



# Bassett Creek Watershed Management Commission

Regular Meeting  
Thursday February 16, 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 – January 19, 2017 Commission Meeting
- B. Approval of February 2017 Financial Report
- C. Approval of Payment of Invoices
  - i. Keystone Waters, LLC – January Meeting Materials Distribution Expenses
  - ii. Barr Engineering – January 2017 Engineering Services
  - iii. Triple D Espresso – February 2017 Meeting Refreshments
  - iv. Wenck – January 2017 WOMP Monitoring
  - v. Lawn Chair Gardener – January 2017 Educational Services
  - vi. Kennedy Graven – December 2016 Legal Services
  - vii. Kennedy Graven - January 2017 Legal Services
  - viii. Metro Blooms – Harrison Neighborhood Project Met Council Grant Reimbursement
  - ix. Shingle Creek WMC – 2017 West Metro Water Alliance (WMWA) Contribution
- D. Resolution 17-03 Designating Depositories for BCWMC Funds
- E. Approval to Designate *Finance and Commerce* as the Official News Publication of the BCWMC
- F. Approval to Reimburse City of New Hope for Northwood Lake Improvement Project Expenses
- G. Approval of Contract with HDR, Inc. for Website Hosting and Assistance
- H. Approval of French Regional Park Street Improvements Project
- I. Approval of Contract with Wenck Associates for 2017 Lake Monitoring
- J. Approval to Set March 2<sup>nd</sup> Technical Advisory Committee Meeting

### 5. ORGANIZATIONAL MEETING

- A. Introduce New Commissioners
- B. Elect Officers
- C. Review 2017 Commission Calendar and Areas of Work
- D. Appoint Committee Members
  - i. Administrative Services Committee
  - ii. Budget Committee
  - iii. Education Committee
  - iv. Aquatic Plant Management/Aquatic Invasive Species Committee
  - v. Technical Advisory Committee Liaison
- E. Consider Approval of January Administrator Invoice
- F. Review and Consider Approval of Year End Financial Report (Feb 1, 2016 - Jan 31, 2017)
- G. Review Open Meeting Law

## 6. BUSINESS

- A. Agora Development
  - i. Consider Approval of Development Plans
  - ii. Consider Agreement with Rock Hill Management and City of Plymouth
- B. Receive Presentation on 2016 Water Quality Monitoring Results
- C. Consider Recommendation from Aquatic Plant Management/Aquatic Invasive Species Committee
- D. Receive Presentation of New Educational Displays
- E. Consider Contract with Dawn Pape for Administrative Services
- F. Review Letters of Interest Proposals for Legal and Technical Services

## 7. COMMUNICATIONS

- A. Administrator's Report
  - i. Report on Road Salt Symposium
  - ii. Update on Enforcement of Buffer Law
- B. Chair
- C. Commissioners
  - i. Report on Road Salt Symposium
- D. TAC Members
  - i. Report on February 3<sup>rd</sup> Meeting
- E. Committees
- F. Legal Counsel
- G. Engineer
  - i. Update on Sweeney Lake Aeration Study
  - ii. Update on Bassett Creek Park Pond/Winnetka Pond Dredging Project

## 8. INFORMATION ONLY (Information online only)

- A. CIP Project Updates: Now Available Online <http://www.bassettcreekwmo.org/projects>
- B. Grant Tracking Summary and Spreadsheet
- C. Northwood Lake Improvement Project Grant Reports (2)
- D. WMWA Winter Newsletter
- E. WCA Notices of Decision, Plymouth
- F. WCA Notice of Conditional Approval, Plymouth

## 9. ADJOURNMENT

### Upcoming Meetings & Events

- Bassett Creek Park & Winnetka Pond Dredging Project Public Open House: Thursday February 16<sup>th</sup>, 5:30 – 7:30 p.m., The Heathers Manor, 3000 N. Douglas Drive, Crystal MN
- Turfgrass Maintenance Training: Thursday March 2<sup>nd</sup>, 7:30 a.m. – 2:00 p.m., Plymouth City Hall
- BCWMC Technical Advisory Committee Meeting: Thursday March 2<sup>nd</sup>, 1:30 – 3:30 p.m. Council Chambers, Golden Valley City Hall
- BCWMC Regular Meeting: Thursday March 16, 8:30 a.m., Council Conf Room, Golden Valley City Hall
- Plymouth Home Expo: Friday April 7<sup>th</sup> 6:00 – 9:00 p.m. & Saturday April 8<sup>th</sup> 9:00 a.m. – 1:00 p.m., Plymouth Creek Center Fieldhouse, Plymouth



## Bassett Creek Watershed Management Commission

### AGENDA MEMO

Date: February 9, 2016

To: BCWMC Commissioners

From: Laura Jester, Administrator

RE: Background Information for 2/16/17 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 – January 19, 2017 Commission meeting- **ACTION ITEM with attachment**
  - B. Approval of February 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 – January Meeting Materials Distribution Expenses
    - ii. Barr Engineering – January 2017 Engineering Services
    - iii. Triple D Espresso – February 2017 Meeting Refreshments
    - iv. Wenck – January 2017 WOMP Monitoring
    - v. Lawn Chair Gardener – January 2017 Educational Services
    - vi. Kennedy Graven – December 2016 Legal Services
    - vii. Kennedy Graven – January 2017 Legal Services
    - viii. Metro Blooms – Harrison Neighborhood Project Met Council Grant Reimbursement
    - ix. Shingle Creek WMC – 2017 West Metro Water Alliance (WMWA) Contribution
  - D. Resolution 17-03 Designating Depositories for BCWMC Funds – **ACTION ITEM with attachment** – *The Commission annually designates official depositories for its funds. Staff (including the Deputy Treasurer) recommends approval of the attached resolution.*
  - E. Approval to Designate Finance and Commerce as the Official News Publication of the BCWMC – **ACTION ITEM no attachment** – *After review of publication options last winter, at their meeting in March 2016, the Commission took action to designate Finance and Commerce as the BCWMC official publication, to end the practice of using Lakeshore Weekly News as a publication outlet, and to use news outlets that cover all areas of the Commission within Minneapolis. Staff recommends to continue this practice and to designate Finance and Commerce as its official publication.*
  - F. Approval to Reimburse City of New Hope for Northwood Lake Improvement Project Expenses – **ACTION ITEM with attachment** *(additional documentation online and still more documentation available upon request)* – *At their meeting In February 2016, the Commission approved an amended agreement with the City of New Hope for construction of the Northwood Lake Improvement Project. This reimbursement request reflects Northdale Construction Company completing the majority off all work, excluding miscellaneous restoration and punch list items which will be addressed in the spring of 2017. The educational signage for the project will also be developed and installed this spring. Staff reviewed all documentation submitted with the reimbursement request and recommends approval of payment.*

- G. Approval of Contract with HDR, Inc. for Website Hosting and Assistance – **ACTION ITEM with attachment** – Staff recommends approving a 3-year contract with HDR to continue their hosting of the new BCWMC website and their continued technical support, as needed.
- H. Approval of French Regional Park Street Improvements Project – **ACTION ITEM with attachment** – Staff recommends conditional approval with comments from the Engineer on this street improvements project within French Regional Park adjacent to Medicine Lake. The proposed project includes approximately 25.1 acres of grading and results in a decrease of 0.8 acres of impervious surfaces.
- I. Approval of Contract with Wenck Associates for 2017 Lake Monitoring – **ACTION ITEM with attachment** – At their meeting in August 2016, the Commission approved a proposal from Wenck Associates to perform routine lake monitoring on Twin, Sweeney, and Lost Lakes for a total of \$38,277. The Sweeney Lake Aeration Study being performed this summer by the Commission Engineer includes the need for some additional data from Sweeney Lake. Since Wenck staff will be on the lake collecting routine data, there is economical efficiencies for them to also collect this extra data (totaling an additional \$1,971 to come from the Aeration Study budget). Staff (including Commission legal counsel) recommends approval of the attached agreement.
- J. Approval to Set March 2<sup>nd</sup> Technical Advisory Committee Meeting – **ACTION ITEM no attachment** – The TAC met on February 3<sup>rd</sup> and began discussing the XP-SWMM model results and the 5-year CIP. Discussions on both of these items need to continue at a future meeting. Staff recommends setting a March 2<sup>nd</sup> TAC meeting.

## 5. ORGANIZATIONAL MEETING

- A. Introduce New Commissioners – **INFORMATION ITEM no attachment**
- B. Elect Officers - **ACTION ITEM no attachment** - The Commission should appoint (or reappoint) a Chair, Vice Chair, Secretary and Treasurer. Officers hold one year terms. The Secretary and Treasurer can be combined into one position. Current officers = Chair de Lambert, Vice Chair Mueller, Secretary/Treasurer Harwell. More information on the duties of the officers can be found in the bylaws here: <http://www.bassettcreekwmo.org/application/files/1314/4424/7360/BCWMC-Bylaws.pdf>.
- C. Review 2017 Commission Calendar and Areas of Work – **INFORMATION ITEM with attachment** – February 1<sup>st</sup> marks the beginning of the Commission’s business and fiscal year. The attached document is an informational piece that shows items the Commission considers annually and/or will consider over the next 12 months. The document also lists the various Commission committees, the approximate timing of committee meetings, and work areas for the committees this year.
- D. Appoint Committee Members – **ACTION ITEM no attachment (see 5C)** - Committees are an important part of the Commission. Commissioners and alternate Commissioners should consider participating on at least one committee. Non-Commissioners can also sit on Commission committees. See the document in 5C above for a description of committees and their work slated for this year.
  - i. Administrative Services Committee
  - ii. Budget Committee
  - iii. Education Committee
  - iv. Aquatic Plant Management/Aquatic Invasive Species Committee
  - v. Technical Advisory Committee Liaison
- E. Consider Approval of January Administrator Invoice – **ACTION ITEM with attachment** – The administrators contract in effect though the end of January states that the Administrator cannot invoice the Commission more than \$5,150/month (about 76 hours) without approval from the Commission. January was a very busy month for the Commission for a variety of reasons. As such, I spent nearly 100 hours on Commission

business totaling over \$6,800. Normally, I would only bill for the maximum of \$5,150 and would “hold” the over-budget amount to the following month. However, since January 31<sup>st</sup> is the end of your fiscal year, I believe it’s important to capture all actual expenditures for the year with this invoice. I’m seeking approval for payment of the entire invoiced amount. The amount does not constitute being over budget on the Administrator budget line for the year.

- F. Review and Consider Approval of Year End Financial Report (Feb 1, 2016 - Jan 31, 2017) – **INFORMATION ITEM with attachment** - *The annual organizational meeting is a good time to review the ending financial standing of the Commission’s prior fiscal year. Although some items were over budget, others were under budget and although the budget appears to have a deficit of more than \$18,500, there was over \$41,000 of unbudgeted revenue due to the Met Council grant for the Harrison Neighborhood Project, and income from Met Council as reimbursement for Commission work on the SWLRT and Blue Line LRT. Consequently, the Commission ended the year with a \$22,725 surplus. Staff is happy to answer questions and further explain the Commission’s financial standing.*
- G. Review Open Meeting Law – **INFORMATION ITEM with attachment** - *The attached document is included simply to remind Commissioners about key provisions of the open meeting law, ways in which the law can be easily broken, and links to further information.*

## 6. BUSINESS

- A. Agora Development
  - i. Consider Approval of Development Plans – **ACTION ITEM with attachment** - *This review summary addresses the development requirements on the Agora development site only, not the components for the BCWMC cost share for the “above and beyond” treatment. The proposed project includes full demolition and reconstruction of the Four Seasons Mall site. Redevelopment will include nine (9) individual buildings, parking, drives, stormwater features, etc. The submittal did not include detailed plans for the wetland restoration to the south of the development site. The proposed project includes approximately 17.1 acres of grading and results in an increase of impervious surface by 0.13 acres. Staff recommends conditional approval with comments in the attached engineer’s memo.*
  - ii. Consider Agreement with Rock Hill Management and City of Plymouth – **ACTION ITEM with DRAFT attachment** – *At their meetings in December and January, the Commission approved entering an agreement with Rock Hill Management to contribute CIP funds for the construction of stormwater management practices that remove pollution above and beyond what’s required for the development. At the time of this writing, the agreement attached is still in draft form and is being reviewed by the developer and his attorney. The Commission will have a separate agreement with the City of Plymouth for on-going maintenance of the wetland restoration portion of the project.*
- B. Receive Presentation on 2016 Water Quality Monitoring Results – **INFORMATION ITEM with attachments (3)** – *Medicine Lake, Crane Lake, and Northwood Lake were monitored by the BWCMC in 2016. The Commission Engineer developed the attached reports (which are considerably shorter and more “user friendly” than previous reports) and will present the results of the monitoring at this meeting.*
- C. Consider Recommendation from Aquatic Plant Management/Aquatic Invasive Species Committee – **ACTION ITEM with attachment** – *Although there is still some work needed by the committee to refine and prioritize their recommendations for the Commission, there is a time-sensitive recommendation from the committee for the Commission’s consideration. Please see the attached memo.*
- D. Receive Presentation of New Educational Displays – **INFORMATION ITEM no attachment** – *At their meeting in July 2016, the Commission entered an agreement with Dawn Pape to develop new educational display materials for the Commission’s use. Dawn will be on hand at the meeting to present the new materials.*

- E. Consider Contract with Dawn Pape for Administrative Services – **ACTION ITEM with attachment** – *Staff recommends continuing to partner with Dawn Pape on a variety of tasks previously performed by the Recording Secretary, Amy Herbert, until last summer and some of which were continued by Ms. Pape under a contract that recently expired. Staff recommends approving the attached contract (which was reviewed by the Commission’s Legal Counsel) for administrative tasks to come from the Administrative Services budget line item.*
  
- F. Review Letters of Interest Proposals for Legal and Technical Services – **ACTION ITEM no attachments** – *In December, the Commission submitted a solicitation for proposals for legal and technical engineering services to comply with State Law. The Commission received one proposal (from Kennedy Graven) for legal services and four proposals for engineering services from Barr Engineering, Northern Technologies LLC, Rani Engineering, and Cardno. The proposals themselves are not public documents and cannot be included with meeting materials. I will send them to Commissioners separately.*

**7. COMMUNICATIONS**

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- B. Chair
- C. Commissioners
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Item 4A.  
BCWMC 2-16-17

## Bassett Creek Watershed Management Commission

**DRAFT Minutes of Regular Meeting**  
**Thursday January 19, 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)
<b>Crystal</b>	Guy Mueller, Vice Chair	NA	Mark Ray
<b>Golden Valley</b>	Stacy Harwell, Secretary/Treasurer	Jane McDonald Black	Jeff Oliver
<b>Medicine Lake</b>	Clint Carlson	Gary Holter	NA
<b>Minneapolis</b>	Michael Welch	<i>Absent</i>	Liz Stout
<b>Minnetonka</b>	<i>Absent</i>	<i>Absent</i>	Tom Dietrich
<b>New Hope</b>	John Elder	Pat Crough (voting member)	Megan Albert, Bernie Weber, Chris Long
<b>Plymouth</b>	<i>Absent</i>	<i>Absent</i>	Derek Ashe
<b>St. Louis Park</b>	Jim de Lambert	Patrick Noon	Erick Francis
<b>Robbinsdale</b>	<i>Absent</i>	<i>Absent</i>	Richard McCoy

<b>Staff and Others Present:</b>	
<b>Administrator</b>	Laura Jester, Keystone Waters
<b>Engineer</b>	Karen Chandler and Jen Koehler, Barr Engineering
<b>Legal Counsel</b>	Troy Gilchrist, Kennedy & Graven
<b>Presenters/ Guests/Public</b>	Jim Prom, John Byrnes, James Rowan (Plymouth residents)

**1. CALL TO ORDER AND ROLL CALL**

On Thursday January 19, 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 cities of Minneapolis, Minnetonka, Plymouth, and Robbinsdale were 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 51 – Requests to Attend Road Salt Symposium.

**MOTION:** Alt. Commissioner Crough moved to approve the agenda as amended. Commissioner Mueller seconded the motion. Upon a vote, the motion carried 5-0. [Cities of Minneapolis, Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

**4. CONSENT AGENDA**

**MOTION:** Commissioner Mueller moved to approve the consent agenda. Alt. Commissioner Crough seconded the motion. Upon a vote, the motion carried 5-0. [Cities of Minneapolis, Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

The following items were approved as part of the consent agenda: the December 15, 2016 Commission Meeting Minutes, the January 2017 Financial Report, the payment of invoices, reimbursement to the City of Golden Valley for Main Stem Restoration Project expenses, a proposal from MMKR to perform 2016 financial audit, resolution to transfer fund from CIP account to Administrative Account, resolution to transfer funds from Administrative Account to Channel Maintenance Fund and Long Term Maintenance Fund, and the Northwood North Area Infrastructure Improvements Project.

The general and construction account balances reported in the January 2017 Financial Report are as follows: Checking Account Balance	\$638,252.76
<b>TOTAL GENERAL FUND BALANCE</b>	<b>\$638,252.76</b>
<b>TOTAL CASH &amp; INVESTMENTS ON-HAND (1/10/17)</b>	<b>\$2,556,014.51</b>
CIP Projects Levied – Budget Remaining	(\$3,116,429.86)
Closed Projects Remaining Balance	(\$560,415.35)
2011-2015 Anticipated Tax Levy Revenue	\$11,574.32
2016 Anticipated Tax Levy Revenue	\$14,828.86
Anticipated Closed Project Balance	(\$534,012.17)



## 5. BUSINESS

Before starting the business of the meeting, Chair de Lambert introduced Bernie Weber with the City of New Hope as the acting Public Works Director and new addition to the BCWMC Technical Advisory Committee.

### A. Consider Approval of Resolution of Appreciation for Alternate Commissioner David Tobelmann

Administrator Jester reported that the Plymouth City Council recently appointed a new alternate commissioner to the BCWMC effective February 1, 2017. Although Alt. Commissioner Tobelmann was not present at the meeting, various commissioners and Commission staff offered praise for his dedication to the Commission and his work on committees and at community events. It was noted that Alt. Commissioner Tobelmann was good to work with, always acted professionally, brought important perspectives to various topics, was fully engaged in advancing the work and goals of the Commission, and will be missed. Chair de Lambert read the resolution of appreciation.

**MOTION:** Commissioner Mueller moved to approve the resolution of appreciation for Alternate Commissioner Tobelmann. Commissioner Harwell seconded the motion. Upon a vote, the motion carried 5-0. [ Cities of Minneapolis, Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

### B. Receive Presentation from Commission Engineer on XP-SWMM Phase II Results

Commission Engineer Chandler introduced Jen Koehler with Barr Engineering who has been guiding the modeling project over the last two years.

[Commissioner Welch arrives.]

Ms. Koehler gave a presentation on the results of the XP-SWMM Phase II modeling effort including background information and basic information on hydraulics and hydrology. She noted the model shows the movement of water through the watershed and inundation of land below the 100-year flood elevation. She reported that more than 1,100 subwatersheds were included in this model in contrast to only 50 – 60 subwatershed that were incorporated into the original XP-SWMM model. She noted this extreme detail in turn captures many more areas, even very small basins like ponds and wetlands, where water is stored on the landscape. She noted that Atlas 14 precipitation amounts were used as well as updated soils data. She reported that locations along Plymouth Creek and the Main Stem of Bassett Creek were used to calibrate the model.

Ms. Koehler reported that the results of the model calibration and validation at four locations showed that the model accurately predicts water elevations and flowrates over the course of a complete hydrograph for various rainfall events. She noted that for this area, a 24-hour, 100-year rainfall event yields 7.4 inches of rain. She reported that the 100-year flood elevations predicted in this model show some slight decreases in the upper part of the watershed over current elevations, but the model indicates increases in flood elevations lower in the watershed.

In response to a question from Commissioner Welch, Ms. Koehler reported that the ponds that were included in the model are those also included in the earlier BCWMC P8 model – mostly public ponds and some private ponds. She noted the model did not capture all privately-owned BMPs.

There was discussion about how the model would be used and what Commission policies might be impacted by the new flood elevations. Overall, Commissioners and city staff expressed satisfaction in the model but realized there was some ground-truthing needed to verify some data and further policy discussions were needed, including possible conversations with the DNR, Army Corps of Engineers, and the Federal Emergency Management Agency. Commission Engineer Chandler noted that this project does not include requesting official changes to flood elevations with State and Federal agencies. She noted, however, that the Commission could decide to manage floodplains to these new levels.

In a discussion about updating the model and/or re-calibrating the model at certain future intervals, Ms. Koehler noted that this model would be considered a “living model” with regular updates to add significant new ponding areas or other practices. She noted, however, that the model would not be re-calibrated often. Commission Engineer Chandler noted that if precipitation amounts were officially changed, that would be a good time for model re-calibration.

Commission Engineer Chandler reviewed the recommendations in the engineer’s memo as the next steps in the process. Administrator Jester noted that action in April 2015 approving this project specified not only a budget, but also a timeframe for project completion by January 31, 2017. She noted that some budget remains but that more work in following through with the recommendations to discuss with the TAC, etc., will take more time. She requested that a motion approving the engineer’s recommendations also include an approval to extend the timeframe of the project beyond the end of January until such time as the budget is spent.

Commissioner Harwell noted that while she thinks the model is well developed and appropriate, she has some technical questions. She volunteered to attend the next TAC meeting where the model will be discussed in more detail.

As an aside, Commissioner Welch recommended that at the next Commission meeting, the Commission appoint liaisons to attend TAC meetings such that policy-related discussions by the TAC can be relayed back to the Commission.

**MOTION:** Alt. Commissioner Crough moved to approve the recommendations in the engineer’s memo regarding the next steps for the XP-SWMM model discussion and to allow the work of the modeling project to continue past January 31, 2017 until project funds are spent. Commissioner Mueller seconded the motion. Upon a vote, the motion carried 6-0. [ Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

**C. Consider Approval of Recommendations from Technical Advisory Committee**

**i. MIDS in Linear Projects**

Committee Chair Erick Francis, TAC member from the City of St. Louis Park, reported on the TAC’s recommendation from their November 28, 2016 meeting regarding stormwater performance standards for linear projects. He reported that currently the Commission requires that Minimal Impact Design Standards (MIDS) be met for linear projects, but that those requirements are very difficult to meet due to poor draining soils, high groundwater, limited space in the right-of-way, utilities, contamination, and other issues. Mr. Francis reported that the TAC reviewed requirements for linear projects used in other watersheds. He reported that the TAC recommends

that the Commission revise their stormwater management requirements for reconstruction of existing linear impervious surfaces such that MIDS is not required but that requirements are similar to the 2004 BCWMC requirements, wherein road authorities must demonstrate a “good faith effort” to improve conditions during linear construction/reconstruction projects. He further noted that the TAC recommends that MIDS requirements remain for linear projects that create new impervious surfaces, if the project creates more than one acre of new impervious surfaces. Administrator Jester provided additional detail on the TAC’s recommendation and the policies of other organizations that were reviewed.

Commissioner Welch asked for confirmation that the TAC memo contains only the TAC’s recommendation and is not a recommendation from the Administrator nor the Commission Engineer. Administrator Jester confirmed this was the case. She noted that she believes there is likely a compromise between the current standard and the TAC’s recommendation. Commission Welch noted that the Southwest Light Rail project is a linear project that recently met MIDS requirements and that he knows other linear projects that are also meeting MIDS. He reminded the group that the MIDS requirements were developed over a period of years by a diverse group of stakeholders that took the constraints of linear projects into consideration when developing the standard. Both Commission Welch and Commission Engineer Chandler agreed that language such as “good faith effort” is difficult to enforce and apply equally between and among different projects.

Jeff Oliver (TAC member from Golden Valley) noted that the requested changes would not apply to private developments. Commissioner Harwell reported that meeting MIDS requirements in linear projects is difficult in many areas and she reminded the group of the discussion about this likely difficulty when the Commission was adopting the new requirements. She noted that now we can see that these standards aren’t practical in the real world. Ms. Harwell also noted that chloride contamination is a big issue, including its infiltration into groundwater. She noted that cities are right not to infiltrate runoff coming directly from roadways.

Commission Engineer Chandler indicated that it’s a matter of funding and that road reconstruction is an opportunity to improve conditions. If improvements aren’t made during these projects, then it’s likely the Commission or others will need to spend additional funds to implement more projects. She noted that she’s in favor of a cost cap alternative.

Mr. Oliver noted that in some cases there truly isn’t a way to implement the current standards, so no amount of a cost cap would help. He noted that in other cases cities can actually install multiple best management practices that can offset other projects. He noted that Golden Valley always looks for ways to improve conditions and implements them wherever possible. Mr. Oliver noted that there were many perspectives and situation to consider.

There was a brief discussion about a possible program to bank credits from one project to use in another project. However, there was consensus that such a program could be more problematic than helpful. Chris Long (TAC member from New Hope) noted that cities want to do the right thing and work towards that goal whenever possible but that long term maintenance of structures in rights of way is another big concern for cities.

Derek Asche (TAC member from Plymouth) noted that MIDS’ flexible treatment option #3 is offsite mitigation which should be a viable option for cities to use if other practices aren’t workable.

**MOTION:** Commissioner Welch moved to direct the Commission Engineer to analyze the questions and concerns raised by the Technical Advisory Committee and develop a recommendation for the Commission on how to move forward with this issue. Commissioner Mueller seconded the motion. Upon a vote, the motion carried 6-0. [Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

It was confirmed that if the Commission Engineer deemed this request to be a significant undertaking, she would bring a proposed scope of work to the Commission for consideration.

[Commissioner Harwell departs the meeting. Alt. Commissioner McDonald Black assumes voting position for Golden Valley.]

**ii. Shoreland and Habitat Monitoring**

Mr. Francis reported that after receiving a description of a possible expansion of Commission monitoring efforts to include monitoring shoreland and habitats on lakes, the TAC recommends that the Commission not develop and implement such a program at this time. Administrator Jester provided some additional background on the possible program and reported that city staff indicated that if that data were needed, that city staff or park district staff could collect the data rather than the Commission.

**iii. Letter of Understanding for MS4 Reporting on BCWMC Education Activities**

Mr. Francis reported that the TAC recommends that the Administrator annually provide a list of educational activities and a letter of understanding to member cities such that cities can formally take credit for these activities in their MS4 permit reports.

**MOTION:** Commissioner McDonald Black moved to approve recommendations from the Technical Advisory Committee for items ii. and iii. above. Commissioner Mueller seconded the motion.

**MOTION:** Commissioner Welch moved to amend the motion to approve only recommendation iii. above because it's not proper to approve that the Commission NOT do something. Commissioner Carlson seconded the motion. Upon a vote the motion carried 6-0. [Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

Upon a vote on the main motion, the motion carried 6-0. [Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

**D. Discuss Structure of Agreement for Contributing Capital Improvement Program Funds to Agora Development, Plymouth**

Administrator Jester reported that since the December meeting when the Commission took action to enter into an agreement with the City of Plymouth for Commission financial contribution for the stormwater management features at the Agora development, Commission staff and city staff have been working to determine the best way for the Commission to cooperate with the city and the

developer and to ultimately contribute CIP funding to the project. She reported that staff now recommend that the Commission enter into an agreement directly with Rock Hill Management rather than with the City of Plymouth.

**MOTION:** Commissioner Welch moved to direct the Commission Administrator and Legal Counsel to develop an agreement with Rock Hill Management for the Commission's consideration. Alt. Commissioner Crough seconded the motion. Upon a vote the motion carried 6-0. [Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

**E. Receive Update on Timeline and Requirements for Conformance with 2015 Watershed Management Plan Through City Ordinances and Local Water Plans**

Commission Engineer Chandler reminded the group that the latest Watershed Management Plan was adopted in September 2015 and that it requires that member cities update their ordinances or other controls to comply with the Plan within two years of Plan adoption, or September of this year. She noted that updates to a city's ordinances/controls may be needed in a variety of areas including erosion and sediment control; wetland management; floodplain/zoning; stormwater management, etc. Further, she noted that cities must update their Local Water Management Plans (LWMP) to conform with the Commission Plan and that the LWMPs are updated along with the city's Comprehensive Plan, due in 2018. She reported that the checklist included in the meeting packet was developed to assist cities with their updates.

**F. Consider Directing Staff to Submit Aquatic Invasive Species Prevention Grant Application to Hennepin County**

Administrator Jester reminded the group that at the December meeting the Commission approved a recommendation from the Aquatic Plant Management/Aquatic Invasive Species (AIS) Committee to submit a grant application to Hennepin County for the inventory of AIS in Sweeney, Parkers, and Medicine Lakes plus a pathways analysis, vulnerability and suitability assessment, and management plan development. She noted the draft grant application includes a cash match from the Commission of \$5,000 and in-kind administrative support.

**MOTION:** Commissioner Carlson moved approval of the draft AIS Prevention grant application and directed staff to submit the application to Hennepin County. Alt. Commissioner Crough seconded the motion. Upon a vote the motion carried 6-0. [ Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

**G. Receive Update on Compliance with New State Buffer Law in BCWMC**

Administrator Jester noted the letter from Hennepin County reporting that no parcels in the Bassett Creek watershed were found to be out of compliance with the State's Buffer Law.

Commissioner Welch noted that the MN Board of Water and Soil Resources may need a decision from the Commission about whether or not the Commission wants to take an enforcement role. He asked the Administrator to look into that matter and bring information, as needed, to the next meeting.

## H. Receive Update on Various Grant Applications, Awards, and Development of Grant Work Plans

Administrator Jester provided an update on current grants to the Commission and grant applications in process. She noted that over the last four years the Commission has received over \$1.4 million in grants and is likely to receive another \$200,000 from Hennepin County this month. She noted that it takes hours of staff time and cooperation from cities to develop applications, work plans, and perform reporting. She noted grant reports are being prepared for the MPCA and Clean Water Fund grants for the Northwood Lake Improvement Project, and the Met Council grant for the Harrison Neighborhood Project. She noted that work plans will be developed for the two new Clean Water Fund grants recently awarded and that a request for reimbursement for the DNR's Flood Damage Reduction grant is being prepared.

Commissioners and city staff expressed appreciation to Commission staff for their work on grants, noting that it makes a big difference in the funds of the Commission and their ability to do even more good projects.

### I. Requests to Attend the Road Salt Symposium

Administrator Jester reported that she and Alt. Commissioner Scanlan are requesting reimbursement for registration fees (\$135) to attend the Road Salt Symposium on February 2<sup>nd</sup> and that she is requesting to attend the event on behalf of the Commission. Jim Prom, the Commissioner recently appointed by the City of Plymouth and whose term begins on February 1<sup>st</sup> also requested to attend the event and receive reimbursement of registration fees.

**MOTION:** Commissioner Carlson moved to approve the Administrator's attendance at the Road Salt Symposium and to reimburse Commissioner Prom, Alternate Commissioner Scanlan, and the Administrator for registration fees of \$135 each. Seconded by Commissioner Welch. Upon a vote the motion carried 6-0. [Cities of Minnetonka, Plymouth and Robbinsdale were absent from the vote.]

There was some discussion about the need to provide education and training to private salt applicators and/or to have some sort of regulatory approach for limiting salt use in private or institutional settings. Commissioner Welch also noted the possibility of a State law limiting the liability of private applicators. Administrator Jester noted she was working with Fortin Consulting to set up a training for winter maintenance of sidewalks and parking lots.

## 6. COMMUNICATIONS

### A. Administrator's Report

Administrator Jester reminded Commissioners to complete the auditor's conflict of interest forms.

### B. Chair

Chair de Lambert reminded Commissioners that the February meeting will include election of officers and appointments to committees.

### C. Commissioners

No report.

**D. TAC Members**

Reminder of new meeting date: Friday February 3<sup>rd</sup> at 9:00 a.m.

**E. Committees**

Reminder of next meeting on Tuesday January 24<sup>th</sup> at 8:30 a.m.

**F. Legal Counsel**

No report.

**G. Engineer**

No report.

