Bassett Creek Watershed Management Commission

Public Hearing & Regular Meeting
Thursday, August 20, 2015 ~ 8:30 – 11:00 a.m.
Council Conference Room, Golden Valley City Hall, 7800 Golden Valley Rd., 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 - July 16, 2015 Commission Meeting
   - B. Approval of August 2015 Financial Report
   - C. Approval of Payment of Invoices
     - i. Keystone Waters, LLC – July 2015 Administrator Services
     - ii. Barr Engineering –July 2015 Engineering Services
     - iii. Amy Herbert – July 2015 Secretarial Services
     - iv. ACE Catering – August 2015 Meeting Refreshments
     - v. Wenck – July 2015 WOMP Monitoring
     - vi. Kennedy Graven – June 2015 Legal Services
     - vii. HDR – June 2015 Website Redesign Project
     - viii. Finance and Commerce – Public Hearing Notice
     - ix. ECM Publishers – Public Hearing Notice
   - D. Approval of BCWMC 2016 Operating Budget
   - E. Set Technical Advisory Committee Meeting for September 8, 2015
   - F. Approval of Golden Villas Apartments Project, Golden Valley

5. **PUBLIC HEARING**
   - A. Receive Comments from Member Cities and Public on the Proposed 2016 Capital Improvement Program (CIP) Projects
     - i. Northwood Lake Improvement Project (NL-1)
     - ii. Honeywell Pond Expansion Project (BC-4)

6. **BUSINESS**
   - A. Resolution of Appreciation for Charlie LeFevere and Introduction of New Legal Counsel for BCWMC
   - B. Consider Approval of Resolution Ordering 2016 Improvements
     - i. Designating Members Responsible for Construction
     - ii. Making Findings Pursuant to Minnesota Statutes Section 103B.251
     - iii. Certifying Costs to Hennepin County
     - iv. Approving Agreement with City of New Hope for Construction of Northwood Lake Improvement Project (NL-1)
     - v. Approving Sub-grant Agreement with City of New Hope Related to Clean Water Partnership Grant
     - vi. Approving Agreement with City of Golden Valley for Construction of Honeywell Expansion

Project (BC-4)

C. Consider Approval of Proposal for Preparation of Feasibility Study for Plymouth Creek Restoration Project (2017CR-P)
D. Items Related to 2015 – 2025 BCWMC Watershed Management Plan
   i. Receive Update on Presentation of Watershed Plan to BWSR Metro Region Committee
   ii. Consider Approval of Response to Comments from 90-day Review of Draft Watershed Management Plan
E. Consider Approval of Clean Water Fund Grant Application for Northwood Lake Improvement Project
F. Consider Approval of Grant Application for MDNR Flood Reduction Program Funds
G. Consider Submitting Comments on Metro Chloride TMDL
H. Receive Information on Tasks Related to XP-SWMM Phase II Project
I. Receive Work Plan for Clean Water Partnership Grant for Northwood Lake Improvement Project
J. Review Information on BCWMC Facebook Page

7. COMMUNICATIONS

A. Administrator's Report
   i. Report on Hennepin County Budget and Capital Investment Committee Meeting
   ii. West Metro Water Alliance at State Fair, Eco Experience
   iii. Need Volunteers for Golden Valley Art & Music Festival, Parade
B. Chair
C. Commissioners
   i. Update on NEMO Workshop on the Water Event
D. TAC Members
E. Committees
F. Legal Counsel
G. Engineer

8. INFORMATION ONLY (Information online only)

A. CIP Project Update Chart
B. Grant Tracking Summary and Spreadsheet
C. Channel 12 Interview on Schaper Pond Diversion Project
D. Hennepin County Green Partners Environmental Education Grant Program
E. Mississippi WMO Stormwater Park & Learning Center Grand Opening 9/19/15

9. ADJOURNMENT

Upcoming Meetings & Events

- BCWMC TAC Meeting (if set in 4E above): Tuesday September 8th, 1:30 – 3:30 p.m. Golden Valley City Hall
- BCWMC Regular Meeting: Thursday September 17th, 8:30 a.m., Golden Valley City Hall
- Mississippi Watershed Management Organization Stormwater Park & Learning Center Grand Opening: Saturday September 19th, 10:00 a.m. – 1:00 p.m., MWMO Office Minneapolis
- Golden Valley Art and Music Festival & Parade: Saturday September 26th, 10:00 a.m. – 3:00 p.m., Golden Valley City Hall
- NEMO Workshop "Chloride and Winter Road Management for Local Officials: Wednesday October 7th, 6:00 – 8:30 p.m., Minnetonka Public Works

Future Commission Agenda Items list

- Address Organizational Efficiencies
- Finalize Commission policies (fiscal, data practices, records retention, roles and responsibilities, etc.)
- Presentation on joint City of Minnetonka/ UMN community project on storm water mgmt
- State of the River Presentation

- Presentation on chlorides

Bassett Creek Watershed Management Commission

AGENDA MEMO

Date: August 11, 2015
To: BCWMC Commissioners
From: Laura Jester, Administrator
RE: Background Information for 8/20/15 BCWMC Public Hearing & Meeting

1. **CALL TO ORDER and ROLL CALL**
2. **CITIZEN FORUM ON NON-AGENDA ITEMS**
3. **APPROVAL OF AGENDA – ACTION ITEM**
4. **CONSENT AGENDA**

A. Approval of Minutes – July 16, 2015 Commission meeting- **ACTION ITEM with attachment**
B. Approval of August 2015 Financial Report - **ACTION ITEM with attachment**
C. Approval of Payment of Invoices - **ACTION ITEM with attachments**
   i. Keystone Waters, LLC – July 2015 Administrator Services
   ii. Barr Engineering –July 2015 Engineering Services
   iii. Amy Herbert –July 2015 Secretarial Services
   iv. ACE Catering – August 2015 Meeting Refreshments
   v. Wenck – July 2015 WOMP Monitoring
   vi. Kennedy Graven – June Legal Services
   vii. HDR - June 2015 Website Redesign Project
   viii. Finance & Commerce – Public Hearing Notice
   ix. ECM Publishers – Public Hearing Notice

D. Approval of BCWMC 2016 Operating Budget – **ACTION ITEM with attachment** – *At their June 2015 meeting, the Commission approved a 2016 operating budget and assessment to cities. Staff sent the proposed budget and assessments to member cities by July 1st, per the BCWMC JPA. No comments were received from cities by the August 1st deadline (nor after the deadline). Staff recommends final approval of the 2016 operating budget and assessment to cities as previously presented and approved. The budget, notes, and assessment table are included in this packet. The budget detail document can be found with May meeting materials at: http://www.bassettcreekwmo.org/Meetings/2015/2015-May/6C2-2016BCWMCBudgetDetail.pdf.*

E. Set Technical Advisory Committee Meeting for September 8, 2015 – **ACTION ITEM no attachment** – *Staff recommends the BCWMC TAC meet on September 8th to review and discuss the Channel Maintenance Fund policy and current results of the Flood Control Project Rehabilitation and Replacement Responsibilities Study.*

F. Approval of Golden Villas Apartments Project, Golden Valley – **ACTION ITEM with attachment** - *The project includes removal of two commercial buildings and parking lots; construction of a new apartment building, parking lot, driveways, and sidewalks; and installation of an underground stormwater treatment system. The project, in the Bassett Creek Main Stem subwatershed, is 2.6 acres and results in an increase of 0.13 acres of impervious surface and a total proposed impervious area of 2.15 acres. There is currently no water quality treatment provided on the site. An underground StormTech chamber system with infiltration into the underlying sandy soils is proposed to provide water quality treatment on site. The Commission Engineer recommends conditional approval with comments in the attached memo.*

5. PUBLIC HEARING

A. Receive Comments from Member Cities and Public on the Proposed 2016 Capital Improvement Program (CIP) Projects – **Feasibility studies for project available in online packet** - *The public hearing will be opened and the public will be asked for comments on the 2016 CIP projects. All comments will be entered into the public record and will be considered before the Commission approves the resolution in 6B below.*

i. Northwood Lake Improvement Project (NL-1)
ii. Honeywell Pond Expansion Project (BC-4)

6. BUSINESS

A. Resolution of Appreciation for Charlie LeFevere and Introduction of New Legal Counsel for BCWMC – **ACTION ITEM with attachment** – *At this meeting Charlie will introduce the new legal counsel for the Commission, Troy Gilchrist. Charlie has represented the Commission since 1997. A resolution of appreciation is proposed, among other notes of thanks.*

B. Consider Approval of Resolution Ordering 2016 Improvements - **ACTION ITEM with attachments** - *Pending the outcome of the public hearing in 5A, the attached resolution should be approved to order the projects, designate members responsible for construction, make findings pursuant to MN Statutes 103B.25, certify the costs of the 2016 projects to Hennepin County, and approve agreements with the cities of New Hope and Golden Valley for construction. Staff recommends approval of the resolution which, in turn, approves the following:*

i. Designating Members Responsible for Construction

ii. Making Findings Pursuant to Minnesota Statutes Section 103B.251

iii. Certifying Costs to Hennepin County – **see attachment** – *The attached memo shows the breakdown of estimated project costs and recommends the Commission direct staff to certify for payment by Hennepin County in 2016 a total (final) tax levy of $1,222,000.*

iv. Approving Agreement with City of New Hope for Construction of Northwood Lake Improvement Project (NL-1) - **see attachment** – *The attached agreement between the City of New Hope and the BCWMC includes expectations and requirements of the city and the Commission for implementation of the Northwood Lake Improvement Project.*

v. Approving Sub-grant Agreement with City of New Hope Related to Clean Water Partnership Grant – **see attachment** – *The attached agreement between the City of New Hope and the BCWMC includes expectations and requirements of the city and the Commission for implementing the work plan for the Clean Water Partnership Grant. (Find the work plan in item 6I below.)*

vi. Approving Agreement with City of Golden Valley for Construction of Honeywell Expansion Project (BC-4) - **see attachment** - *The attached agreement between the City of Golden Valley and the BCWMC includes expectations and requirements of the city and the Commission for implementation of the Honeywell Pond Expansion Project.*

C. Consider Approval of Proposal for Preparation of Feasibility Study for Plymouth Creek Restoration Project (2017CR-P) – **ACTION ITEM with attachment** – *At their July meeting, the Commission directed the Commission Engineer to prepare a proposal for completing a feasibility study for the Plymouth Creek Restoration Project. The proposal is attached here along with staff recommendations.*

D. Items Related to 2015 – 2025 BCWMC Watershed Management Plan

i. Receive Update on Presentation of Watershed Plan to BWSR Metro Region Committee - **INFORMATION ITEM no attachment** – *The Commission Engineer, Vice Chair Mueller, Chair de Lambert and I attended the BWSR Metro Region Committee meeting on 8/4; Vice Chair Mueller gave a presentation with an overview of the BCWMC Watershed Management Plan. There was some discussion with committee members but they had no major concerns, questions, or reservations about the draft Plan. They recommended approval of the Plan by the full BWSR Board which meets on August 26th.*

ii. Consider Approval of Response to Comments from 90-day Review of Draft Watershed Management Plan – **ACTION ITEM with attachment** – *The Commission received comments from the City of Minneapolis, MnDOT, and the MN Department of Agriculture during the 90-day review of the draft Plan. Staff recommends approval of the responses with Commission review and discussion of the comments and responses highlighted in gray in the attached document. The 90-day review draft of the Plan with tracked changes resulting from 60-day comments is here: http://www.bassettcreekwmo.org/NextGenerationPlan2015/2015WatershedManagementPlanHome.htm.*

E. Consider Approval of Clean Water Fund Grant Application for Northwood Lake Improvement Project – **ACTION ITEM with attachment** – *As directed at the July Commission meeting, staff completed a Clean Water Fund grant application for the Northwood Lake Improvement Project. The draft application is attached here; the final application is due on 8/28/15 at 4:30 p.m. Staff seeks input on the application and direction to staff to finalize the application and submit to BWSR by the deadline.*

F. Consider Approval of Grant Application for MDNR Flood Reduction Program Funds – **ACTION ITEM with attachment** - *As noted by the Commission Engineer at the July meeting, special legislation in June included $500,000 in general funds for the Flood Damage Reduction program. Although DNR staff continue discussions with Homeland Security and Emergency Management (HSEM) staff regarding how much, if any, of that funding is available for projects other than those earmarked in the legislation, there is still the chance that funding could be available. For this reason, DNR staff requested that BCWMC complete an FDR application now, in case the funds become available. Attached is a draft of the application for Commission review and approval. If approved, staff will submit the grant application. Similar to the Clean Water Partnership grant, this grant would go through SWIFT, the state of Minnesota's online financial, procurement, and reporting system. The "authorized agent" is the person who can sign the grant on behalf of the Commission through SWIFT.*

G. Consider Submitting Comments on Metro Chloride TMDL – **ACTION ITEM with attachment** – *The draft Chloride Management Plan and Total Maximum Daily Load report developed for the Twin Cities Metropolitan Area were developed by the MN Pollution Control Agency (MPCA) and are available for public review and comment through September 2, 2015. The Commission Engineer reviewed the plan and report and recommends the Commission direct staff to submit the attached comments to the MPCA.*

H. Receive Information on Tasks Related to XP-SWMM Phase II Project – **INFORMATION ITEM with attachment** - *At their meeting in April 2015 the Commission approved the XP-SWMM Phase II project. At their meeting in July 2015, the Commission requested more details on the project and a scope of work from the Commission Engineer. The attached memo provides information on the tasks to be completed during the project.*

I. Receive Work Plan for Clean Water Partnership Grant for Northwood Lake Improvement Project – **INFORMATION ITEM with attachment** – *At their meeting in June 2015, the Commission accepted the Clean Water Partnership grant for the Northwood Lake Improvement Project. A work plan, Gantt chart, and budget was required by the grant. These items were developed by Commission staff (with help from New Hope staff and the MPCA project manager) and submitted to the MPCA and are attached here. They were since approved by the MPCA and work on the grant project can officially begin. Staff will implement*

and track work according to the work plan and budget and will submit regular reports, as required.

