriations bill. This action ignores the strong objection Governor Dayton expressed in his letter to Speaker Daudt on March 13, 2017. As many of the policy provisions that have been added to this bill are highly unpopular with the voting public, this combining of budget and policy provisions allows these issues to avoid the public process and scrutiny they would receive otherwise. These unpopular issues should be required to stand on their own as separate policy bills.

This bill is not right for the shared legacy of Minnesota's Great Outdoors and it is not acceptable to Minnesota voters. Please vote no on HF888.

Steve Morse
Minnesota Environmental Partnership

Alliance for Sustainability
Audubon Chapter of Minneapolis
Center for Biological Diversity
Clean Water Action
CURE (Clean Up the River Environment)
Friends of Minnesota Scientific & Natural Areas
Friends of the Boundary Waters Wilderness
Friends of the Cloquet Valley State Forest
Friends of the Mississippi River
Institute for Local Self Reliance
Izaak Walton League – Minnesota Division
Land Stewardship Project
League of Women Voters Minnesota
Lower Phalen Creek Project
Minnesota Center for Environmental Advocacy
Minnesota Conservation Federation
Minnesota Native Plant Society
Minnesota Ornithologists Union
Minnesota River Valley Audubon Chapter
Minnesota Trout Unlimited
MN 350
Pesticide Action Network
Pollinate Minnesota
Renewing the Countryside
Save Our Sky Blue Waters
Sierra Club – North Star Chapter
Transit for Livable Communities
Water Legacy

Item 6A.
BCWMC 4-20-17

Bassett Creek Watershed Management Commission

MEMO

Date: April 12, 2017
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.)

2017 Plymouth Creek Restoration Project, Annapolis Lane to 2,500 feet Upstream (2017CR-P): The final feasibility study is available online at http://www.bassettcreekwmo.org/index.php?cID=284. The Hennepin County Board approved the 2017 maximum levy request at their meeting on July 28th. At the September meeting, the Commission held a public hearing on the project and adopted a resolution ordering the project and certifying a final levy to Hennepin County. Also at that meeting, the Commission entered an agreement with the City of Plymouth to design and construct the project. At their meeting on October 11th, the city council approved the agreement. The BCWMC recently received a $400,000 Clean Water Fund grant from BWSR and a $50,000 Opportunity Grant from Hennepin County for this project. Agreement with Hennepin County was executed; agreement with BWSR is forthcoming. Subgrant agreements with the City will be developed. Project design is underway through a contract between the City and Wenck Associates. The project is slated for construction next winter.

2017 Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M): (No update since March) 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 County Board approved the 2017 maximum levy request at their meeting on July 28th. At the September meeting, the Commission held a public hearing on the project and adopted a resolution ordering the project and certifying a final levy to Hennepin County. Also at that meeting, the Commission entered an agreement with the City of Minneapolis to design and construct the project. The Commission was awarded an Environmental Response Fund grant from Hennepin County for $150,300 and a grant agreement being. A subgrant agreement with the City will be developed. The City recently received a proposal from Barr Engineering to design and construct the project.

2013 Four Season Area Water Quality Project/Agora Development (NL-2): At their meeting in December, 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 January 2017 meeting, the Commission took action directing staff to enter an agreement directly with the developer, Rock Hill Management. At their February 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. The agreements were recently executed.

2014 Schaper Pond Diversion Project, Golden Valley (SL-3): In August, the Commission Engineer reported that the structure had been vandalized and repair was needed. The City executed a change order with Sunram

Construction (the contractor for the project) to add weights to some of the baffle anchors. The weights will provide more support against wind loading on the baffle. Ice formed on the pond before the contractor could perform the work. The contractor performed more seeding in the two access areas, which improved vegetation coverage, but more coverage is required to achieve final stabilization. The contractor will be onsite later in April to add weights to the baffle anchors and complete final establishment of seed later this year. Erosion control will be removed once the final stabilization is completed. Effectiveness monitoring by the Commission Engineer will begin as soon as possible after installation of the baffle anchor weights.