**7. INFORMATION ONLY** (Available <http://www.bassettcreekwmo.org/document/meeting-materials-minu/meeting-materials/thursday-january-19-2017> )

**A. CIP Project Updates: Now Available Online** <http://www.bassettcreekwmo.org/projects>

**B. Grant Tracking Summary and Spreadsheet**

**C. [16<sup>th</sup> Annual Road Salt Symposium February 2<sup>nd</sup>](#)**

**D. WMTA Meeting Minutes**

**E. WCA Notice of Decision, Golden Valley**

**F. WCA Notices of Application (multiple), Plymouth**

**G. WCA Notice of Decision, Plymouth**

**H. WCA Notice of Decision, Crystal**

**8. ADJOURNMENT** – Vice Chair Mueller adjourned the meeting at 10:38 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: February 16, 2017

Item 4B.  
 BCWMC 2-16-17

(UNAUDITED)

<b>BEGINNING BALANCE</b>	<b>31-Jan-17</b>		<b>575,317.40</b>
<b>ADD:</b>			
<b>General Fund Revenue:</b>			
Permits:			
Rock Hill Mgmt	BCWMC 2017-01	2,800.00	
Reimbursed Construction Costs		0.00	
	<b>Total Revenue and Transfers In</b>		<b>2,800.00</b>
<b>DEDUCT:</b>			
<b>Checks:</b>			
2939 Triple D Espresso	February Meeting	103.98	
2940 Shingle Creek WMC	WMWA Gen Exp	9,750.00	
	<b>Total Checks</b>		<b>9,853.98</b>
Outstanding from previous month:			
2909 Hennepin County	2016 River Watch	2,000.00	
2924 Lawn Chair Gardener	Education/admin services	1,360.00	
<b>ENDING BALANCE</b>	<b>8-Feb-17</b>		<b>568,263.42</b>



Bassett Creek Watershed Management Commission General Account

General Fund (Administration) Financial Report

(UNAUDITED)

Fiscal Year: February 1, 2017 through January 31, 2018

MEETING DATE: February 16, 2017

	2017 / 2018 BUDGET	CURRENT MONTH	YTD 2017 / 2018	BALANCE
<b>OTHER GENERAL FUND REVENUE</b>				
ASSESSMENTS TO CITIES	500,000	0.00	224,247.00	275,753.00
PROJECT REVIEW FEES	60,000	2,800.00	2,800.00	57,200.00
WOMP REIMBURSEMENT	5,000	0.00	0.00	5,000.00
MET COUNCIL REIMBURSEMENTS-LRT PROJECTS	7,000	0.00	0.00	7,000.00
MET COUNCIL - METRO BLOOMS	0	0.00	0.00	0.00
TRANSFERS FROM LONG TERM FUND & CIP	38,072	0.00	0.00	38,072.00
<b>REVENUE TOTAL</b>	<b>610,072</b>	<b>2,800.00</b>	<b>227,047.00</b>	<b>383,025.00</b>
<b>EXPENDITURES</b>				
<b>ENGINEERING &amp; MONITORING</b>				
TECHNICAL SERVICES	125,000	0.00	0.00	125,000.00
DEV/PROJECT REVIEWS	65,000	0.00	0.00	65,000.00
NON-FEE/PRELIM REVIEWS	15,000	0.00	0.00	15,000.00
COMMISSION AND TAC MEETINGS	14,000	0.00	0.00	14,000.00
SURVEYS & STUDIES	20,000	0.00	0.00	20,000.00
WATER QUALITY/MONITORING	74,300	0.00	0.00	74,300.00
WATER QUANTITY	11,500	0.00	0.00	11,500.00
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	0.00	0.00	15,500.00
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
<b>ENGINEERING &amp; MONITORING TOTAL</b>	<b>406,300</b>	<b>0.00</b>	<b>0.00</b>	<b>406,300.00</b>
<b>ADMINISTRATION</b>				
ADMINISTRATOR	67,200	0.00	0.00	67,200.00
LEGAL COSTS	18,500	0.00	0.00	18,500.00
AUDIT, INSURANCE & BONDING	15,500	0.00	100.00	15,400.00
FINANCIAL MANAGEMENT	3,200	0.00	0.00	3,200.00
MEETING EXPENSES	2,000	103.98	103.98	1,896.02
ADMINISTRATIVE SERVICES	18,000	0.00	0.00	18,000.00
<b>ADMINISTRATION TOTAL</b>	<b>124,400</b>	<b>103.98</b>	<b>203.98</b>	<b>124,196.02</b>
<b>OUTREACH &amp; EDUCATION</b>				
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	9,750.00	9,750.00	10,250.00
WATERSHED EDUCATION PARTNERSHIPS	15,500	0.00	0.00	15,500.00
<b>OUTREACH &amp; EDUCATION TOTAL</b>	<b>44,900</b>	<b>9,750.00</b>	<b>9,750.00</b>	<b>35,150.00</b>
<b>MAINTENANCE FUNDS</b>				
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
<b>MAINTENANCE FUNDS TOTAL</b>	<b>50,000</b>	<b>0.00</b>	<b>0.00</b>	<b>50,000.00</b>
<b>TMDL WORK</b>				
TMDL IMPLEMENTATION REPORTING	20,000	0.00	0.00	20,000.00
<b>TMDL WORK TOTAL</b>	<b>20,000</b>	<b>0.00</b>	<b>0.00</b>	<b>20,000.00</b>
<b>TOTAL EXPENSES</b>	<b>645,600</b>	<b>9,853.98</b>	<b>9,953.98</b>	<b>635,646.02</b>

**BCWMC Construction Account**  
**Fiscal Year: February 1, 2017 through January 31, 2018**  
**January/February 2017 Financial Report**

(UNAUDITED)

Cash Balance 02/01/17				
Cash		1,214,833.18		
	Total Cash			1,214,833.18
	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	
	<b>Total Cash &amp; Investments</b>			<b>2,206,833.18</b>
Add:	Interest Revenue (Bank Charges)			
	<b>Total Revenue</b>			<b>0.00</b>
Less:	CIP Projects Levied - Current Expenses - TABLE A		0.00	
	Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B		0.00	
	<b>Total Current Expenses</b>			<b>0.00</b>
	<b>Total Cash &amp; Investments On Hand</b>		<b>02/08/17</b>	<b>2,206,833.18</b>
	Total Cash & Investments On Hand		2,206,833.18	
	CIP Projects Levied - Budget Remaining - TABLE A		(2,768,007.26)	
	<b>Closed Projects Remaining Balance</b>		<b>(561,174.08)</b>	
	2011 - 2015 Anticipated Tax Levy Revenue - TABLE C		11,653.66	
	2016 Anticipated Tax Levy Revenue - TABLE C		11,043.54	
	<b>Anticipated Closed Project Balance</b>		<b>(538,476.88)</b>	
	Proposed & Future CIP Project Amount to be Levied - TABLE B		1,928,045.00	

**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	0.00	0.00	141,851.84	848,148.16	
<b>2014</b>						
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)	612,000	0.00	0.00	303,263.45	308,736.55	
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	
<b>2015</b>						
Main Stem 10th to Duluth (CR2015)	1,503,000	0.00	0.00	946,447.15	556,552.85	
<b>2016</b>						
Honeywell Pond Expansion (BC-4) <sup>1</sup>	810,930	0.00	0.00	13,953.98	796,976.02	
Northwood Lake Pond (NL-1) <sup>2</sup>	822,140					
Budget Amendment	611,600	1,433,740	0.00	1,432,519.00	1,221.00	294,932.80
		5,958,670	0.00	3,190,662.74	2,768,007.26	

**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
<b>2017</b>						
Main Stem Cedar Lk Rd-Dupont (2017CR-M)	2017 Levy	580,930	863,573	0.00	0.00	114,561.79
	2018 Levy	282,643				749,011.21
Plymouth Creek Restoration (CR-P)	2017 Levy	400,000	1,064,472	0.00	0.00	65,604.13
	2018 Levy	664,472				998,867.87
2017 Project Totals			1,928,045	0.00	0.00	180,165.92
<b>2018</b>						
Bassett Creek Park & Winnetka Ponds Dredging (BCP-2)			0.00	0.00	31,319.05	(31,319.05)
2018 Project Totals			0	0.00	0.00	31,319.05
<b>2019</b>						
Bryn Mawr Meadows (BC-5)			0	0.00	0.00	5,282.80
2019 Project Totals			0	0.00	0.00	5,282.80
Total Proposed & Future CIP Projects to be Levied		1,928,045	0.00	0.00	216,767.77	1,711,277.23

**BCWMC Construction Account**

Fiscal Year: February 1, 2017 through January 31, 2018  
January/February 2017 Financial Report

(UNAUDITED)

**TABLE C - TAX LEVY REVENUES**

	County Levy	/ Adjustments	Adjusted Levy	Current Received	Year to Date Received	Inception to Date Received	Balance to be Collected	BCWMO Levy
2017 Tax Levy			0.00	0.00			0.00	1,303,600.00
2016 Tax Levy	1,222,000.00		1,222,000.00	0.00		1,210,956.46	11,043.54	1,222,000.00
2015 Tax Levy	1,000,000.00	4,784.98	1,004,784.98	0.00		1,000,037.76	4,747.22	1,000,000.00
2014 Tax Levy	895,000.00	(5,147.27)	889,852.73	0.00		886,182.01	3,670.72	895,000.00
2013 Tax Levy	986,000.00	(8,746.67)	977,253.33	0.00		974,717.80	2,535.53	986,000.00
2012 Tax Levy	762,010.00	(7,283.60)	754,726.40	0.00		754,133.65	592.75	762,010.00
2011 Tax Levy	863,268.83	(12,453.26)	850,815.57	0.00		850,708.13	107.44	862,400.00
				<u>0.00</u>			<u>22,697.20</u>	

**OTHER PROJECTS:**

	Approved Budget	Current Expenses / (Revenue)	2017 YTD Expenses / (Revenue)	INCEPTION To Date Expenses / (Revenue)	Remaining Budget
<b>TMDL Studies</b>					
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
<b>Flood Control Long-Term</b>					
Flood Control Long-Term Maintenance	673,373.00	0.00	0.00	305,846.41	
Less: State of MN - DNR Grants		(69,862.00)	(69,862.00)	(83,700.00)	
	673,373.00	(69,862.00)	(69,862.00)	222,146.41	451,226.59
<b>Annual Flood Control Projects:</b>					
Flood Control Emergency Maintenance	500,000.00	0.00	0.00	0.00	500,000.00
<b>Annual Water Quality</b>					
Channel Maintenance Fund	350,000.00	0.00	0.00	121,242.95	228,757.05
Total Other Projects	1,658,373.00	(69,862.00)	(69,862.00)	451,154.51	1,207,218.49

<b>Cash Balance 02/01/17</b>	<b>1,034,855.44</b>
Add:	
Transfer from GF	0.00
Less:	
Current (Expenses)/Revenue	69,862.00
<b>Ending Cash Balance 02/08/17</b>	<b><u>1,104,717.44</u></b>
<b>Additional Capital Needed</b>	<b><u>(102,501)</u></b>

**Bassett Creek Construction Project Details**

2/8/2017

<b>CIP Projects Levied</b>											
	<b>Total</b>	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2016</b>	<b>2017</b>	<b>2017</b>
	<b>CIP Projects Levied</b>	<b>Lakeview Park Pond (ML-8)</b>	<b>Four Seasons Mall Area Water Quality Project (NL-2)</b>	<b>Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)</b>	<b>Briarwood / Dawnview Water Quality Improve Proj (BC-7)</b>	<b>Twin Lake In-Lake Alum Treatment Project (TW-2)</b>	<b>Main Stem - 10th Ave to Duluth (CR2015)</b>	<b>Honeywell Pond Expansion (BC-4)</b>	<b>Northwood Lake Pond (NL-1)</b>	<b>Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)</b>	<b>Plymouth Creek Restoration (2017 CR-P)</b>
<b>Original Budget</b>	<b>7,275,115</b>	<b>196,000</b>	<b>990,000</b>	<b>612,000</b>	<b>250,000</b>	<b>163,000</b>	<b>1,503,000</b>	<b>810,930</b>	<b>822,140</b>	<b>863,573</b>	<b>1,064,472</b>
<b>Added to Budget</b>	<b>611,600</b>								<b>611,600</b>		
<b>Expenditures:</b>											
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	2,787,346.00		14,350.00	213,668.55	230,401.91	66,812.17	841,405.15	49.50	1,332,576.81	71,889.91	16,192.00
Feb 2017-Jan 2018											
<b>Total Expenditures:</b>	<b>3,370,828.66</b>	<b>11,589.50</b>	<b>141,851.84</b>	<b>303,263.45</b>	<b>250,000.00</b>	<b>91,037.82</b>	<b>946,447.15</b>	<b>13,953.98</b>	<b>1,432,519.00</b>	<b>114,561.79</b>	<b>65,604.13</b>
<b>Project Balance</b>	<b>4,515,886.34</b>	<b>184,410.50</b>	<b>848,148.16</b>	<b>308,736.55</b>		<b>71,962.18</b>	<b>556,552.85</b>	<b>796,976.02</b>	<b>1,221.00</b>	<b>749,011.21</b>	<b>998,867.87</b>
<b>Project Totals By Vendor</b>											
	<b>Total</b>	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2016</b>	<b>2017</b>	<b>2017</b>
	<b>CIP Projects Levied</b>	<b>Lakeview Park Pond (ML-8)</b>	<b>Four Seasons Mall Area Water Quality Project (NL-2)</b>	<b>Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)</b>	<b>Briarwood / Dawnview Water Quality Improve Proj (BC-7)</b>	<b>Twin Lake In-Lake Alum Treatment Project (TW-2)</b>	<b>Main Stem - 10th Ave to Duluth (CR2015)</b>	<b>Honeywell Pond Expansion (BC-4)</b>	<b>Northwood Lake Pond (NL-1)</b>	<b>Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)</b>	<b>Plymouth Creek Restoration (2017 CR-P)</b>
Barr Engineering	377,193.73	6,338.95	43,020.54	75,251.50	13,089.74	15,712.00	15,825.00	13,157.98	17,550.00	111,743.39	65,504.63
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		
MPCA	2,500.00									2,500.00	
Blue Water Science	3,900.00					3,900.00					
S E H											
Misc											
2.5% Admin Transfer	72,025.00	4,050.00	20,600.00	13,350.00	5,470.00	3,555.00	25,000.00				
Transfer to General Fun											
<b>Total Expenditures</b>	<b>3,370,828.66</b>	<b>11,589.50</b>	<b>141,851.84</b>	<b>303,263.45</b>	<b>250,000.00</b>	<b>91,037.82</b>	<b>946,447.15</b>	<b>13,953.98</b>	<b>1,432,519.00</b>	<b>114,561.79</b>	<b>65,604.13</b>
<b>Levy/Grant Details</b>											
	<b>Total</b>	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2016</b>	<b>2017</b>	<b>2017</b>
	<b>CIP Projects Levied</b>	<b>Lakeview Park Pond (ML-8)</b>	<b>Four Seasons Mall Area Water Quality Project (NL-2)</b>	<b>Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)</b>	<b>Briarwood / Dawnview Water Quality Improve Proj (BC-7)</b>	<b>Twin Lake In-Lake Alum Treatment Project (TW-2)</b>	<b>Main Stem - 10th Ave to Duluth (CR2015)</b>	<b>Honeywell Pond Expansion (BC-4)</b>	<b>Northwood Lake Pond (NL-1)</b>	<b>Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)</b>	<b>Plymouth Creek Restoration (2017 CR-P)</b>
2010 -2014 Levies	1,881,000										
2014/2015 Levy	1,000,000	162,000	824,000	534,000	218,800	142,200	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	400,000								400,000		
MPCA Grant-CWPGGrant	94,933								94,933		
DNR Grants-LT Maint											
<b>Total Levy/Grants</b>	<b>6,604,533</b>	<b>196,000</b>	<b>990,000</b>	<b>534,000</b>	<b>218,800</b>	<b>142,200</b>	<b>1,503,000</b>	<b>810,930</b>	<b>1,228,673</b>	<b>580,930</b>	<b>400,000</b>
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					Totals - All Projects
Total Proposed & Future CIP Projects (to be Levied)	2018 Bassett Cr Pk & Winnetka Ponds Dredging (2018 BCP-2)	2019 Bryn Mawr Meadows	DNR Grant From GF	Total Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long-Term Maint	Channel Maint	
Original Budget Added to Budget				1,278,373.00 (250,000.00) 13,838.00 380,000.00	105,000.00	500,000.00	748,373.00 (250,000.00) 13,838.00 175,000.00	175,000.00	8,553,488.00 361,600.00 13,838.00 380,000.00
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		2,970,735.79
Feb 2017-Jan 2018									
<b>Total Expenditures:</b>	<b>36,601.85</b>	<b>31,319.05</b>	<b>5,282.80</b>	<b>534,854.51</b>	<b>107,765.15</b>		<b>305,846.41</b>	<b>121,242.95</b>	<b>3,942,285.02</b>
<b>Project Balance</b>	<b>(36,601.85)</b>	<b>(31,319.05)</b>	<b>(5,282.80)</b>	<b>1,137,356.49</b>	<b>27,234.85</b>	<b>500,000.00</b>	<b>381,364.59</b>	<b>228,757.05</b>	<b>5,616,640.98</b>
<b>Project Totals By Vendor</b>									
Barr Engineering	36,601.85	31,319.05	5,282.80	373,043.50	104,888.70		268,154.80		786,839.08
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
MPCA									2,500.00
Blue Water Science									3,900.00
S E H									
Misc				5,704.41	1,712.15		3,992.26		5,704.41
2.5% Admin Transfer									72,025.00
Transfer to General Fund				32,600.00			32,600.00		32,600.00
<b>Total Expenditures</b>	<b>36,601.85</b>	<b>31,319.05</b>	<b>5,282.80</b>	<b>534,854.51</b>	<b>107,765.15</b>		<b>305,846.41</b>	<b>121,242.95</b>	<b>3,942,285.02</b>
<b>Levy/Grant Details</b>									
2010 -2014 Levies					30,000		100,000	100,000	1,881,000
2014/2015 Levy				50,000.00			25,000	25,000	1,050,000
2015-2016 Levy									
2016-2017 Levy									
2017-2018 Levy									
Construction Fund Balance				50,000.00			25,000	25,000	753,000
BWSR Grant- BCWMO				50,000.00			25,000	25,000	450,000
MPCA Grant-CWPGrant									
DNR Grants-LT Maint				13,838.00			13,838		
<b>Total Levy/Grants</b>				<b>393,838.00</b>	<b>30,000</b>		<b>188,838</b>	<b>175,000</b>	<b>4,134,000</b>

**RESOLUTION 17-03**

Member \_\_\_\_\_ introduced the following resolution and moved its adoption:

**RESOLUTION DESIGNATING DEPOSITORIES FOR  
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION FUNDS**

BE IT RESOLVED by the Bassett Creek Watershed Management Commission of the Cities of Crystal, Golden Valley, Medicine Lake, Minneapolis, Minnetonka, New Hope, Plymouth, Robbinsdale, and St. Louis Park that the following are named as depositories for funds, subject to the furnishing of collateral for funds on deposit as provided in the Laws of the State of Minnesota: **RBC Dain Rauscher; Wells Fargo; 4M Fund**

BE IT FURTHER RESOLVED that a sweep account will be used for nightly balances.

BE IT FURTHER RESOLVED that the following signatories or alternates are authorized to be signatories on checks drawn on funds deposited:

General Checking: Chair or Vice Chair and Treasurer or Deputy Treasurer  
Each check shall require two signatures.

BE IT FURTHER RESOLVED that the following shall be authorized to make investments of the Bassett Creek Watershed Management Commission and shall be authorized to deposit the principal of said investments in the above named depositories as necessary and beneficial to the Bassett Creek Watershed Management Commission: Deputy Treasurer of the Bassett Creek Watershed Management Commission.

The Deputy Treasurer shall supply each of the depositories with certified copies of this resolution along with such signature documentation as is required by the depository and the authorizations set forth above.

Adopted by the Board of the Bassett Creek Watershed Management Commission this \_\_\_\_\_ day of \_\_\_\_\_ 2017.

\_\_\_\_\_  
Chair

ATTEST:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Date

The motion for the adoption of the foregoing resolution was seconded by Member \_\_\_\_\_ and upon a vote being taken thereon, the following voted in favor thereof: \_\_\_\_\_ and the following voted against the same \_\_\_\_\_ whereupon said resolution was declared duly passed and adopted.



Stantec Consulting Services Inc.  
 2335 Highway 36 West  
 St. Paul MN 55113  
 Tel: (651) 636-4600  
 Fax: (651) 636-1311

Item 4F.  
 BCWMC 2-16-17  
 Additional documents online  
 Full documentation available upon request

February 6, 2017  
 File: 193802816

Attention: Laura Jester  
 Keystone Waters, LLC  
 BCWMC Administrator  
 16145 Hillcrest Lane  
 Eden Prairie, MN 55346

Reference: Northwood Lake Improvements – Reimbursement Request #3  
 City Project No.: 938, 967, 974

Dear Laura,

Per the terms of the Cooperative Agreement for the 2016 Northwood Lake Improvements Project, the City of New Hope is requesting reimbursement for expenses incurred during the preparation of the design plans, construction management, and construction of the project. The total reimbursement eligible for engineering services and constructions costs is **\$345,895.78**, and detailed breakdowns are provided below with additional backup information attached.

**Engineering Services**

The request for reimbursement for engineering is \$59,384.66, which accounts for engineering construction services. The summary breakdown of these costs per Concept A and C design concepts is shown in the table below:

Period Ending	Invoice No.	BCWMC Related Amount	Concept A (89%)	Concept C (11%)
5/27/2016	1069845	\$17,072.45	\$15,194.48	\$1,877.97
7/1/2016	1083385	\$22,676.58	\$20,182.16	\$2,494.42
7/29/2016	1094903	\$19,635.63	\$17,475.71	\$2,159.92
Total Amount		\$59,384.66	\$52,852.35	\$6,532.31

**Construction Costs**

The request for reimbursement of construction costs is \$570,723.66, which accounts for five contractor requests for payment. The summary breakdown of these costs per is shown per the objectives identified in the grants awarded as shown on the following page.



February 6, 2017  
 Ms. Laura Jester  
 Page 2 of 3

Reference: Northwood Lake Improvements – Reimbursement Request #3

Construction Cost Category	Total Amount BCWMC Related to Date	Total BCWMC Previously Reimbursed	Current Amount BCWMC Related for Reimbursement
<b>Objective 2</b>			
A) Construction costs - storm sewer redirect, treatment structure install <sup>3</sup>	\$311,702.95	\$137,560.94	\$174,142.01
B) Construction costs - underground storage tank <sup>4</sup>	\$558,207.82	\$446,967.72	\$111,240.10
C) Construction costs - water re-use piping and pumphouse <sup>5</sup>	\$30,734.48	\$7,936.45	\$22,798.03
D) Construction costs - raingardens & curbcut <sup>6</sup>	\$245,527.17	\$20,012.05	\$225,515.12
<b>Objective 3</b>			
A) Construction costs - pond construction <sup>7</sup>	\$306,566.10	\$269,537.70	\$37,028.40
<b>Total Amount</b>	<b>\$1,452,738.52</b>	<b>\$882,014.86</b>	<b>\$570,723.66</b>

Although the total eligible BCWMC related reimbursement costs (engineering and construction costs) is \$630,108.32, only \$345,895.78 is available for reimbursement. See summary table below.

BCWMC Reimbursement Requests	Engineering Costs	Construction Costs	Total
Total BCWMC Reimbursement Request #1	\$83,484.84	\$0.00	\$83,484.84
Total BCWMC Reimbursement Request #2	\$71,872.00	\$882,014.85	\$953,886.85
Total BCWMC Reimbursement Request #3 (Current Eligible)	\$59,384.66	\$570,723.66	\$630,108.32
<b>Total</b>	<b>\$214,741.50</b>	<b>\$1,452,738.51</b>	<b>\$1,667,480.01</b>
Max BCWMC Reimbursement (\$1,433,740.00 less \$30,000 Feasibility Study Costs, less \$2,000 Educational Signage, less appr. \$19,000 BCWMC Expenses)			<b>\$1,383,267.47</b>
City of New Hope Contributions (greater than \$276,400 of Agreement Limit)			\$284,212.54
<b>Actual Available BCWMC Reimbursement Request #3</b>			<b>\$345,895.78</b>





February 6, 2017  
Ms. Laura Jester  
Page 3 of 3

Reference: Northwood Lake Improvements – Reimbursement Request **#3**

Construction Status

The construction reimbursement request reflects Northdale Construction Company completing the majority off all work, excluding miscellaneous restoration and punch list items which will be addressed in the spring of 2017. The rain gardens and Jordan Avenue pond are complete, and are currently providing storm water treatment and storage. The storm water re-use irrigating the ballfields from the underground storm water tank will be in operation in 2017.

Enclosed please find the attached invoices from Stantec, proof of payment from the City, the contractor requests for payment, and detailed project coding for construction costs.

If you have any questions or require further information, please call me at (651)604-4808.

Sincerely,

STANTEC

Christopher W. Long, P.E.

Attachments: Stantec Invoices; Proof of Payment by New Hope; Pay Request No. 4-8; Detailed Project Coding for Construction Costs

Cc: Bernie Weber, Megan Albert, Shawn Markham – New Hope; Kellie Schlegel, Ann Dienhart, Adam Martinson – Stantec.

AMENDMENT TO AGREEMENT  
FOR  
ENGINEERING SERVICES

WHEREAS:

HDR ENGINEERING, INC. ("HDR") entered into an Agreement on January 20, 2016 to perform website support services for Bassett Creek Watershed Management Commission ("BCWMC");

BCWMC desires to amend this Agreement in order for HDR to perform services beyond those previously contemplated;

HDR is willing to amend the agreement and perform the additional website support services.

NOW, THEREFORE, HDR and BCWMC do hereby agree:

The Agreement and the terms and conditions therein shall remain unchanged other than those sections and exhibits listed below;

To amend this Agreement in order for HDR to perform additional website support services as described in Exhibit A: Revised 2017-2019 Website Maintenance Services

To amend this Agreement to increase the contract fee to a total of \$12,370;

To amend this Agreement to change the expiration date of the contract to December 31, 2019;

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year written below:

HDR ENGINEERING, INC. ("HDR")

Bassett Creek Watershed Management Commission ("BCWMC")

By: *Craig K. [Signature]*

By: \_\_\_\_\_

Its: SR Vice President

Its: \_\_\_\_\_

Date: 2-3-17

Date: \_\_\_\_\_



## Revised 2017-2019 Website Maintenance Services

Please find HDR’s scope and budget for January 1, 2017 – December 31, 2019 Website Maintenance Services. We look forward to continuing our work for the Bassett Creek Watershed Management Commission!

### Scope of Services

#### Task 1: Monthly Website Maintenance

*Includes:*

- Invoices as required (up to 6 per year, a total of 18 invoices for 3 years)
- Response to questions from BCWMC regarding the website
- Modifications to existing web services or web graphics
- Response to system issues resulting in disrupted function or site downtime
- Required system upgrades or patches
- Web hosting and domain renewal for three years (renewal date is August 24)

*Assumptions:*

- HDR assumes 2 hours/month for website maintenance. If web service modification or addition requests are significant and require more than the 2 hours allotted per month, a contract amendment will be required.
- HDR will make modifications to existing website graphics within the allotted 2 hours per month. New graphic requests will require a contract amendment.
- HDR will support browser versions that are currently active and supported by their creating companies. In particular, Chrome, Firefox, Safari, and Internet Explorer version 9+.
- Requests for new features will require a contract amendment

### Budget

Based on the scope of work described above, HDR proposes to provide these services on a time and expenses basis with a limit not to exceed \$12,370 without prior authorization of Bassett Creek Watershed Management Commission.

<b>Task</b>	<b>Hours</b>	<b>Cost</b>
<b>Task 1: Monthly Website Maintenance</b>	<b>72 hours (2 hours/month for 3 years of maintenance hours, and 7 project administration hours per year)</b>  <b>Includes web hosting, domain, and hardware/software expenses.</b>	<b>\$12,370</b>



## Memorandum

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 4H – French Regional Park Street Improvements – Plymouth, MN  
BCWMC February 16, 2017 Meeting Agenda  
Date: February 8, 2017  
Project: 23270051 2017 2107

### 4H French Regional Park Street Improvements – Plymouth, MN BCWMC 2016-39

#### Summary:

**Proposed Work:** Bituminous park roads, parking lots, and trail improvements.

**Basis for Commission Review:** Work within the floodplain

**Impervious Surface Area:** Decrease 0.8 acres

**Recommendation:** Conditional Approval

#### General Background & Comments

The proposed project consists of reclaiming the existing bituminous roads, parking lots, and trails. The trails and boat trailer parking lot will be reclaimed, reshaped, and paved. The existing bituminous will be removed along the road and other parking lots. Once the existing bituminous is removed, the subgrade will be compacted, geotextile installed, and the material will be replaced. Roads and parking lots will then be paved. Class 5 aggregate base will be imported as needed. Four parking lots and a segment of roadway will have pervious pavers installed.

The project is located in portions of the Medicine Lake Direct subwatershed, the Medicine Lake North subwatershed, and the Medicine Lake Northeast subwatershed between Rockford road and Medicine Lake. The proposed project includes approximately 25.1 acres of grading. The project results in a decrease of 0.8 acres of impervious surfaces.

#### Floodplain

The current floodplain elevation is 890.3 feet (NGVD29) for Medicine Lake. Based on the plans and communications with the applicant, there will be no permanent net fill placed within the Bassett Creek floodplain. Park trail improvements within the floodplain occur between STA 13+50 and STA 14+00. Park road improvements within the floodplain occur near STA 27+00. Boat trailer parking lot improvements within the floodplain occur in a portion of the parking lot. Removal and replacement of various storm sewer pipes and flared-end sections occur within the floodplain. Temporary stockpiles may be placed in the floodplain during excavation.

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 4H – French Regional Park Street Improvements– Plymouth, MN  
Date: February 8, 2017  
Page: 2  
Project: 23270051 2016 2107

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## Wetlands

The project appears to involve work within or adjacent to wetlands. The City of Plymouth is the LGU for administering the Minnesota Wetland Conservation Act of 1991 and is responsible for wetland issues.

## Stormwater Management

The project generally involves improving the existing pavement surfaces without modifying the site plan. The impervious area is slightly reduced and pervious pavers will be installed in parking lots. Due to the reduction in impervious surface, the proposed peak discharge rates will be less than or equal to the existing peak discharge rates for the 2-, 10-, and 100-year storm events.

## Water Quality Management

The September 2015 BCWMC Requirements for Improvements and Development Proposals (Requirements) document requires that the project capture and retain 0.55 inches of runoff from the new and fully reconstructed impervious surfaces. However, the requirements document also indicates that “Activities such as structure renovation, mill and overlay projects and other pavement rehabilitation projects that do not alter the underlying soil material beneath the structure, pavement or activity are not considered full reconstruction.” The improvements of the impervious surfaces for the project are not anticipated to disturb the underlying soil, therefore the project does not trigger water quality treatment requirements.

## Erosion and Sediment Control

Since the area to be graded is greater than 10,000 square feet, the proposed project must meet the BCWMC erosion and sediment control requirements. Proposed temporary erosion control features include silt fence, floatation silt curtain, inlet protection, biolog ditch checks, rock check dams around flared-end sections, rock construction entrances, and street sweeping. Permanent erosion control features include erosion control blankets and riprap.

## Recommendation

Conditional approval based on the following comments:

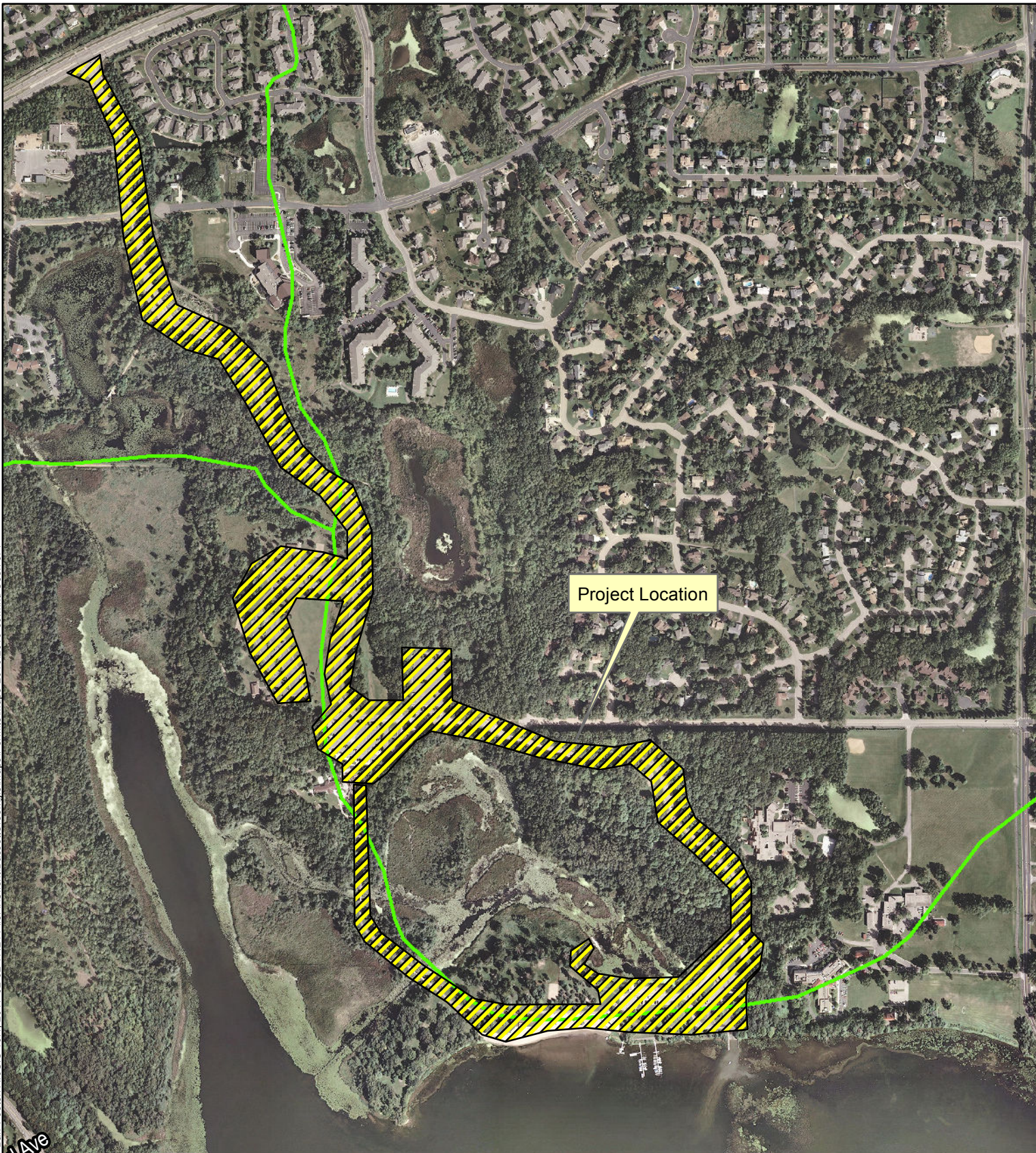
1. Site drainage is unclear in portions of the project. Contours are provided on the plans but not labeled; adequate placement of silt fence downstream of all disturbed areas must be verified by the applicant.
2. Riprap and filter must be provided for the flared-end section north of the road near STA 41+00 on Sheet C2.02 (also shown on Sheet C2.05), the flared-end section north of the road near STA 44+80 on Sheet C2.02 (also shown on Sheet C2.05), the flared-end section north of the cul-de-sac on 36<sup>th</sup> Ave on Sheet C2.02, the flared-end section north of the path near STA 0+30 on Sheet C2.04, and the flared-end section north of the road near STA 41+00.