J. Review Information on BCWMC Facebook Page – **DISCUSSION ITEM with attachment** - *On July 15, 2015, BCWMC staff created and implemented a soft launch of the Bassett Creek Watershed Management Commission Facebook page at: https://www.facebook.com/BCWMC . The purpose of the page is to engage residents, BCWMC members, and others interested in the BCWMC and the Bassett Creek Watershed via the popular media/communication tool. The attached memo provides staff thoughts and suggestions for maintaining the site. Staff requests Commission discussion and input.*

7. COMMUNICATIONS

A. Administrator's Report – **written report attached**
   a. Report on Hennepin County Budget and Capital Investment Committee Meeting
   b. West Metro Water Alliance at State Fair, Eco Experience
   c. Need Volunteers for Golden Valley Art & Music Festival, Parade
B. Chair
C. Commissioners
   a. Update on NEMO Workshop on the Water Event
D. TAC Members
E. Committees
F. Legal Counsel
G. Engineer

8. INFORMATION ONLY (Information online only)

A. CIP Project Update Chart
B. Grant Tracking Summary and Spreadsheet
C. Channel 12 Interview on Schaper Pond Diversion Project
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9. ADJOURNMENT

Upcoming Meetings & Events

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Item 4A
BCWMC 8-20-15

Bassett Creek Watershed Management Commission

Minutes of Regular Meeting
July 16, 2015
Golden Valley City Hall, 8:30 a.m.

Commissioners and Staff Present:

Crystal	Commissioner Guy Mueller, Vice Chair	Robbinsdale	Alternate Commissioner Michael Scanlan
Golden Valley	Commissioner Stacy Hoschka, Treasurer	St. Louis Park	Commissioner Jim de Lambert, Chair
Medicine Lake	Commissioner Clint Carlson	Administrator	Laura Jester
Minneapolis	Commissioner Michael Welch	Attorney	Charlie LeFevere, Kennedy & Graven
Minnetonka	Commissioner Jacob Millner, Secretary	Engineer	Karen Chandler, Barr Engineering
New Hope	Alternate Commissioner Pat Crough		
Plymouth	Commissioner Ginny Black		

Technical Advisory Committee (TAC) Members/ Other Attendees Present:

Derek Asche, TAC, City of Plymouth	Richard McCoy, TAC, City of Robbinsdale
Erick Francis, TAC, City of St. Louis Park	Patrick Noon, Alternate Commissioner, City of St. Louis Park
Gary Holter, Alternate Commissioner, Medicine Lake	Jeff Oliver, TAC, City of Golden Valley
Chris Long, TAC, City of New Hope	John O'Toole, Medicine Lake Resident
Linda Loomis, Plan Steering Cmtte Chair	Liz Stout, TAC, City of Minnetonka
Jane McDonald Black, Alternate Commissioner, City of Golden Valley	David Tobelmann, Alternate Commissioner, City of Plymouth

1. CALL TO ORDER AND ROLL CALL

On Thursday, July 16, 2015, at 8:33 a.m. in the Council Conference room at Golden Valley City Hall, Chair de Lambert called to order the meeting of the Bassett Creek Watershed Management Commission (BCWMC) and asked for roll call to be taken [City of Minneapolis absent from roll call].

2. CITIZEN FORUM ON NON-AGENDA ITEMS

No items were raised.

3. AGENDA

Commissioner Black moved to approve the agenda as presented. Alternate Commissioner Crough seconded the motion. Upon a vote, the motion carried 8-0 [City of Minneapolis absent from vote].

4. CONSENT AGENDA

Commissioner Black requested the removal of item 4B – July Financial Report – from the Consent Agenda. Chair de Lambert said the item would become agenda item 5Ai. Commissioner Black moved to approve the Consent Agenda as amended. Commissioner Mueller seconded the motion. Upon a vote, the motion carried 8-0 [City of Minneapolis absent from vote].

[The following items were approved as part of the Consent Agenda: the June 18, 2015, Commission Meeting minutes, the payment of invoices, Approval to Reimburse the City of Golden Valley for the Bassett Creek Main Stem Restoration Project (CR2015).]

The general and construction account balances reported in the Fiscal Year 2015 Financial Report prepared for the July 16, 2015, meeting are as follows:

Checking Account Balance	$686,224.00
TOTAL GENERAL FUND BALANCE	$686,224.00
TOTAL CASH & INVESTMENTS ON-HAND (7/08/15)	$3,794,833.26
CIP Projects Levied – Budget Remaining	($4,015,111.53)
Closed Projects Remaining Balance	$220,278.27
2012-2014 Anticipated Tax Levy Revenue	$5,585.36
2015 Anticipated Tax Levy Revenue	$495,084.26
Anticipated Closed Project Balance	$280,391.35

5. BUSINESS

A.

i. July 2015 Financial Report

Commissioner Black had a question about the financial report's line item "Other General Fund Revenues." Administrator Jester answered the question. Commissioner Black moved to approve the July 2015 Financial Report as presented. Alternate Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 8-0 [City of Minneapolis absent from vote].

[Commissioner Welch, Minneapolis, arrives.]

A.

ii. **Consider Resolution of Appreciation for Services of John O'Toole to the Bassett Creek Watershed Management Commission**

Commissioner Black moved to adopt the Resolution of Appreciation for Services of John O'Toole to the Bassett Creek Watershed Management Commission. Commissioner Welch seconded the motion. Chair de Lambert read the resolution. Commissioners and Mr. O'Toole offered comments. Upon a vote, the motion carried 9-0.

B. Review Evaluations of Two Past CIP Projects by MN Department of Natural Resources and MN Board of Water and Soil Resources

Administrator Jester explained that in 2011 the state legislature directed the Minnesota Department of Natural Resources (DNR) and the Minnesota Board of Water and Soil Resources (BWSR) to start evaluating restoration projects that were completed under the Clean Water Land and Legacy Funds. She said that the Commission had two projects that were partially funded by those funds in 2010: a Bassett Creek Main Stem restoration project and a Plymouth Creek restoration project.

Administrator Jester reported that in October 2013 she was contacted by DNR staff member Wade Johnson, the project manager of this evaluation program. She explained that Mr. Johnson and another DNR staff member came out and looked at the projects. She said that she and city staff accompanied the DNR staff on the visit to each project site. Administrator Jester explained that the DNR staff completed evaluation forms, but the BCWMC did not receive a copy of them until January 2015.

Administrator Jester stated that there were concerns about the outcomes of the evaluations, so BCWMC and city staff met with DNR and BWSR staff to go through the evaluations. She said there was great two-way discussion. She reported that the DNR and BWSR staff learned more about the limitations of working in urban areas while city staff, the Commission Engineer, and the Administrator learned about things that the DNR and BWSR hope for in future projects.

Administrator Jester said that the project evaluations were revised and the final evaluations are included in today's meeting packet. She noted that the evaluations will go into a report to an evaluation panel in September and then a final report will go to the state legislature. She noted that BCWMC staff learned that the Commission should involve state agencies earlier in the CIP process in order to hear about the agencies' desired outcomes of the projects. Administrator Jester emphasized that the evaluation is not a punitive action and instead its goal is to make future projects better. Administrator Jester said that a takeaway for the Commission is that it needs to get project information to the right agency staff people earlier in the process, which now is staff's plan. She said that no action by the Board is required.

Commissioner Mueller commented that he sees that the evaluation raises two issues: first, how to design future projects better and second, how to ensure that during project construction the contractors follow the plans and specifications. Mr. Asche pointed out that regarding the rock vane described in the evaluation, the City of Plymouth knows it was installed correctly but over time it moved out of place. He said that the City sees that as a long-term maintenance issue. Mr. Asche stated that the project was a very successful project and meets a lot of the Commission's and City's goals, including flood protection. He emphasized that the effectiveness of the project is very high.

Commissioner Black remarked that she thinks the Commission's Technical Advisory Committee (TAC) should discuss whether the Commission's process and procedures could be modified in light of the evaluation

report and if so, how.

There was discussion about the evaluation criteria and the objectives that the projects were measured against. Commissioner Welch commented that he found this evaluation disturbing and asked if Engineer Chandler had takeaways from the evaluation and the meeting with the evaluators. Engineer Chandler said that there is not a lot of public land available for use in the BCWMC projects and because there is so much work in this type of constrained area, the projects have to utilize more structure in its projects. She said that in order to affect change, input, such as provided by the DNR, needs to happen earlier in the project.

Commissioner Welch said the evaluation brings up points such as: incorrect installation, instability, the recommendation that the BCWMC should consider alternative methods that would have been constructed with appropriate geomorphology, and the recommendation that the BCWMC consider alternatives that work with natural stream processes rather than against them. He said that some of these points echo things he heard years ago from the Commission's Engineer. Commissioner Welch said that the Commission could have done something if the Commission had accountability in place for the constructed project matching the project plans the Commission approved. He said that this issue absolutely should go to the TAC, and he would like to hear what the TAC would like to do about this. He stated that he would like to know if the TAC thinks the Commission is setting the right objectives for the projects. Commissioner Welch agreed with the idea of getting agency input early on in the project process, but indicated they may not have time.

There was discussion about storm water drainage and runoff in urban and developed areas, flood protection goals and initiatives, how urban streams are subject to unnatural conditions, and the need to be able to construct solutions that work with streams that are subject to unnatural conditions. There was discussion about the Plymouth Creek's project's beneficial results for Medicine Lake and how future Watershed Outlet Monitoring Program (WOMP) data should start indicating those positive results.

There was discussion about the positive outcomes of both evaluated projects, positive features of the projects that were not included in the evaluation report, the learning that the Commission can take away from the evaluation report, the possible additional project costs and additional time that would be incurred by involving state agency review into the Commission's project process timeline, how the Commission can learn in advance what state agency objectives the Commission's projects will be measured against, and what next steps the Commission could take, if any. Upon hearing several recommendations that the issue be sent to the TAC for discussion, Chair de Lambert directed the TAC to discuss the evaluation report and its implications for the Commission.

C. Discuss Development of Feasibility Studies for 2017 CIP Projects

Administrator Jester explained that the Commission needs to move forward with ordering feasibility studies for the two 2017 CIP projects, which will start in 2017 and will span two years. She reported that the City of Minneapolis is hiring Barr Engineering to do the feasibility study for the Main Stem Channel Restoration project. Administrator Jester stated that the City of Minneapolis will review Barr Engineering's proposal for the feasibility study and then the proposal will come to the Commission for review at its August meeting, at which time the Commission would consider entering into an agreement with the City of Minneapolis for the project.

Administrator Jester announced that the City of Plymouth requests that the Commission direct the feasibility study for the Plymouth Creek restoration project instead of the Commission entering into an agreement with the City of Plymouth for the feasibility study. She explained that the Commission needs to consider if it wants to direct the feasibility study, and if it does, how to do so. She described three ways that the Commission could direct the feasibility study but recommended that the Commission authorize the Commission Engineer

to do the feasibility study for the Plymouth Creek project.

There was discussion on how the Commission has done feasibility studies in the past. Commissioner Black noted that by streamlining the feasibility study process through having the Commission Engineer do the study, the Commission Engineer's review of the study is removed from the process. She stated that eliminating the Commission Engineer's review limits the amount of input on the study and various alternatives for the project. She wondered if the Commission would want to address that limitation by getting an outside evaluation of the feasibility study. There was discussion on how such an evaluation could be cost effective.

Commissioner Welch pointed out that the Redevelopment Oversight Committee has been a working organization for many years and, if it is still in operation, it would need to be included in the public process for the Minneapolis project.

Alternate Commissioner Scanlan moved to have the Commission Engineer do the feasibility study for the Plymouth Creek project. Alternate Commissioner Crough seconded the motion.