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

2015 Main Stem Restoration Project 10th Avenue to Duluth Street, Golden Valley (2015CR): The restoration project is being constructed in two phases, each under separate contract. Phase one includes 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.

The City assessed the condition of the bank stabilization practices following the large rain events in July and August 2016 and found a handful of isolated areas where rocks and bio-logs were displaced enough where repairs are necessary. The repairs were completed and accepted in mid-December and therefore the Phase 1 construction project has entered the warranty period.

Phase two of the project includes the establishment of native vegetation along the stream, including grasses, wildflowers, shrubs, live stakes and fascines, and cordgrass plugs. The second phase of the contract, Native Buffer Vegetation installation is underway. The project has been seeded and stabilized and maintenance mowing and spot treatments have been completed. Applied Ecological Services (AES) has installed live stakes and fascines and will be planting bare root shrubs in the coming weeks. Installation of the trees will be completed in the next two months and 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.

2016 Northwood Lake Improvement Project, New Hope (NL-1): Northwood Lake Improvement Project is nearing completion with all major work complete. The storm tank will be started up on April 18th. Any additional tank punch list items will be addressed at that time. The middle rain garden will be seeded this spring and preliminary discussions with the company designing the educational signage have begun. The educational sign will be installed this spring.

Grant reports were recently submitted to the MPCA and BWSR. Commission Administrator and city staff met with BWSR staff in late February for a Clean Water Fund grant reconciliation meeting. All information was accepted and approved by BWSR. A grand opening of the park is scheduled for the evening of May 15th. Friends of Northwood Lake will disseminate water quality educational materials, including BCWMC materials.

Photos and construction progress are available at: http://www.ci.new-hope.mn.us/departments/publicworks/2016infrastructure.shtml

2016 Honeywell Pond Expansion Project, Golden Valley (BC-4): No update since January. Design plans for this project were approved by the Commission in November 2015. 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 contractor will finish installation of the storm sewer and install the pumps for the water reuse system. Final grading and stabilization will be completed later this year.

2018 Bassett Creek Park Pond & Winnetka Pond Dredging, Crystal (BCP-2) (See Item 5A): A feasibility study for this project has been underway since last August. A technical stakeholder/permitting agency meeting was held January 17th. A public open house for the project was held the on February 16th with over 19 residents in attendance. There has been further correspondence and meetings with city staff and Commissioner Mueller regarding outcomes of the feasibility study and various alternatives. The Commission Engineer will attend a Crystal City Council workshop on April 13th and will present the draft feasibility study and recommendations at this meeting.

Other Work

Minor Plan Amendment:

- Drafted, posted, and distributed Mat 18th public hearing notice to cities
- Corresponded with Hennepin County and BWSR regarding plan amendment request
- Developed plan amendment materials including changes to Table 5-3 of Watershed Management Plan
- Sent 30-day comment period notice to review agencies

Financial:

- Prepared 2018 draft preliminary operating budget with various scenarios for 3/27 Budget Cmte meeting
- Corresponded with Met Council regarding possibility of receiving monitoring assistance in 2018
- Reviewed FY2016 Audit
- Prepared invoice for Blue Line LRT work

Volunteers and Education:

- Assisted with set up/take down of display materials at Plymouth Home Expo and coordinated volunteers
- Distributed CAMP monitoring kits and coordinated CAMP volunteers

Curly-leaf Pondweed Control on Medicine Lake:

- Developed request for proposals, project specifications, and contract with assistance from Plymouth and Commission attorney
- Distributed request for proposals and received two quotes; executed contract with lowest bidder
- Applied for DNR permit for herbicide treatment
- Coordinated with Three Rivers Park District and executed contract for their technical and financial assistance

Other Activities:

- Attended BWSR Clean Water Fund Grant training
- Attended BWSR meeting on future of watershed performance-based funding