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 4H – French Regional Park Street Improvements– Plymouth, MN  
Date: February 8, 2017  
Page: 3  
Project: 23270051 2016 2107







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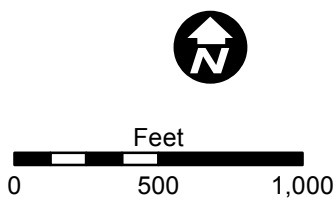
3. Inlet protection must be provided for the inlets on the south side of the road between STA 31+50 and STA 31+95. Inlet protection must be provided for the proposed inlet on the north side of the cul-de-sac near STA 72+20.
4. Rock construction entrances must have a minimum height of 6 inches above the adjacent roadway and a wash-off berm with a minimum height of 2 feet above the adjacent roadway and with maximum side slopes of 4:1. (detail not provided for review)
5. The following erosion and sediment control notes must be added to the plans:
  - a. Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.
  - b. Provide riprap to an adequate depth below the ordinary high water level and to a height above the outfall or channel bottom so as to ensure that the riprap will not be undermined by scour or rendered ineffective by displacement.
6. Revised Drawings (paper copy and final electronic files) must be provided to the BCWMC Engineer for final review and approval.

Barr Footer: ArcGIS 10.4, 2017-02-02 17:21 File: I:\Client\BassettCreek\GIS\Maps\Permits\Maps-2016\2016-39.mxd User: JPP



Imagery Source: Aerial Express (2009)

-  Project Location
-  Bassett Creek
-  WMC Boundary
-  Major Subwatershed
-  Municipality
-  Stream



**LOCATION MAP**  
**APPLICATION 2016-39**  
**French Regional Park**  
**Street Improvements**  
**Plymouth, MN**

## AGREEMENT FOR TECHNICAL SERVICES

Item 41.  
BCWC 2-16-17

THIS AGREEMENT made and entered into this 16<sup>th</sup> day of February, 2017 by and between:

Bassett Creek Watershed Management Commission  
4300 MarketPointe Drive, Suite 200  
Minneapolis, MN 55435  
(hereinafter called "CLIENT")

And: Wenck Associates, Inc.  
1800 Pioneer Creek Center  
P.O. Box 249  
Maple Plain, Minnesota 55359-0249  
(hereinafter called "WENCK")

(and together "the Parties")

Witnesseth that the Parties hereto agree, each with the other, as follows:

1. PROJECT

This Agreement pertains to the provision of engineering services for the Proposal for the Bassett Creek 2017 Priority Lake Monitoring Services dated February 8, 2017 (hereinafter called the "Project").

2. SCOPE OF SERVICES

The services to be performed by WENCK for the Project are set forth in WENCK's proposal referred to as the "2017 Priority Lake Monitoring" attached hereto as Exhibit 1 (collectively, the "Services"). The Services may be modified by a written, mutually agreeable, Change Order. WENCK shall provide the Services as an independent contractor.

3. COMPENSATION

Compensation shall be paid for the Services actually provided in accordance with WENCK's proposal in Exhibit 1. The Project will be invoiced on a monthly basis for professional time completed and expenses incurred with a 0% mark-up. Invoices are to be paid within 45 days of receipt of the invoice.

4. TERM

WENCK will commence the Services beginning March 1, 2017 and provide appropriate expertise and will proceed with due diligence until January 31, 2018.

5. TERMINATION

This Agreement may be terminated by CLIENT upon 5 days' notice in writing to WENCK. CLIENT shall forthwith pay to WENCK all amounts, including all expenses and other charges, payable under this agreement for the Services satisfactorily completed as of the termination date.

6. STANDARD OF CARE/INDEMNITY

WENCK will provide:

- A. The standards of care, skill and diligence normally provided by a professional in the performance of the Services contemplated by this Agreement.
- B. Wenck agrees to indemnify and hold CLIENT harmless from any claim, cause of action, demand or other liability of any nature or kind (including the costs of reasonable attorney's fees and expert witness fees) arising out of any negligent act or omission of Wenck or any subcontractor of Wenck in connection



with the Services performed under the terms of this Agreement. Nothing herein shall be deemed a waiver by CLIENT of any limitations or exemptions from liability available to it under Minnesota Statutes, chapter 466 or other law.

C. WENCK shall, during the entire term of this Agreement, maintain commercial general liability insurance and professional liability insurance, each with a policy limit of at least \$1,000,000. WENCK shall have CLIENT named as an additional insured on WENCK's commercial general liability policy. WENCK shall provide CLIENT a certificate of insurance showing proof of such coverages.

7. DISPUTE RESOLUTION/GOVERNING LAW

If a dispute arises out of or in connection with this Agreement or the breach thereof, the Parties will attempt to settle the dispute by negotiation before commencing legal action. The governing law shall be the law of the State of Minnesota.

8. NOTICE AND OFFICIALS

WENCK will appoint a Project Manager who shall be in charge of the Project for WENCK. CLIENT shall designate in writing an official who shall be authorized to act for the CLIENT. The person so appointed by WENCK will maintain close contact with the authorized representative of CLIENT. All notices to WENCK including, without limitation, those concerning changes in the scope of Services, shall be directed in writing to the appointed Project Manager at the address shown above. Notices to CLIENT shall be directed in writing to CLIENT at the address of CLIENT shown above or to such other address as the CLIENT may in writing designate.

9. MISCELLANEOUS

This Agreement: i) constitutes the entire agreement between the Parties; ii) supersedes any previous representations or agreements between the Parties with respect to the Services; iii) may be modified or amended only in a writing signed by the Parties; and iv) shall inure to the benefit of and be binding upon the Parties, their respective permitted successors and assigns. Neither Party may assign this Agreement in whole or in part without the express written consent of the other Party. Nothing in this Agreement is to be construed to create any rights in any third party (including, without limitation, vendors and contractors working on the Project whether as third party beneficiaries or otherwise. WENCK shall comply with all applicable laws, rules, and regulations in providing the Services. WENCK agrees to comply with the Minnesota Data Practices Act with respect all data created, collected, received, stored, used, maintained, or disseminated by WENCK in the course of providing Services under this Agreement. This Agreement does not require data on individuals to be made available to WENCK. The books, records, documents, and accounting procedures of WENCK related to the Services are subject to examination by CLIENT and either the legislative auditor or the state auditor, as appropriate, for a minimum of six years.

IN WITNESS WHEREOF the parties have duly executed this Agreement.

“CLIENT”  
Bassett Creek Watershed  
Management Commission

“WENCK”  
Wenck Associates, Inc.

By: \_\_\_\_\_  
Its Chair

By: \_\_\_\_\_

\_\_\_\_\_  
Its Secretary

\_\_\_\_\_  
Its:



Responsive partner.  
Exceptional outcomes.

Exhibit 1

February 8, 2017

**Ms. Laura Jester**

Bassett Creek Watershed Management Commission  
16145 Hillcrest Lane  
Eden Prairie, MN 55346

RE: 2017 Priority Lake Monitoring

**Dear Ms. Jester:**

Thank you for the opportunity to provide a scope of work and budget to assist the Bassett Creek Watershed Management Commission (BCWMC) in performing its 2017 priority lake monitoring. Lakes scheduled for priority monitoring in 2017 include Twin Lake, Sweeney Lake, and Lost Lake. Wenck will assist the BCWMC in performing all monitoring objectives outlined in BCWMC's Request for Proposal (RFP) for 2017 Water Monitoring Services and Appendix A of the 2015 BCWMC Watershed Management Plan. The cost estimates and tasks presented in this scope of work are consistent with the proposal submitted by Wenck Associates, Inc. dated April 28, 2016 (Exhibit A).

## Scope of Work

---

Wenck will complete the following tasks to accomplish the scope of work:

### **Task 1a. Lake Water Quality Sampling.**

Wenck will collect detailed water quality, zooplankton and phytoplankton monitoring on six occasions from April through September for each lake. Monitoring will be conducted at two locations on Sweeney Lake and one location on Twin and Lost Lakes according to the methods outlined in the RFP and Appendix A of the 2015 BCWMC Watershed Management Plan.

### **Task 1b. Additional Data for Sweeney Lake.**

Wenck will collect total phosphorus water column profiles at 1-meter depth increments at two locations on Sweeney Lake according to the updated list of sampling parameters provided by the BCWMC in February 2017.

### **Task 2. Macrophyte Surveys.**

Wenck will perform two qualitative, point intercept aquatic plant macrophyte surveys on each lake. The surveys will be performed in June and August according to the methodologies described in Appendix A of the 2015 BCWMC Watershed Management Plan and the Minnesota DNR protocol for aquatic vegetation surveys.

### **Task 3. EQUIS Data Submittal.**

Wenck will submit of all water quality data collected in 2017 to the State's EQUIS database.

### **Task 4. Final Report**

Wenck will prepare and submit a final report that presents all of the 2017 data and survey results along with trend analyses using historic data provided by BCWMC. Wenck will also present results of the report/project at a regular BCWMC meeting.

Ms. Laura Jester  
BCWMC  
February 8, 2017



Responsive partner.  
Exceptional outcomes.

## Cost Estimate

---

Wenck proposes to perform the scope of work stated above on a time and materials basis for a total estimated cost of \$40,248. A detailed breakdown of our cost estimate is provided below.

**Table 1: Tasks and estimated costs.**

Task	Labor Cost	Lab Cost	Equipment & Mileage	Total Cost
Task 1a: Lake Water Quality Sampling	\$8,088	\$16,752	\$686	\$25,526
Task 1b: Additional Data for Sweeney Lake	\$1,011	\$960	--	\$1,971
Task 2: Macrophyte Surveys	\$3,370	--	\$229	\$3,599
Task 3: EQUIS Data Submittal	\$240	--	--	\$240
Task 4: Final Report	\$8,912	--	--	\$8,912
TOTAL COST				\$40,248

## Summary

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On behalf of the 300+ employee-owners of Wenck, thank you for this opportunity to work with the BCWMC. Should you have any questions, or need clarification of anything presented in this scope of work, please do not hesitate to contact Joe Bischoff at 763-252-6829 or [jbischoff@wenck.com](mailto:jbischoff@wenck.com).

Sincerely,

**Wenck Associates, Inc.**

A handwritten signature in black ink, appearing to read 'JB', is written over a light blue horizontal line.

Joe Bischoff  
Principal

**BCWMC 2017 Administrative Calendar**  
(Includes only pre-set agenda items; not a complete list of meeting items)

<b>FEBRUARY 16<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Elect Officers – Chair, Vice Chair, Secretary, Treasurer
	Appoint Committee Members – Budget, Administrative Services, Education, Technical Advisory Committee liaisons
	Designate official depositories
	Designate <i>Finance and Commerce</i> as the Official News Publication of the Commission
	Review year-end financial report
	Receive review of open meeting law
	Receive 2016 water monitoring results
	Commissioners complete conflict of interest forms for auditor
<b>MARCH 16<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Approve 5-year CIP (2019 – 2023), begin plan amendment process as needed
	Approve Education & Outreach Plan
<b>APRIL 20<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Review draft annual report
	Approval not to waive monetary limits on municipal tort liability
	Review Draft Feasibility Study for Bassett Creek Park Pond/Winnetka Pond Dredging Project
	Authorize preparation of feasibility studies for 2019 projects
<b>MAY 18<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Approve annual report
	Accept financial audit
	Review 2018 draft operating budget
	Approve Feasibility Study for Bassett Creek Park Pond/Winnetka Pond Dredging Project
	Approve maximum 2018 levy request for Hennepin County
<b>JUNE 15<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Approve proposed 2018 operating budget and submit to cities by July 1st
<b>JULY 20<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Consider applying for CWF grants
	Set Public Hearing for Bassett Creek Park Pond/Winnetka Pond Dredging Project

<b>AUGUST 17<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Approve final operating budget
	Approve CWF grant application, as needed
	Find volunteers for Golden Valley Days
<b>SEPTEMBER 21<sup>st</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Public Hearing on Bassett Creek Park Pond/Winnetka Pond Dredging Project
	Resolution ordering Bassett Creek Park Pond/Winnetka Pond Dredging Project
	Approve agreement with city to design/construct Bassett Creek Park Pond/Winnetka Pond Dredging Project
	Certify 2018 levy costs to Hennepin County
	Consider requests to attend Water Resources Conference
<b>OCTOBER 19<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Consider request for MAWD attendance
<b>WEDNESDAY</b> <b>NOVEMBER 15<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	
<b>DECEMBER 21<sup>st</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Review draft feasibility studies for 2019 CIP projects
<b>January 18<sup>th</sup></b> <b>8:30 a.m.</b> <b>Golden Valley City Hall</b>	Approval of Resolution to Transfer Funds from CIP Account to Administrative Account
	Approval of Resolution to Transfer Funds from Administrative Account to Channel Maintenance Fund and Long Term Maintenance Fund
	Approval of Proposal from MMKR to Perform Financial Audit

<b>CONTRACTORS</b>	Met Council – Watershed Outlet Monitoring Program (WOMP) Met Council – Citizen Assisted Monitoring Program (CAMP) Wenck Associates – 2017 Routine Lake Monitoring Wenck Associates – WOMP monitoring HDR – Website maintenance and hosting Hennepin County – River Watch Program Keystone Waters – Administrator Lawn Chair Gardener – Administrative Services Barr Engineering – General Technical Services + Sweeney Lake Aeration Study + Schaper Pond Effectiveness Monitoring + Chloride Source Assessment Kennedy Graven – Legal Services
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## BCWMC 2017 AREAS OF WORK

<p><b>Budget Committee</b></p> <p>Meetings: March 2017 April 2017</p>	<p>KEY ROLE: Develop 2018 Operating Budget &amp; City Assessments</p> <ul style="list-style-type: none"> <li>• Review ideas and staff recommendations for 2018 programs/budget items</li> <li>• Develop and recommend 2018 operating budget and city assessments</li> <li>• Assist with development of “Budget Detail Document”</li> <li>• Timeline:             <ul style="list-style-type: none"> <li>○ May Commission meeting: submit draft recommendations</li> <li>○ June Commission meeting: approval of proposed 2018 budget/assessments</li> <li>○ July 1 – August 1: Cites review proposed budget/assessments and provide comments</li> <li>○ August Commission meeting: final approval of 2018 budget/assessments</li> </ul> </li> </ul>
<p><b>Education Committee</b></p> <p>Meetings: Late February 2017 As needed</p>	<p>KEY ROLE: Develop 2017 Education and Outreach Plan &amp; assist with implementation</p> <ul style="list-style-type: none"> <li>• Discuss options for education programs, trainings, partners &amp; develop 2017 education and outreach plan</li> <li>• Present draft education and outreach plan at March Commission meeting</li> <li>• Assist with implementation of plan, as needed             <ul style="list-style-type: none"> <li>○ Outreach at education events</li> </ul> </li> <li>• Recommend further improvements to BCWMC website</li> </ul>
<p><b>Administrative Services Committee</b></p> <p>Meetings: As needed</p>	<p>KEY ROLE: Guide development of policy and overall processes of Commission; evaluate staff</p>
<p><b>Technical Advisory Committee</b></p> <p>Meetings: February 3, 2017 March 2, 2017 As needed</p>	<p>KEY ROLE: Provides guidance and recommendations and assists with developing policies related to technical aspects of Commission projects and activities.</p> <ul style="list-style-type: none"> <li>• Develop recommended policies related to results of the Phase II XP-SWMM hydrologic model</li> <li>• Recommend 2019 – 2023 Capital Improvement Program projects</li> <li>• Discuss adding CIP maintenance to Commission responsibilities</li> <li>• Review results of special studies including Sweeney Lake Aeration Study, Schaper Pond Effectiveness Monitoring, Chloride Source Assessment</li> </ul>

Item 5E.  
BCWMC 2-16-17

**KEYSTONE WATERS, LLC**

Laura Jester  
16145 Hillcrest Lane ~ Eden Prairie, MN 55346  
Phone (952) 270-1990

**INVOICE**

DATE: FEBRUARY 5, 2016

**TO:**  
Bassett Creek Watershed Management Commission  
c/o Sue Virnig, Deputy Treasurer  
City of Golden Valley  
7800 Golden Valley Road  
Golden Valley, MN 55427

**FOR:**  
Watershed Administration Services for January 2017

DESCRIPTION	HOURS	RATE/HR	AMOUNT
<p><b>Administration – Correspondence, program coordination, general administration:</b> Phone and email correspondence with various Commissioners, TAC members, consultants, residents, developers, Hennepin County, state agencies, and other stakeholders.</p> <p>Coordination of various projects, meetings, and programs including tracking CIP project implementation; updating website; working with Agora developer and city staff including attending meetings, writing letter, and drafting pros/cons of agreement with developer, and coordinating with Commission legal counsel; sending new Commissioner orientation email; gathering conflict of interest forms; drafting AIS prevention grant application; meeting with Metro Blooms for update on Harrison project; developing Clean Water Partnership grant report; reviewing reimbursement requests from Golden Valley and New Hope; coordinating with education consultant; assisting with planning for Sweeney Lake Aeration Study; updating 5-year CIP list; submitting 2016 WOMP expenses to Met Council; submitting biennial solicitation notice; assisting with development of city checklist for local water plans; reviewing 2016 water monitoring reports; gathering, drafting, and editing WMWA newsletter articles</p>	63.0	\$67	\$4,221.00
<p><b>Administration – Meeting attendance:</b> 1/10/17 West Metro Water Alliance (WMWA) Meeting 1/17/17 Bassett Creek Park &amp; Winnetka Pond Dredging Project Technical Stakeholder Meeting 12/19/17 – Commission Meeting 1/24/17 BCWMC APM/AIS Committee Meeting</p>	8.5	\$67	\$569.50
<p><b>Administration – Preparing agendas, meeting materials, meeting notes, follow up:</b> Develop meeting agenda and materials and review documents and invoices for regular BCWMC meeting; post materials to website; print, collate, and mail materials; prepare meeting minutes; prepare follow up task list; prepare for APM/AIS Committee; develop and send agenda and meeting materials for 2/3 TAC meeting</p>	26.25	\$67	\$1,758.75
<p><b>Clean Water Fund Grant Administration</b> Northwood Lake Improvement Project Clean Water Fund Grant reporting</p>	2.0	\$67	\$134.00
<b>TOTAL HOURS</b>	<b>99.75</b>	<b>\$67</b>	<b>\$6,683.25</b>
<b>Expenses: Road Salt Symposium Registration Fee</b>			<b>+ \$135.00</b>
<b>TOTAL INVOICE</b>			<b>\$6,818.25</b>

**From:** [Freshwater Society](#)  
**To:** [laura.jester@keystonewaters.com](mailto:laura.jester@keystonewaters.com)  
**Subject:** 2017 Road Salt Symposium - Thank you for registering!  
**Date:** Friday, January 20, 2017 1:36:30 PM

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If you made payment via Paypal, your registration is complete. You may wish to print this page for your records. If you chose to be invoiced, you'll be receiving a bill from Freshwater Society.

**16th Annual Road Salt Symposium**  
**Freshwater Society**  
**Thursday, February 2, 2017 -8:30 am to 3:00 pm**  
**NEW LOCATION! Mounds View Event Center**  
5394 Edgewood Drive, Mounds View MN 55112

<b>Name</b>												
Laura Jester												
<b>Organization</b>												
Bassett Creek Watershed Management Commission												
<b>Address</b>												
16145 Hillcrest Lane Eden Prairie, Minnesota 55346 United States <a href="#">Map It</a>												
<b>Phone</b>												
(952) 270-1990												
<b>Email Address</b>												
<a href="mailto:laura.jester@keystonewaters.com">laura.jester@keystonewaters.com</a>												
<b>Payment method</b>												
Continue on, to pay now via credit card / Paypal												
<b>Order</b>												
<table><thead><tr><th>Product</th><th>Qty</th><th>Unit Price</th><th>Price</th></tr></thead><tbody><tr><td>Road Salt Symposium</td><td>1</td><td>\$135.00</td><td>\$135.00</td></tr><tr><td colspan="3"><b>Total:</b></td><td><b>\$135.00</b></td></tr></tbody></table>	Product	Qty	Unit Price	Price	Road Salt Symposium	1	\$135.00	\$135.00	<b>Total:</b>			<b>\$135.00</b>
Product	Qty	Unit Price	Price									
Road Salt Symposium	1	\$135.00	\$135.00									
<b>Total:</b>			<b>\$135.00</b>									



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

**Item 5F.  
BCWMC 2-16-17**

**(UNAUDITED)**

**Fiscal Year: February 1, 2016 through January 31, 2017**

**MEETING DATE: February 16, 2017**

<b>BEGINNING BALANCE</b>	<b>11-Jan-17</b>		<b>638,252.76</b>
<b>ADD:</b>			
<b>General Fund Revenue:</b>			
	Interest less Bank Fees	(13.77)	
	2017-18 Assessments-PREPAID		
	City of Robbinsdale	7,747.00	
	Permits:		
	City of New Hope BCWMC 2016-38	1,100.00	
	Three Rivers Park Distric BCWMC 2016-39	1,400.00	
	Reimbursed Construction Costs Insp Flood Control Proj	375,032.26	
	<b>Total Revenue and Transfers In</b>		<b>385,265.49</b>
<b>DEDUCT:</b>			
<b>Checks:</b>			
	2932 Barr Engineering Jan Engineering	73,266.92	
	2933 Kennedy & Graven Dec / Jan Legal	2,607.37	
	2934 Keystone Waters LLC Jan Administrator	6,818.25	
		Jan Meeting Materials 290.60	
	2935 Lawn Chair Gardener Education/admin services	947.82	
	2936 Wenck Associates Dec Outlet Monitoring	831.60	
	2937 Metro Blooms NorthSide Neighborhood	17,272.51	
	2938 City of New Hope Northwood Lake Improve	345,895.78	
	2941 Michael Scanlan Road Salt Symposium	135.00	
	2942 Jim Prom Road Salt Symposium	135.00	
	<b>Total Checks</b>		<b>448,200.85</b>
	Outstanding from previous month:		
	2909 Hennepin County 2016 River Watch	2,000.00	
	2924 Lawn Chair Gardener Education/admin services	1,360.00	
<b>ENDING BALANCE</b>	<b>31-Jan-17</b>		<b>575,317.40</b>

Bassett Creek Watershed Management Commission General Account

General Fund (Administration) Financial Report

(UNAUDITED)

Fiscal Year: February 1, 2016 through January 31, 2017

MEETING DATE: February 16, 2017

	2016 / 2017 BUDGET	CURRENT MONTH	YTD 2016 / 2017	BALANCE
<b>OTHER GENERAL FUND REVENUE</b>				
ASSESSMENTS TO CITIES	490,345	0.00	490,344.00	1.00
PROJECT REVIEW FEES	60,000	0.00	53,400.00	6,600.00
WOMP REIMBURSEMENT	5,000	0.00	4,500.00	500.00
MET COUNCIL REIMBURSEMENTS-LRT PROJECTS	0	0.00	32,024.59	(32,024.59)
MET COUNCIL - METRO BLOOMS	0	17,272.51	17,272.51	(17,272.51)
TRANSFERS FROM LONG TERM FUND & CIP	27,055	0.00	26,108.00	947.00
<b>REVENUE TOTAL</b>	<b>582,400</b>	<b>17,272.51</b>	<b>623,649.10</b>	<b>(41,249.10)</b>
<b>EXPENDITURES</b>				
<b>ENGINEERING &amp; MONITORING</b>				
TECHNICAL SERVICES	120,000	10,824.71	112,502.28	7,497.72
DEV/PROJECT REVIEWS	65,000	4,843.38	94,619.14	(29,619.14)
NON-FEE/PRELIM REVIEWS	15,000	760.00	35,253.48	(20,253.48)
COMMISSION AND TAC MEETINGS	13,000	544.00	11,808.38	1,191.62
SURVEYS & STUDIES	25,000	952.22	24,444.14	555.86
WATER QUALITY/MONITORING	76,000	22,544.00	75,892.85	107.15
SHORELAND HABITAT MONITORING	6,000	0.00	2,468.00	3,532.00
WATER QUANTITY	11,500	458.36	8,731.44	2,768.56
WATERSHED INSPECTIONS -EROSION CONTROL	1,000	0.00	0.00	1,000.00
ANNUAL FLOOD CONTROL INSPECTIONS	10,000	2,807.00	8,867.92	1,132.08
REVIEW MUNICIPAL PLANS	2,000	0.00	2,491.50	(491.50)
WOMP	17,000	1,228.37	17,002.69	(2.69)
<b>ENGINEERING &amp; MONITORING TOTAL</b>	<b>361,500</b>	<b>44,962.04</b>	<b>394,081.82</b>	<b>(32,581.82)</b>
<b>ADMINISTRATION</b>				
ADMINISTRATOR	62,000	6,818.25	59,033.08	2,966.92
LEGAL COSTS	18,500	2,607.37	15,469.95	3,030.05
AUDIT, INSURANCE & BONDING	15,500	0.00	14,606.00	894.00
FINANCIAL MANAGEMENT	3,200	0.00	3,277.60	(77.60)
DIGITIZE HISTORIC PAPER FILES	5,000	0.00	2,167.00	2,833.00
MEETING EXPENSES	2,200	0.00	1,572.44	627.56
ADMINISTRATIVE SERVICES	25,000	838.42	11,582.87	13,417.13
<b>ADMINISTRATION TOTAL</b>	<b>131,400</b>	<b>10,264.04</b>	<b>107,708.94</b>	<b>23,691.06</b>
<b>OUTREACH &amp; EDUCATION</b>				
PUBLICATIONS/ANNUAL REPORT	2,500	0.00	1,246.50	1,253.50
WEBSITE	3,500	0.00	2,274.93	1,225.07
PUBLIC COMMUNICATIONS	2,500	0.00	1,128.39	1,371.61
EDUCATION AND PUBLIC OUTREACH	22,500	17,942.51	42,982.70	(20,482.70)
WATERSHED EDUCATION PARTNERSHIPS	15,500	0.00	9,550.00	5,950.00
<b>OUTREACH &amp; EDUCATION TOTAL</b>	<b>46,500</b>	<b>17,942.51</b>	<b>57,182.52</b>	<b>(10,682.52)</b>
<b>MAINTENANCE FUNDS</b>				
EROSION/SEDIMENT (CHANNEL MAINT)	25,000	0.00	25,000.00	0.00
LONG TERM MAINTENANCE (moved to CF)	25,000	0.00	25,000.00	0.00
<b>MAINTENANCE FUNDS TOTAL</b>	<b>50,000</b>	<b>0.00</b>	<b>50,000.00</b>	<b>0.00</b>
<b>TMDL WORK</b>				
TMDL IMPLEMENTATION REPORTING	20,000	0.00	18,950.00	1,050.00
<b>TMDL WORK TOTAL</b>	<b>20,000</b>	<b>0.00</b>	<b>18,950.00</b>	<b>1,050.00</b>
<b>TOTAL EXPENSES</b>	<b>609,400</b>	<b>73,168.59</b>	<b>627,923.28</b>	<b>(18,523.28)</b>

**BCWMC Construction Account**  
**Fiscal Year: February 1, 2016 through January 31, 2017**  
**January 2017 Financial Report**

(UNAUDITED)

Cash Balance 01/10/17				
Cash		1,564,014.51		1,564,014.51
	Total Cash			
	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	
	<b>Total Cash &amp; Investments</b>			<b>2,556,014.51</b>
Add:				
	Interest Revenue (Bank Charges)	(56.55)		
	Hennepin County - 2nd 1/2 taxes	3,705.98		
	<b>Total Revenue</b>			<b>3,649.43</b>
Less:				
	CIP Projects Levied - Current Expenses - TABLE A	(348,422.60)		
	Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B	(4,408.16)		
	<b>Total Current Expenses</b>			<b>(352,830.76)</b>
	<b>Total Cash &amp; Investments On Hand</b>		<b>01/31/17</b>	<b>2,206,833.18</b>
	Total Cash & Investments On Hand	2,206,833.18		
	CIP Projects Levied - Budget Remaining - TABLE A	(2,768,007.26)		
	<b>Closed Projects Remaining Balance</b>	<b>(561,174.08)</b>		
	2011 - 2015 Anticipated Tax Levy Revenue - TABLE C	11,653.66		
	2016 Anticipated Tax Levy Revenue - TABLE C	11,043.54		
	<b>Anticipated Closed Project Balance</b>	<b>(538,476.88)</b>		
	Proposed & Future CIP Project Amount to be Levied - TABLE B	1,928,045.00		

**TABLE A - CIP PROJECTS LEVIED**

	Approved Budget	Current Expenses	2016 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	1,747.82	14,350.00	141,851.84	848,148.16	
<b>2014</b>						
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)	612,000	0.00	213,668.55	303,263.45	308,736.55	
Briarwood / Dawnview Nature Area (BC-7)	250,000	0.00	230,401.91	250,000.00	0.00	
Twin Lake Alum Treatment Project (TW-2)	163,000	0.00	66,812.17	91,037.82	71,962.18	
<b>2015</b>						
Main Stem 10th to Duluth (CR2015)	1,503,000	0.00	841,405.15	946,447.15	556,552.85	
<b>2016</b>						
Honeywell Pond Expansion (BC-4) <sup>1</sup>	810,930	0.00	49.50	13,953.98	796,976.02	
Northwood Lake Pond (NL-1) <sup>2</sup>	822,140					
Budget Amendment	611,600	1,433,740	346,674.78	1,332,576.81	1,432,519.00	1,221.00
		5,958,670	348,422.60	2,699,264.09	3,190,662.74	2,768,007.26

**TABLE B - PROPOSED & FUTURE CIP PROJECTS TO BE LEVIED**

		Approved Budget - To Be Levied	Current Expenses	2016 YTD Expenses	INCEPTION To Date Expenses	Remaining Budget
<b>2017</b>						
Main Stem Cedar Lk Rd-Dupont (2017CR-M)	2017 Levy	580,930	863,573	100.00	71,889.91	114,561.79
	2018 Levy	282,643				
Plymouth Creek Restoration (CR-P)	2017 Levy	400,000	1,064,472	0.00	16,192.00	65,604.13
	2018 Levy	664,472				
2017 Project Totals			1,928,045	100.00	88,081.91	180,165.92
<b>2018</b>						
Bassett Creek Park & Winnetka Ponds Dredging (BCP-2)			4,308.16	31,319.05	31,319.05	(31,319.05)
2018 Project Totals			0	4,308.16	31,319.05	(31,319.05)
<b>2019</b>						
Bryn Mawr Meadows (BC-5)			0	0.00	0.00	5,282.80
2019 Project Totals			0	0.00	0.00	5,282.80
Total Proposed & Future CIP Projects to be Levied			1,928,045	4,408.16	119,400.96	216,767.77
						1,711,277.23

**BCWMC Construction Account**

Fiscal Year: February 1, 2016 through January 31, 2017

(UNAUDITED)