Mr. Oliver commented that although this is a departure from current practice, he is very comfortable with this direction, that the Commission built the flood control project using this model, and that the Commission has been very successful using this model. There was discussion about where in the project process the Commission will have the opportunity to review the draft feasibility report, approve the report, and review the draft plans. Mr. LeFevere pointed out that the Commission doesn't need to make a decision today about having a peer review of the feasibility study or the scope of the review at this time but can decide on those actions in the future.

Commissioner Black noted that she thinks it's financially responsible to get proposals from various firms for the feasibility studies and to have a healthy debate about the project and different options. Alternate Commissioner McDonald Black indicated she thought there was already healthy dialogue about projects among city staff, Commissioners, Commission Engineer, and now possibly state agencies.

Commissioner Welch moved to amend the motion on the table to include that the Commission will solicit input from the DNR at the appropriate time. Commissioner Black seconded the motion to amend. Upon a vote, the motion carried 9-0.

There was a short discussion on getting DNR input. Chair de Lambert called for a vote on the amended motion. Upon a vote, the motion carried 9-0.

D. Consider Approval of Recommendations from Technical Advisory Committee

Mr. Eckman summarized the TAC's review and discussion of the draft implementation plan for the Upper Mississippi River Bacteria TMDL (Total Maximum Daily Load Study). He said the TAC recommends the Commission not submit formal comments on the draft implementation plan and instead recommends that cities submit comments individually as warranted. Mr. Eckman reported that the TAC recommends the Commission continues to seek ways to reduce bacteria pollution and the TAC revisits the issue at a future meeting.

Commissioner Black moved to accept the TAC's recommendations. Commissioner Mueller seconded the motion. There was a short discussion about bacteria sources. Upon a vote, the motion carried 9-0.

E. Consider Applying for Clean Water Fund Grant

Administrator Jester announced that the Commission will be eligible to apply for Clean Water Fund grants this year and noted the application deadline of August 28. She said that the Commission could apply for a grant for one or both of the Commission's 2016 CIP projects: the Northwood Lake Improvement Project and the Honeywell Pond Expansion Project.

Administrator Jester recommended the Commission apply for a grant for the Northwood Lake project at a maximum grant request amount of $500,000. She provided more information about the application process and the work it would take to prepare the application. She estimated it would take her up to 10 hours of work to prepare the one application.

Alternate Commissioner Scanlan moved that the Commission apply for the grant. Alternate Commissioner McDonald Black seconded the motion. There was discussion about applying for a grant just for the Northwood Lake Improvement project versus both projects. Alternate Commissioner Scanlan made the friendly amendment to his motion to authorize staff to apply for a Clean Water Fund grant for the Northwood Lake Improvement Project at a grant amount up to $500,000. Alternate Commissioner McDonald Black agreed to the friendly amendment. Engineer Chandler stated that staff could bring the item to the Commission as a Consent Agenda item at its August meeting.

Upon a vote, the motion carried 9-0. Mr. Long said that New Hope's opinion is to apply for the maximum amount, and if the awarding agency doesn't want to fund it at the maximum amount, it won't.

F. Receive Update on XP-SWMM Progress and Funding

Engineer Chandler reported that a monitoring station has been set up on the North Branch of Bassett Creek. She explained that due to the recent rains there are monitoring results already. She said that the data previously gathered from the XP-SWMM and P8 models is being reviewed. Engineer Chandler said that a request for additional data will be going out to the cities. She stated that she is confident the Commission will receive some type of funding such as from FEMA through the DNR, but the money that staff hoped would come through this year didn't. She said that hopefully that money will come through for the Commission next year. Engineer Chandler brought up the possibility of tapping into flood damage reduction grant money. She stated that she is still in conversation with the DNR about it. She added that she may need to bring in front of the Commission at its next meeting an application for flood damage reduction grant funds, but she does not yet know if this will be needed.

Commissioner Black asked what "detailed modeling" means in the memo from the Commission's April 2015 meeting packet. She said that the Commission should have a better understanding of what is detailed modeling. She said that she would like to see a description of what is involved and the tasks. Engineer Chandler responded that the information just needs to put assembled and it can come to the Commission next month. Chair de Lambert said that it can be part of an XP-SWMM update agenda item next month.

G. Receive Update on Blue Line LRT Project

Administrator Jester reported that this project continues to move forward at a fast pace. She said that recently the cities of Crystal, Golden Valley, and Minneapolis formally requested assistance from the BCWMC for wetland-related (WCA) tasks. Administrator Jester noted that the BCWMC is already the Local Governmental Unit (LGU) for the City of Robbinsdale for WCA tasks. She explained that the Commission's fee structure for reviews is such that the Commission will be billing at actual cost for WCA work. She said that Metro Transit is aware of this and is fine with it.

Administrator Jester announced that she hopes to bring in front of the Commission in August an agreement with Metro Transit so that the Metro Transit also would cover the cost of the Commission's reviews with

regard to hydraulics and hydrology. She added that the Commission already has spent about $8,000 on this project and those costs are likely to continue.

Engineer Chandler reported on the recent meetings that staff has had with Metro Transit. She pointed out that Metro Transit's timeline indicates wetland permitting would occur early next year and the project plan would come to the Commission for formal review a year or later from now.

H. Consider Reviewing and Providing Feedback on Hennepin County Draft Natural Resources Strategic Plan

Administrator Jester described the plan which was put together by Hennepin County staff. She said she thinks it is a great plan and the County is looking for feedback. Administrator Jester suggested that Commissioners and city staff could provide plan feedback directly online or via email to County staff or via email to her to pass on to the County. Administrator Jester pointed out that a copy of the comments she submitted is included in the meeting packet.

6. COMMUNICATIONS

A. Administrator:

i. Administrator Jester announced that a detailed work plan for the Clean Water Partnership Grant is due August 20. She said that she is working with the Minnesota Pollution Control Agency on the grant application. She asked for direction from staff on whether it wants to see the work plan at the BCWMC's August 20 meeting. The Board directed Ms. Jester to complete the work plan and include it in the August 20 meeting packet as an informational item. Administrator Jester said that the Commission can provide feedback on the work plan. Chair de Lambert volunteered to review the work plan before it is included in the August 20th meeting packet.

ii. Administrator Jester announced the dates that she would be out of the office.

iii. Administrator Jester reported that she did an interview yesterday with Channel 12 about the Schaper Pond project and that she would forward to the Commission a link to the segment.

iv. Administrator Jester stated that two important meetings will be held on August 4th, including the meeting of the Hennepin County Energy, Environment, and Natural Resources Committee and a meeting of the Minnesota Board of Water and Soil Resources Committee. She described who would be attending these meetings on behalf of the Commission and the Commission business being addressed at each of the meetings.

B. Chair: No Chair Communications

C. Commissioners: No Commissioner Communications

D. TAC Members: No TAC Communications

E. Committees:

i. Administrator Jester distributed copies of the draft design of the BCWMC's redesigned website.

F. Legal Counsel:

i. Mr. LeFevere thanked the attendees of his retirement party held by Kennedy & Graven in his honor and noted his schedule for upcoming BCWMC meetings.

G. Engineer:

i. Engineer Chandler talked about an investigation into sediment accumulation in Bassett Creek in Theodore Wirth Park. She stated that the City of Minneapolis asked for preliminary assistance in understanding if it would be possible to determine the source of sediment accumulation in the Bassett Creek lagoons. She said that Administrator Jester authorized the Commission Engineer to provide this preliminary assistance, which culminated in a site meeting. Engineer Chandler reported that it seems like there will be a way to determine the sediment source, and Barr Engineering will complete the work, under contract with the City of Minneapolis.

ii. Engineer Chandler reported on a rare plant discovered in Westwood Lake. She passed around photos and said that the plant was discovered by the aquatic plant surveyor in June. Engineer Chandler said that staff will be taking canoes out in August to see this plant and any Commission members who are interested in coming should let her know.

iii. Engineer Chandler announced that on August 6th from 10 a.m. – 11:30 a.m. there is a webinar on Clean Water grants.

iv. Engineer Chandler said that BWSR will be sending out details about its public information sessions on the new 8410 Rules and that Barr Engineering will be hosting one of the sessions.

7. INFORMATION ONLY (Available at http://www.bassettcreekwmo.org/Meetings/2015/2015-July/2015JulyMeetingPacket.htm)

A. CIP Project Update Chart

B. Grant Tracking Summary and Spreadsheet

8. ADJOURNMENT

Chair de Lambert adjourned the meeting at 11:12 a.m.

_____

Recorder Date

_____

Secretary Date

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report
Fiscal Year: February 1, 2015 through January 31, 2016
MEETING DATE: August 20, 2015

Item 4B.
BCWMC 8-20-15

BEGINNING BALANCE	**8-Jul-15**				**686,224.00**
ADD:					
General Fund Revenue:					
	Interest less Bank Fees			(10.30)	
	2015-16 Assessments				
		Medicine Lake		3,543.00	
	Permits:				
		Winpark Drive LLC	BCWMC 2015-19	1,700.00	
		Plymouth Building Ho	BCWMC 2015-20	1,700.00	
		Hennepin County	BCWMC 2015-21	3,000.00	
		Lake West Developm	BCWMC 2015-22	1,500.00	
		LHB Inc	BCWMC 2015-23	2,200.00	
		Plymouth Building Ho	BCWMC 2015-20A	1,700.00	
	Reimbursed Construction Costs			14,971.93	
		Total Revenue and Transfers In			**30,304.63**
DEDUCT:					
Checks:					
	2767 Barr Engineering		July Engineering	41,449.44	
	2768 D'Amico Catering		August Meeting	148.63	
	2769 Amy Herbert LLC		July Secretary	2,709.56	
	2770 Kennedy & Graven		June Legal	1,124.35	
	2771 Keystone Waters LLC		July Administrator	4,916.75	
	2772 Wenck Associates		July Outlet Monitor	1,070.50	
	2773 HDR Engineering Inc		Website Design	720.55	
	2776 Finance & Commerce		Legal Notice	120.31	
	2777 ECM Publishers		Legal Notice	755.48	
			Total Checks		**53,015.57**
ENDING BALANCE	**8-Jul-15**				**663,513.06**

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report **(UNAUDITED)**
Fiscal Year: February 1, 2015 through January 31, 2016
MEETING DATE: August 20, 2015

	2015 / 2016 BUDGET	CURRENT MONTH	YTD 2015 / 2016	BALANCE
OTHER GENERAL FUND REVENUE				
ASSESSEMENTS TO CITIES	490,345	3,543.00	490,342.00	3.00
PERMIT REVENUE	60,000	11,800.00	31,100.00	28,900.00
WOMP REIMBURSEMENT	5,000	0.00	4,500.00	500.00
TRANSFERS FROM LONG TERM FUND & CIP	35,000	0.00	0.00	35,000.00
REVENUE TOTAL	**590,345**	**15,343.00**	**525,942.00**	**64,403.00**
EXPENDITURES				
ENGINEERING & MONITORING				
TECHNICAL SERVICES	120,000	9,575.87	61,800.94	58,199.06
DEV/PROJECT REVIEWS	65,000	4,607.50	21,678.00	43,322.00
NON-FEE/PRELIM REVIEWS	15,000	2,059.76	19,921.24	(4,921.24)
COMMISSION AND TAC MEETINGS	14,500	560.00	7,145.65	7,354.35
SURVEYS & STUDIES	20,000	2,869.00	10,858.08	9,141.92
WATER QUALITY/MONITORING	63,000	3,888.11	23,162.59	39,837.41
WATER QUANTITY	11,500	1,244.70	4,696.40	6,803.60
WATERSHED INSPECTIONS	1,000	0.00	0.00	1,000.00
ANNUAL FLOOD CONTROL INSPECTIONS	10,000	0.00	0.00	10,000.00
REVIEW MUNICIPAL PLANS	2,000	0.00	0.00	2,000.00
WOMP	17,000	1,070.50	8,861.84	8,138.16
ENGINEERING & MONITORING TOTAL	**339,000**	**25,875.44**	**158,124.74**	**180,875.26**
PLANNING				
WATERSHED-WIDE SP-SWMM MODEL	0	0.00	0.00	0.00
WATERSHED-WIDE P8 WATER QUALITY MODEL	0	0.00	0.00	0.00
NEXT GENERATION PLAN	30,000	1,714.50	17,732.82	12,267.18
PLANNING TOTAL	**30,000**	**1,714.50**	**17,732.82**	**12,267.18**
ADMINISTRATION				
ADMINISTRATOR	62,000	4,916.75	30,135.80	31,864.20
LEGAL COSTS	18,500	875.60	5,325.44	13,174.56
AUDIT, INSURANCE & BONDING	15,500	0.00	9,900.00	5,600.00
FINANCIAL MANAGEMENT	3,200	0.00	0.00	3,200.00
DIGITIZE HISTORIC PAPER FILES	2,500	0.00	0.00	2,500.00
MEETING EXPENSES	2,500	148.63	930.03	1,569.97
ADMINISTRATIVE SERVICES	32,000	2,713.88	15,358.65	16,641.35
ADMINISTRATION TOTAL	**136,200**	**8,654.86**	**61,649.92**	**74,550.08**
OUTREACH & EDUCATION				
PUBLICATIONS/ANNUAL REPORT	4,000	0.00	1,430.00	2,570.00
WEBSITE	12,000	720.55	2,890.61	9,109.39
PUBLIC COMMUNICATIONS	3,000	875.79	2,270.42	729.58
EDUCATION AND PUBLIC OUTREACH	17,000	0.00	11,505.31	5,494.69
WATERSHED EDUCATION PARTNERSHIPS	15,500	0.00	5,200.00	10,300.00
OUTREACH & EDUCATION TOTAL	**51,500**	**1,596.34**	**23,296.34**	**28,203.66**
MAINTENANCE FUNDS				
EROSION/SEDIMENT (CHANNEL MAINT)	25,000	0.00	0.00	25,000.00
LONG TERM MAINTENANCE (moved to CF)	25,000	0.00	0.00	25,000.00
MAINTENANCE FUNDS TOTAL	**50,000**	**0.00**	**0.00**	**50,000.00**
TMDL WORK				
TMDL STUDIES	0	0.00	0.00	0.00
TMDL IMPLEMENTATION REPORTING	20,000	202.50	3,768.00	16,232.00
TMDL WORK TOTAL	**20,000**	**202.50**	**3,768.00**	**16,232.00**
TOTAL EXPENSES	**626,700**	**38,043.64**	**264,571.82**	**362,128.18**

BCWMC Construction Account
Fiscal Year: February 1, 2015 through January 31, 2016 **(UNAUDITED)**
August 2015 Financial Report

Cash Balance 07/08/15			
Cash		2,794,833.26	
Investments:		1,000,000.00	
	Total Cash & Investments		3,794,833.26
Add:			
	State of Minnesota	75,000.00	
	Interest Revenue (Bank Charges)	(60.03)	
	Total Revenue		74,939.97
Less:	CIP Projects Levied - Current Expenses - TABLE A	0.00	
	Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B	(2,149.23)	
	Total Current Expenses		(2,149.23)
	Total Cash & Investments On Hand 08/12/15		**3,867,624.00**

Total Cash & Investments On Hand	3,867,624.00
CIP Projects Levied - Budget Remaining - **TABLE A**	(4,015,111.53)
Closed Projects Remaining Balance	(147,487.53)
2012 - 2014 Anticipated Tax Levy Revenue - **TABLE C**	5,585.36
2015 Anticipated Tax Levy Revenue - TABLE C	495,084.26
Anticipated Closed Project Balance	**353,182.09**
Proposed & Future CIP Project Amount to be Levied - **TABLE B**	0.00

TABLE A - CIP PROJECTS LEVIED

	Approved Budget	Current Expenses	2015 YTD Expenses	**INCEPTION** To Date Expenses	Remaining Budget
Plymouth Creek Channel Restoration (2010 CR)	965,200.00	0.00	5,350.56	939,039.17	26,160.83
CLOSED JUNE 2015					(26,160.83)
Wisc Ave/Duluth Street-Crystal (2011 CR)	580,200.00	0.00	0.00	580,200.00	0.00
Wirth Lake Outlet Modification (WTH-4)(2012)	202,500.00	0.00	0.00	201,513.94	986.06
5/13 Increase Budget - $22,500					
Main Stem Irving Ave to GV Road (2012 CR)	856,000.00	0.00	25,327.00	203,780.95	652,219.05
Lakeview Park Pond (ML-8) (2013)	196,000.00	0.00	0.00	11,589.50	184,410.50
Four Seasons Mall Area Water Quality Proj (NL-2)	990,000.00	0.00	25,866.35	127,501.84	862,498.16
2014				0.00	0.00
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)	612,000.00	0.00	0.00	89,594.90	522,405.10
Briarwood / Dawnview Nature Area (BC-7)	250,000.00	0.00	0.00	19,598.09	230,401.91
Twin Lake Alum Treatment Project (TW-2)	163,000.00	0.00	432.00	24,225.65	138,774.35
2015					
Main Stem 10th to Duluth (CR2015)	1,503,000.00	0.00	68,404.25	79,583.60	1,423,416.40
	6,317,900.00	0.00	125,380.16	2,276,627.64	4,015,111.53

TABLE B - PROPOSED & FUTURE CIP PROJECTS TO BE LEVIED

	Approved Budget - To Be Levied	Current Expenses	2015 YTD Expenses	**INCEPTION** To Date Expenses	Remaining Budget
2016					
Bryn Mawr Meadows (BC-5)	0.00	0.00	0.00	5,282.80	(5,282.80)
Honeywell Pond Expansion (BC-4)	0.00	1,269.68	1,269.68	8,731.63	(8,731.63)
Northwood Lake Pond (NL-1)	0.00	879.55	2,657.55	7,776.30	(7,776.30)
2016 Project Totals	0.00	2,149.23	3,927.23	21,790.73	(21,790.73)
Total Proposed & Future CIP Projects to be Levied	0.00	2,149.23	3,927.23	21,790.73	(21,790.73)

BCWMC Construction Account
Fiscal Year: February 1, 2015 through January 31, 2016 **(UNAUDITED)**
August 2015 Financial Report

TABLE C - TAX LEVY REVENUES

	County Levy	**Abatements / Adjustments**	**Adjusted Levy**	**Current Received**	**Year to Date Received**	**Inception to Date Received**	**Balance to be Collected**	BCWMO Levy
2015 Tax Levy	1,000,000.00		1,000,000.00		504,915.74	504,915.74	495,084.26	1,000,000.00
2014 Tax Levy	895,000.00	(2,576.10)	892,423.90		3,093.98	887,631.40	4,792.50	895,000.00
2013 Tax Levy	986,000.00	(13,785.61)	972,214.39		902.83	971,651.81	562.58	986,000.00
2012 Tax Levy	762,010.00	(5,103.74)	756,906.26		52.64	756,675.98	230.28	762,010.00
2011 Tax Levy	863,268.83	(8,962.04)	854,306.79		(95.54)	854,211.25	95.54	862,400.00
2010 Tax Levy	935,298.91	(9,027.10)	926,271.81		200.99	926,472.80	(200.99)	935,000.00
				0.00			**500,564.17**	

OTHER PROJECTS:

	Approved Budget	**Current Expenses / (Revenue)**	**2015 YTD Expenses / (Revenue)**	**INCEPTION To Date Expenses / (Revenue)**	**Remaining Budget**
TMDL Studies					
TMDL Studies	135,000.00	0.00	0.00	107,765.15	27,234.85
Sweeney TMDL	119,000.00	0.00	0.00	212,222.86	
Less: MPCA Grant Revenue		0.00	0.00	(163,870.64)	70,647.78
TOTAL TMDL Studies	254,000.00	0.00	0.00	156,117.37	97,882.63
Annual Flood Control Projects:					
Flood Control Emergency Maintenance	500,000.00	0.00	0.00	0.00	500,000.00
Flood Control Long-Term Maintenance	623,373.00	12,822.70	16,506.10	59,701.58	563,671.42
Sweeney Lake Outlet (2012 FC-1)	250,000.00	0.00	0.00	179,742.18	70,257.82
Annual Water Quality					
Channel Maintenance Fund	300,000.00	0.00	0.00	94,465.60	205,534.40
Total Other Projects	1,927,373.00	12,822.70	16,506.10	490,026.73	1,437,346.27

Cash Balance 07/08/15		**1,206,762.32**
Add:		
Transfer from GF		0.00
MPCA Grant-Sweeney Lk		0.00
Less:		
Current (Expenses)/Revenue		(12,822.70)
Ending Cash Balance	**08/12/15**	**1,193,939.62**
Additional Capital Needed		(243,407)

Bassett Creek Construction Project Details

8/12/2015

CIP Projects Levied

	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)-Crystal (GV)	2012 Wirth Lake Outlet Modification (WTH-4)	2012 Main Stem Irving Ave to GV Road (Cedar Lk Rd) (2012CR)	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)
Original Budget	**6,295,400**	**965,200**	**580,200**	**180,000**	**856,000**	**196,000**	**990,000**	**612,000**	**250,000**	**163,000**	**1,503,000**
Added to Budget	(3,661)	(26,160.83)		22,500							
Expenditures:											
Feb 2004 - Jan 2005	637.50					637.50					
Feb 2005 - Jan 2006											
Feb 2006 - Jan 2007											
Feb 2007 - Jan 2008											
Feb 2008 - Jan 2009	20,954.25	20,954.25									
Feb 2009 - Jan 2010	9,319.95	9,319.95									
Feb 2010 - Jan 2011	70,922.97	30,887.00	34,803.97	2,910.00	1,720.00		602.00				
Feb 2011 - Jan 2012	977,285.99	825,014.32	9,109.50	22,319.34	71,647.97	1,476.00	8,086.37	39,632.49			
Feb 2012 - Jan 2013	153,174.66	47,378.09	9,157.98	4,912.54	20,424.16	2,964.05	61,940.82	4,572.97	152.80	1,671.25	
Feb 2013 - Jan 2014	819,686.41	135.00	527,128.55	171,341.06	42,969.42	6,511.95	31,006.30	19,079.54	6,477.29	13,678.55	1,358.75
Feb 2014 - Jan 2015	99,265.75			31.00	41,692.40			26,309.90	12,968.00	8,443.85	9,820.60
Feb 2015-Jan 2016	125,380.16	5,350.56			25,327.00		25,866.35			432.00	68,404.25
Total Expenditures:	**2,276,627.64**	**939,039.17**	**580,200.00**	**201,513.94**	**203,780.95**	**11,589.50**	**127,501.84**	**89,594.90**	**19,598.09**	**24,225.65**	**79,583.60**
Project Balance	**4,015,111.53**			**986.06**	**652,219.05**	**184,410.50**	**862,498.16**	**522,405.10**	**230,401.91**	**138,774.35**	**1,423,416.40**

	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)-Crystal (GV)	2012 Wirth Lake Outlet Modification (WTH-4)	2012 Main Stem Irving Ave to GV Road (Cedar Lk Rd) (2012CR)	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)
Project Totals By Vendor											
Barr Engineering	383,334.60	47,863.10	48,811.20	30,565.19	101,347.38	6,338.95	28,670.54	75,251.50	13,089.74	15,712.00	15,685.00
Kennedy & Graven	15,928.25	2,120.10	1,052.50	2,225.15	1,862.25	1,200.55	2,471.95	993.40	1,038.35	1,058.65	1,905.35
City of Golden Valley	753,797.11		526,318.80	165,485.06							61,993.25
City of Minneapolis	134,652.61				84,759.61		49,893.00				
City of Plymouth	892,360.77	866,494.42					25,866.35				
City of Crystal											
Blue Water Science	3,900.00									3,900.00	
S E H											
Misc											
2.5% Admin Transfer	92,654.30	22,561.55	4,017.50	3,238.54	15,811.71	4,050.00	20,600.00	13,350.00	5,470.00	3,555.00	
Transfer to General Fun											
Total Expenditures	2,276,627.64	939,039.17	580,200.00	201,513.94	203,780.95	11,589.50	127,501.84	89,594.90	19,598.09	24,225.65	79,583.60

	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)-Crystal (GV)	2012 Wirth Lake Outlet Modification (WTH-4)	2012 Main Stem Irving Ave to GV Road (Cedar Lk Rd) (2012CR)	2013 Lakeview Park Pond (ML-8)	2013 Four Seasons Mall Area Water Quality Project (NL-2)	2014 Schaper Pond Enhancement Feasibility / Project (SL-1) (SL-3)	2014 Briarwood / Dawnview Water Quality Improve Proj (BC-7)	2014 Twin Lake In-Lake Alum Treatment Project (TW-2)	2015 Main Stem - 10th Ave to Duluth (CR2015)
Levy/Grant Details											
2009/2010 Levy	902,462	902,462									
2010/2011 Levy	160,700		160,700								
2011/2012 Levy	762,010			83,111	678,899						
2012/2013 Levy	986,000					162,000	824,000				
2013/2014 Levy	895,000							534,000	218,800	142,200	
2014/2015 Levy	1,000,000										1,000,000
2015-2016 Levy											
Construction Fund Balance	1,384,228	62,738	419,500	21,889	177,101	34,000	166,000				503,000
BWSR Grant- BCWMO	504,750	212,250		75,000	217,500						
Total Levy/Grants	6,595,150	1,177,450	580,200	180,000	1,073,500	196,000	990,000	534,000	218,800	142,200	1,503,000

Bassett Creek Construction Project Details

Proposed & Future CIP Projects (to be Levied)