January 2017 Financial Report

**TABLE C - TAX LEVY REVENUES**

	County Levy	/ Adjustments	Adjusted Levy	Current Received	Year to Date Received	Inception to Date Received	Balance to be Collected	BCWMO Levy
2017 Tax Levy			0.00	0.00			0.00	1,303,600.00
2016 Tax Levy	1,222,000.00		1,222,000.00	3,785.32	1,210,956.46	1,210,956.46	11,043.54	1,222,000.00
2015 Tax Levy	1,000,000.00	4,784.98	1,004,784.98	20.00	1,200.27	1,000,037.76	4,747.22	1,000,000.00
2014 Tax Levy	895,000.00	(5,147.27)	889,852.73	(250.26)	(1,519.40)	886,182.01	3,670.72	895,000.00
2013 Tax Levy	986,000.00	(8,746.67)	977,253.33	48.02	(1,384.59)	974,717.80	2,535.53	986,000.00
2012 Tax Levy	762,010.00	(7,283.60)	754,726.40	44.50	21.90	754,133.65	592.75	762,010.00
2011 Tax Levy	863,268.83	(12,453.26)	850,815.57	58.40	241.90	850,708.13	107.44	862,400.00
				<u>3,705.98</u>			<u>22,697.20</u>	

**OTHER PROJECTS:**

	Approved Budget	Current Expenses / (Revenue)	2016 YTD Expenses / (Revenue)	INCEPTION To Date Expenses / (Revenue)	Remaining Budget
<b>TMDL Studies</b>					
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
<b>Flood Control Long-Term</b>					
Flood Control Long-Term Maintenance	673,373.00	22,201.50	152,070.74	305,846.41	
Less: State of MN - DNR Grants			(13,838.00)	(13,838.00)	
	673,373.00	22,201.50	138,232.74	292,008.41	381,364.59
<b>Annual Flood Control Projects:</b>					
Flood Control Emergency Maintenance	500,000.00	0.00	0.00	0.00	500,000.00
<b>Annual Water Quality</b>					
Channel Maintenance Fund	350,000.00	0.00	0.00	121,242.95	228,757.05
Total Other Projects	1,658,373.00	22,201.50	138,232.74	521,016.51	1,137,356.49

<b>Cash Balance 01/10/17</b>	<b>1,057,056.94</b>
Add:	
Transfer from GF	0.00
Less:	
Current (Expenses)/Revenue	(22,201.50)
<b>Ending Cash Balance 01/31/17</b>	<b>1,034,855.44</b>
<b>Additional Capital Needed</b>	<b>(102,501)</b>

Bassett Creek Construction Project Details

2/8/2017

CIP Projects Levied											
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	Plymouth Creek Restoration (2017 CR-P)
<b>Original Budget</b>	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
<b>Added to Budget</b>	611,600								611,600		
<b>Expenditures:</b>											
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	2,787,346.00		14,350.00	213,668.55	230,401.91	66,812.17	841,405.15	49.50	1,332,576.81	71,889.91	16,192.00
Feb 2017-Jan 2018											
<b>Total Expenditures:</b>	<b>3,370,828.66</b>	<b>11,589.50</b>	<b>141,851.84</b>	<b>303,263.45</b>	<b>250,000.00</b>	<b>91,037.82</b>	<b>946,447.15</b>	<b>13,953.98</b>	<b>1,432,519.00</b>	<b>114,561.79</b>	<b>65,604.13</b>
<b>Project Balance</b>	<b>4,515,886.34</b>	<b>184,410.50</b>	<b>848,148.16</b>	<b>308,736.55</b>		<b>71,962.18</b>	<b>556,552.85</b>	<b>796,976.02</b>	<b>1,221.00</b>	<b>749,011.21</b>	<b>998,867.87</b>
CIP Projects Levied											
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	Plymouth Creek Restoration (2017 CR-P)
<b>Project Totals By Vendor</b>											
Barr Engineering	377,193.73	6,338.95	43,020.54	75,251.50	13,089.74	15,712.00	15,825.00	13,157.98	17,550.00	111,743.39	65,504.63
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		
MPCA	2,500.00									2,500.00	
Blue Water Science	3,900.00					3,900.00					
S E H											
Misc											
2.5% Admin Transfer	72,025.00	4,050.00	20,600.00	13,350.00	5,470.00	3,555.00	25,000.00				
Transfer to General Fun											
<b>Total Expenditures</b>	<b>3,370,828.66</b>	<b>11,589.50</b>	<b>141,851.84</b>	<b>303,263.45</b>	<b>250,000.00</b>	<b>91,037.82</b>	<b>946,447.15</b>	<b>13,953.98</b>	<b>1,432,519.00</b>	<b>114,561.79</b>	<b>65,604.13</b>
CIP Projects Levied											
	Total	2013	2013	2014	2014	2014	2015	2016	2016	2017	2017
	CIP Projects Levied	Lakeview Park Pond (ML-8)	Four Seasons Mall Area Water Quality Project (NL-2)	Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	Briarwood / Dawnview Water Quality Improve Proj (BC-7)	Twin Lake In-Lake Alum Treatment Project (TW-2)	Main Stem - 10th Ave to Duluth (CR2015)	Honeywell Pond Expansion (BC-4)	Northwood Lake Pond (NL-1)	Main Stem-Cedar Lk Rd to Dupont (2017 CR-M)	Plymouth Creek Restoration (2017 CR-P)
<b>Levy/Grant Details</b>											
2010 -2014 Levies	1,881,000										
2014/2015 Levy	1,000,000	162,000	824,000	534,000	218,800	142,200	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	400,000								400,000		
MPCA Grant-CWPGGrant	94,933								94,933		
DNR Grants-LT Maint											
<b>Total Levy/Grants</b>	<b>6,604,533</b>	<b>196,000</b>	<b>990,000</b>	<b>534,000</b>	<b>218,800</b>	<b>142,200</b>	<b>1,503,000</b>	<b>810,930</b>	<b>1,228,673</b>	<b>580,930</b>	<b>400,000</b>
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					Totals - All Projects
Total Proposed & Future CIP Projects (to be Levied)	2018 Bassett Cr Pk & Winnetka Ponds Dredging (2018 BCP-2)	2019 Bryn Mawr Meadows	DNR Grant From GF	Total Other Projects	TMDL Studies	Flood Control Emergency Maint	Flood Control Long-Term Maint	Channel Maint	
Original Budget Added to Budget				1,278,373.00 (250,000.00) 13,838.00 380,000.00	105,000.00	500,000.00	748,373.00 (250,000.00) 13,838.00 175,000.00	175,000.00	8,553,488.00 361,600.00 13,838.00 380,000.00
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		2,970,735.79
Feb 2017-Jan 2018									
<b>Total Expenditures:</b>	<b>36,601.85</b>	<b>31,319.05</b>	<b>5,282.80</b>	<b>534,854.51</b>	<b>107,765.15</b>		<b>305,846.41</b>	<b>121,242.95</b>	<b>3,942,285.02</b>
<b>Project Balance</b>	<b>(36,601.85)</b>	<b>(31,319.05)</b>	<b>(5,282.80)</b>	<b>1,137,356.49</b>	<b>27,234.85</b>	<b>500,000.00</b>	<b>381,364.59</b>	<b>228,757.05</b>	<b>5,616,640.98</b>
<b>Project Totals By Vendor</b>									
Barr Engineering	36,601.85	31,319.05	5,282.80	373,043.50	104,888.70		268,154.80		786,839.08
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
MPCA									2,500.00
Blue Water Science									3,900.00
S E H									
Misc				5,704.41	1,712.15		3,992.26		5,704.41
2.5% Admin Transfer									72,025.00
Transfer to General Fund				32,600.00			32,600.00		32,600.00
<b>Total Expenditures</b>	<b>36,601.85</b>	<b>31,319.05</b>	<b>5,282.80</b>	<b>534,854.51</b>	<b>107,765.15</b>		<b>305,846.41</b>	<b>121,242.95</b>	<b>3,942,285.02</b>
<b>Levy/Grant Details</b>									
2010 -2014 Levies					30,000		100,000	100,000	1,881,000
2014/2015 Levy				50,000.00			25,000	25,000	1,050,000
2015-2016 Levy									
2016-2017 Levy									
2017-2018 Levy									
Construction Fund Balance				50,000.00			25,000	25,000	753,000
BWSR Grant- BCWMO				50,000.00			25,000	25,000	450,000
MPCA Grant-CWPGrant									
DNR Grants-LT Maint				13,838.00			13,838		
<b>Total Levy/Grants</b>				<b>393,838.00</b>	<b>30,000</b>		<b>188,838</b>	<b>175,000</b>	<b>4,134,000</b>



## Bassett Creek Watershed Management Commission

### General Provisions of Open Meeting Law

- I. What is the open meeting law and why is it important?
  - a. Section 13D of Minnesota State Law  
<https://www.revisor.mn.gov/statutes/?id=13D>
  - b. Ensures that meetings of governing bodies are conducted in public where public has access to decision making process
  - c. Prohibits actions being taken in secret where it's impossible for the public to be fully informed about decisions or to detect improper influences
  - d. Protects government officials from accusations that business was conducted improperly
  
- II. What groups must abide by the open meeting law?
  - a. Best answer = all governing bodies and committees
  - b. Examples = city councils, county boards, soil and water conservation district boards, watershed district boards, watershed management organization boards, town boards, governing boards of school districts
  - c. Also applies to committees of governing bodies
  
- III. When does the open meeting law apply?
  - a. Best answer = always
  - b. Quorums of any governing bodies or committee of the governing body
    - i. Quorum = minimum number of members required to be present to legally conduct business, usually a majority
  - c. Anytime the quorum is meeting to discuss, or receive information about, the business or work of the governing body
  - d. Even when action is not being taken
  - e. Does NOT apply if group is getting together socially and NOT discussing business
  
- IV. What are the key elements of the open meeting law?
  - a. Meeting notices are required for regular, special, emergency, and closed meetings
  - b. Meetings must be open to public, in a public space
  - c. Meetings must be within borders of governing body's jurisdiction
  - d. Meeting materials must be available to public at the meeting
  - e. Meeting notes including voting record must be maintained and available to the public (usually in the form of meeting minutes)

- V. How does the open meeting law apply to the use of telecommunications?
  - a. Officials cannot “attend” meeting by phoning in
  - b. Can use interactive video (such as Skype) only if:
    - i. All officials can see and hear each other
    - ii. Members of the public at the meeting can see and hear all officials
    - iii. Offsite officials are located in a place accessible to the public<sup>1</sup>
    - iv. At least one official is at the regular meeting location
    - v. Proper notice was given regarding the location of offsite officials
  - c. Use of telecommunication tends to disrupt the meeting
  
- VI. How is the open meeting law most often broken?
  - a. Not often
  - b. Email use among officials can be problematic
    - i. Serial emails from one official to another and another, essentially discussing an issue
    - ii. Using “reply all” on an email to all officials of a governing body (avoid this problem by using “blind copy” on emails to group of officials)
  - c. Failure to properly notice a meeting
  - d. Officials wanting to call into a meeting

For further reading:

Information Brief from MN House of Representatives on MN Open Meeting Law  
<http://www.house.leg.state.mn.us/hrd/pubs/openmtg.pdf>

MN Statutes Chapter 13D. Open Meeting Law  
<https://www.revisor.mn.gov/statutes/?id=13D>

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<sup>1</sup> The Minnesota Supreme Court has read the requirement that a meeting be held in a place accessible to the public to mean ‘within the jurisdiction of the public body.’ *Quast v Knutson*, 150 N.W.2d 199, 200 (1967).





## Memorandum

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 6Ai – Agora Development – Plymouth, MN  
BCWMC February 16, 2017 Meeting Agenda  
Date: February 8, 2017  
Project: 23270051 2017 2108

### 6Ai Agora Development–Plymouth, MN BCWMC 2017-01

#### Summary:

**Proposed Work:** Redevelopment of the Four Seasons Mall site in Plymouth, MN.

**Basis for Commission Review:** Work within the floodplain

**Impervious Surface Area:** Increase 0.13 acres

**Recommendation:** Conditional Approval

#### General Background & Comments

At their meeting in September 2013, the BCWMC conditionally approved 90% plans for the Four Seasons Mall Area Water Quality Project (near Hwy 169 and Rockford Road in Plymouth) that included restoration of a channel upstream of the mall and creation of a stormwater pond. The project was not built due to residents' concerns with tree loss.

At their meeting in August 2016, the Commission received a presentation on the stormwater management components of a redevelopment project (named Agora) on the Four Seasons Mall site. At the time, the Commission was asked to consider providing funding (in the ballpark of \$500,000) toward stormwater management features that would go "above and beyond" pollutant removal requirements for the redevelopment. At its August meeting, the Commission moved forward with exploring a partnership with Rock Hill Management through an agreement with the City of Plymouth and directed Commission staff to continue to gather and assess additional information for further consideration including technical and legal issues.

At their December 2016 meeting, the Commission received a presentation on four alternatives for possible stormwater management features for the redevelopment. The following action was taken at the December meeting: The Commission provided conditional approval to provide funds from the BCWMC CIP budget as a financial contribution towards Alternative 4, which will remove an estimated 109 pounds of phosphorus above and beyond the BCWMC's requirements at the Agora development (old Four Seasons Mall site) in Plymouth. Conditions of the approval included:

1. CIP project review – i.e., review at 50% and 90% plan stages.

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2. Prior to the BCWMC formalizing a financial commitment, the developer must provide final drawings (i.e. final construction plans for the entire project including the wetland restoration) and supporting information (final pollutant removals and other information to confirm pollutant removal estimates) to the BCWMC Engineer for review and Commission approval. BCWMC's final financial commitment will be based on the final pollutant removal estimates.
3. Prior to formalizing a financial agreement, the BCWMC will enter into an agreement with the City of Plymouth for construction and funding of the project. Concurrently, the developer will need to enter into an agreement with the City of Plymouth regarding construction of the project and allowing construction of the wetland restoration portion of the project.
4. The BCWMC must obtain BWSR approval to substitute this new CIP project for the original Four Seasons Mall Area Water Quality Project.
5. The developer must obtain all required local, state, and federal permits for the project.
6. The developer must submit the application, fee, drawings and supporting information for the Agora redevelopment site to the BCWMC Engineer for separate review as part of the BCWMC project review program.

At its January meeting, the Commission directed the administrator and legal counsel to develop an agreement with Rock Hill Management for the Commission's consideration (see agenda item 6Aii).

On January 30, 2017, the developer's consultant submitted the Agora project for BCWMC review. This submittal addresses item 6 from the conditional approval from the December 2016 meeting. At this time items from conditions 1 – 5 have not been met. This review summary addresses the development requirements on the Agora site only, not the components for the BCWMC cost share for the above and beyond treatment. The proposed project includes full demolition and reconstruction of the Four Seasons Mall site. Redevelopment will include nine (9) individual buildings, parking, drives, stormwater features, and other development commonalities. The submittal did not include detailed plans for the wetland restoration to the south of the development site.

The proposed project is located in the Northwood Lake subwatershed, on the southwest corner of the TH 169 and Rockford Road interchange. The proposed project includes approximately 17.1 acres of grading and results in an increase of impervious surface by 0.13 acres.

## Floodplain

The current Bassett Creek (TP40 precipitation) floodplain elevation is 890.7 feet (NAVD88) for the North Branch of Bassett Creek upstream of TH 169 and downstream of Rockford Road. The updated XPSWMM floodplain elevation (Atlas 14 precipitation), but not yet adopted, floodplain elevation in this reach is 893.1 (NAVD88).

Proposed grading for the project includes work in the floodplain. However, information regarding floodplain impacts (fill in floodplain and flood levels) was not provided by the applicant.

## Wetlands

The project involves work within or adjacent to wetlands. The City of Plymouth is the LGU for administering the Minnesota Wetland Conservation Act of 1991.

## Stormwater Management

The September 2015 BCWMC Requirements for Improvements and Development Proposals (Requirements) document requires that projects that contain more than one (1) acre of new or reconstructed impervious area, must manage stormwater such that peak flow rates leaving the site are equal to or less than the existing rate leaving the site for the 2-, 10-, and 100-year events, based on Atlas 14 precipitation amounts and using a nested 24-hour rainfall distribution. As discussed below, all proposed peak flows meet the BCWMC requirement.

Under existing conditions, stormwater runoff flows to an existing wetland at the south end of the development that extends south of the development property.

The proposed stormwater management system includes a series of best management practices (BMPs), which ultimately discharge into the existing wetland. Drainage from the west portion of the site and a portion of off-site runoff from Rockford Road and Lancaster Lane will drain to two iron-enhanced sand filtration basins (P-1 and P-2) (see attached plan sheet showing BMPs). Treated runoff and overflow from the iron-enhanced sand filtration basins as well as overland flow from adjacent impervious surfaces will flow into another filtration basin (P-3). Treated runoff and overflow from filtration basin P-3, along with runoff from adjacent roofs, will flow into an infiltration basin with amended soil extended to the existing peat layer (P-4). Any overflow runoff from the infiltration basins will drain to a stormwater pond on the southeast corner of the site. The stormwater pond will be created by converting the northern portion of the existing wetland (north of the property line).

Stormwater from the central portion of the site will be directed to a wetland walk area (P-7a). Runoff from the roofs of two adjacent buildings and some surface overland flow will drain to permeable paver sections (P-7b) bordering the wetland walk. Soil amendments will be used to allow for infiltration below the permeable pavers. Overflow from the permeable pavers will flow to the wetland walk. Overflow from the wetland walk area will be routed to the stormwater pond. A water return system will be installed to recirculate water from the stormwater pond to the wetland walk to maintain optimum water levels in the wetland walk.

Stormwater from the western portions of the site will drain to two filtration basins (P-8 and P-9). Treated runoff and overflow from the filtration basins will drain to the stormwater pond. The proposed stormwater pond will be constructed with sediment forebays and an iron-enhanced sand filtration bench. Overflow from the stormwater pond will be routed into the remainder of the existing wetland to the south of the development property. The following table summarizes the existing and proposed peak discharges from the project area to the remainder of the existing wetland to the south of the proposed development.

<b>Storm Event</b>	<b>Existing Peak Discharge (cfs)</b>	<b>Proposed Peak Discharge (cfs)</b>
2-year	40.3	0.9
10-year	64.7	1.5
100-year	116.9	31.3

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## Water Quality Management

The BCWMC Requirements document requires that projects on sites without restrictions that create one (1) or more acres of new and/or fully reconstructed impervious surfaces shall capture and retain on-site 1.1 inches of runoff from the new and/or fully reconstructed impervious surfaces. If the applicant is unable to achieve the performance goals due to site restrictions, the MIDS flexible treatment options approach shall be used following the MIDS design sequence flow chart.

The proposed Agora development creates 12.1 acres of reconstructed and new impervious area. The project would be required to capture and retain 1.1 acre-feet of runoff from the proposed development, however a geotechnical report indicates that the site consists of tight clay soils, therefore Flexible Treatment Option #2 was the first feasible option in the MIDS design sequence flow chart. The project is required to provide volume reduction to the maximum extent practicable and provide a 60% annual reduction in total phosphorus. The Agora development meets the BCWMC requirement as described below.

As discussed in the General Background and Comments section above, the Commission conditionally approved a financial contribution towards the Agora development for providing stormwater treatment “above and beyond” what is required, including: construction of a stormwater pond, additional stormwater BMPs to treat off-site areas, and wetland restoration south of the development. The current submittal includes final plans for all stormwater BMPs on the Agora development site and conceptual plans for the wetland restoration south of the development site.

The proposed BMPs on the development site will treat stormwater from the site and off-site areas with two iron-enhanced sand filtration basins, three filtration basins, one infiltration basin with amended soil extended to existing peat layer, an artificially created wetland walk area, permeable pavers, and a stormwater pond (MPCA Design Level 3) with sediment forebays and an iron-enhanced sand filtration bench. The table below summarizes the annual TP loading and removals for the stormwater BMPs.

Device	PP	DP	TP Loading (lbs/year)	PP	DP	TP	Percent Removal
	Loading (lbs/year)	Loading (lbs/year)		Removal (lbs/year)	Removal (lbs/year)	Removal (lbs/year)	
Iron-Enhanced Sand Filtration Basin (P-1) <sup>1</sup>	10.33	8.45	18.78	8.32	4.76	13.08	69.6%
Iron-Enhanced Sand Filtration Basin (P-2) <sup>1</sup>	2.27	3.90	6.17	1.83	2.20	4.03	65.3%
Bio-filtration Basin (P-3) <sup>1</sup>	1.03	2.18	3.21	0.83	0.39	1.22	38.0%
Infiltration Basin with Dry Well, Peat Storage (P-4) <sup>1</sup>	1.99	2.97	4.96	1.09	2.42	3.51	70.8%
Wetland Walk – Ponding (P-7a) <sup>1</sup>	1.92	1.57	3.49	1.05	0	1.05	30.1%
Permeable Pavers (P-7b) <sup>1</sup>	2.88	2.36	5.24	2.86	2.34	5.20	99.2%
Filtration Basin (P-8) <sup>1</sup>	0.50	0.41	0.91	0.42	0.15	0.57	62.6%

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Device	PP	DP	TP Loading (lbs/year)	PP	DP	TP	Percent Removal
	Loading (lbs/year)	Loading (lbs/year)		Removal (lbs/year)	Removal (lbs/year)	Removal (lbs/year)	
Filtration Basin (P-9) <sup>1</sup>	0.44	0.56	1.00	0.37	0.21	0.58	58.0%
Stormwater Pond, MPCA Design Level 3 (P-10) <sup>1</sup>	11.39	10.56	21.95	10.20	2.42	12.68	57.8%
<b>SUBTOTAL<sup>2</sup></b>	<b>28.09</b>	<b>26.95</b>	<b>55.04</b>	<b>26.96</b>	<b>14.88</b>	<b>41.86</b>	<b>76.1%</b>
Wetland Walk – Plant Uptake (P-7a) <sup>3</sup>					2.6	2.6	
<b>TOTAL<sup>2</sup></b>	<b>28.09</b>	<b>26.95</b>	<b>55.04</b>	<b>26.96</b>	<b>17.48</b>	<b>44.44</b>	<b>80.7%</b>

<sup>1</sup>Values provided from MIDS

<sup>2</sup>Values are the total removal values taken from MIDS, not a summarized value from the table

<sup>3</sup>Values provided from Kadlec, R.H. and S. D. Wallace. 2008. Treatment wetlands, second edition. CRC Press, Boca Raton, FL. p. 363.

According to the proposed plans and BCWMC requirements, 60% TP removal is required for the 17-acre development site. The TP removal goal for Agora is 14.15 lbs/year. The proposed project would treat the development site as well as off-site runoff, providing approximately 44.44 lbs/year of TP removal. The proposed TP removal exceeds the treatment goal by 30.29 lbs/year (44.44 – 14.15 lbs/yr).

The above table does not include proposed nutrient removals from the wetland restoration to the south of the development because the applicant did not provide design plans for the wetland restoration. Based on earlier information from the applicant (as presented at the December 2016 Commission meeting), the proposed wetland restoration is to provide an additional 79.16 lbs/year of TP removal. The wetland restoration is not required for the development based on the BCWMC Requirements, but is part of the overall BCWMC CIP project (NL-2) for which there will be a proposed agreement between the developer and the BCWMC, as discussed in the General Background and Comments (see also agenda item 6Aii).

The wetland restoration design plans will be reviewed as part of the BCWMC's CIP review process and brought back to the Commission for review and approval.

## Erosion and Sediment Control

Since the area to be graded for the Agora development is greater than 10,000 square feet, the proposed project must meet the BCWMC erosion and sediment control requirements. Proposed temporary erosion control features include silt fence, inlet protection, rock construction entrances, biologs, concrete washouts, and street sweeping. Permanent erosion control features include seeding, erosion control blanket, and riprap.

## Recommendation

Conditional approval based on the following comments:

1. The wetland restoration plan must be submitted for Commission review as part of the Commission's CIP review process. The wetland restoration design must meet the Minnesota Stormwater Manual's design standards for a stormwater wetland (i.e., to achieve 40% TP removal).

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2. Portions of the Agora development involve work in the floodplain for the North Branch of Bassett Creek. The applicant must provide floodplain fill and mitigation documentation to demonstrate:
  - a. no net fill in the floodplain
  - b. no increase in flood stage as a result of the proposed project, and
  - c. that the minimum building elevations (lowest floor) are at least 2.0 feet above the 100-year flood elevation.

The current (TP40 precipitation) floodplain elevation is 890.7 feet (NAVD88) for Bassett Creek upstream of TH 169 and downstream of Rockford Road. However, the applicant should take into account the impact of the updated (Atlas 14 precipitation), but not yet adopted, floodplain elevation of 893.1 (NAVD88).

3. The applicant must clarify how the flow path for the Bassett Creek North Branch will be handled/changed as a result of the project. The North Branch appears to flow through the area that will be converted to a pond. Rerouting the creek will likely require a permit from the DNR because the North Branch is a DNR public watercourse.
4. Portions of the Agora development involve work in or adjacent to the North Branch of Bassett Creek, which may affect the streambanks. Documentation must be provided to demonstrate that the creek banks will be stable or stabilized as a result of the proposed project (see Section 2.3 and Section 7.0(3)(q) of the BCWMC Requirements document).
5. Offsite drainage must be accounted for in the existing and proposed conditions HydroCAD models. The modeling must demonstrate that the proposed project does not increase discharge rates.
6. While rate control is not required for offsite runoff which flows onto the project site, the proposed stormwater BMPs must be adequately designed to handle runoff from their respective drainage areas, which may include offsite runoff.
7. BMP storage volumes are not consistent between the HydroCAD model and MIDS model. Models must be modified accordingly or provide justification for the discrepancies.
8. Some permeable paver areas drain to the wetland walk area, while other permeable paver areas drain directly to the stormwater pond. This is not reflected in the HydroCAD or MIDS modeling. Models must be modified to represent the proposed conditions or justification provided for the current methodology.
9. In the proposed conditions MIDS model, an underground infiltration BMP is used to represent permeable pavers instead of a permeable pavement BMP. This methodology claims 100% volume reduction and 99% nutrient removal. Modify the model to represent the proposed BMP as permeable pavement or provide justification for the current methodology.
10. The "Proposed with Additional BMPs and Off-site Drainage" MIDS model and the "Loading from Off-site (North)" MIDS model are inconsistent with their soil types. Please clarify the hydrologic soil group (HSG) for the off-site drainage areas.

11. For permeable paver design, the Minnesota Stormwater Manual states that *“Runoff from permeable areas is not recommended due to potential clogging of the permeable pavement. The at-grade contributing drainage area into permeable pavement should generally not exceed twice the surface area of the permeable pavement. This guideline helps reduce the rate of surface sedimentation. The 2:1 ratio can be increased to no greater than 5:1 if at least one of these conditions exists:*

- a. *permeable pavement is receiving runoff from roofs as it tends to be very low in sediment; or*
- b. *runoff from adjacent impervious surfaces remains unburdened with sediment due to effective pre-treatment prior to entering the permeable pavement.”*

The provided MIDS model and Stormwater Management Plan indicate that the pervious pavers receive runoff from permeable surfaces and that the drainage area to surface area ratio exceeds 5:1. Modification of the pervious paver design to meet the recommendations of the Minnesota Stormwater Manual is recommended.

12. Documentation must be provided to demonstrate that the flow path length to pond width ratio is at least 1.5:1 for the proposed stormwater pond, as is required for a Minnesota Stormwater Manual stormwater pond design level 3.

13. The proposed stormwater pond design does not appear to have sufficient permanent pool volume (57,078 cf required based on 31.7 acre drainage area; 55,229 cf provided). The proposed stormwater pond must be revised to provide adequate storage to meet the Minnesota Stormwater Manual’s requirements for a stormwater pond.

14. A reference for the statement that “wetted peat has a storage capacity of at least 500% its weight” must be provided.

15. Effective energy dissipation devices or stilling basins to prevent erosion at all stormwater outfalls must be provided in accordance with the BCWMC Requirements document.

16. Rock construction entrances must have a minimum cut-off berm height of 2 feet above the adjacent roadway with maximum side slopes of 4H:1V.

17. The following erosion and sediment control notes must be added to the plans:

- a. Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.
- b. Temporary vegetative cover must be provided consisting of a suitable, fast-growing, dense grass seed mix spread (at a minimum) at the MnDOT-specified rate per acre. If temporary cover is to remain in place beyond the present growing season, two-thirds of the seed mix shall be composed of perennial grasses.
- c. Soils tracked from the site must be removed from all paved surfaces within 24 hours of discovery through the duration of construction.

18. A maintenance agreement must be established between the owner and the City for the proposed stormwater BMPs. Plant harvesting needed to maintain the “plant uptake” TP removal should be included in the maintenance agreement.

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 6Ai – Agora Development – Plymouth, MN  
Date: February 8, 2017  
Page: 8  
Project: 23270051 2017 2108

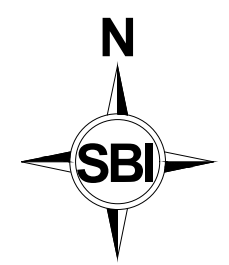
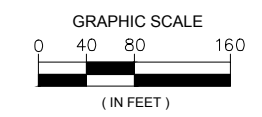
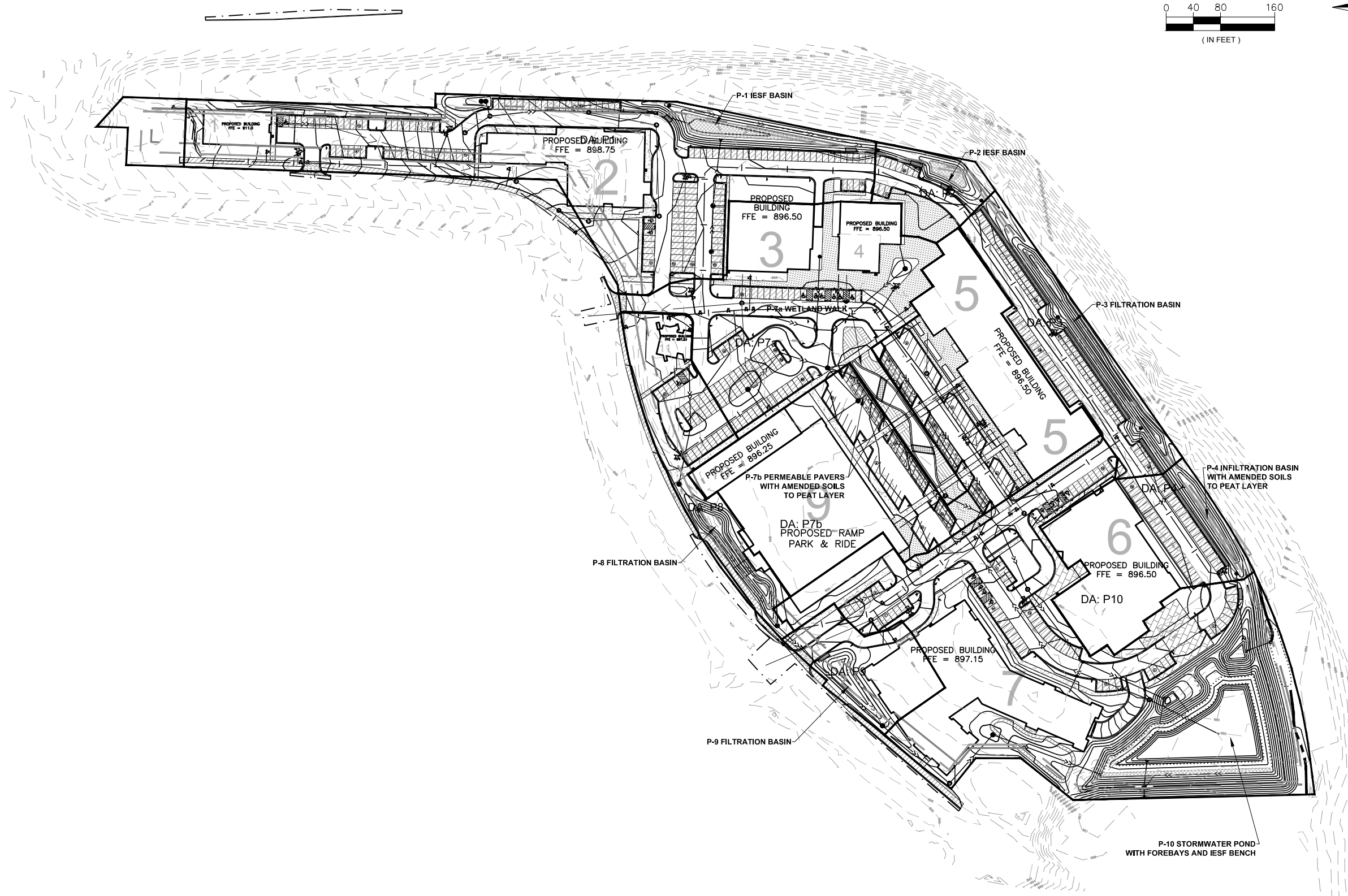
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19. Revised drawings (paper copy and final electronic files), and all modified supporting information (MIDS model, HydroCAD model, references, etc.) must be provided to the BCWMC Engineer for final review and approval.





CADD USER: Nathan Warner FILE: C:\USERS\NATHAN W\DROPBOX\PROJECTS\160301 - 4 SEASONS REDEVELOPMENT\WORKING FILES\CADD\DWG\PRO-DA.DWG PLOT SCALE: 1:2 PLOT DATE: 1/27/2017 2:50 PM



REVISIONS BY	

I HEREBY CERTIFY THAT THIS PLAN OR SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CIVIL ENGINEER \_\_\_\_\_ REG. NO. \_\_\_\_\_  
 DATE: \_\_\_\_\_



**Solution Blue**  
 water matters®  
 318 Cedar Street  
 Saint Paul, MN 55101  
 651.264.0038  
 www.SolutionBlue.com

**PRO-DA MAP**

AGORA  
 PLYMOUTH, MN

DRAWN BY  
 NIW  
 CHECKED BY  
 SEG  
 DATE  
 01-27-17  
 JOB NO.  
 160301  
 SHEET

**PRO-1**

**CAPITAL IMPROVEMENT CONSTRUCTION AGREEMENT**  
(Agora Development)

This Agreement is made as of this \_\_\_ day of February, 2017, by and between the Bassett Creek Watershed Management Commission, a joint powers watershed management organization (“Commission”), and Rock Hill Management, LLC, a Minnesota limited liability company (“Developer”). The Commission and the Developer may hereinafter be referred to individually as a “party” or collectively as the “parties.”

**RECITALS**

- A. The Commission adopted the Bassett Creek Watershed Management Commission Watershed Management Plan on September 17, 2015 (“Plan”), a watershed management plan within the meaning of Minnesota Statutes, section 103B.231;
- B. The Plan includes a capital improvement program (“CIP”) that lists a number of water quality project capital improvements;
- C. One of the water quality projects identified in the CIP is the Four Seasons Mall Water Quality Project in the City of Plymouth (“City”) that was funded as part of the 2013 CIP levy collected by Hennepin County pursuant to Minnesota Statutes, section 103B.251;
- D. The current project involves property the Developer will acquire, on which the Agora project is to be built, that is legally described in the attached Exhibit A (“Agora Parcel”), and involves an adjacent wetland parcel owned by the City that is legally described in the attached Exhibit B (“Wetland Parcel”);
- E. The Developer is purchasing the Agora Parcel and will close on the sale in the near future;
- F. The Developer will be acquiring such temporary easement or license from the City as may be required to construct the Project on the Wetland Parcel;
- G. The original Four Seasons Mall Water Quality Project did not proceed, but the Developer has proposed four alternatives to address stormwater on the project site;
- H. Alternative 4 identified by the Developer includes a stormwater pond at the southern edge of the Agora Parcel; permeable pavers, wetland walk, two iron enhanced sand filtration basins, two filtration basins, and infiltration with peat storage on the Agora Parcel; and restoration of a wetland within the Wetland Parcel all as described in Exhibit C (collectively, the “Project”) and exceeds the Commission’s stormwater treatment requirements for the Project at a level comparable to the treatment expected to be realized by construction of the original Four Seasons Mall Water Quality Project;
- I. The City, by separate agreement with the Commission, will provide the ongoing maintenance of the wetland improvements the Developer constructs on the Wetland Parcel once the Commission determines they were constructed in accordance with the Plans;

- J. The Commission desires to provide CIP funding, on a reimbursement basis, to the Developer for the Project in accordance with the terms and conditions of this Agreement; and
- K. The Developer desires to utilize the CIP funds from the Commission to construct the Project in accordance with the terms and conditions of this Agreement.

### **AGREEMENT**

In consideration of the mutual promises and agreements hereinafter set forth, and intending to be legally bound, the parties do hereby agree as follows:

1. Project Scope. The Project will consist of the construction and installation of all stormwater treatment features and improvements described in Exhibit C as “Alternative 4.” The site of the Project shall include both the Agora Parcel and the Wetland Parcel.
2. Agora Parcel. The Developer’s acquisition of fee title of the Agora Parcel is a condition precedent to the Developer being eligible for any reimbursement of Project costs from the Commission under this Agreement. The Developer shall provide the Commission proof of having acquired fee title to the Agora Parcel prior to the Developer submitting any reimbursements requests to the Commission.
3. Wetland Parcel. The Developer shall take such steps as may be required to obtain a construction easement or license from the City as may be needed to secure a right to construct the stormwater improvements on the Wetland Parcel in accordance with the Plans. The rights obtained from the City shall include a license or similar authorization for the Commission and its agents to enter the Wetland Parcel as may be needed to conduct inspections as provided in this Agreement if the Commission does not secure such authorization in its separate agreement with the City. The Developer’s acquisition of such constructions rights over the Wetland Parcel from the City shall occur before the Commission will reimburse any construction costs for the Project.
4. Design and Plans. The Developer will design the Project, prepare plans and specifications for construction of the Project, and provide supporting information including, but not limited to, final pollutant removal information and other information to confirm pollutant removal estimates (collectively, the “Plans”). The 90% Plans, and any changes to such Plans, shall be submitted to the Commission for approval. Minor change orders that do not deviate from the direction of the Commission and do not materially change either the effectiveness of the Project to meet its intended purposes or the environmental impacts of the Project may be approved by the Developer, in consultation with the Commission Administrator, without requiring approvals by the Commission. The Plans shall be completed and submitted for approval prior to the distribution of any funds under this Agreement. Approval of the Plans shall not occur unless the Plans demonstrate that the Project will remove at least 100 pounds of total phosphorus more than the amount that is required for removal for the development itself (14.88 pounds is required, so the total removal required under this Agreement is at

least 114.88 pounds of phosphorus). The Plans, once approved by the Commission, shall be incorporated in and made part of this Agreement by reference.

5. Contract Administration. The Developer shall be responsible for constructing the Project in accordance with the approved Plans. The Developer will award the contract to its selected contractor (“Contractor”) and supervise and administer the construction of the Project to ensure that it is completed in accordance with the approved Plans. The Developer will require the Contractor to name the Commission as an additional insured on all liability policies required by the Developer of the Contractor, and the Commission shall be given the same notification of cancellation or non-renewal of such liability policies as is given to the Developer. The Developer will require the Contractor to defend, indemnify, protect, and hold harmless the Commission and the Developer, their agents, officers, and employees, from all claims or actions arising from negligent acts, errors or omissions of the Contractor. The Developer will supervise the work of the Contractor, but the Commission shall perform construction inspections as provided herein.
6. Construction Inspections. The Commission’s engineer (“Commission Engineer”) shall perform periodic inspections of the Project as it is being constructed. The Developer and Commission Engineer agree to work cooperatively and in good faith with the Contractor to develop a schedule for inspections that minimizes the amount of CIP funds spent on inspections while still providing sufficient inspections to ensure the Project is constructed in accordance with the approved Plans. The Commission Engineer may not direct the work of the Contractor, but the Developer and the Contractor will give all due reasonable consideration to issuance of such change orders, work directives, or field orders as necessary and appropriate to adjust the work as requested by the Commission Engineer to help ensure the Project is constructed in accordance with the Plans.
7. Communications and Outreach. During construction of the Project, the Developer will display a sign at the construction site stating “Paid in part by the Taxpayers of the Bassett Creek Watershed.” The Developer also agrees to work cooperatively with the Commission once the Project is constructed to develop, place, and maintain educational signage on the Agora Parcel to inform the public of the stormwater improvements constructed as part of the Project.
8. Contract Payments. The Developer shall be responsible for paying the Contractor and all other expenses related to the construction of the Project, and shall keep and maintain complete records of such costs incurred. The Developer shall not be responsible for paying, or keeping records of payments, to the Commission Engineer.
9. Commission Reimbursement. The Commission agrees to reimburse the Developer for costs it incurs to construct the Project as provided in this section. The total amount of CIP funds the Commission has available for the Project is \$848,148. This amount constitutes a maximum and includes the Commission’s out-of-pocket costs related to the Project including, but not limited to, Commission Engineer’s review and inspection costs. The Commission’s out-of-pocket costs are currently estimated at between \$20,000 and \$30,000. The portion of the CIP funds in excess of such expenses are available for reimbursement to

the Developer for costs incurred by the Developer in the design and construction of the Project. The Developer may seek up to monthly reimbursements from the Commission as it incurs and pays costs to design and construct the Project. For a reimbursement request to be considered for approval at a Commission meeting, the request shall be submitted in writing, with a copy of all paid invoices (noting specifically and separately the expenses for design and construction of BMPs shown in Alternative 4) for the amounts to be reimbursed, to the Commission Administrator at least ten (10) days prior to the Commission meeting. Reimbursement requests received after that date shall be considered for payment at the following Commission meeting. The Commission may require the Developer to submit additional information as may reasonably be required for the Commission to substantiate the amounts requested for reimbursement. Requests for additional information shall be made in writing and if the Commission does not request additional information regarding a reimbursement request submitted by the Developer within thirty (30) days of the date of submission, said reimbursement request shall be deemed approved.

10. Limits on Reimbursement. Reimbursement to the Developer will not exceed the amount specified above, less any amounts retained by the Commission for Commission expenses. Reimbursement will not be increased by grants or other revenues received by the Commission for the Project without appropriate and approved sub-grant agreements between the Developer and Commission. Reimbursement will not exceed the costs and expenses incurred by the Developer for the Project, less any amounts the Developer receives for the Project as grants from other sources. All costs of the Project incurred by the Developer in excess of such reimbursement, shall be borne by the Developer or secured by the Developer from other sources.
7. Audit. As required by Minnesota Statutes, section 16C.05, subdivision 5, all Developer books, records, documents, and accounting procedures related to the Project are subject to examination by the Commission, the state auditor, and the legislative auditor for a period of six years from the completion of the Project.
8. Environmental Review and Permitting. The Developer will perform all necessary investigations of site contamination, secure all necessary local, state, or federal permits required for the construction of the Project, and will not proceed with the Project until all required environmental review and remediation of site contamination is completed or a plan for remediation is approved by appropriate regulatory agencies.
9. Ongoing Maintenance. Once the Project is constructed in accordance with the Plans, the Developer, at its own cost, shall be responsible for the ongoing maintenance of the stormwater improvements constructed on the Agora Parcel. The Developer agrees to maintain the stormwater improvement constructed on the Agora Parcel as part of the Project for a period of at least 10 years from the date of approval of the final reimbursement request for the construction of the Project. The Developer shall not be responsible for the ongoing maintenance of the stormwater improvements constructed on Wetland Parcel. The Commission intends to enter into a separate agreement with the City whereby the City agrees to provide for the ongoing maintenance of the Wetland Parcel at its own cost.

10. Indemnification. The Commission's role under this Agreement is solely to provide funds to support the Project. Review by the Commission or the Commission Engineer of any design or installation of the stormwater improvements is solely for the purpose of establishing accountability for Commission CIP funds expended. The Developer remains fully responsible for the means, method, and manner of designing, constructing, and operating the Project. Neither the Developer nor the Developer's Contractor acts as the agent or representative of the Commission in any manner. The parties are responsible for their own acts under this Agreement and none of the parties agree to accept liability on behalf of another party. The Developer hereby agrees to indemnify, defend, and hold the Commission and its officials, employees, and agents harmless for all costs, damages, or expenses which the Commission may pay or incur, including attorneys' fees, in consequence of any claims arising out of or related the acts or omissions of the Developer in performing its obligations under this Agreement or the Contractor in constructing the Project. This duty to indemnify does not extend to any claims arising from the Commission's own negligence. Nothing herein shall be construed as a waiver of, or limitation on, any immunity from or limitation on liability available to any party under law.
11. Notices. Any written communication required under this Agreement will be addressed to the other parties as follows, subject to written notice of a change of address:

To the Commission:

Laura Jester  
BCWMC c/o Keystone Waters LLC  
16145 Hillcrest Lane  
Eden Prairie MN 55346

To the Developer:

—  
—

12. Data Practices. The Developer shall retain and make available data related to the letting of contracts and construction of the Project in accordance with, and to the extent required by, the Minnesota Government Data Practices Act.
13. Term and Termination. This Agreement shall be in effect as of the date first written above and shall terminate once the Project is completed and the Commission has completed its reimbursement payments to the Developer as provided herein. The maintenance and indemnification duties under this Agreement shall survive termination. The Commission retains the right to terminate this Agreement if the construction of the Project is not completed in accordance with the Plans, or is not completed by December 31, 2020. After the Commission notifies the Developer that it intends to terminate this Agreement because of the Developers failure to complete the Project in accordance with the Plans or by the deadline established herein, the Developer shall no longer be eligible to receive

reimbursement payments for work under this Agreement unless the Commission agrees, in writing, to a corrective-actions plan to bring the Project into compliance or to extend the construction-completion period.

14. Right of Entry. The Developer, with respect to the Agora Parcel, grants the Commission, the Commission Engineer, and the agents of the Commission a license to enter the Project site at all reasonable times to conduct such inspections as the Commission determines is needed to ensure the Project is being constructed and maintained in accordance with the terms and conditions of this Agreement.
15. Nondiscrimination. In contracting for construction of the Project, the Developer will ensure that no person is excluded from full employment rights or participation in or benefits of any program, service, or activity on the grounds of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public-assistance status or national origin, and that no person protected by applicable federal or state laws, rules or regulations against discrimination is subject to discrimination.
16. Ownership. The Developer warrants and represents to the Commission that it will become the fee owner of the Agora Parcel prior to construction of the Project. The Developer understands and agrees that it becoming the fee title owner of the Agora Parcel is a condition precedent to being eligible to receive any reimbursement payments under this Agreement. Notwithstanding anything to the contrary in this Agreement, the Commission may immediately terminate this Agreement if the Developer fails to provide the Commission proof of fee title ownership of the Agora Parcel as required herein.
17. Binding Effect. This Agreement shall be deemed to be a restrictive covenant and the terms and conditions hereof shall run with the land described herein and be binding on and inure to the benefit of the heirs, representatives and assigns of the parties hereto, and shall be binding upon all future owners of all or any part of the Agora Parcel and the Wetland Parcel, and shall be deemed covenants running with the land. The Developer agrees to notify the Commission at least 30 days before the Developer conveys any portion of the Agora Parcel on which any stormwater improvements constructed as part of the Project are located and agrees to facilitate communication between the Commission and the purchaser of the parcel to help ensure continued maintenance of the Project.
18. Legal Compliance. Each party shall be responsible for complying with all applicable federal, state, and local laws, rules, regulations, and ordinances in carrying out their respective duties under this Agreement.
19. Authority to Contract. The person or persons executing this Agreement on behalf of the Developer, the Commission, and the City represent that he, she, or they are duly authorized to execute this Agreement on behalf of their respective entities and represent and warrant that this Agreement is a legal, valid, and binding obligation enforceable according to its terms.



20. No Waiver. The Commission's failure to insist on the performance of any obligation under this Agreement does not waive its right in the future to insist on strict performance of that or any other obligation.
21. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original and shall constitute one and the same Agreement.
22. No Third-Party Rights. This Agreement is solely for the benefit of the signatories hereto. This Agreement shall not create or establish any rights in, or be construed as being for the benefit of, any third party.
23. Severability. In the event that any provision of this Agreement shall be held invalid, illegal or unenforceable by any court of competent jurisdiction, such holding shall pertain only to such section and shall not invalidate or render unenforceable any other section or provision of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized officers on behalf of the parties as of the day and date first above written.

BASSETT CREEK WATERSHED  
MANAGEMENT COMMISSION

By: \_\_\_\_\_  
Its Chair

And by: \_\_\_\_\_  
Its Secretary

Date: \_\_\_\_\_

ROCK HILL MANAGEMENT, LLC

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A**  
Legal Description of Agora Parcel

Lots 1, 2, 3, 4, 5, 6, 7 and 8, Block 1, Agora Addition, Hennepin County, Minnesota.

**EXHIBIT B**  
Legal Description of the Wetland Parcel

That part of Lot 3, Block 1, PLYMOUTH PLAZA 4TH ADDITION, according to the recorded plat thereof, Hennepin County, Minnesota described as beginning at the most southwesterly corner of said Lot 3, Block 1, PLYMOUTH PLAZA 4TH ADDITION; thence northwesterly along the right-of-way line of Lancaster Lane, according to the recorded plat thereof, to the most westerly corner of said Lot 3, Block 1; thence northeasterly along a northwesterly line of said Lot 3, Block 1 for a distance of 100.00 feet; thence easterly parallel with the south line of said Lot 3, Block 1, to the most westerly right-of-way line of Hennepin County Road #18; thence southeasterly along said most westerly right-of-way line of Hennepin County Road #18 to the south line of said Lot 3, Block 1; thence west along the south line of said Lot 3, Block 1 to the point of beginning.

**EXHIBIT C**  
Description of the Project

[attached hereto]



**Solution Blue, Inc.**  
318 Cedar Street  
Saint Paul, MN 55101

Phone: 651-294-0038  
[info@solutionblue.com](mailto:info@solutionblue.com)  
[www.solutionblue.com](http://www.solutionblue.com)

February 8, 2017

### **AGORA stormwater management narrative**

1. Filtration basins with iron enhanced sand filtration soils – the two (2) basins north of buildings 3 and 4 are designed to be shallow filtrating basins that shall be rid of visible water within 48 hours. The basins incorporate an iron enhanced sand filter that attracts additional pollutants (phosphorus) carried within the water. The primary and overflow outlets carry to the south and east (2.) filtration basin.
2. Filtration basin – A filtration basin along the east property line receive water from surface flow. The primary and overflow outlets carry water to the (3.) Infiltration basin with amended soils.
3. Infiltration basins with amended soils – the long linear basin along the east between building 5 and Bassett Creek will have corrected soils to allow for infiltration of one-inch per hour to reach the existing peat soil body. This feature will help to saturate the peat body and reduce the rate of decay of the peat soil. The primary outlet is infiltration. Overflow outlet carries the water south to the (7.) Storm pond and forebays.
4. Wetland Walk – A highly visible center wetland feature will receive stormwater in two different ways, surface drainage during rain events and recirculation pump of stormwater that is held within the Storm pond. The wetland walk is a constructed wetland that has an open water component that is edged by wetland plant species. The outlet for this system is to the (7.) Storm pond and forebay.
5. Permeable pavers system with amended soils – Approximately 40 parking stalls that border the wetland walk will be constructed with a permeable paver with amended soils below to the Peat body or less restrictive soil layer. This feature will receive water from surface drainage, as well as, from buildings 5 and 9 roof drains. The systems primary outlet is infiltration. Overflow outlets carries water first to the (4.) wetland walk and secondarily to the (7.) Storm pond and forebay.
6. Filtration basins – Two filtration basins along Lancaster and the west property line receive water from buildings 7 and 11 roof drains as well as surface flow. The primary and overflow outlets carry water to the (7.) Storm pond.
7. Storm Pond and Forebays (with an iron enhanced bench) – The storm pond and forebays is a large excavated area for water to collect to provide settlement of stormwater particles and control the rate of release of the stormwater. The forebays will be the primary receiving areas of the stormwater and will provide the initial settlement and treatment of the stormwater. The Storm pond will provide further treatment and is critical to the rate control of the stormwater. Lastly, an iron enhanced sand bench will be installed along the south edge of a vegetated earth bench to enhance pollutant (phosphorus) removal. The primary and overflow outlets carry the water to the (8.) wetland restoration area (wetland/Bassett Creek).
8. Wetland Restoration (also contains Bassett Creek) – An approximate 2.5 acres wetland will be restored to a high level, properly functioning wetland to provide stormwater treatment, storage, and animal habitats. The wetland area contains the steam of Bassett Creek, in which, the creek will be allowed to flow within and outlet from the restored wetland. The outlet from the restored wetland is a large storm sewer pipe below HWY 169 that discharges to Northwood Lake.

# Alternative 4 - On-site plus Off-site including City Wetland Restore



318 Cedar Street  
Saint Paul, MN 55101

651-294-0038  
www.SolutionBlue.com

AGORA

PLYMOUTH MN



elness swenson graham architects

500 washington avenue south  
minneapolis minnesota 55415  
p. 6 1 2 . 3 3 9 . 5 5 0 8  
f. 6 1 2 . 3 3 9 . 5 3 8 2  
www.esgarch.com

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 architect under the laws of the State of Minnesota

*Gretchen M. Camp*  
Signature

Gretchen M. Camp  
Typed or Printed Name  
46433 exp. 06/30/2018  
License # Date

**NOT FOR CONSTRUCTION**

PUD SUBMITTAL  
12/9/2016

ORIGINAL ISSUE: 09/13/2016

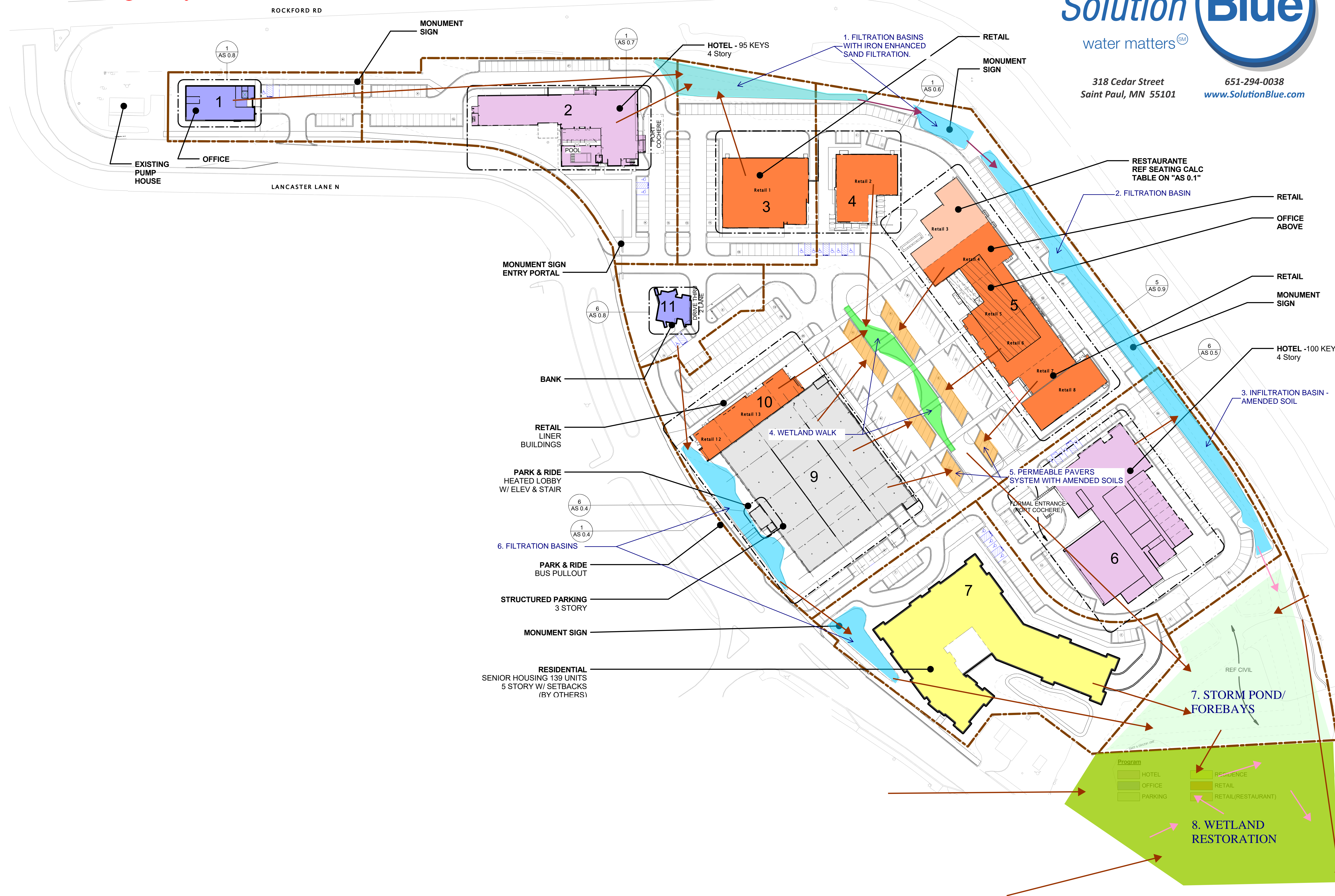
REVISIONS

No.	Description	Date
A	PUD SUBMISSION	8/15/2016
B	PUD RE-SUBMISSION	9/13/2016
C	PUD RE-SUBMISSION	10/20/2016
D	PUD RE-SUBMISSION	12/9/2016

216516  
PROJECT NUMBER  
ME GC / AB  
DRAWN BY CHECKED BY

AGORA

SITE PLAN  
AS 0.1

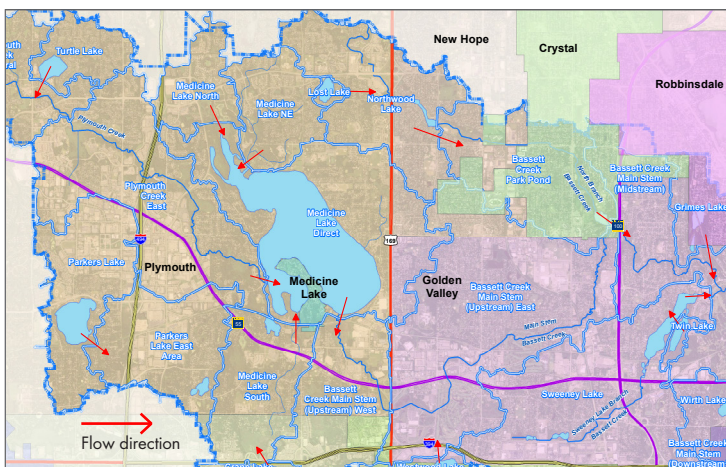
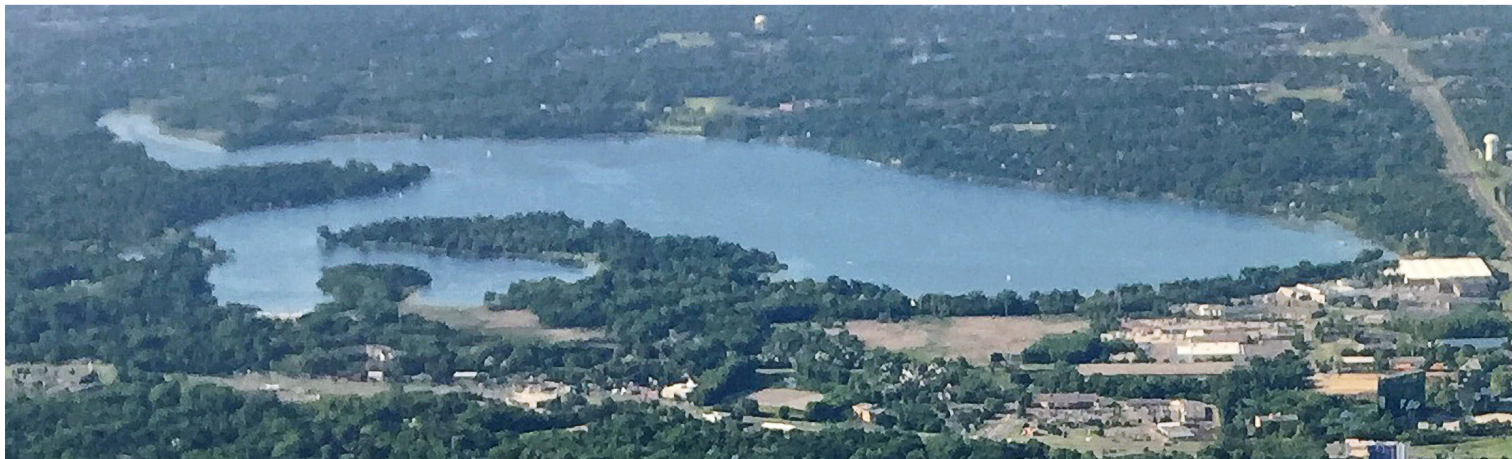


Program

HOTEL	RESIDENCE
OFFICE	RETAIL
PARKING	RETAIL (RESTAURANT)

# Medicine Lake 2016 water quality monitoring

Item 6B.  
BCWMC 2-16-17



## Monitoring water quality in Medicine Lake

The Bassett Creek Watershed Management Commission (BCWMC) has monitored water quality conditions in the watershed's 10 priority lakes and six ponds since 1972. This monitoring is done to detect changes or trends in water quality and evaluate the effectiveness of efforts to preserve or improve water quality. A summary of 2016 monitoring efforts on Medicine Lake is provided below; more comprehensive information can be found on pages 2–7.

## At a glance: 2016 monitoring results

In 2016, the BCWMC monitored Medicine Lake for:

- Water chemistry (nutrients, chlorophyll *a*, chloride)
- Water measurements (e.g., clarity, dissolved oxygen)
- Phytoplankton and zooplankton (microscopic aquatic plants and animals)
- Macrophytes (aquatic plants)

Results indicate that Medicine Lake does not meet applicable Minnesota Pollution Control Agency (MPCA) and BCWMC water quality standards for lakes. Trend analyses indicate chlorophyll *a* concentrations have increased significantly over the past 20 years.

## Recommendations

- Implement management measures to reduce the internal phosphorus load from sediment (about one-third of the lake's annual phosphorus load). Alum treatment would reduce internal phosphorus load from sediment and improve water quality.
- Continue water quality and biological monitoring.

## About Medicine Lake

BCWMC classification	Priority-1 deep lake
Watershed area	11,014 acres
Lake size	902 acres
Average depth	17.5 feet
Maximum depth	49 feet
Ordinary high water level	889.1 feet
Normal water level	887.7 feet
Downstream receiving waterbody	Bassett Creek
Location (city)	Medicine Lake, Plymouth
MPCA impairments	Mercury in fish tissue, nutrients
Aquatic invasive species	Eurasian watermilfoil, curly-leaf pondweed
Public access	Yes (boat launch)



# Water chemistry monitoring: 2016

## Total phosphorus levels

While phosphorus is necessary for plant and algae growth, excessive levels lead to excessive growth, decreased water clarity, and water quality impairment.

- BCWMC/MPCA standard: 40 micrograms per liter ( $\mu\text{g/L}$ ) or less.
- Range: Total phosphorus concentrations for Medicine Lake were in the eutrophic category from April to mid-June and increased through September. The low was 27  $\mu\text{g/L}$  in April, and the high was 124  $\mu\text{g/L}$  in September.
- Summer average: 76  $\mu\text{g/L}$  in the Main Basin and 79  $\mu\text{g/L}$  in the Southwest Basin; did not meet BCWMC/MPCA standard.

## Chlorophyll a levels

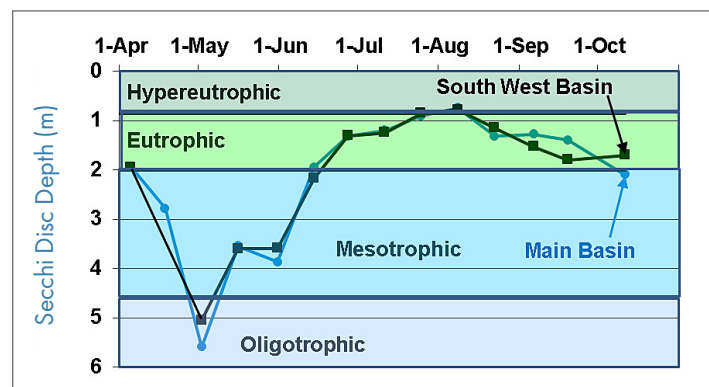
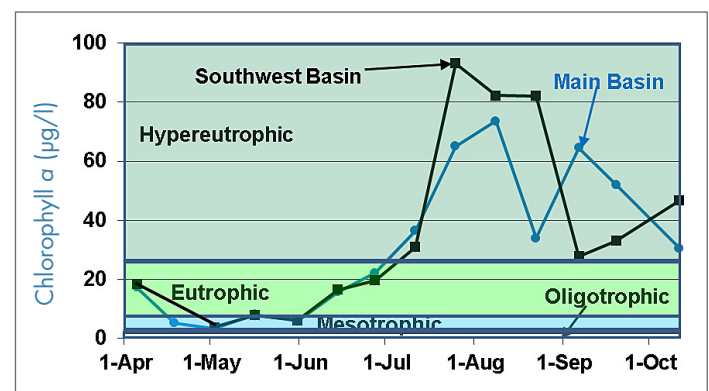
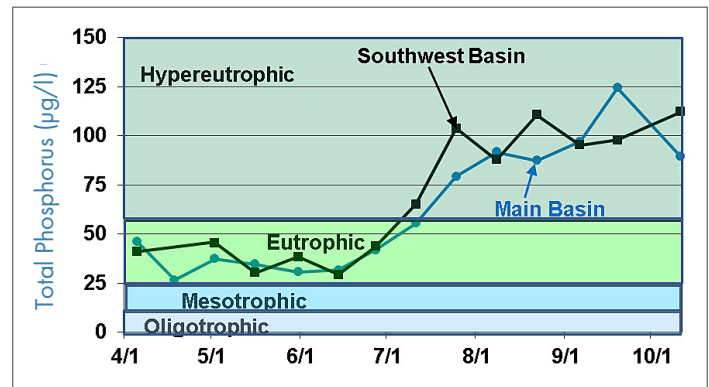
Chlorophyll a is a pigment in algae and generally reflects the amount of algae growth in a lake. Lakes which appear clear generally have chlorophyll a levels less than 15  $\mu\text{g/L}$ .