	Total Proposed & Future CIP Projects (to be Levied)	2016 Bryn Mawr Meadows	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	
Original Budget					
Added to Budget					MPCA Grant
					From GF
Expenditures:					
Feb 2004 - Jan 2005					
Feb 2005 - Jan 2006					
Feb 2006 - Jan 2007					
Feb 2007 - Jan 2008					
Feb 2008 - Jan 2009					
Feb 2009 - Jan 2010					
Feb 2010 - Jan 2011					
Feb 2011 - Jan 2012					
Feb 2012 - Jan 2013					
Feb 2013 - Jan 2014					
Feb 2014 - Jan 2015	17,863.50	5,282.80	7,461.95	5,118.75	
Feb 2015-Jan 2016	3,927.23		1,269.68	2,657.55	
Total Expenditures:	21,790.73	5,282.80	8,731.63	7,776.30	
Project Balance	(21,790.73)	(5,282.80)	(8,731.63)	(7,776.30)	

Other Projects

	Total Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	2012 Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
Original Budget	1,647,373.00	105,000.00	119,000.00	500,000.00	748,373.00		175,000.00	7,942,773.00
Added to Budget	163,870.64		163,870.64		(250,000.00)	250,000.00		(3,660.83)
From GF	280,000.00	30,000.00			125,000.00		125,000.00	163,870.64
								280,000.00
Feb 2004 - Jan 2005								637.50
Feb 2005 - Jan 2006	6,949.19				3,954.44		2,994.75	6,949.19
Feb 2006 - Jan 2007	10,249.09	637.20			9,611.89			10,249.09
Feb 2007 - Jan 2008	113,141.44	23,486.95	89,654.49					113,141.44
Feb 2008 - Jan 2009	117,455.33	31,590.12	47,041.86				38,823.35	138,409.58
Feb 2009 - Jan 2010	76,184.64	31,868.63	44,316.01					85,504.59
Feb 2010 - Jan 2011	45,375.25	15,005.25	25,920.00			4,450.00		116,298.22
Feb 2011 - Jan 2012	12,656.65	168.00	5,290.50			7,198.15		989,942.64
Feb 2012 - Jan 2013	21,094.00	3,194.00					17,900.00	174,268.66
Feb 2013 - Jan 2014	174,826.03	1,815.00			4,917.00	168,094.03		994,512.44
Feb 2014 - Jan 2015	59,459.65				24,712.15		34,747.50	176,588.90
Feb 2015-Jan 2016	16,506.10				16,506.10			145,813.49
Total Expenditures:	653,897.37	107,765.15	212,222.86		59,701.58	179,742.18	94,465.60	2,952,315.74
Project Balance	1,437,346.27	27,234.85	70,647.78	500,000.00	563,671.42	70,257.82	205,534.40	5,430,667.07

Bassett Creek Construction Project Details

	Total Proposed & Future CIP Projects (to be Levied)	2016 Bryn Mawr Meadows	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	Total Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	2012 Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
Project Totals By Vendor												
Barr Engineering	21,283.28	5,282.80	8,462.98	7,537.50	256,461.69	104,888.70	94,948.17		38,614.92	18,009.90		661,079.57
Kennedy & Graven	507.45		268.65	238.80	5,977.19	1,164.30	2,902.59		94.40	1,461.15	354.75	22,412.89
City of Golden Valley					215,558.63					160,271.13	55,287.50	969,355.74
City of Minneapolis												134,652.61
City of Plymouth					38,823.35						38,823.35	931,184.12
City of Crystal												
Blue Water Science												3,900.00
S E H					105,590.36		101,598.10		3,992.26			105,590.36
Misc					14,486.15	1,712.15	12,774.00					14,486.15
2.5% Admin Transfer												92,654.30
Transfer to General Fun					17,000.00				17,000.00			17,000.00
Total Expenditures	21,790.73	5,282.80	8,731.63	7,776.30	653,897.37	107,765.15	212,222.86		59,701.58	179,742.18	94,465.60	2,952,315.74

	Total Proposed & Future CIP Projects (to be Levied)	2016 Bryn Mawr Meadows	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)		Total Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	2012 Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
Levy/Grant Details					MPCA Grant	163,870.64		163,870.64					
2009/2010 Levy													902,462
2010/2011 Levy					2010/2011	60,000.00	10,000			25,000		25,000	220,700
2011/2012 Levy					2011/2012	60,000.00	10,000			25,000		25,000	822,010
2012/2013 Levy					2012/2013	60,000.00	10,000			25,000		25,000	1,046,000
2013/2014 Levy					2013/2014	50,000.00				25,000		25,000	945,000
2014/2015 Levy													
2015-2016 Levy													
Construction Fund Balance					2014/2015	50,000.00				25,000		25,000	1,434,228
BWSR Grant- BCWMO													504,750
Total Levy/Grants						443,870.64	30,000	163,870.64		125,000		125,000	5,875,150

BWSR Grants Received
FY11 Competetive Grant
MPCA Grant-CWP (Total 75,000.00

Item 4D.
BCWMC 8-20-15

2016 Operating Budget

Bassett Creek Watershed Management Commission

Item	2013 Budget	2013 Actual	2014 Budget	2014 Actual	2015 Budget	2016 Budget	
ENGINEERING & MONITORING							
Technical Services	120,000	133,347	120,000	109,391	120,000	120,000	
Development/Project Reviews (funded by fees)	60,000	62,902	65,000	52,643	65,000	65,000	(A)
Non-fee and Preliminary Reviews					15,000	15,000	(B)
Commission and TAC Meetings	14,250	17,390	16,000	15,984	14,500	13,000	(C)
Surveys and Studies	10,000	11,380	20,000	7,446	20,000	25,000	(D)
Water Quality / Monitoring	40,000	39,913	45,000	74,090	63,000	76,000	(E)
Shoreland Habitat Monitoring						6,000	(F)
Water Quantity	11,000	10,250	11,000	12,100	11,500	11,500	
Assistance on Erosion Control Inspections	7,000	4,790	1,000	225	1,000	1,000	(G)
Annual Flood Control Project Inspections	15,000	3,024	20,000	17,031	10,000	10,000	(H)
Municipal Plan Review	2,000	0	2,000	764	2,000	2,000	(I)
Watershed Outlet Monitoring Program (WOMP)	17,000	12,757	17,000	13,917	17,000	17,000	(J)
Subtotal Engineering & Monitoring	**$296,250**	**$295,754**	**$317,000**	**$303,591**	**$339,000**	**$361,500**	
PLANNING							
Watershed-wide XP-SWMM Model	0	488	0	0	-	-	
Watershed-wide XP-SWMM Phase II						-	(K)
Watershed-wide P8 Water Quality Model	0	9,967	0	0	-	-	
Next Generation Plan Development	40,000	43,394	40,000	55,198	30,000	-	
Subtotal Planning	**$40,000**	**$53,849**	**$40,000**	**$55,198**	**$30,000**	**$0**	
ADMINISTRATION							
Administrator	50,000	48,310	60,000	53,917	62,000	62,000	
Legal	18,500	17,570	18,500	22,269	18,500	18,500	
Financial Management	3,045	3,119	3,045	3,045	3,200	3,200	
Audit, Insurance & Bond	15,225	13,000	15,500	12,476	15,500	15,500	
Digitize Historic Paper Files/Data Management					2,500	5,000	(L)
Meeting Catering Expenses	2,750	1,821	3,000	1,836	2,500	2,200	
Admin Services (Rec Sec+Printing+Postage)	40,000	31,157	35,800	22,763	32,000	25,000	(M)
Subtotal Administration	**$129,520**	**$114,977**	**$135,845**	**$116,306**	**$136,200**	**$131,400**	
OUTREACH & EDUCATION							
Publications / Annual Report	2,000	1,948	2,000	2,272	4,000	2,500	(N)
Website	2,500	201	2,000	0	12,000	3,500	(O)
Demonstration/Education Grants	0	0	0	0	-	-	
Watershed Education Partnerships	15,000	11,200	15,500	11,100	15,500	15,500	(P)
Education and Public Outreach	14,775	12,788	15,000	20,292	17,000	22,500	(Q)
Public Communications	3,000	1,867	3,000	1,198	3,000	2,500	
Subtotal Outreach & Education	**$37,275**	**$28,004**	**$37,500**	**$34,862**	**$51,500**	**$46,500**	
MAINTENANCE FUNDS							
Erosion/Sediment (Channel Maintenance)	25,000	25,000	25,000	25,000	25,000	25,000	(R)
Long-Term Maint. (Flood Control Project)	25,000	25,000	25,000	25,000	25,000	25,000	(S)
Subtotal Maintenance Funds	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$50,000**	
TMDL WORK							
TMDL Implementation Reporting	10,000	-	20,000	20,000	20,000	20,000	(T)
Subtotal TMDL Work	**$10,000**	**$0**	**$20,000**	**$20,000**	**$20,000**	**$20,000**	
GRAND TOTAL	**$563,045**	**$542,584**	**$600,345**	**$579,957**	**$626,700**	**$609,400**	

NOTES

(A) Majority of costs are covered by review fees

(B) New line item in 2015 used to cover reviews for which either we do not receive an application fee or it's too early in the process for us to have received an application fee (such as the Blue Line LRT, SWLRT, MnDOT projects, etc.). This allows the Commission to better track how well the fees they receive for reviews match up with the costs of those reviews.

(C) Engineer attendance at BCWMC meetings and TAC meetings. 2010- 2013 estimates based on 18 meetings. 2014 estimate based on 30 meetings. 2015 estimate based on 24 meetings. 2016 estimated based on 18 meetings (12 BCWMC and 5 TAC)

(D) For Commission-directed surveys and studies. Past work has included watershed tours, Medicine Lake outlet work, etc. $5,000 of this item will be used to develop an aquatic plant management task force to study and develop policies for future Commission involvement in aquatic plant management.

(E) Detailed monitoring of Medicine Lake, Crane Lake and Northwood Lake ($66,000), and for general water quality requests ($10,000); lake monitoring includs monitoring two locations on Medicine Lake, and one location each at Crane Lake and Northwood Lake on 12 occsasions (Medicine Lake) or 6 occasions (Crane Lake and Northwood Lake) for selected parameters (total phosphorus, soluble reactive phosphorus, total nitrogen, pH and chlorophyll a), sample analysis, phytoplankton and zooplankton collection and analysis, an aquatic plan survey (two occasions), and preparation of final report. Estimate includes lowered costs due to cooperation with TRPD and City of MTKA. See Budget Detail Document for further details.

(F) New line item in 2016 for shoreland habitat monitoring program (after consideration and program development through Commission and TAC input). Program (if so ordered) could monitor Northwood Lake (to dovetail with water quality monitoring) and may include components such as evaluating habitat quality in submergent, emergent, and upland zones, identifying shoreline erosion, etc. See Budget Detail Document for further details.

(G) After recommendations from the TAC and Budget Committee,the Commission ended the erosion and sediment control inspection program (Watershed Inspection) in 2014 due to duplication with activities required by the member cities. Some budget remains here to provide, as requested by the Commission, some oversight of city inspection activities (reports of inspections are available from each city), and for inspecting projects such as County highway and MnDOT projects.

(H) 2016 budget includes usual inspection (as it did in 2015). 2014 budget Included inspection of double box culvert (performed once every 5 years), and assumed City of Minneapolis will assist with access. (2013 budget included sediment survey of Bassett Creek Park Pond.)

(I) 2016 assumed budget to address municipal and adjacent WMO plan amendments;reviews of updated/revised local controls and updated/revised municipal plans not likely in 2016, most likely in 2017.

(J) BCWMC is reimbursed $5,000 from Met Council. $17,000 includes $11,000 for Wenck or similar contractor + $6,000 for Barr's data management and analyses

(K) Work on the XP-SWMM phase II project will being in 2015 with $103,000 coming fro the Long Term Maintenance Funds (as directed by the Commission at their April 16, 205 meeting). For the remainder of the work on this project (happening in 2016), the Budget Committee recommends the use of $158,000 from Long Term Maintenancae Funds. Any State or Federal funding secured for this pojrect will offset the withdrawals from the Long Term Maintenance Fund.

(L) Place holder for records and data management project to begin in 2015.

(M) Recording Secretary and printing/postage based on 2014 actual expenses.

(N) Lowered from 2015 because press release writing is being charged within recording secretary or administrator time.

(O) Website maintenance and hosting fees.

(P) Includes CAMP ($5,000), River Watch ($2,000), Metro Watershed Partners ($3,500), Metro Blooms ($3,000), Freshwater Society ($2,000) [Freshwater Society is a new addition and replaces Blue Thumb which is merging with Metro Blooms.]

(Q) Includes funding for West Metro Water Alliance at $13,000 plus funding for other educational supplies and materials and up to $4,000 for road signs at creek crossings.

(R) Will be transferred to Channel Maintenance Fund

(S) Will be transferred to Long-Term Maintenance Fund

(T) Task includes reporting on TMDL implementation and updating P8 model to include new BMPs.

2015 Financial Information			
Audited Fund Balance as of January 31, 2015		$	388,206
Expected income from assessments in 2015	+	$	490,345
Expected interest income in 2015	+	$	-
Expected income from project review fees	+	$	60,000
Expected income from CIP Administrative Funds	+	$	25,000
Expected transfer from Long-term Maint Fund for Flood Control Project	+	$	10,000
Expected income from WOMP reimbursement	+	$	5,000
Estimated funds available for fiscal year 2015		$	978,551
Estimated expenitures for fiscal year 2015	-	$	626,700
Estimated fund balance as of January 31, 2016		$	351,851

2016 Budget Details			
Expected Income			
Assessments to cities	+	$	490,345
Use of fund balance	+	$	27,000
CIP Administrative Funds (1.4% of $1.222M levy)	+	$	17,055
Project review fees	+	$	60,000
Transfer from Long-term Maint Fund for Flood Control Proj Inspections	+	$	10,000
WOMP reimbursement	+	$	5,000
Interest income in 2016	+	$	-
		$	609,400
Expected Expenses			
Total operating budget		$	609,400
Fund Balance Details			
Beginning Fund Balance (Jan 31, 2016)		$	351,851
Use of Fund Balance (see income above)	-	$	27,000
Remaining Fund Balance (Jan 31, 2017)		$	324,851

Bassett Creek Watershed Management Commission
2016 Estimated Assessments

Community	For Taxes Payable in 2015	2015 Percent	Current Area Watershed	Percent	Average	2012 Assessment	2013 Assessment	2014 Assessment	2015 Assessment	2016 Assessment
	Net Tax Capacity	of Valuatio	in Acres	of Area	Percent	$461,045	$515,016	$490,345	$490,345	$490,345
Crystal	$7,008,868	5.42	1,264	5.09	5.26	$24,941	$27,424	$25,504	$25,868	$25,771
Golden Valley	$32,888,059	25.45	6,615	26.63	26.04	$115,080	$129,126	$123,033	$121,964	$127,675
Medicine Lake	$862,204	0.67	199	0.80	0.73	$3,484	$3,909	$3,479	$3,543	$3,600
Minneapolis	$8,543,009	6.61	1,690	6.80	6.71	$32,661	$35,236	$32,953	$33,235	$32,885
Minnetonka	$8,750,862	6.77	1,108	4.46	5.62	$24,920	$28,464	$27,402	$28,121	$27,536
New Hope	$6,995,669	5.41	1,252	5.04	5.23	$25,533	$27,648	$26,479	$25,681	$25,627
Plymouth	$56,041,783	43.36	11,618	46.77	45.07	$209,101	$235,310	$224,959	$225,159	$220,974
Robbinsdale	$2,339,439	1.81	345	1.39	1.60	$8,022	$8,479	$7,743	$7,587	$7,843
St. Louis Park	$5,804,289	4.49	752	3.03	3.76	$17,303	$19,420	$18,792	$19,184	$18,433
TOTAL	**$129,234,182**	**100.00**	**24,843**	**100.00**	**100.00**	**$461,045**	**$515,045**	**$490,345**	**$490,345**	**$490,345**

Item 4F.
BCWMC 8-20-15

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engineering and environmental consultants

BARR

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4F – Golden Villas Apartments Project – Golden Valley
BCWMC August 20, 2015 Meeting Agenda
Date: August 12, 2015
Project: 23270051 2015 2050

4F Golden Villas Apartments Project – Golden Valley

Summary:

Proposed Work: Building and parking lot demolition and apartment building construction

Basis for Commission Review: Use of underground storage for stormwater treatment

Impervious Surface Area: Increase 0.13 acres

Recommendation: Conditional approval

General Background & Comments

The proposed project includes removal of two commercial buildings and parking lots; construction of a new apartment building, parking lot, driveways, and sidewalks; and installation of an underground stormwater treatment system. The project is in the Bassett Creek Main Stem subwatershed at 9130 and 9220 State Highway 55 (near the intersection of State Highway 55 and Interstate 169). The project site is 2.6 acres. The proposed project results in an increase of 0.13 acres of impervious surface and a total proposed impervious area of 2.15 acres. The applicant has submitted a separate application for demolition activities on the site that was reviewed administratively by BCWMC staff.

Floodplain

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

Wetlands

The project does not involve work in wetlands. The City of Golden Valley is the LGU for administering the Minnesota Wetland Conservation Act of 1991.

Stormwater Management

Under existing conditions runoff from the site is routed to the north ditch of State Highway 55. Under proposed conditions the majority of the site will be routed to an underground stormwater management system in the southwest corner of the site which will discharge to the north ditch of State Highway 55. Small pervious areas around the perimeter of the site will follow existing drainage patterns with the untreated runoff routed to the north ditch of State Highway 55.

Water Quality Management

There is currently no water quality treatment provided on the site. Because the project is a redevelopment, the parcel size is less than five acres, and the added impervious surface is greater than 2,000 square feet, the project must meet the BCWMC's nondegradation water quality treatment requirements. An underground StormTech chamber system with infiltration into the underlying sandy soils is proposed to provide water quality treatment on site for the redevelopment. A StormTech isolator row will be used to provide pretreatment and access for inspection and maintenance.

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 control requirements. Proposed temporary erosion control features include silt fence and two rock construction entrances.

Recommendation

Conditional approval based on the following comments:

1. Details for the erosion control devices (silt fence, construction entrance, and inlet protection) must be shown on the plans.
2. Inlet protection must be shown on the proposed catch basins and any downgradient catch basins on Golden Valley Road.
3. Silt fence must be installed along the northern portion of the site between the entrance driveways.
4. The following erosion control notes should be added to the plans:
    - Vehicle tracking of sediment from the construction site (or onto streets within the site) must be minimized by installing rock construction entrances (with a berm with a minimum height of 2 feet above the adjacent roadway and with maximum side slopes of 4:1), rumble strips (mud mats), wood chips, wash racks, or equivalent systems at each site access.
    - Soils tracked from the site by motor vehicles must be cleaned daily (or more frequently, as necessary) from paved roadway surfaces throughout the duration of construction.
    - Erosion control devices must be deployed and maintained for the duration of site construction.
    - All exposed soil areas must be stabilized as soon as possible, but in no case later than 14 days after the construction activity has temporarily or permanently ceased.
    - Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.

- A temporary vegetative cover consisting of a suitable, fast-growing, dense grass-seed mix spread at 1.5 times the usual rate per acre must be specified. 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.
- A permanent vegetation cover consisting of sod, a suitable grass-seed mixture, or a combination thereof must be specified. Seeded areas shall be either mulched or covered by fibrous blankets to protect seeds and limit erosion.

5. Conflicting information about the underground treatment system has been provided. The runoff storage computations and HydroCAD model indicate that a 4-foot diameter pipe will be embedded in a rock trench with 3 feet of rock below the outlet. However, a design for a StormTech system by ADS was also provided. Applicant must clarify which system is to be installed and provide appropriate runoff volume computations.
6. The underground infiltration system must be designed to have a drawdown time of 48 hours or less. Based on the Minnesota Stormwater Manual, the design infiltration rate for SP soils should be 0.8 inches per hour. This would result in a maximum ponding depth of 38.4 inches. Applicant must provide drawdown computations for the system and adjust the design as necessary.
7. Review of soil boring logs indicates trace fragments of bituminous pavement in the fill soils. Applicant should clarify if the fill soils will be removed at the location of the StormTech system and confirm the soils are suitable for infiltration.
8. Details for the inlet and outlet structures to the StormTech system must be shown on the plans.
9. The invert elevation of the outlet into the north State Highway 55 ditch appears to be approximately 0.8 feet above the invert of nearby inlets. Applicant should adjust the outlet elevation to match existing grade to minimize erosion potential.
10. The velocity at the outlet from the StormTech system to the north State Highway 55 ditch exceeds 21 feet per second when the pipe is flowing full. A drop structure should be added or other appropriate energy dissipation provided to reduce the outlet velocity in accordance with the BCWMC requirements.
11. A maintenance agreement for the StormTech system must be developed between the owner and the City of Golden Valley.
12. Revised drawings must be provided to the BCWMC Engineer for final review and approval.

Imagery Source: Aerial Express (2009)

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

Feet

0 500 1,000 1,500 2,000

LOCATION MAP
APPLICATION 2015-20B
Golden Villas Apartments Project
Golden Valley, MN

StormTech®
Detention • Retention • Water Quality

MC-3500 Chamber

StormTech MC-3500 Chamber

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots thus maximizing land usage for commercial and municipal applications.

StormTech MC-3500 Chamber (not to scale)

Nominal Chamber Specifications

Size (L x W x H)	90" (2286 mm) x 77" (1956 mm) x 45" (1143 mm)
Chamber Storage	109.9 ft³ (3.11 m³)
Min. Installed Storage*	178.9 ft³ (5.06 m³)
Weight	134 lbs (60.8 kg)

* This assumes a minimum of 12" (305 mm) of stone above, 9" (229 mm) of stone below chambers, 9" (229 mm) of row spacing, and 40% stone porosity.

StormTech MC-3500 End Cap (not to scale)

Nominal End Cap Specifications

Size (L x W x H)	25.7" (653 mm) x 75" (1905 mm) x 45" (1143 mm)
End Cap Storage	14.9 ft³ (0.42 m³)
Min. Installed Storage*	46.0 ft³ (1.30 m³)
Weight	49 lbs (22.2 kg)

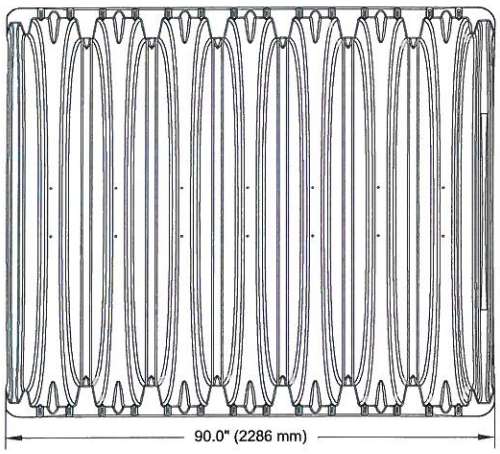
* This assumes a minimum of 12" (305mm) of stone above, 9" (229 mm) of stone below, 9" (229 mm) row spacing, 6" (152 mm) of stone perimeter, and 40% stone porosity.

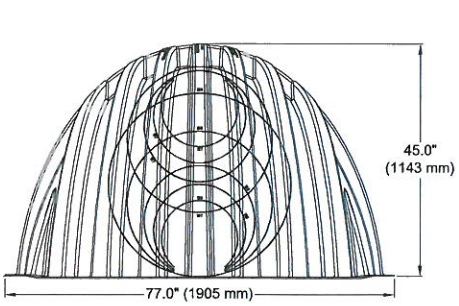
Shipping

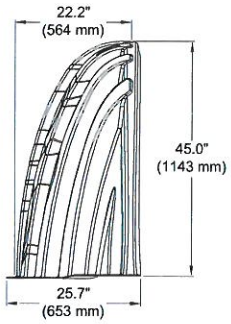
15 chambers/pallet

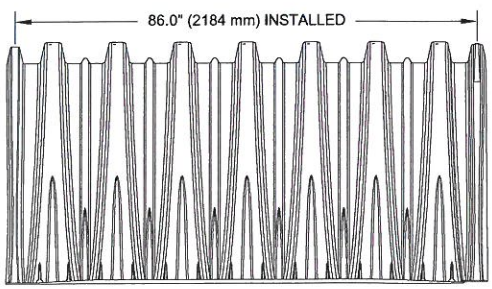
7 end caps/pallet

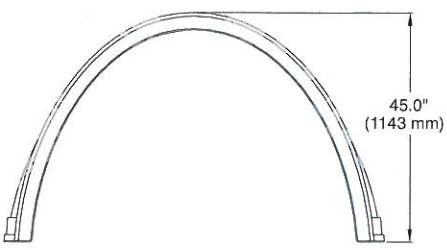
7 pallets/truck











Storage Volume Per Chamber/End Cap ft³ (m³)

	Bare Unit Storage	Chamber/End Cap and Stone Volume — Stone Foundation Depth in. (mm)			
	ft³ (m³)	9 (229)	12 (305)	15 (381)	18 (457)
MC-3500 Chamber	109.9 (3.11)	178.9 (5.06)	184.0 (5.21)	189.2 (5.36)	194.3 (5.5)
MC-3500 End Cap	14.9 (0.42)	46.0 (1.33)	47.7 (1.35)	49.4 (1.40)	51.1 (1.45)

NOTE: Assumes 40% porosity for the stone plus the chamber/end cap volume. End Cap volume assumes 6" (152mm) stone perimeter.