- BCWMC/MPCA standard: 14 micrograms per liter ( $\mu\text{g/L}$ ) or less.
- Range: Chlorophyll a concentrations ranged from a low of 3  $\mu\text{g/L}$  in May to a high of 93  $\mu\text{g/L}$  in July. From July through October, concentrations were in the hypereutrophic range.
- Summer average: 46  $\mu\text{g/L}$  in the Main Basin and 48  $\mu\text{g/L}$  in the Southwest Basin; did not meet BCWMC/MPCA standard.

## Water clarity

Water clarity is often affected by the abundance of algae or other photosynthetic organisms in a lake. It is usually measured by lowering an 8-inch "Secchi" disc into the lake; the depth at which the disc's alternating black-and-white pattern is no longer visible is considered a measure of the water's transparency.

- BCWMC/MPCA standard: 1.4 meters or more.
- Range: Secchi disc depth declined from 5.6 meters in early May to 0.7 meters in early August.
- Summer average: 1.4 meters in the Southwest Basin (met BCWMC/MPCA standard) and 1.3 meters in the Main Basin (did not meet standard).



## Definitions

- **Eutrophic:** Lake condition characterized by abundant accumulation of nutrients supporting dense growth of algae and other organisms; decay of algae can reduce lake oxygen levels
- **Hypereutrophic:** Nutrient-rich lake conditions characterized by frequent and severe algal blooms and low transparency
- **Mesotrophic:** Lake condition characterized by medium levels of nutrients and clear water
- **Oligotrophic:** Lake condition characterized by a low level of dissolved nutrients, high oxygen content, and sparse algae growth

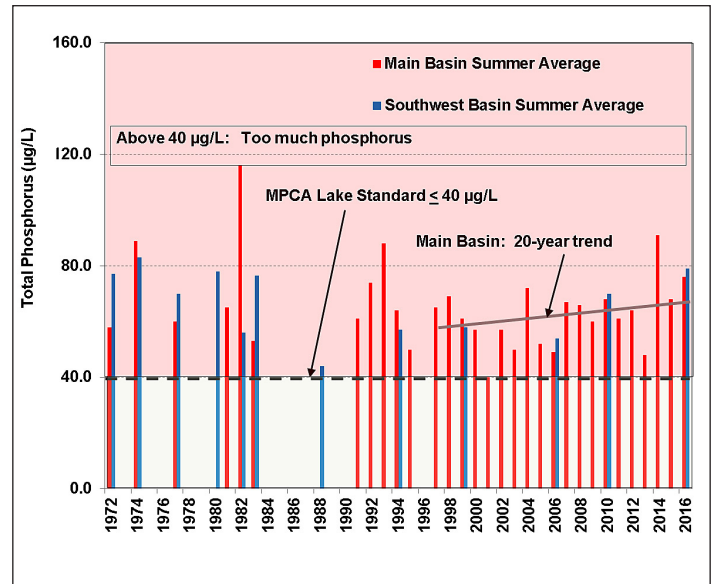


## Water chemistry monitoring from 1972–2016: historical trends

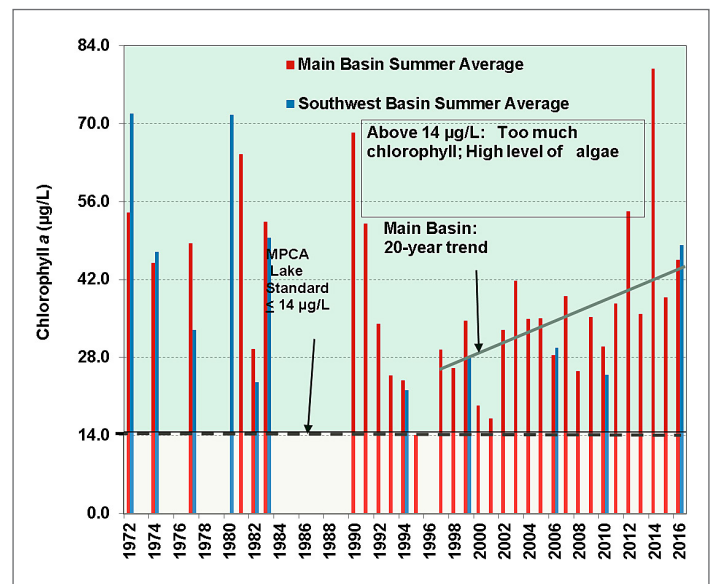
Water quality in Medicine Lake has been monitored since 1972. Summer averages (June through September) of total phosphorus, chlorophyll *a*, and Secchi disc transparency for the Main Basin and Southwest Basin from 1972–2016 are shown in the figures to the right. Summer averages for total phosphorus and chlorophyll *a* have not met the BCWMC/MPCA standard throughout this period. However, Secchi disc summer averages have met the BCWMC/MPCA standard 66 percent of the time in the Main Basin and 73 percent of the time in the Southwest Basin.

Trend analyses of the Main Basin show statistically significant (95 percent confidence level) increases in chlorophyll *a* concentrations during the past 20 years. These increases correspond with significant increases in algal levels. Summer average total phosphorus concentrations and Secchi disc depths have also increased during the past 20 years, but these increases are not statistically significant.

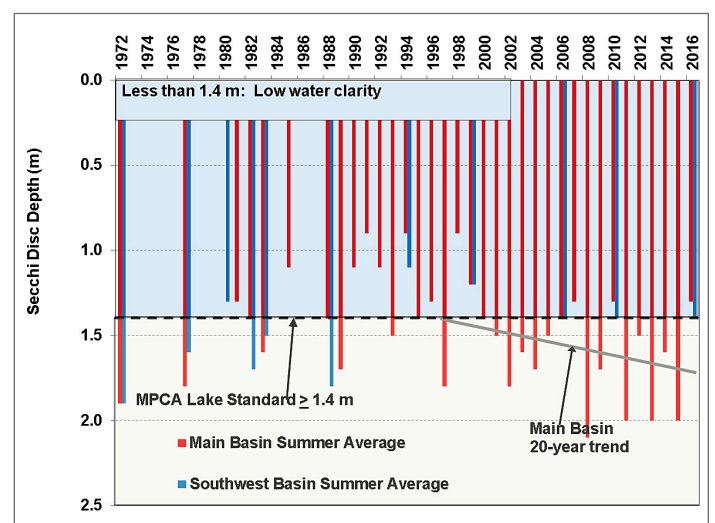
## Total phosphorus trends

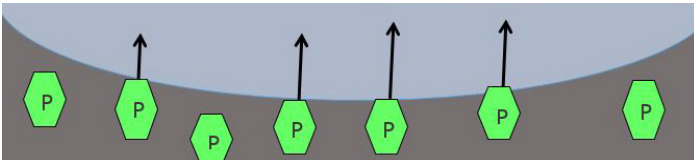


## Chlorophyll *a* trends



## Water clarity trends





## Phosphorus loading from sediment (2016)

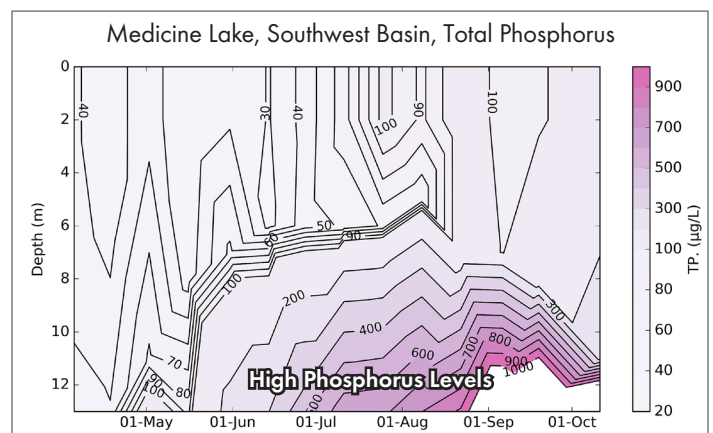
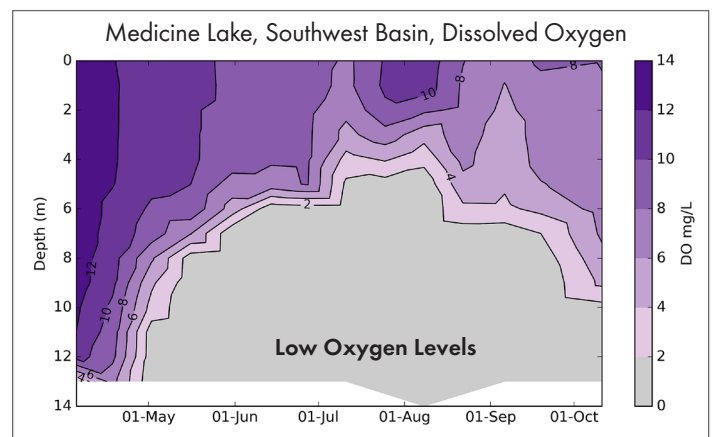
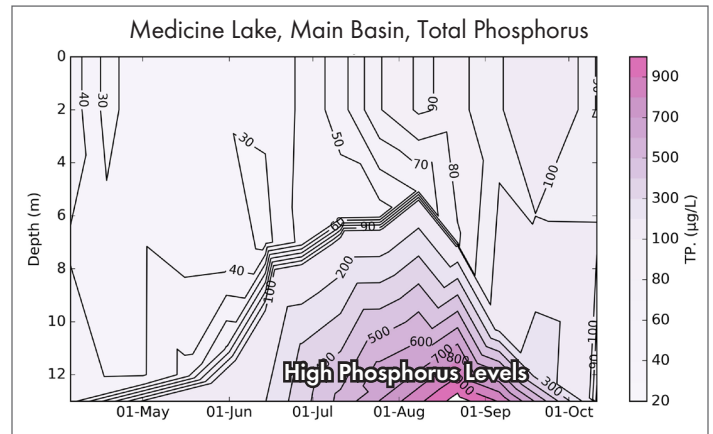
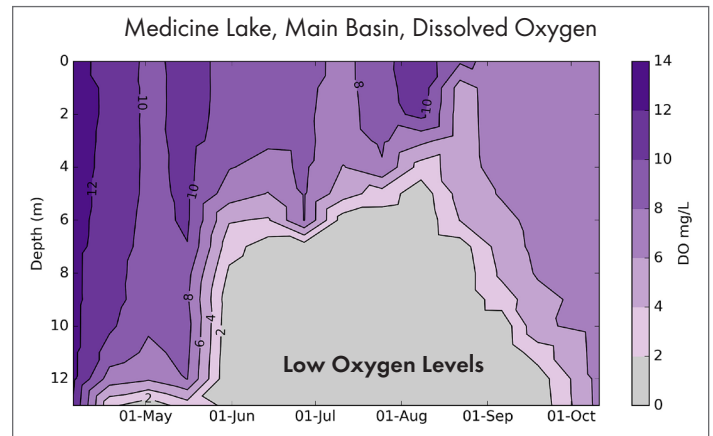
The release of phosphorus stored in lake-bottom sediments when oxygen levels are low is described as “internal phosphorus loading from sediment.” The Medicine Lake total maximum daily load (TMDL) study (LimnoTech 2010) found internal phosphorus loading from sediment to be a significant source of lake phosphorus—about one-third of the lake’s total annual phosphorus load. According to the study, phosphorus from Medicine Lake’s sediment is conveyed to the surface either by diffusion or wind mixing. Wind-mixing events completely mix the water column several times each year, typically in July, August, and September.

The 2016 data are consistent with the TMDL findings. Near-bottom oxygen levels in Medicine Lake were low in both the Main and Southwest Basins from June through September. Internal phosphorus loading from sediment during this period caused near-bottom phosphorus concentrations to increase consistently; this was correlated with increasing phosphorus concentrations in surface water. Temperature and dissolved oxygen data indicate that wind-mixing events occurred in late June, August, and September of 2016, resulting in increased surface water phosphorus concentrations.

## Chloride levels in 2016

Chloride present in deicing chemicals applied to streets and parking lots in the Medicine Lake watershed is conveyed to the lake by snowmelt and rainfall runoff. Excessive chloride concentrations have been linked to decreased biodiversity in water bodies.

- **MPCA chronic exposure standard:** 230 mg/l or less.
- **Range:** Concentrations in the Main Basin ranged from 116 mg/L to 148 mg/L; concentrations in the Southwest Basin ranged from 108 mg/L to 150 mg/L.
- **Average:** 140 mg/L in the Main Basin, 148 mg/L in the Southwest Basin; both met MPCA standards.

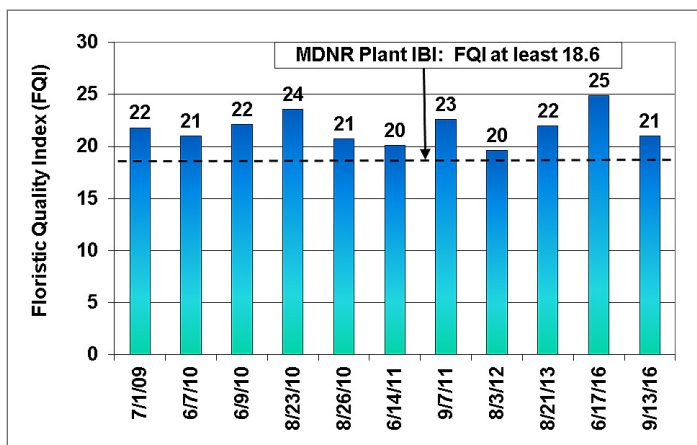
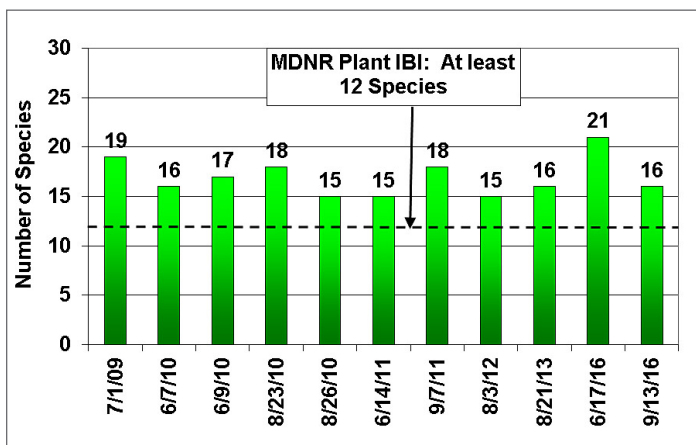


## Macrophytes (aquatic plants)

### Lake Plant Eutrophication Index of Biological Integrity (IBI)

The Minnesota Department of Natural Resources (MDNR) recently developed metrics to determine the overall health of a lake's aquatic plant community. The *Lake Plant Eutrophication Index of Biological Integrity (IBI)* is used by the MPCA to determine whether a lake is meeting the federal Clean Water Act standards intended to protect aquatic life. The plant IBI includes two metrics: (1) the number of species in a lake and (2) the "quality" of the species, as measured by the floristic quality index (FQI).

Medicine Lake plant survey data from 2009 through 2016 were assessed to determine plant IBI. The figures below show the number of species and FQI for that period compared to the MDNR plant IBI impairment threshold. During the period examined, the number of species in Medicine Lake has ranged from 15 to 21, exceeding the impairment threshold of at least 12 species. FQI values ranged from 20 to 25, which also exceeds the impairment threshold (18.6 minimum). This means that Medicine Lake is not considered impaired in terms of its ability to support aquatic plant life.



### Aquatic invasive species

In 2016, two aquatic invasive species were known to be present in Medicine Lake:

- Eurasian watermilfoil (*Myriophyllum spicatum*)
- Curly-leaf pondweed (*Potamogeton crispus*)

Eurasian watermilfoil was not problematic in 2016, ranging in frequency from 10 to 14 percent of the lake's vegetation. From 2004 through 2012, Eurasian watermilfoil frequency has ranged from 3 to 70 percent.

Curly-leaf pondweed has been a consistent problem in Medicine Lake; from 2004 through 2012 it has comprised between 15 and 87 percent of the lake's vegetation. With the exception of 2007, the herbicide endothall has been used to control the plant each year since 2004. The 2010 TMDL implementation plan for Medicine Lake specified that curly-leaf pondweed should continue to be managed annually to prevent it from exceeding 2006 levels (22 percent).

In 2016, 37 acres of curly-leaf pondweed were treated with herbicide; in June, the plant's frequency was 22 percent, near the low end of the historical range and equal to the TMDL threshold. Because die-off of curly-leaf pondweed is an internal source of nutrients for Medicine Lake, control of the plant helps reduce the lake's internal phosphorus loading.



Eurasian watermilfoil



Curly-leaf pondweed

## Microscopic plants and animals

### Phytoplankton in 2016

Samples of phytoplankton, microscopic aquatic plants, were collected from Medicine Lake in 2016 to evaluate water quality, determine the quality of food available to the lake's zooplankton (microscopic animals), and estimate the public health risk posed by blue-green algae, which produce toxins.

Phytoplankton numbers followed a pattern similar to chlorophyll *a*, increasing from June through early August and decreasing in late August and September. As shown in the figures on page 7, green algae, a good food source for the lake's zooplankton, dominated the spring community while blue-green algae, a poor food source for zooplankton, were dominant during the summer.

Medicine Lake is subject to significant "internal phosphorus loading" during the summer, meaning that phosphorus from the lake's sediment is released to the surface water. This increase in phosphorus encourages phytoplankton growth, particularly blue-green algae.

Blue-green algae can produce natural toxins; in high concentrations, these toxins can be harmful to pet and human health. The World Health Organization (WHO) has established the following guidelines for assessing the risk posed to lake users by exposure to blue-green algae.

- Lakes with blue-green algae densities less than 20,000 cells per milliliter pose no risk to the health of humans or pets.
- Exposure to lakes with blue-green algae density levels between 20,000 and 100,000 cells per milliliter poses a low risk of adverse health impacts (i.e., skin irritation or allergenic effects such as watery eyes).
- Exposure to lakes with blue-green algae densities greater than 100,000 cells per milliliter poses a moderate health risk (i.e., long-term illness from algal toxins is possible).

In 2016, blue-green algae numbers were generally within the no-risk category. However, on August 8, densities in both the Main Basin (35,036 cells per milliliter) and Southwest Basin (23,893 cells per milliliter) were both in the low-risk category. As noted, this change was correlated with increasing surface water phosphorus concentrations.

### Zooplankton in 2016

The size and composition of the lake's zooplankton community, as illustrated by the figures on page 7, was consistent with previous years. All three groups of zooplankton (rotifers, copepods, and cladocerans) were represented; however, small rotifers and copepods (which have limited impact on the lake's water quality) generally dominated.

The zooplankton data illustrate the interconnectedness of a lake's food web and its water quality. Of particular interest in 2016 were the large-bodied cladoceran. The numbers of these zooplankton increased from April through mid-June, then declined rapidly and remained at low levels until late summer/early fall when numbers again began to rise. In general, periods with increased cladoceran presence correlated with decreases in chlorophyll *a* concentrations and increases in Secchi disc depth (i.e., better water quality). In the early summer period, chlorophyll *a* was reduced by two-thirds and Secchi disc transparency more than doubled. This is because the large-bodied zooplankton graze on algae.

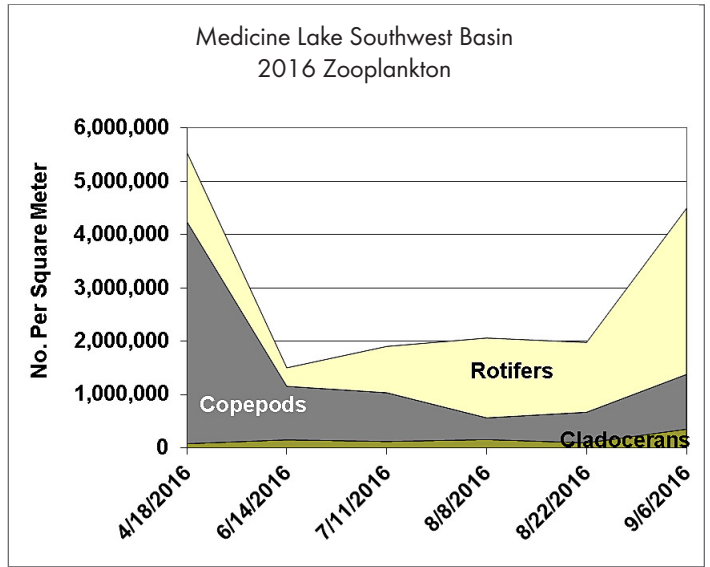
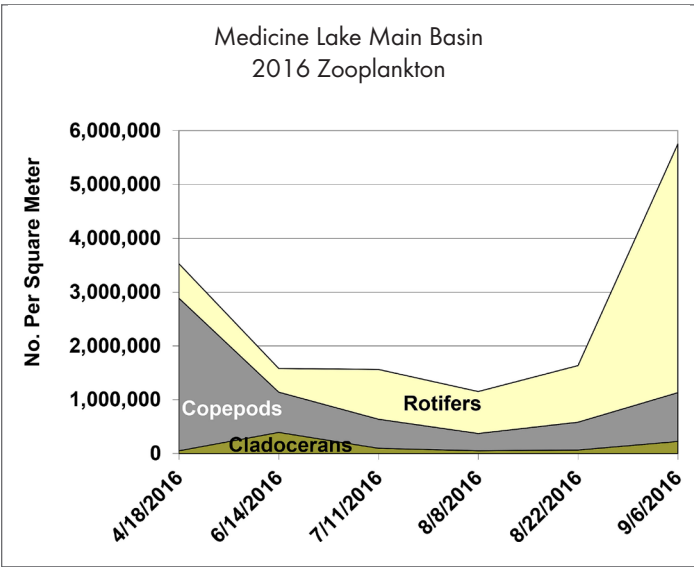
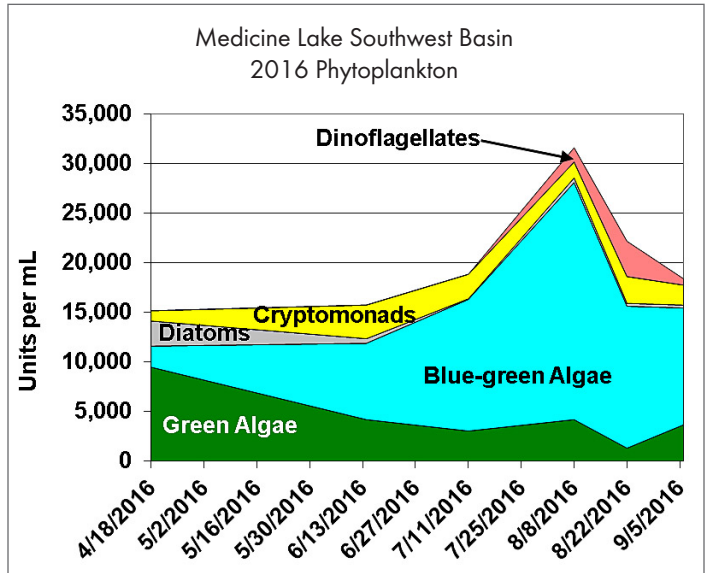
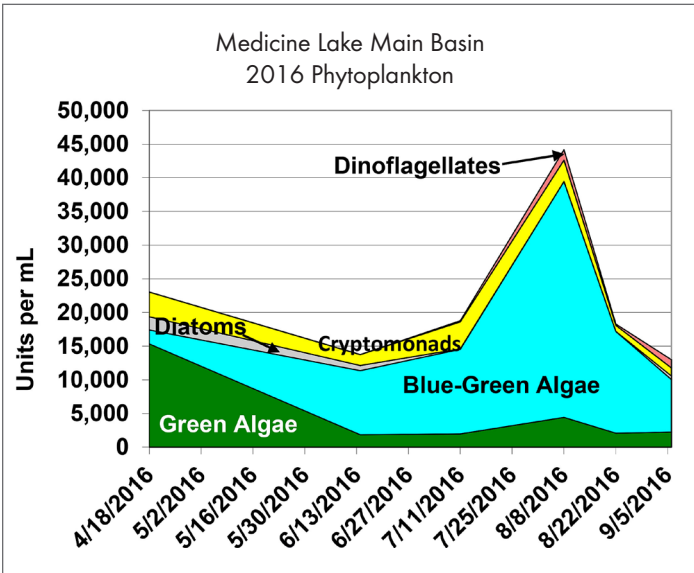
While large-bodied cladoceran can improve lake water quality, fish predation limits their impact much of the summer. Another limiting factor is the predominance of blue-green algae, a poor food source for zooplankton.

### The importance of monitoring

Both the phytoplankton and zooplankton data affirm the importance of reducing phosphorus loading to the lake to prevent increases in blue-green algae. The data also highlights the importance of monitoring the phytoplankton community to ensure that blue-green algae density levels do not threatened the health of lake users.



Above: Left—*Chlamydomonas*, a type of green algae found in Medicine Lake. Right—*Filinia longiseta*, a rotifer found in Medicine Lake; the phytoplankton and zooplankton communities in Medicine Lake are represented in the figures on page 7.



## Medicine Lake fish

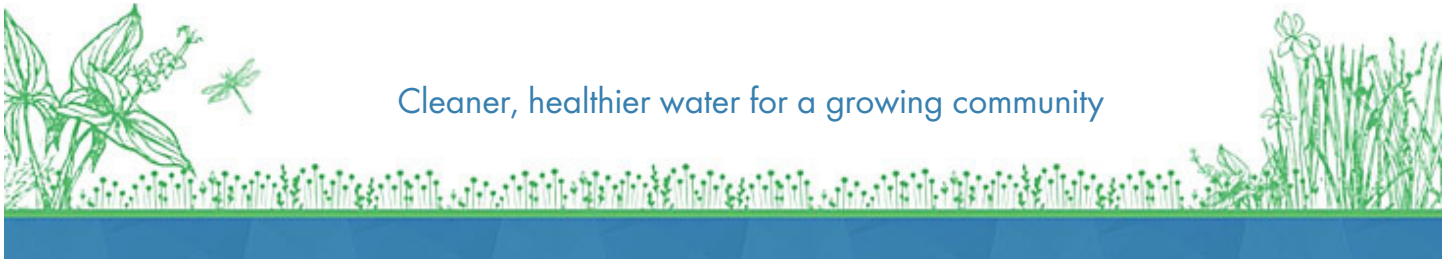
According to MDNR surveys, Medicine Lake is home to walleye, yellow perch, and northern pike (as shown). Lake species also include black bullhead, black crappie, bluegill, brown bullhead, channel catfish, green sunfish, hybrid sunfish, largemouth bass, pumpkinseed, white crappie, yellow bullhead, bowfin (dogfish), common carp, goldeye, white sucker, banded killifish, blacknose shiner, bluntnose minnow, brook silverside, golden shiner, spottail shiner.

## Fish Index of Biotic Integrity

Similar to aquatic plants, the MDNR recently developed a method to evaluate environmental conditions in a lake based on assessments of fish populations. The resulting index of biotic integrity (IBI) score is used to determine whether the lake is meeting the standard value of 45 (i.e., the impairment threshold). The MPCA is likely to begin using fish IBI scores to determine impairments for fish during its 2020 watershed assessment process. Using the most recent fish survey data from 2012, Medicine Lake's current fish IBI score is 25; thus, the lake would be considered impaired for fish.

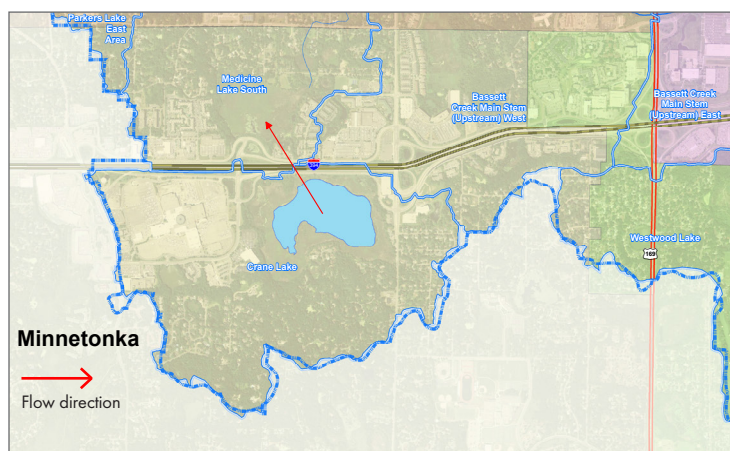


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952.270.1990  
[bassettcreekwmo.org](http://bassettcreekwmo.org)



# Crane Lake 2016 water quality monitoring

Item 6B.  
BCWMC 2-16-17



## Monitoring water quality in Crane Lake

The Bassett Creek Watershed Management Commission (BCWMC) has monitored water quality conditions in the watershed's 10 priority lakes and six ponds since 1972. This monitoring is done to detect changes or trends in water quality and evaluate the effectiveness of efforts to preserve or improve water quality. A summary of 2016 monitoring efforts on Crane Lake is provided below; more comprehensive information can be found on pages 2-7.

## At a glance: 2016 monitoring results

In 2016, the BCWMC monitored Crane Lake for:

- Water chemistry (nutrients, chlorophyll *a*, chloride)
- Water measurements (e.g., clarity, dissolved oxygen)
- Phytoplankton and zooplankton (microscopic plants and animals)
- Macrophytes (aquatic plants)

Results indicate that Crane Lake does not meet applicable Minnesota Pollution Control Agency (MPCA) water quality standards for chlorides. However, Crane Lake does meet MPCA and BCWMC water quality standards for total phosphorus and chlorophyll *a*; trend analyses show no significant changes in these parameters or Secchi disc depth (measure of clarity) over the past 20 years. According to the Minnesota Department of Natural Resources (MDNR) plant IBI, the lake's plant community is not impaired.

## Recommendations

- Work with cities, businesses, and Hennepin County to improve winter maintenance practices and reduce the chloride load conveyed to Crane Lake from streets and parking lots in its watershed.
- Continue water quality and biological monitoring.

## About Crane Lake

BCWMC classification	Priority-2 shallow lake
Watershed area	591 acres
Lake size	30 acres
Average depth	3.3 feet
Maximum depth	5 feet
Ordinary high water level	920.5 feet
Normal water level	917.1 feet
Downstream receiving waterbody	Medicine Lake
Location (city)	Minnetonka
MPCA impairments	None
Aquatic invasive species	Curly-leaf pondweed, purple loosestrife, hybrid cattail
Public access	No

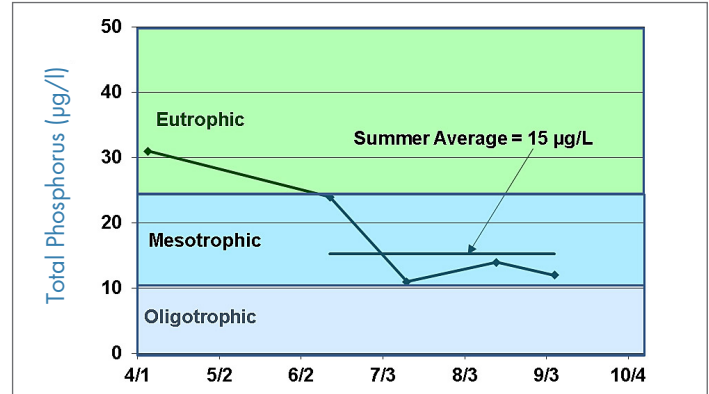


# Water chemistry monitoring: 2016

## Total phosphorus levels

While phosphorus is necessary for plant and algae growth, excessive phosphorus leads to excessive growth, decreased water clarity, and water quality impairment.

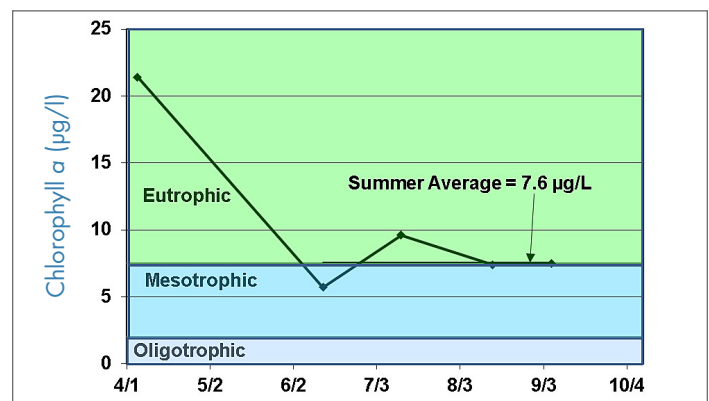
- BCWMC/MPCA standard: 60 micrograms per liter ( $\mu\text{g/L}$ ) or less.
- Range: Total phosphorus concentrations ranged from a low of 11  $\mu\text{g/L}$  in July to a high of 31  $\mu\text{g/L}$  in April.
- Summer average: 15  $\mu\text{g/L}$  (met BCWMC/MPCA standard)



## Chlorophyll a levels

Chlorophyll a is a pigment in algae and generally reflects the amount of algae growth in a lake. Lakes which appear clear generally have chlorophyll a levels less than 15 micrograms per liter ( $\mu\text{g/L}$ ).