Volume of Excavation Per Chamber/End Cap in yd³ (m³)

	Stone Foundation Depth in. (mm)			
	9 (229)	12 (305)	15 (381)	18 (457)
MC-3500	12.4 (9.5)	12.8 (9.8)	13.3 (10.2)	13.8 (10.5)
End Cap	4.1 (3.1)	4.2 (3.2)	4.4 (3.3)	4.5 (3.5)

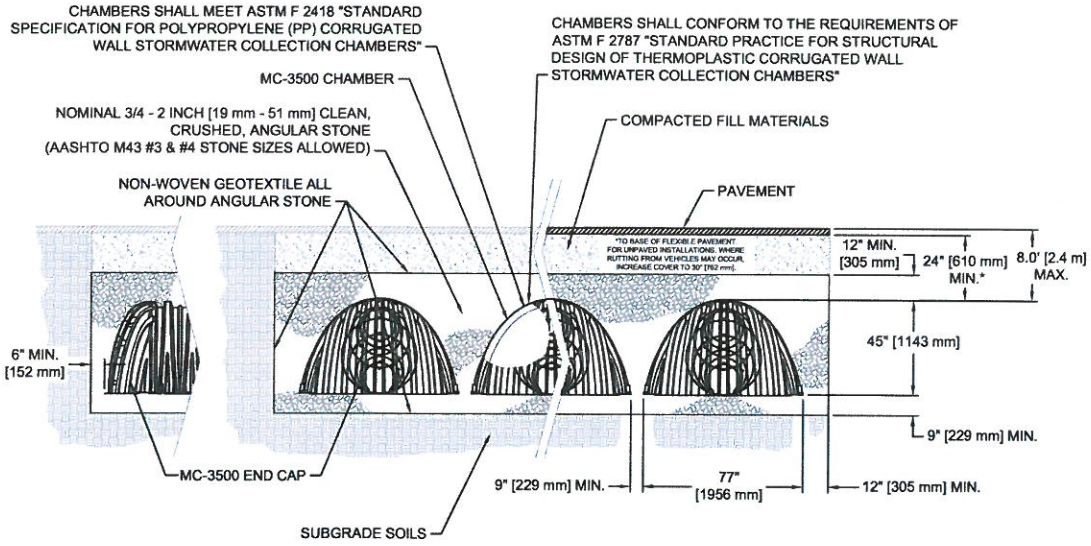
NOTE: Assumes 9" (229 mm) of separation between chamber rows, 6" (152 mm) of perimeter in front of end caps, and 24" (610 mm) of cover. The volume of excavation will vary as depth of cover increases.

Amount of Stone Per Chamber

ENGLISH tons (yd³)	Stone Foundation Depth			
	9 in.	12 in.	15 in.	18 in.
MC-3500	9.1 (6.4)	9.7 (6.9)	10.4 (7.3)	11.1 (7.8)
End Cap	4.1 (2.9)	4.3 (3.0)	4.5 (3.2)	4.7 (3.3)
METRIC kg (m³)	229 mm	305 mm	381 mm	457 mm
MC-3500	8220 (4.9)	8831 (5.3)	9443 (5.6)	10054 (6.0)
End Cap	3699 (2.2)	3900 (2.3)	4100 (2.4)	4301 (2.6)

NOTE: Assumes 12" (305 mm) of stone above, and 9" (229 mm) row spacing, and 6" (152mm) of perimeter stone in front of end caps.

General Cross Section



NOTES:

1. THIS CROSS SECTION PROVIDES GENERAL INFORMATION FOR THE MC-3500 CHAMBER. STORMTECH MC-3500 CHAMBERS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE MC-3500 DESIGN MANUAL AND MC-3500 CONSTRUCTION GUIDE.
2. PROPERLY INSTALLED MC-3500 CHAMBERS PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR EARTH AND LIVE LOADS WITH CONSIDERATION FOR IMPACT AND MULTIPLE PRESENCES.
3. PERIMETER STONE MUST ALWAYS BE BROUGHT UP EVENLY WITH BACKFILL OF BED. PERIMETER STONE MUST EXTEND HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH STRAIGHT OR SLOPED SIDEWALLS.

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Item 6A.
BCWMC 8-20-15

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

A RESOLUTION OF APPRECIATION FOR SERVICES OF CHARLIE LEFEVERE
TO THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

WHEREAS, the Bassett Creek Watershed Management Commission (the "Commission") is a joint powers organization formed by the cities of Crystal, Golden Valley, Medicine Lake, Minneapolis, Minnetonka, New Hope, Plymouth, Robbinsdale and St. Louis Park; and

WHEREAS, the Commission serves as the duly constituted watershed management organization for the Bassett Creek watershed pursuant to Minnesota Statutes, Sections 103B.201-103B.253 (the "Metropolitan Area Surface Water Management Act"); and

WHEREAS, under said Act, and the Commission's joint powers agreement, the Commission is charged with the responsibility for the management of storm water to protect persons and property from flooding and to protect and preserve the water quality of lakes, streams and wetlands of the Bassett Creek Watershed and downstream receiving waters; and

WHEREAS, Charlie LeFevere served as legal counsel to the Commission from 1997 to 2015; and

WHEREAS, Charlie provided sound counsel to the Commission during its 2004 and 2015 Watershed Management Plan development and adoption processes, the development of the Commission's Capital Improvement Program, amendments to the Joint Powers Agreement, initialization of maintenance funds and fund policies, the creation of the Closed Account policy, development of the Commission's policy manual, implementation of the Commission's review program, development of the Commission's TMDLs, Flood Control Project work, and all other Commission business; and

WHEREAS, Charlie provided thoughtful and reasoned legal opinions to the Commission during and between Commission meetings, kept the Commission informed of legal requirements and updates, and always cooperated in a timely manner with staff, Commissioners, member cities, and other agencies and organizations; and

WHEREAS, Charlie provided sage advice and good counsel during Commission negotiations, always conducted business in a friendly manner, and regularly offered good-natured humor during Commission meetings.

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of the Bassett Creek Watershed Management Commission, its member cities, and the public hereby express its sincere and grateful appreciation to Charlie LeFevere for his distinguished service to the Commission.

Adopted by the Board of Commissioners of the Bassett Creek Watershed Management Commission this 20th day of August, 2015.

_____
Chair

Item 6A.
BCWMC 8-20-15

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

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TO THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

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WHEREAS, Charlie LeFevere served as legal counsel to the Commission from 1997 to 2015; and

WHEREAS, Charlie provided sound counsel to the Commission during its 2004 and 2015 Watershed Management Plan development and adoption processes, the development of the Commission's Capital Improvement Program, amendments to the Joint Powers Agreement, initialization of maintenance funds and fund policies, the creation of the Closed Account policy, development of the Commission's policy manual, implementation of the Commission's review program, development of the Commission's TMDLs, Flood Control Project work, and all other Commission business; and

WHEREAS, Charlie provided thoughtful and reasoned legal opinions to the Commission during and between Commission meetings, kept the Commission informed of legal requirements and updates, and always cooperated in a timely manner with staff, Commissioners, member cities, and other agencies and organizations; and

WHEREAS, Charlie provided sage advice and good counsel during Commission negotiations, always conducted business in a friendly manner, and regularly offered good-natured humor during Commission meetings.

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of the Bassett Creek Watershed Management Commission, its member cities, and the public hereby express its sincere and grateful appreciation to Charlie LeFevere for his distinguished service to the Commission.

Adopted by the Board of Commissioners of the Bassett Creek Watershed Management Commission this 20th day of August, 2015.

_____
Chair

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION

RESOLUTION NO. _____

A RESOLUTION ORDERING 2016 IMPROVEMENTS,
DESIGNATING MEMBERS
RESPONSIBLE FOR CONSTRUCTION, MAKING FINDINGS
PURSUANT TO MINNESOTA STATUTES, SECTION 103B.251,
CERTIFYING COSTS TO HENNEPIN COUNTY, AND APPROVING AGREEMENTS
FOR CONSTRUCTION OF IMPROVEMENTS

WHEREAS, on September 16, 2004, the Commission adopted the *Bassett Creek Watershed Management Commission, Water Management Plan, July 2004* (the "Plan"); and

WHEREAS, the Plan includes a Capital Improvement Program ("CIP") listing capital projects in Table 12-2 of the Plan; and

WHEREAS, the CIP, as amended, includes the following capital projects for the year 2016:

(a) Northwood Lake Improvement Project (NL-1); and

(b) Honeywell Pond Expansion Project (BC-4)

(hereinafter collectively referred to as the "2016 Projects"); and

WHEREAS, the Plan specifies a county tax levy under Minn. Stat. § 103B.251 as the source of partial funding for the 2016 Projects; and

WHEREAS, on August 20, 2015, following published and mailed notice in accordance with the Commission's Joint Power Agreement and Minn. Stat. § 103B.251, the Commission conducted a public hearing on the 2016 Projects.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Bassett Creek Watershed Management Commission as follows:

1. The 2016 Projects will be conducive to the public health and promote the general welfare and are in compliance with Minnesota Statutes, sections 103B.205 to 103B.255 (the "Act") and with the Plan as adopted and amended in accordance with the Act. The 2016 Projects are hereby ordered.

2. The estimated cost of the Northwood Lake Improvement Project is One Million Four Hundred Thirty Three Thousand Eight Hundred Dollars ($1,422,140). Of this amount, Three Hundred Thousand Dollars ($300,000) will be paid from a Minnesota Pollution Control Agency Clean Water Partnership Grant, at least Three Hundred Thousand Dollars ($300,000) will be paid by the City of New Hope, and up to Four Hundred Thirty Three Thousand Four Hundred Twenty-

five Dollars ($411,070) will be paid from funds received from a county tax levy pursuant to Minnesota Statutes, Section 103B.251, levied in 2015 for collection in 2016. Remaining funds of up to Four Hundred Thousand Three Hundred Seventy Five Dollars ($411,070) will be paid from funds received from a county tax levy pursuant to Minnesota Statutes, Section 103B.251, levied in 2016 for collection in 2017.

3. The estimated cost of the Honeywell Pond Expansion Project is One Million Two Hundred Sixty-six Thousand Five Hundred Seventy-five Dollars ($1,260,930). Of this amount, Four Hundred Fifty Thousand Dollars ($450,000) will be paid by the City of Golden Valley, and up to Eight Hundred Sixteen Thousand Five Hundred Seventy-five Dollars ($810,930) will be paid from funds received from a county tax levy pursuant to Minnesota Statutes, Section 103B.251 levied in 2015 for collection in 2016.

4. Of the costs of the 2016 Projects, the Commission hereby certifies costs to Hennepin County in accordance with Minnesota Statutes, section 103B.251 of Four Hundred Thirty Three Thousand Four Hundred Twenty-five Dollars ($411,070) for the Northwood Lake Improvement Project, and Eight Hundred Sixteen Thousand Five Hundred Seventy-five Dollars ($810,930) for the Honeywell Pond Expansion Project. The total amount certified to Hennepin County for the 2016 Projects is One Million Two Hundred Fifty Thousand Dollars ($1,222,000) for payment by the county in accordance with Minnesota Statutes, section 103B.251, subdivision 6.

5. The Commission has received, accepted and approved the feasibility reports for the 2016 Projects.

6. The costs of each of the 2016 Projects will be paid by the Commission up to the amounts specified in paragraphs 2 and 3 above from proceeds received from Hennepin County pursuant to Minnesota Statutes, Section 103B.251, State grant funds, and contributions from the cities of New Hope and Golden Valley. Additional costs may be paid by the cities constructing the Projects, but no costs will be charged to other members of the Commission.

7. The City of New Hope is designated as the member responsible for contracting for the construction of the Northwood Lake Improvement Project, and the engineer designated for preparation of plans and specifications is the New Hope City Engineer, or other engineers selected and retained by the City of New Hope. Contracts for construction shall be let in accordance with the requirements of law applicable to the City of New Hope. The Cooperative Agreement with the City of New Hope for the construction of the Northwood Lake Improvement Project is approved, and the Chair and Secretary are authorized to execute the agreement on behalf of the Commission.

8. The City of Golden Valley is designated as the member responsible for contracting for the construction of the Honeywell Pond Expansion Project, and the engineer designated for preparation of plans and specifications is the Golden Valley City Engineer, or other engineers selected and retained by the City of Golden Valley. Contracts for construction shall be let in accordance with the requirements of law applicable to the City of Golden Valley. The Cooperative Agreement with the City of Golden Valley for the construction of the Honeywell

Pond Expansion Project is approved, and the Chair and Secretary are authorized to execute the agreement on behalf of the Commission.

Adopted by the Board of Commission of the Bassett Creek Watershed Management Commission the 20th day of August, 2015.

_____
Chair

ATTEST:

_____
Secretary

Bassett Creek Watershed Management Commission

Item 6Biii.
BCWMC 8-20-15

MEMO

TO: BCWMC Commissioners
FROM: Laura Jester, Administrator
DATE: August 10, 2015

Item 6Biii Recommendations regarding certifying costs to Hennepin County:

1. Direct staff to certify for payment by Hennepin County in 2016 a total tax levy request of $1,222,000 for the 2016 projects, as laid out in the resolution and in Table 1 below.