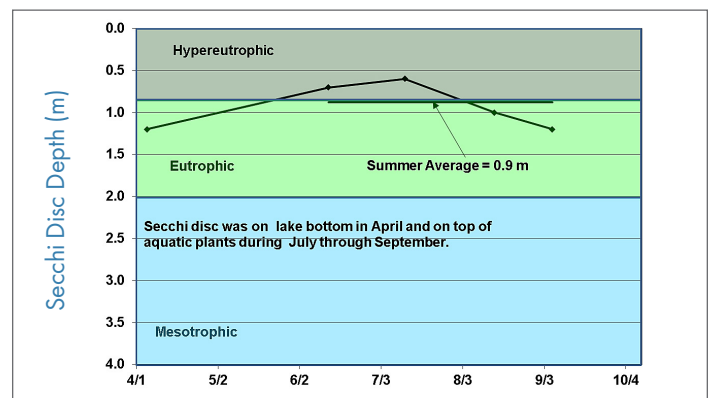
- BCWMC/MPCA standard: 20  $\mu\text{g/L}$  or less.
- Range: Chlorophyll a concentrations ranged from a low of 6  $\mu\text{g/L}$  in June to a high of 21  $\mu\text{g/L}$  in April.
- Summer average: 7.6  $\mu\text{g/L}$  (met BCWMC/MPCA standard).



## Water clarity

Water clarity is often affected by the amount of algae or other photosynthetic organisms in a lake. It is usually measured by lowering an 8-inch "Secchi" disc into the lake; the depth at which the disc's alternating black-and-white pattern is no longer visible is considered a measure of the water's transparency.

- BCWMC/MPCA standard: 1.0 meters or more.
- Range: From 1.2 meters (down to the lake bottom) in April to 0.6 meters in July.
- Summer average: 0.9 meters; did not meet BCWMC/MPCA standards; however, clarity was limited by dense aquatic plant growth rather than poor water quality.

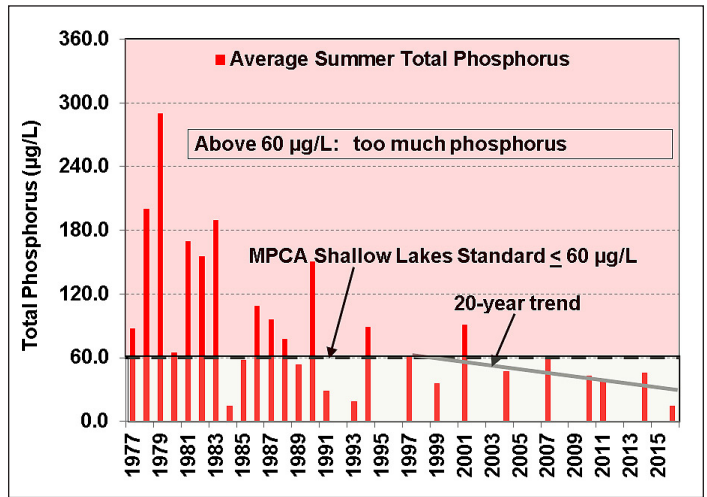


## Definitions

- **Eutrophic:** Lake condition characterized by abundant accumulation of nutrients supporting dense growth of algae and other organisms; decay of algae can reduce lake oxygen levels
- **Hypereutrophic:** Nutrient-rich lake conditions characterized by frequent and severe algal blooms and low transparency
- **Mesotrophic:** Lake condition characterized by medium levels of nutrients and clear water
- **Oligotrophic:** Lake condition characterized by a low level of dissolved nutrients, high oxygen content, and sparse algae growth



## Total phosphorus trends

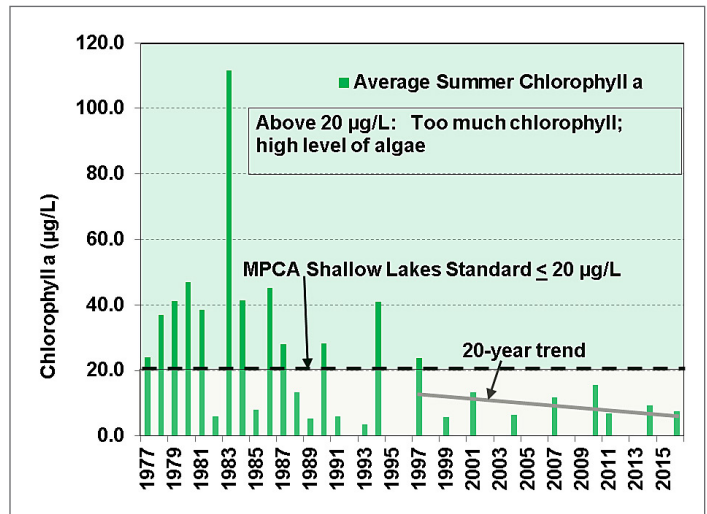


## Water chemistry monitoring from 1977–2016: historical trends

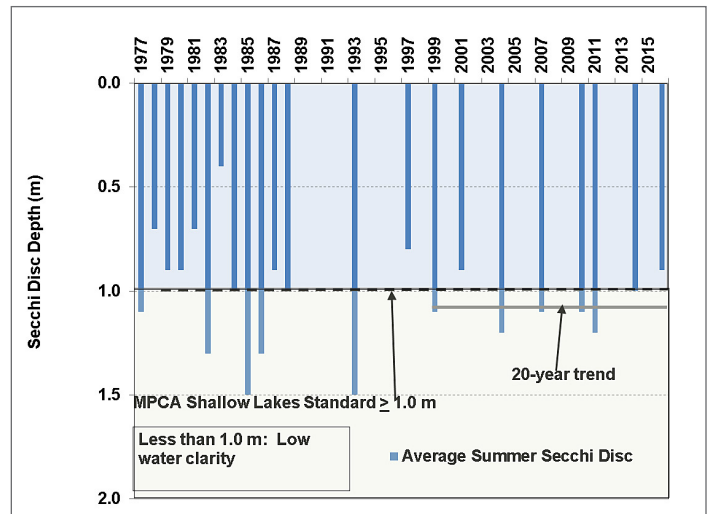
Water quality in Crane Lake has been monitored since 1977. Summer averages (June through September) of total phosphorus, chlorophyll *a*, and Secchi disc depth from 1977–2016 are shown in the figures at right. From 1977–2001 these averages regularly failed to meet BCWMC/MPCA standards, but have generally met standards since 2004. Total phosphorus and chlorophyll *a* concentrations have met the standard each year since 2004. Water clarity, measured by Secchi disc depth, has met the standard all years since 2004—except 2016 when dense plants restricted Secchi disc visibility.

In summary, trend analyses show improvements in water quality over the last 20 years as measured by decreases in summer average total phosphorus and chlorophyll *a* concentrations; these, however, are not statistically significant (95 percent confidence level). There has been no change in Secchi disc depth. Chloride concentrations, which may impact the lake’s zooplankton, have increased (see page 6).

## Chlorophyll *a* trends



## Water clarity trends



# Macrophytes (aquatic plants)

## Lake Plant Eutrophication Index of Biological Integrity (IBI)

The MDNR recently developed metrics to determine the overall health of a lake’s aquatic plant community. The *Lake Plant Eutrophication Index of Biological Integrity (IBI)* is used by the MPCA to determine whether a lake is meeting the federal Clean Water Act standards intended to protect aquatic life. The plant IBI includes two metrics: (1) the number of species in a lake and (2) the “quality” of the species, as measured by the floristic quality index (FQI).

Plant survey data from 1993 through 2016 were assessed to determine plant IBI trends. The figures below show the Crane Lake FQI scores and number of species for that period compared to the MDNR plant IBI impairment threshold.

- **Number of species:** A shallow lake is considered impaired when it has fewer than 11 species. During the period examined, the number of species in Crane Lake ranged from 5 to 15, exceeding the impairment threshold half of the time.
- **FQI values (quality of species):** The impairment threshold for shallow lakes, as measured by FQI, is a minimum value of 17.8. During the period examined, FQI values ranged from 10.7 to 20.3, exceeding the threshold 42 percent of the time.
- **2016 results:** Both the number of species in the lake and FQI values exceeded the minimum IBI thresholds that define impairment. As such, the waters are not currently considered impaired for aquatic plants.

### Commonly found aquatic species



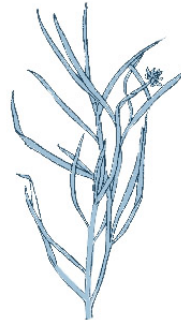
Coontail  
*Ceratophyllum demersum*



Star duckweed  
*Lemna triscula*



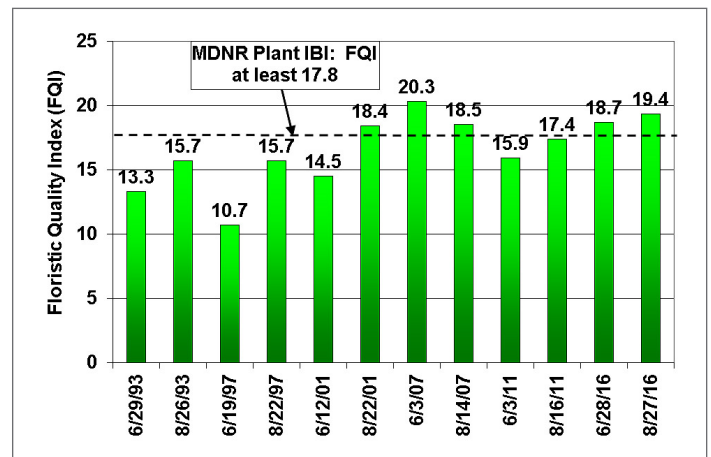
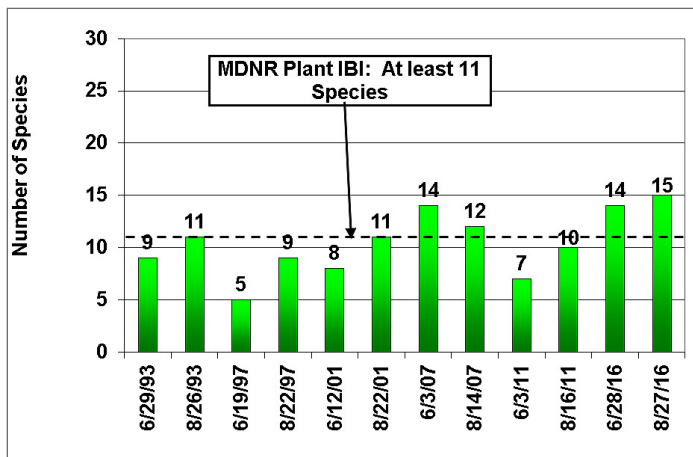
Flatstem pondweed  
*Potamogeton zosteriformis*



Water stargrass  
*Heteranthera dubia*



Fries' pondweed  
*Potamogeton friesii*



## Bearded stonewort in Crane Lake

In 2016, *Lychnothamnus barbatus* (bearded stonewort), a desirable plant, was observed in Crane Lake for the first time. This plant was observed in nearby Westwood Lake (and Minnesota) for the first time in 2015. Bearded stonewort is in the family *Characeae*, an algae that resembles rooted aquatic plants. This species was not seen in North America until 2012 and few populations have been documented in the world. Bearded stonewort obtains all of its nutrients from the water. This nutrient absorber can reduce phosphorus concentrations and improve water quality.

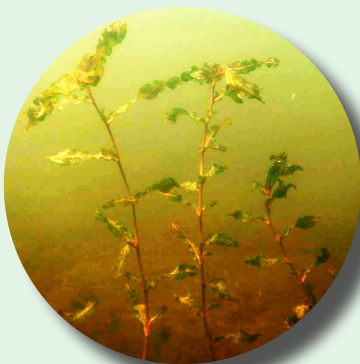
In 2016, bearded stonewort grew densely throughout the lake, dominating the lake's plant community. Nonetheless, the lake supported a diverse plant community that met plant IBI standards. Because bearded stonewort obtains all of its nutrients from the water, the dense growth in Crane Lake removed substantial quantities of nutrients and improved water quality. Phosphorus and chlorophyll a concentrations were lower in 2016 than 2011. However, the dense plant growth restricted Secchi disc depth to the top of the plants.



Bearded stonewort

## Aquatic invasive species

In 2016, three aquatic invasive species were known to be present in Crane Lake: Curly-leaf pondweed (*Potamogeton crispus*), purple loosestrife (*Lythrum salicaria*), and hybrid cattail (*Typha glauca*). No species was considered problematic.



Curly-leaf pondweed



Purple loosestrife



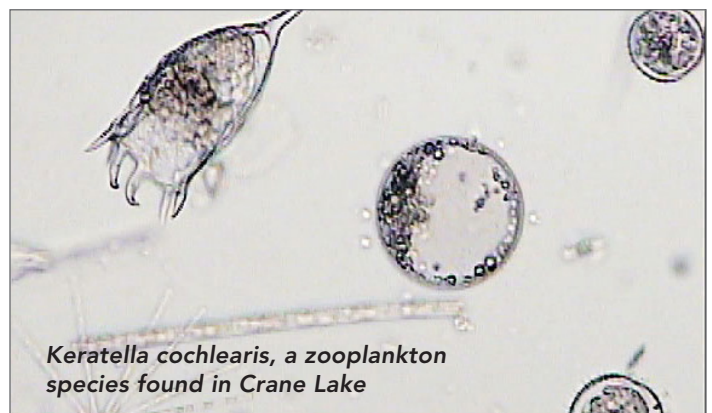
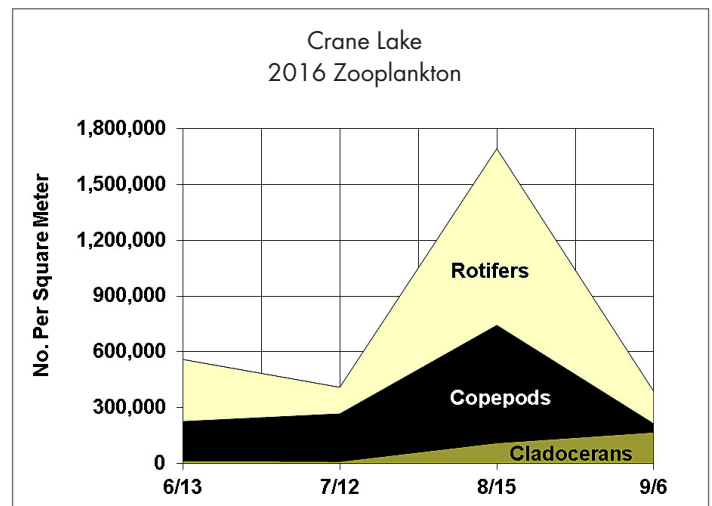
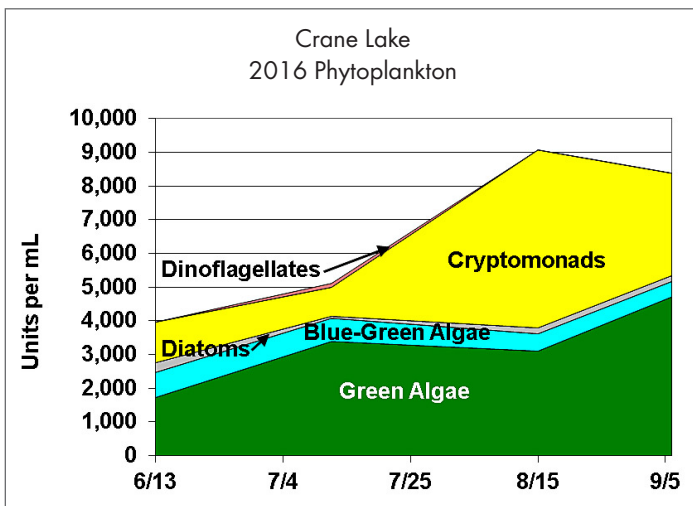
Hybrid cattail

## Phytoplankton and zooplankton

Samples of phytoplankton, microscopic aquatic plants, were collected from Crane Lake to evaluate water quality and the quality of food available to zooplankton (microscopic animals). Phytoplankton numbers followed a pattern similar to chlorophyll *a*, both reflecting good water quality. These numbers increased between June and August, then decreased slightly in September, as shown in the figure below. Cryptomonads and green algae, good sources of food for the lake's zooplankton, were dominant throughout the summer. Blue-green algae, which is associated with water quality problems and can be a source of health concerns, was present in very low numbers.

The number of zooplankton species found in Crane Lake has decreased since 1980. This corresponds to increased chloride concentrations in lake water (see page 7). Because elevated chloride has been linked to decreased biodiversity in Minnesota lakes, the MPCA has established a chronic exposure chloride standard of 230 mg/l or less. The 2016 summer average for Crane Lake was 314 mg/L, well above the standard. Continued monitoring and assessment of the zooplankton community will help assess the impacts of high chloride concentrations on the lake's food web.

The composition of the 2016 zooplankton community was consistent with recent years. All three groups of zooplankton (rotifers, copepods, and cladocerans) were represented (see figure below). Small rotifers and copepods have generally dominated the community; because they do not graze as heavily on algae as the larger cladocerans, they generally have limited impact on the lake's water quality. This suggests that future Crane Lake water quality efforts should focus on phosphorus management to reduce the nutrients that contribute to algae growth.





Increased use of chloride for road maintenance has had an impact on chloride levels in Twin Cities metro area lakes, including Crane Lake.

## Chloride and biodiversity in Crane Lake

Chloride concentrations in area lakes have increased since the early 1990s, when many government agencies switched from sand or sand/salt mixtures to salt for winter road maintenance. Ultimately, chloride applied to streets is conveyed to water bodies by snowmelt and rainfall runoff. Because increased chloride concentrations have been linked to decreased biodiversity in Minnesota lakes, the MPCA has established a chronic exposure chloride standard of 230 mg/l or less.

Chloride concentrations in Crane Lake have increased between 1980 and 2016. While this matches a pattern seen in 38 other Twin Cities metro area lakes<sup>1</sup>, as shown in Figure 1, the 2016 chloride concentrations in Crane Lake are more than three times higher than the average of the other metro-area lakes. From April through August of 2016, Crane Lake chloride concentrations ranged from 317 mg/L to 379 mg/L, well above the MPCA standard. Concentrations did decrease to 198 mg/L in September, but the 2016 average of 314 mg/L was still above the standard.

Zooplankton data collected in Crane Lake since 1980 were compiled and analyzed to assess whether elevated chloride concentrations were negatively impacting aquatic life. The total number of species detected during three sampling periods in each year was calculated and plotted against the average chloride concentration recorded during sampling. As shown in Figure 2, the number of zooplankton species detected has decreased since 1980, as chloride concentrations have increased. A low of six species was recorded in 2011; seven species were documented in 2016.

<sup>1</sup>Novotny, E.V., Murphy D., Stefan, H.G. 2008. Increase of Urban Lake Salinity by Road Deicing Salt. Science of the Total Environment. 406, 131 - 144.

Based on this data, increased chloride concentrations may be influencing the zooplankton in Crane Lake. However, the decrease in total number of species preceded the increase in chloride concentrations, suggesting there may be other factors contributing to the overall decrease in the lake's biodiversity.

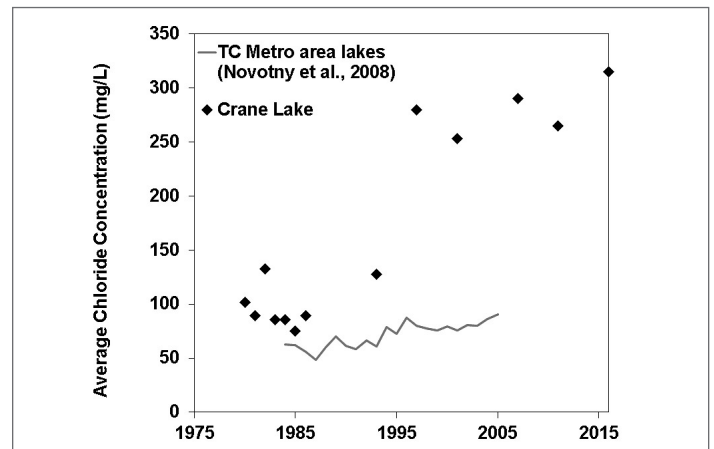


Figure 1

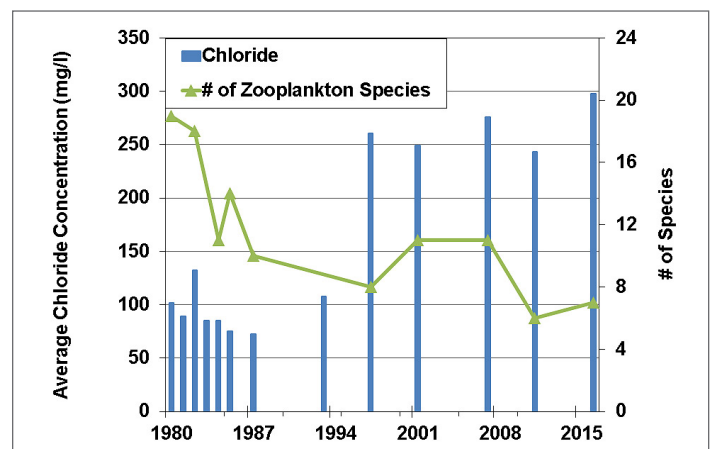
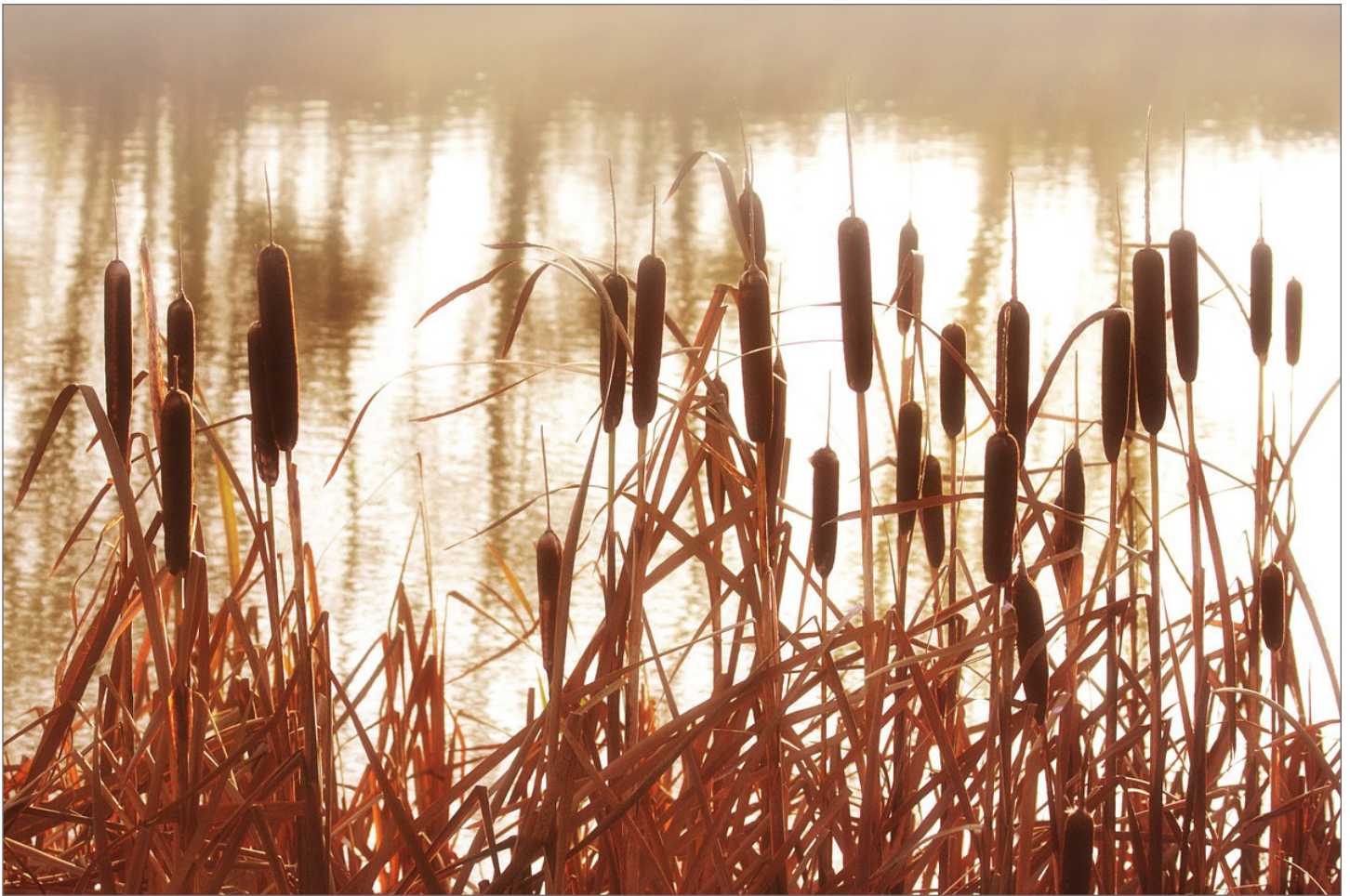


Figure 2



Bassett Creek Watershed Management Commission  
952.270.1990  
[bassettcreekwmo.org](http://bassettcreekwmo.org)

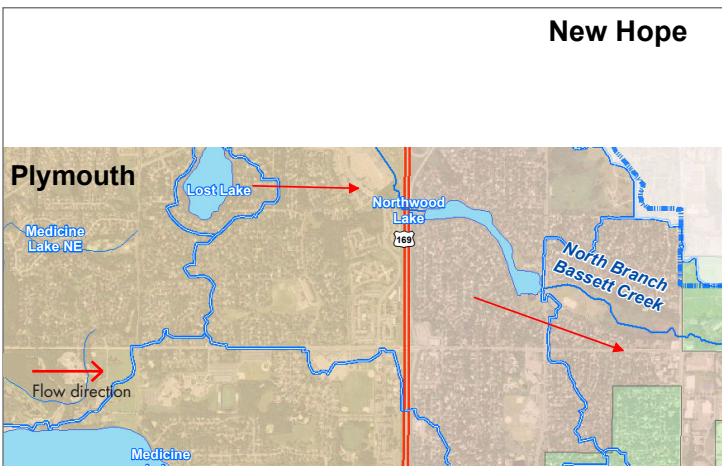


Cleaner, healthier water for a growing community





# Northwood Lake 2016 water quality monitoring



## Monitoring water quality in Northwood Lake

The Bassett Creek Watershed Management Commission (BCWMC) has monitored water quality conditions in the watershed's 10 priority lakes and six ponds since 1972. This monitoring is done to detect changes or trends in water quality and evaluate the effectiveness of efforts to preserve or improve water quality. A summary of 2016 monitoring efforts on Northwood Lake is provided below; more comprehensive information can be found on pages 2-6.

## At a glance: 2016 monitoring results

In 2016, the BCWMC monitored Northwood Lake for:

- Water chemistry (nutrients, chlorophyll *a*, chloride)
- Water measurements (e.g., clarity, dissolved oxygen)
- Phytoplankton and zooplankton (microscopic plants and animals)
- Macrophytes (aquatic plants)

Results of 2016 monitoring show that Northwood Lake did not meet applicable Minnesota Pollution Control Agency (MPCA) and BCWMC water quality standards for lakes. Trend analyses indicate that water clarity has significantly declined over the past 17 years. In addition, the plant community does not meet the Minnesota Department of Natural Resources (MDNR) plant index of biotic integrity (IBI) standards (see page 4). However, the plant community has consistently improved since 2000 and the number of species in the lake is close to meeting the minimum impairment threshold.

## Recommendations

- Continue efforts to improve the lake's water quality.
- Continue water quality and biological monitoring.
- Continue to implement best management practices and capital improvement projects in the lake's watershed.

## About Northwood Lake

BCWMC classification	Priority-1 shallow lake
Watershed area	1,294 acres
Lake size	15 acres
Average depth	2.7 feet
Maximum depth	5 feet
Ordinary high water level	885.5 feet
Normal water level	884.4 feet
Downstream receiving waterbody	Bassett Creek
Location (city)	New Hope
MPCA impairments	Nutrients
Aquatic invasive species	Curly-leaf pondweed, purple loosestrife, hybrid cattail, reed canary grass
Public access	Yes



# Water chemistry monitoring: 2016

## Total phosphorus levels

While phosphorus is necessary for plant and algae growth, excessive phosphorus leads to excessive growth, decreased water clarity, and water quality impairment.

- BCWMC/MPCA standard: 60 micrograms per liter ( $\mu\text{g/L}$ ) or less.
- Range: Total phosphorus concentrations ranged from a low of 87  $\mu\text{g/L}$  in April to a high of 280  $\mu\text{g/L}$  in June. All concentrations were within the hypereutrophic category (high nutrient content).
- Summer average: 196  $\mu\text{g/L}$  (did not meet BCWMC/MPCA standard).

## Chlorophyll a levels

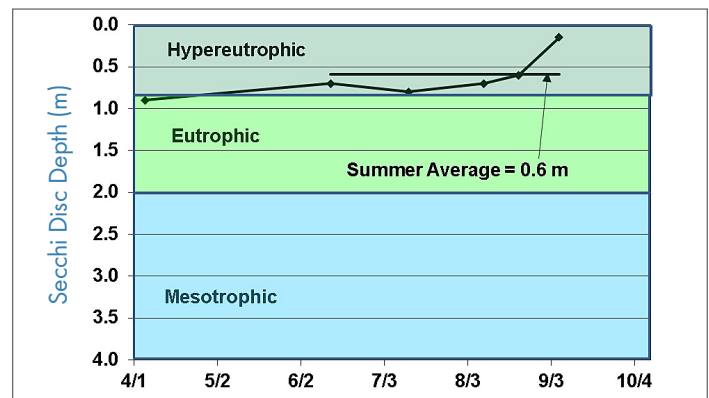
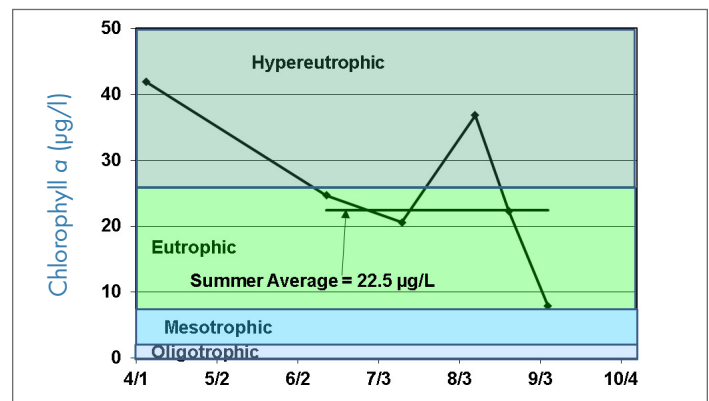
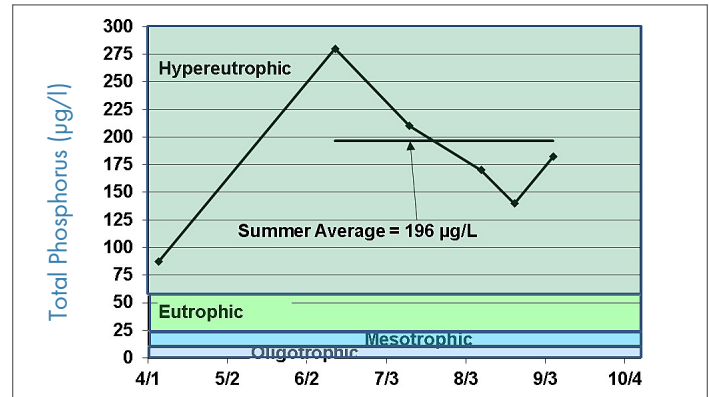
Chlorophyll a is a pigment in algae and generally reflects the amount of algae growth in a lake. Lakes which appear clear generally have chlorophyll a levels less than 15 micrograms per liter ( $\mu\text{g/L}$ ).

- BCWMC/MPCA standard: 20  $\mu\text{g/L}$  or less.
- Range: Chlorophyll a concentrations ranged from a low of 7.9  $\mu\text{g/L}$  in September to a high of 41.9  $\mu\text{g/L}$  in April. Throughout 2016, chlorophyll a concentrations were in the hypereutrophic or eutrophic category, indicating poor water quality.
- Summer average: 22.5  $\mu\text{g/L}$  (did not meet BCWMC/MPCA standard).

## Water clarity

Water clarity is often affected by sediment and the amount of algae or other photosynthetic organisms in a lake. It is usually measured by lowering an 8-inch "Secchi" disc into the lake; the depth at which the disc's alternating black-and-white pattern is no longer visible is considered a measure of the water's transparency.

- BCWMC/MPCA standard: 1.0 meters or more.
- Range: From 0.9 meters in April to 0.2 meters in September, corresponding with high quantities of sediment in the lake.
- Summer average: 0.6 meters (did not meet BCWMC/MPCA standard).



## Definitions

- **Eutrophic:** Lake condition characterized by abundant accumulation of nutrients supporting dense growth of algae and other organisms; decay of algae can reduce lake oxygen levels
- **Hypereutrophic:** Nutrient-rich lake conditions characterized by frequent and severe algal blooms and low transparency
- **Mesotrophic:** Lake condition characterized by medium levels of nutrients and clear water
- **Oligotrophic:** Lake condition characterized by a low level of dissolved nutrients, high oxygen content, and sparse algae growth

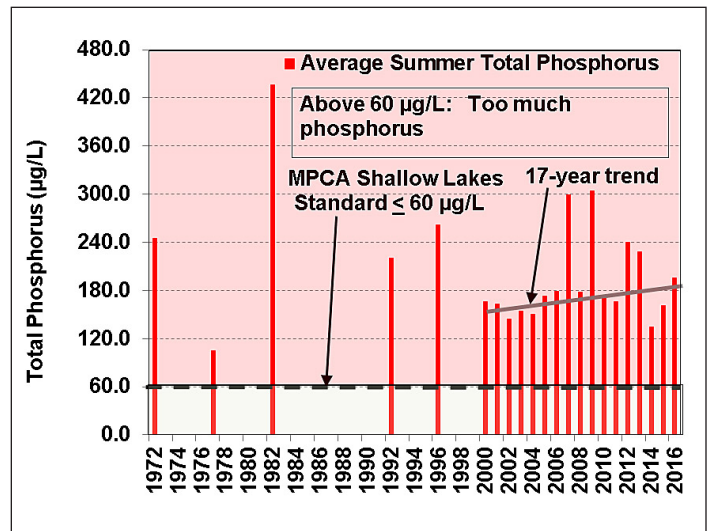


## Water chemistry monitoring from 1972–2016: historical trends

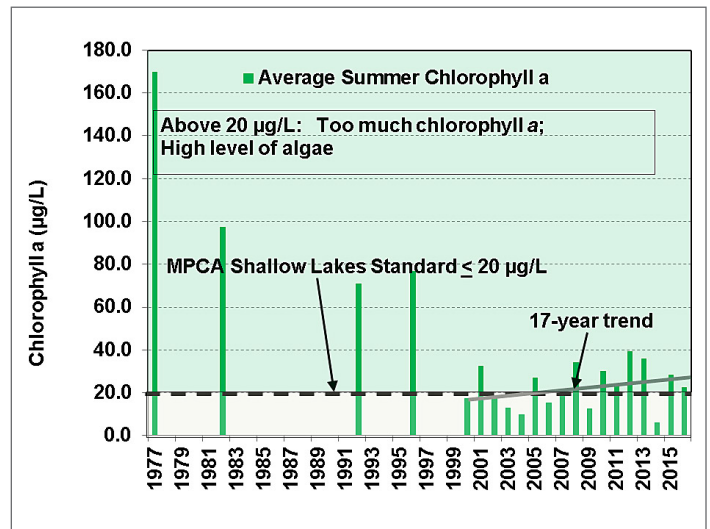
Water quality in Northwood Lake has been monitored since 1972. Summer averages (June through September) of total phosphorus, chlorophyll a, and Secchi disc depth from 1972–2016 are shown in the figures at right. Summer averages for phosphorus have failed to meet BCWMC/MPCA standards for the entire period of record. Chlorophyll a concentrations and Secchi disc depth failed to meet the standard 67 and 38 percent of the time, respectively.

Trend analyses show declining water quality with statistically significant decreases (95 percent confidence level) in Secchi disc depth over the last 17 years. Total phosphorus and chlorophyll a concentrations have also increased during this period, but not at statistically significant levels.

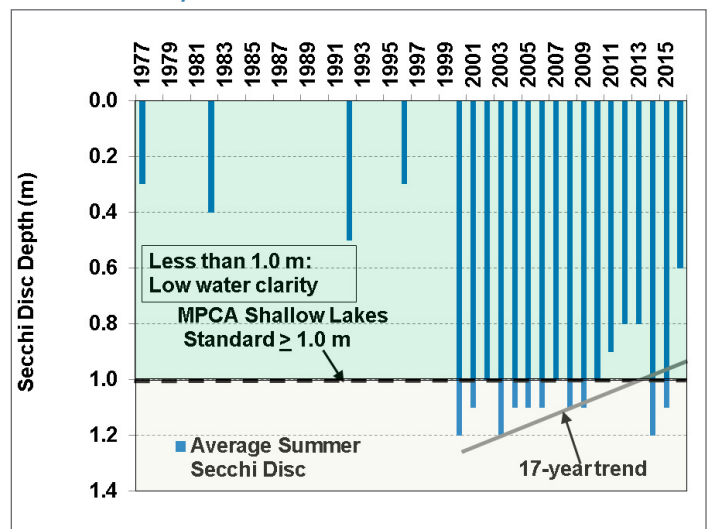
### Total phosphorus trends



### Chlorophyll a trends



### Water clarity trends



# Macrophytes

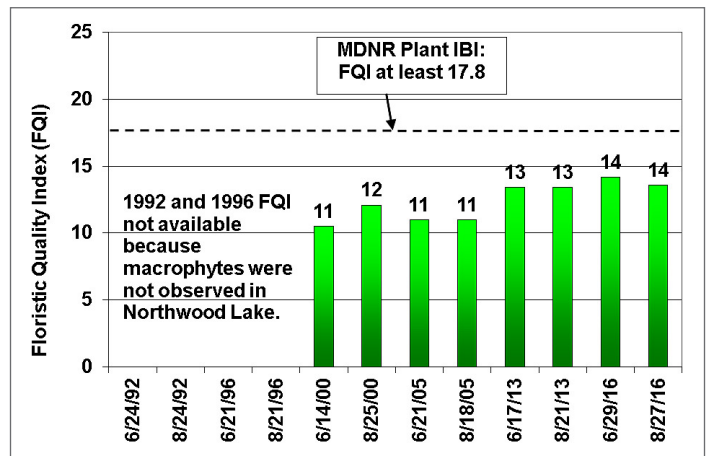
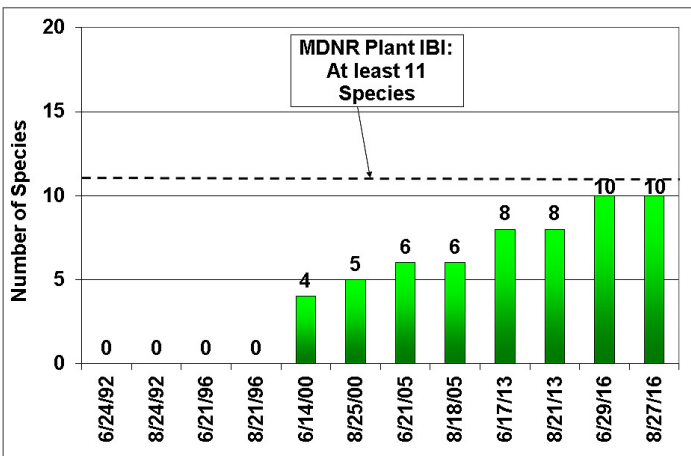
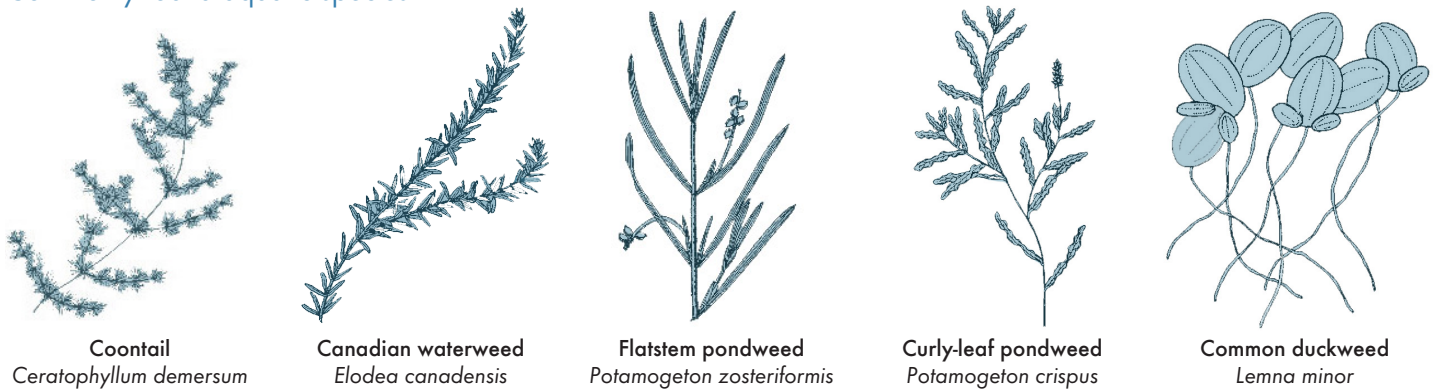
## Lake Plant Eutrophication Index of Biological Integrity (IBI)

The MDNR recently developed metrics to determine the overall health of a lake’s aquatic plant community. The *Lake Plant Eutrophication Index of Biological Integrity (IBI)* is used by the MPCA to determine whether a lake is meeting the federal Clean Water Act standards intended to protect aquatic life. The plant IBI includes two metrics: (1) the number of species in a lake and (2) the “quality” of the species, as measured by the floristic quality index (FQI).

Plant survey data from 1992 through 2016 were assessed to determine plant IBI trends. The figures below show the Northwood Lake FQI scores and number of species for that period compared to the MDNR plant IBI impairment threshold.

- Number of species:** The number of species in Northwood Lake has increased from four species in 2000 to 10 species in 2016. Some of the most commonly seen plants are shown below. The increase is attributed to a management technique implemented by the city of New Hope in 2000. From 2000 to 2003 the city placed barley straw at predetermined locations throughout the lake. As barley straw decays, it inhibits algal growth. This increases the water’s transparency, allowing sunlight to reach the lake’s bottom and aquatic plants to become established. Despite the effectiveness of this treatment, Northwood Lake is still below the impairment threshold minimum of 11 species.
- FQI values (quality of species):** The impairment threshold, as measured by FQI, is a minimum value of 17.8. Similar to the number of species, FQI values for Northwood Lake have increased from 11 in 2005 to 14 in 2016, but still fail to meet the threshold.
- 2016 results:** Because both the number of species in the lake and FQI values are below impairment thresholds, Northwood Lake may be considered impaired for aquatic plants.

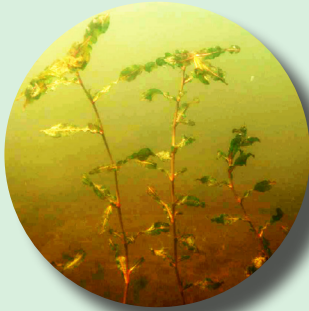
### Commonly found aquatic species



## Aquatic invasive species

In 2016, four invasive species were known to be present in Northwood Lake; no species was considered problematic.

- **Curly-leaf pondweed (*Potamogeton crispus*):** Though prevalent, the curly-leaf pondweed coexisted with native plants at relatively low densities.
- **Purple loosestrife (*Lythrum salicaria*):** This emergent species was scattered around the lake. Most plants appeared to suffer damage from beetles introduced to control the purple loosestrife population, suggesting that the beetles are having the desired effect.
- **Hybrid cattail (*Typha glauca*):** Hybrid cattail was observed at a couple locations along the shoreline.
- **Reed canary grass (*Phalaris arundinacea*):** Reed canary grass was common in unmowed areas.



Curly-leaf pondweed



Purple loosestrife



Hybrid cattail



Reed canary grass



Increased use of chloride for road maintenance has had an impact on chloride levels in Twin Cities metro area lakes, including Northwood Lake.

## Chloride levels in 2016

Chloride concentrations in area lakes have increased since the early 1990s when many government agencies switched from sand or sand/salt mixtures to salt for winter road maintenance. When snow and ice melts, the salt goes with it, washing into lakes, streams, wetlands, and groundwater. It only takes 1 teaspoon of road salt to permanently pollute 5 gallons of water. And, once in the water, there is no way to remove chloride.

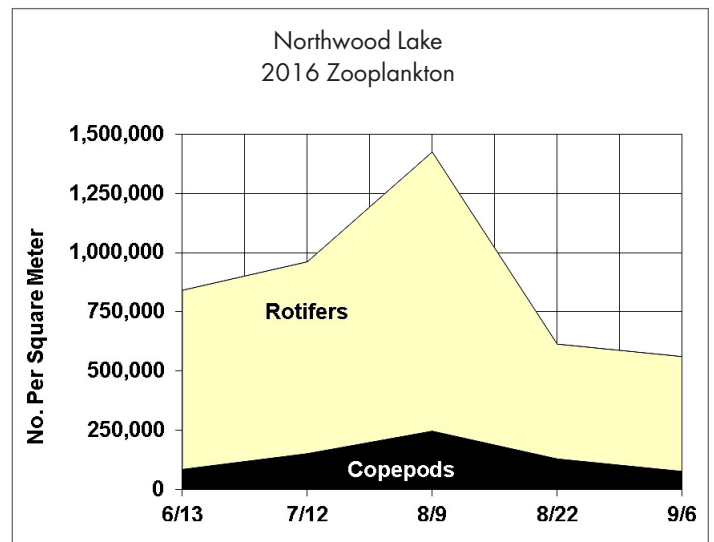
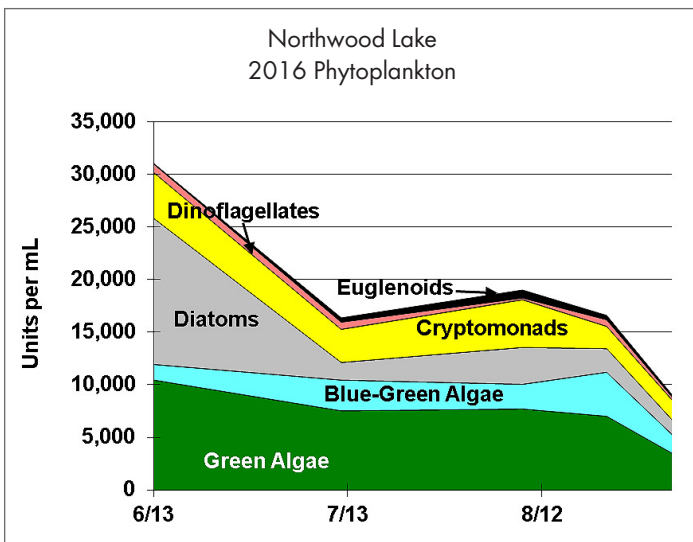
Because high concentrations of chloride can harm fish and plant life, the MPCA has established a chronic exposure chloride standard of 230 mg/l or less.

- **Range of chloride concentrations in Northwood Lake:** From a high of 274 mg/L, measured in April, to a low of 43 mg/L, measured in August
- **Average concentration:** 110 mg/L (meets MPCA standard)

## Phytoplankton and zooplankton

Samples of phytoplankton, microscopic aquatic plants, were collected from Northwood Lake to evaluate water quality and the quality of food available to zooplankton (microscopic animals). As shown in the figure below, phytoplankton numbers declined in July, increased in early August, and declined again in late August and September. The community was dominated by green algae, diatoms, and cryptomonads—all considered a good source of food for the lake's zooplankton. Blue-green algae, which is associated with water quality problems and can be a source of health concerns, was present in very low numbers.

Unlike phytoplankton, zooplankton do not produce their own food. As "filter feeders," they eat millions of small algae; given the right quantities and species they can filter the volume of an entire lake in a matter of days. They are also a valuable food source for planktivorous fish and other organisms. The numbers and community composition of zooplankton in Northwood Lake were consistent with previous years. Small rotifers and copepods were prevalent throughout the summer, while cladocerans were observed only in June (5,040/mL) and September (4,281/mL); their numbers were so low they are not visible on the figure below.





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Item 6C.  
BCWMC 2-16-17

## Bassett Creek Watershed Management Commission

### MEMO

To: BCWMC Commissioners  
From: Laura Jester, Administrator  
Date: February 8, 2017

**RE: Aquatic Plant Management/Aquatic Invasive Species Recommendation**

The BCWMC APM/AIS Committee met on six occasions between last June and this January. The committee included representation from the Commission staff, Commissioners, TAC members, lake organizations/residents (from Sweeney, Parkers, Medicine), Three Rivers Park District, Minneapolis Park and Rec Board, and Hennepin County.

The committee discussed a variety of issues regarding APM and AIS in the watershed, learned how other organizations are handling these issues (including park districts, cities, Hennepin County, and neighboring watershed organizations), and identified that only projects with the primary objective of 1) improving water quality, 2) improving habitat or overall ecology, or 3) protecting the function of the BCWMC Flood Control Project would be appropriate for Commission involvement.

The committee also spent considerable time considering various activities the Commission can or should be involved in and to what level. One area they recommended for Commission leadership includes conducting AIS inventories, pathways analysis, vulnerability assessments, and development of management or prevention plans. Unfortunately, the Commission was not successful at receiving a grant from Hennepin County for these activities in 2017.

Without grant funds, the committee should reconvene to further prioritize the work it recommends for the Commission in 2017 and beyond. However, the committee does have a time-sensitive recommendation for the Commission's consideration regarding management of curly-leaf pondweed in Medicine Lake.

**RECOMMENDATION:**

**The committee recommends that the Commission partner with the City of Plymouth and Three Rivers Park District to perform herbicide treatments of curlyleaf pondweed (CLP) in Medicine Lake in 2017 and that the Commission contribute up to \$20,750 (not to exceed amount) from its APM/AIS Budget for the treatment.**

Surveys completed by the City of Plymouth last fall estimate that there is likely to be 30 – 60 acres of nuisance CLP this summer. Herbicide treatment of 45 acres is estimated at \$25,000. Three Rivers Park District has committed to providing some funding for the herbicide treatment and performing necessary plant surveys to determine the amount and location of treatments (typically a \$5,000

expense). The Commission's contribution would pay for 83% of the treatment (of 45 acres), while the Park District would pay 17% of the treatment costs (which coincides with their ownership of 17% of the shoreline of the lake).

The committee further recommends that necessary components of this activity include the fact that an approved total maximum daily load study identifies curlyleaf pondweed control as a phosphorus-reducing activity, and that the Commission has funding partners. (This committee does not recommend that the Commission treat curlyleaf pondweed in lakes without an approved management plan or without funding partners.)

#### **BACKGROUND:**

The committee spent considerable time learning about how curlyleaf pondweed (CLP) has been treated in Medicine Lake over the years and why it's important to continue spot treatments:

- Medicine Lake historically had 300 acres of moderate to heavy nuisance growth of CLP.
- In 2004 – 2006, Medicine Lake was one of the first lakes in the state to get a variance for a whole lake treatment to control CLP. The project was a collaborative effort between the City of Plymouth, Minnesota Department of Natural Resources, Army Corp of Engineers, and Three Rivers Park District. The whole lake treatments occurred for three consecutive years from 2004 through 2006.
- Surveys in 2007 indicated there was still nuisance growth of CLP pondweed in some areas of the lake. It was recommended that spot treatments occur each year depending on the amount of nuisance growth in order to reduce internal loading of total phosphorus produced when the plant dies off in early July.
- Currently, the amount of nuisance growth of CLP varies from year to year. From 2008 – 2016, the acreage that was treated ranged from 15 to 80 acres.
- The City of Plymouth has been providing herbicide treatments on Medicine Lake since 2008 but does not have funding for this activity in 2017.
- While there has not been a significant change in water quality in Medicine Lake 2004 – 2016, CLP is estimated to contribute 12% of the total phosphorus load in the lake (25% of the internal phosphorus loading in the lake) (Medicine Lake TMDL). Best management practices and stormwater treatment projects in the watershed continue to reduce the external load to the lake.
- Three Rivers Park District staff, city staff, and Commission staff note the importance of keeping CLP to low levels to further reduce internal loading and to prevent the plant from “exploding” back to 300 acres in the lake.
- Continuing to address internal loading in Medicine Lake is a recommendation based on 2016 Commission monitoring (as noted in the water quality report in Item 6B).

You can find more information on CLP in Medicine Lake and meeting notes/materials for the APM/AIS Committee at <http://bassettcreekwmo.org/document/meeting-materials-minu>



## ADMINISTRATIVE SERVICES AGREEMENT

THIS ADMINISTRATIVE SERVICES AGREEMENT (“Agreement”) made and entered into by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization (the “Commission”), and Dawn Pape, doing business as the Lawn Chair Gardener, 5901 Birchwood Street, Shoreview, MN 55126 (the “Contractor”).

1. **SERVICES.** Contractor will perform the services outlined in the proposals dated January 23, 2017, which is incorporated herein by reference and shown in Exhibit 1, including performing social media tasks; writing newsletter articles and press releases and regularly coordinating with city communication departments; and drafting meeting minutes for monthly Commission meetings. The terms and conditions of this Agreement shall be controlling over any conflicting term or condition contained within the January 23, 2017 proposal.

2. **COMPENSATION.** Contractor will be paid for services at the rate of \$40 per hour.

Contractor will be reimbursed for actual, reasonable and necessary out-of-pocket expenses including printing, materials, and travel (at the current IRS rate for privately owned automobiles). Travel outside of the Minneapolis/St. Paul metropolitan area and overnight accommodations must have the prior approval of the Commission. Meeting and meal expenses (other than meetings of the Commission or its committees) must have the prior approval of the Commission. The total compensation, including expenses, to be paid to Contractor for all the services to be provided under this Agreement shall not exceed \$10,274.58.

3. **PAYMENT.** Contractor will submit monthly invoices for services providing detailed time records of services provided and time spent, and shall provide receipts for eligible reimbursable expenses that are not reimbursed by the Commission through its consultants or otherwise.

Invoices and records, together with supporting information, shall be submitted in a form acceptable to the Commission. The Commission will pay invoices within 45 days of receipt thereof. Invoices received by the first Thursday of the month will ordinarily be authorized for payment at that month’s regular meeting.

4. **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 January 31, 2018. This Agreement may be terminated by either party at any time, and for any reason, on 35 days’ written notice of termination.

5. **SUBSTITUTION AND ASSIGNMENT.** Services provided by Contractor will generally be performed by Dawn Pape. Upon approval by the Commission, the Contractor may substitute other persons to perform the services set forth in this Agreement. No assignment of this Agreement shall be permitted without a prior written amendment signed by the Commission and the Contractor.

6. **AMENDMENTS.** This document, together with any attached exhibits, 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.
  
7. **INDEPENDENT CONTRACTOR.** The Contractor (including the Contractor's employees, if any) is not an employee of the Commission. Contractor will act as independent contractor and acquire no rights to tenure, workers' compensation benefits, unemployment compensation benefits, medical and hospital benefits, sick and vacation leave, severance pay, pension benefits or other rights or benefits offered to employees of the Commission. Contractor shall not be considered an employee of the Commission for any purpose including, but not limited to: income tax withholding; workers' compensation; unemployment compensation; FICA taxes; liability for torts; and eligibility for benefits.  
  
Contractor will not be provided with a place of business and will retain control over the manner and means of the services provided as an independent contractor. Contractor will provide, at Contractor's expense, necessary office space, transportation, computer capability, an internet email address, a recording device for Commission meetings and incidental office supplies.
  
8. **DATA PRACTICES AND RECORDS.** All records, information, materials and other work product, in written, electronic, or any other form, developed in connection with providing services under this Agreement shall be the exclusive property of the Commission. All such records shall be maintained with the records of the Commission and in accordance with the instructions of the Commission. The Contractor will comply with the Minnesota Government Data Practices Act and all other applicable state and federal laws relating to data privacy or confidentiality. The Commission will provide such advice and legal services as are necessary to comply with such laws and regulations as they relate to the data maintained by the Commission.
  
9. **COMPLIANCE WITH LAWS.** Contractor shall comply with all applicable federal, state and local laws, regulations or ordinances in performance of Contractor's duties hereunder, such laws including but not limited to those relating to non-discrimination in hiring or labor practices.
  
10. **AUDIT.** The Contractor agrees that the Commission, the State Auditor, or any of their duly authorized representatives, at any time during normal business hours and as often as they may reasonably deem necessary 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. **HOLD HARMLESS.** Contractor shall defend, indemnify and hold harmless the Commission, its member cities and their elected officials, officers, employees, agents, and representatives, from and against any and all claims, costs, losses, expenses, demands, actions or causes of action, including reasonable attorneys' fees and other costs and expenses of litigation that may arise out of this Agreement for services provided by Contractor hereunder.

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 Contractor.
13. **NO AGENCY.** 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: Dawn Pape  
 Lawn Chair Gardener  
 5901 Birchwood Street  
 Shoreview, MN 55126

To the Commission: Chairperson  
 Bassett Creek Watershed Management Commission  
 City of Golden Valley City Hall  
 7800 Golden Valley Road  
 Golden Valley, MN 55427

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

**CONTRACTOR**

By: \_\_\_\_\_  
 Dawn Pape (Lawn Chair Gardener)      Date

**BASSETT CREEK WATERSHED  
 MANAGEMENT COMMISSION**

By: \_\_\_\_\_  
 Chairperson      Date

By: \_\_\_\_\_  
 Secretary      Date



# 2017 ADMINISTRATIVE SERVICES PROPOSAL FOR BCWMC

Dawn Pape has nineteen years of experience in the field of education and thirteen years of experience specifically in water-related public education. Pape started the Blue Thumb—Planting for Clean Water® program when she was the director of outreach at the Rice Creek Watershed District. In that position, she communicated and coordinated projects with 29 communities, four counties, and many water management organizations.

Dawn Pape brings a unique skill set to projects: writing, creativity, graphic design, photography, social media, website development, friendliness, energy, practicality, implementation experience, fiscal responsibility and even public speaking and performance. With a Masters of Science in Environmental Education from University of Wisconsin—Stevens Point, Pape keeps abreast of environmental issues and technology with continuing education.

## Lawn Chair Gardener

Dawn Pape  
5901 Birchwood St.  
Shoreview, MN 55126  
651.485.5171

dawn@lawnchairgardener.com  
lawnchairgardener.com

## BCWMC

Laura Jester

laura.jester@kestonewaters.com  
bassettcreekwmo.org

Proposal Issued:  
**01.23.2017**

Proposal Valid to:  
**03.30.2017**

### Services

### Hourly Rate x Time

### Total

1. Facebook posts (1-2/week)

\$40 x 52 weeks

\$2,080

2. Post monthly Watershed Partners Articles on BCWMC Website

\$40 x .5 hrs. x 12 mos.

\$240

3. Build Facebook Followers Using Social Media BMPs

Currently BCWMC has 96 followers. Although up 220% from the 30 followers when I started in July, this fan base has little impact educating the public about important water-related issues. In short, the more fans BCWMC has, the greater the number of people that will see BCWMC posts in their timelines and the more effective BCWMC will be in informing and educating the public.

Building fan bases takes time because it involves relationship building, interacting with other pages, as well as employing Facebook technology like "Page Engagement Custom Audiences" and various analytics tools. Many tools are available to help figure out which pages are most effective to interact with in order to gain the type of followers who live in will likely take action in BCWMC area.

\$40 x 2 hrs. x 12 mos.

\$960

4. Coordination of Monthly Newsletters with BCWMC Cities

- Establish contacts with nine cities
- Coordination of monthly newsletter information (get/give updates, articles)

\$40 x 30 hrs. x 12 mos. (approx. 2.5 hrs/ mo.)

\$1,200

5. Write Bi-Monthly Articles about BCWMC Specific Projects, Post on Website, Send Press Releases to Media

\$40 x 10 hrs. x 6 times

\$2,400

6. Education committee meetings and/or meetings with Administrator

- 4 meetings at approx. 3 hours in length
- 42 miles roundtrip at 2017 mileage rate of 53.5 cents/mile

\$40 x 12 hrs. = \$480  
(+ 89.88 mileage)

\$569.88

7. Board Minutes

- Attend 10 meetings (approx. 2.5 hrs. ea.) and write minutes (approx. 4 hrs. ea. mo.)
- 10 months, 42 miles roundtrip at 2017 mileage rate of 53.5 cents/mile

\$40 x 65 hrs. = \$2,600  
(+ \$224.70 mileage)

\$2,824.70

Labor

\$9,960

Mileage

\$314.58

**Total**

**\$10,274.58**



## Bassett Creek Watershed Management Commission

### MEMO

Date: February 8, 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 28<sup>th</sup>. 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 11<sup>th</sup>, 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. Agreements and workplans for those grants are forthcoming. The City recently awarded the design and construction of the project to Wenck Associates. The project will be designed over the next few months, with construction likely next winter.

**2017 Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M):** The feasibility study for this project was approved at the April Commission meeting and the final document is available on the project page at: <http://www.bassettcreekwmo.org/index.php?cID=281>. A Response Action Plan to address contaminated soils in the project area was completed by Barr Engineering with funding from Hennepin County and was reviewed and approved by the MPCA. The County Board approved the 2017 maximum levy request at their meeting on July 28<sup>th</sup>. 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 recently awarded an Environmental Response Fund grant from Hennepin County for \$150,300. A grant agreement is forthcoming. Barr Engineering is currently developing a proposal for the City of Minneapolis to design and construct the project.

**2013 Four Season Area Water Quality Project (NL-2) (See Item 6A):** Since November 2015, the City of Plymouth has considered different options for this area including the original stream restoration, using only rock to stabilize the channel, and a flocculation facility. The City received comments on these options at a public meeting in January. Recently, a developer has proposed a redevelopment project (Agora) for the site that includes several innovative stormwater management features for the site. 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. At their January 2017 meeting, the Commission took action directing staff to enter an agreement directly with the developer. An agreement for construction is presented at this meeting.

**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. It is expected that the contractor will add the weights soon after ice-out, which would allow some time to observe how the system/baffle functions before the Schaper Pond monitoring project begins in June. The contractor performed more seeding in the two access areas, which improved vegetation coverage, but more coverage is required to achieve final stabilization. Erosion control will be removed once the final stabilization is completed.

**2014 Twin Lake In-lake Alum Treatment, Golden Valley (TW-2):** 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) (See Item 4D):** Aside from a reimbursement request from Golden Valley (Item 4D), there are no changes since the November report: 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 and found a handful of isolated areas where rocks and bio-logs were displaced enough where repairs are necessary. Repairs are scheduled for early December, weather dependent. It is anticipated that the project will enter the one-year warranty period following the completion of these repairs. 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) will complete the tree and shrub planting in spring 2017 and 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):** No update since November. A final reimbursement request and final report are expected at the February meeting. Construction on this project began this spring. Photos and construction progress are available at: <http://www.ci.new-hope.mn.us/departments/publicworks/2016infrastructure.shtml>

Northwood Lake Improvement Project is nearing completion with all major work complete. Minor punch list items remain and the tank will be left dry until next spring when it is started up for the season.

- The storm tank is complete, along with all pretreatment structures.
- The overflow rain gardens are complete and functional and planted, minor work remains on a clogged drain tile pipe in one rain garden bed.

- The irrigation box was installed in November.
- Mulch and seed were installed across the entire site and grass is established. The park was opened to the public in October. The official park opening event will be held spring of 2017.
- Jordan Pond and the overflow structure to Bassett Creek at Hwy 169 is complete and established. Trees were planted to help screen neighboring properties.

**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. To date, the contractor has cleared and graded the area near Douglas Drive and completed temporary stabilization. The diversion structure and outlet pipes were constructed from the pond to the street. Dewatering and excavation of the pond began recently and will continue for the next several weeks. It is expected that work on the water reuse system will begin next week.

**2018 Bassett Creek Park Pond & Winnetka Pond Dredging, Crystal (BCP-2):** At their July meeting the Commission approved a [proposal](#) from the Commission Engineer to complete the feasibility study which is now underway. The field investigations are complete, including bathymetric surveys, wetland delineations, and sediment sampling. Winnetka Pond West was dropped from further investigation when review of the bathymetric survey data indicated very little sediment accumulation. Sediment sample results indicate that all material at Winnetka Pond East is Level 1, indicating the excavated sediment can be reused at most sites. One sample at Bassett Creek Park Pond is a Level 2 and three samples are Level 1, which indicates limitations to reuse of the excavated sediment. The wetland type and boundary report was recently completed and approved. A technical stakeholder/permitting agency meeting was held January 17<sup>th</sup>. A public open house for the project will be held the evening of February 16<sup>th</sup>, 5:30 – 7:30 p.m. in The Heathers Manor, 3000 N. Douglas Drive, Crystal.

## Other Work

January and the beginning of February have been busy with a variety of tasks including reporting on three grants; working on CIP projects including the Bassett Creek Park Pond/Winnetka Pond Dredging Project and the Agora development; attending the Road Slat Symposium; preparing for and attending the AMP/AIS and TAC committee meetings; assisting with communication to residents on the Sweeney Lake Aeration Study; writing, editing, and submitting WMWA newsletter articles; doing an on-camera interview for a Blake School video on their recent photography project; meeting with the @glenwood developer regarding development proposed along the creek near the Fruen Mill; etc.