Background

The BCWMC's CIP for 2016 includes the following projects:

- Northwood Lake Improvement Project (NL-1)
- Honeywell Pond Expansion Project (BC-4)

Table 1. Total Funds Needed for 2016 CIP Projects

Item	Estimated costs NL-1	Estimated costs BC-4
Construction (includes project construction, construction observation, engineering and design, permitting, and contingency)	$1,352,000	$1,202,000
Feasibility study costs (per agreements with cities)	$30,000	$29,800
Other BCWMC costs expended thru July 2015	$8,800	$8,600
Transfer to 2016 & 2017 BCWMC Administrative Fund[1]	$19,340	$8,530
Anticipated future costs – NL-1 grant administration, review of 50% and 90% plans & miscellaneous coordination/administration	$12,000	$12,000
TOTAL PROJECT EXPENSES	**$1,422,140**	**$1,260,930**
Clean Water Partnership Grant	-$300,000	0
City Contributions	-$300,000	-$450,000
BCWMC PROJECT EXPENSES	**$822,140**	**$810,930**
Portion of Project slated for 2017 levy request (50% of total)	-$411,070	$0
Subtotal 2016 levy request	**$411,070**	**$810,930**
TOTAL FINAL 2016 LEVY REQUEST:	**$1,222,000**	

[1] $17,055 is included in 2016 BCWMC budget as a transfer to the administrative fund (or operating budget). An estimated $10,810 would be transferred to administrative fund in 2017 for this project. There are two additional projects slated for 2017 that will also have CIP administrative costs associated with them.

Staff does not recommend the use of funds from the Closed Project Account for these projects. The 2015 Main Stem Restoration Project is slated to use up to $503,000 of these funds, leaving the Commission with approximately $280,000 in this account. This amount is within the range ($250,000 - $500,000) that Commission policy deems appropriate to hold in this fund.

Staff recommends the Commission direct staff to certify for payment by Hennepin County in 2016 a total tax levy of $1,222,000. This amount is lower than the maximum levy request ($1,250,000) previously communicated to the County, which is appropriate given the information in Table 1, including construction costs, current and future costs, the approved 2016 budget, awarded grants, and city contributions.

Item 6Biv.
BCWMC 8-20-15

COOPERATIVE AGREEMENT
(Northwood Lake Improvement Project)

This Agreement is made as of this 20th day of August, 2015, by and between the Bassett Creek Watershed Management Commission, a joint powers watershed management organization (hereinafter the "Commission"), and the City of New Hope, a Minnesota municipal corporation (hereinafter the "City").

WITNESSETH:

WHEREAS, the Commission adopted the Bassett Creek Watershed Management Commission Watershed Management Plan on September 16, 2004 (the "Plan"), a watershed management plan within the meaning of Minn. Stat. § 103B.231; and

WHEREAS, the Plan, as amended, includes a capital improvement program ("CIP") that lists a number of water quality project capital improvements; and

WHEREAS, one of the water quality projects identified in the CIP is a water quality improvement project described as the Northwood Lake Improvement Project (NL-1) in the City of New Hope (the "Project"), as more fully described in the feasibility report for the Project prepared by the City of New Hope's Engineer, Stantec, entitled Feasibility Study for Northwood Lake Storm Water Improvements dated November 2014, which is attached and made a part hereof (the "Feasibility Report") and in accordance with the Clean Water Partnership Project Work Plan, as it may be amended, which is incorporated by reference and made part hereof; and

WHEREAS, the total cost estimate for the Project, including design, construction, feasibility study costs, and Commission costs, is $1,422,140; and

WHEREAS, the Commission has received a Clean Water Partnership Project Grant from the Minnesota Pollution Control Agency for $300,000 that will be used to offset the Project costs; and

WHEREAS, the City has agreed to contribute $300,000 to cover some Project costs; and

WHEREAS, the Plan specifies that the Project will be funded in part by a County tax levy under Minn. Stat. § 103B.251; and

WHEREAS, on August 20, 2015, the Commission adopted a resolution ordering the Project and directing that it be constructed by the City; and

WHEREAS, half of the Project costs were certified to Hennepin County, which will levy taxes throughout the watershed for the Project costs in 2015 for collection and settlement in 2016; and

WHEREAS, the other half of Project costs will be certified to Hennepin County to levy taxes throughout the watershed costs in 2016 for collection and settlement in 2017; and

WHEREAS, the City is willing to construct the Project on the terms and conditions hereinafter set forth.

NOW, THEREFORE, ON THE BASIS OF THE PREMISES AND MUTUAL COVENANTS HEREINAFTER SET FORTH, THE PARTIES AGREE AS FOLLOWS:

1. Project. The Project will consist of the implementation of Concepts A (a storm water reuse system and raingardens in Northwood Park) and C (a wet ponding basin at the west end of Northwood Lake), as described in the Feasibility Report for the Project.

2. Design and Plans. The City will design the Project and prepare plans and specifications for construction of the Project. The 50% and 90% plans and specifications, and any changes to such plans and specifications, shall be submitted to the Commission for approval. Minor change orders that 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 City without requiring approvals by the Commission.

3. Contract Administration. The City will advertise for bids and award contracts in accordance with the requirements of law. The City will award the contract and supervise and administer the construction of the Project to ensure that it is completed in accordance with the approved plans and specifications. The contract may only be let to a responsible contract in accordance with Minn. Stat. § 16C.285 and the City will require the contractor to provide all payment and performance bonds required by law. The City will require the Contractor to name the Commission as additional insured on all liability policies required by the City of the contractor and the Commission shall be given the same notification of cancellation or non-renewal as is given to the City. The City will require the contractor to defend, indemnify, protect and hold harmless the Commission and the City, their agents, officers, and employees, from all claims or actions arising from negligent acts, errors or omissions of the contractor. The City will supervise the work of the contractor. However, the Commission may observe and review the work of the Project until it is completed. The City will display a sign at the construction site stating "Paid for by the Taxpayers of the Bassett Creek Watershed".

4. Contract Payments. The City will pay the contractor and all other expenses related to the construction of the Project and keep and maintain complete records of such costs incurred.

5. Commission Reimbursement. The Commission will pay grant funds received from a Minnesota Pollution Control Agency Clean Water Partnership Grant in the amount

of Three Hundred Thousand Dollars ($300,000). The Commission will use its best efforts to secure payment from the County in accordance with Minn. Stat. § 103B.251 in the amount of Four Hundred Eleven Thousand and Seventy Dollars ($411,070) by tax levy in 2015 for collection in 2016, and Four Hundred Eleven Thousand and Seventy Dollars ($411,070) by tax levy in 2016 for collection in 2017. The total reimbursement paid by the Commission will not exceed One Million One Hundred Twenty-two Thousand One Hundred and Forty Dollars ($1,122,140), less Commission expenses.

Out-of-pocket costs related to the Project, incurred and paid by the Commission including, but not limited to, feasibility studies, publication of notices, securing County tax levy, preparation of contracts, review of proposed contract documents, administration of this Agreement and up to a 2.5% administrative charge shall be repaid from the reimbursement amounts specified above. All such funds in excess of such expenses are available for reimbursement to the City for costs incurred by the City in the design and construction of the Project. Reimbursement to the City will be made as soon as funds are available, provided a request for payment has been received from the City that contains such detailed information as may be requested by the Commission to substantiate costs and expenses.

6. Limits on Reimbursement. Reimbursement to the City will not exceed the amount specified above from the amounts received from the County and the Minnesota Pollution Control Agency for the Project, less any amounts retained by the Commission for Commission expenses. If additional grants are received for the Project, grant funds will be used to offset the stated City contribution of $300,000 and Commission costs, on a pro-rated basis. Reimbursement will not exceed the costs and expenses incurred by the City for the Project, less any amounts the City receives for the Project as grants from other sources. All costs of the Project incurred by the City in excess of such reimbursement, which are currently estimated to be Three Hundred Thousand Dollars ($300,000) shall be borne by the City or secured by the City from other sources.

7. Audit. All City books, records, documents, and accounting procedures related to the Project are subject to examination by the Commission.

8. Environmental Review. The City will perform all necessary investigations of site contamination and secure all necessary local, state, or federal permits required for the construction of the Project and will not proceed with the Project until any required environmental review and remediation of site contamination is completed or a plan for remediation is approved by appropriate regulatory agencies.

9. Project Maintenance. Upon completion of the Project, the City will assume responsibility for its ongoing maintenance.

10. Data Practices. The City shall retain and make available data related to the letting of contracts and construction of the Project in accordance with the Minnesota Government Data Practices Act.

11. Term. 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 City as provided herein.

12. Sub-Grant Agreement. The City is required to enter into a Subgrant Agreement with the Commission related to the Clean Water Partnership Project Grant received for the Project and to comply with the terms of the Subgrant Agreement, which is incorporated into this Agreement by reference and made a part hereof.

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:_____

CITY OF NEW HOPE

By: _____
Its Mayor

And by: _____
Its Manager

Date: _____

Item 6Bv.
BCWMC 8-20-15

SUB-GRANT AGREEMENT
(Northwood Lake Improvement Project)

THIS SUB-GRANT AGREEMENT ("Agreement") is made as of this ____ day of _____, 2015, by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization (the "Grantee"), and the City of New Hope, a Minnesota municipal corporation ("Sub-grantee"):

WHEREAS, Grantee has entered into a grant contract with the State of Minnesota effective as of June 8, 2015 (the "Grant Agreement"), a copy of which is attached hereto as Exhibit One and is incorporated herein and made part of this Agreement; and

WHEREAS, the Grant Agreement provides that the Minnesota Pollution Control Agency, shall grant to Grantee a sum not to exceed Three Hundred Thousand and No/100 Dollars ($300,000.00), which funds shall be used to perform the duties and tasks specified in the Grant Agreement related to the Northwood Lake Water Quality Improvement Project, Project ID Number: PRJO7212-002 ("Project"); and

WHEREAS, the Grantee will be passing a portion of the funds provided in the Grant Agreement through to Sub-grantee to construct the Project; and

WHEREAS, the Grantee and Sub-grantee have agreed for Sub-grantee to assume certain of the duties and responsibilities of Grantee under the Grant Agreement in consideration of receiving funds provided for in the Grant Agreement and subject to the terms, conditions, and limitations set forth therein.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, the parties hereto covenant and agree as follows:

1. Grant Funds. Grantee will forward to Sub-grantee funds received under the Grant Agreement, in conjunction with other Grantee-designated project funds, upon receipt of approved reimbursement requests and upon the continuing compliance by Sub-grantee with its obligations hereunder.

2. Sub-Grantee Obligations. Sub-grantee will perform and satisfy certain obligations of Grantee under the Grant Agreement. Specifically, but without limiting the foregoing, Sub-grantee will perform all of the following with respect to the Project and in satisfaction of Grant Agreement obligations:

(a) Sub-grantee will perform, or participate in, all elements of the Project as described in the Clean Water Partnership Project Work Plan ("Work Plan") of the Grant Agreement, as it may be amended, and will properly document expenses, including time and materials, in the manner expressed in the Work Plan budget and will provide information to the Commission to aid in semi-annual and accurate grant reporting. The Work Plan is incorporated in and made part of this Agreement by reference.

(b) Sub-grantee will comply with all requirements and conditions of the Grant Agreement applicable to the Project that, by their nature, must be performed by Sub-grantee rather than Grantee and that are conditions of award of funds under the Grant Agreement.

(c) The times of performance and expiration of the Sub-grantee's obligations under this Agreement shall be as provided in the Grant Agreement.

(d) Sub-grantee will provide invoices for reimbursement in accordance with the requirements of the Grant Agreement.

(e) Sub-grantee will take all other actions as are needed to ensure compliance with the Grant Agreement and provide such information and assistance to the Grantee as may be needed to ensure the Grantee can comply with the requirements of the Grant Agreement that, by their nature, must be performed by the Grantee rather than the Sub-grantee.

3. Sub-grantee Reimbursement. Sub-grantee will be reimbursed from the funds received through the Grant Agreement for grant eligible costs incurred in performing its obligations in accordance with this Agreement, the Work Plan, and the Cooperative Agreement entered into between the Grantee and the Sub-grantee, which is incorporated in and made part of this Agreement by reference. The amount of grant funds available to make reimbursement payments to the Sub-grantee are subject to reduction for Grantee expenses and an administrative fee as provided in the Cooperative Agreement. Reimbursements will be forwarded to Sub-grantee following completion of work by the Sub-grantee under the Work Plan from grant funds received by Grantee from the State. Sub-grantee will provide such invoices or other evidence of expenses incurred as may be required by the Grantee or by the State under the Grant Agreement.

4. No Assignment. Sub-grantee may neither assign nor transfer any rights or obligations under this Agreement without the prior consent of the Grantee and an Assignment Agreement executed and approved by the parties.

5. Amendments. Any amendment to this Agreement must be in writing and will not be effective until it has been executed and approved by the parties.

6. No Waiver. If Grantee fails to enforce any provisions of this Agreement, such failure does not waive the provision or Grantee's right to enforce it.

7. Entire Agreement. This Agreement contains all negotiations and agreements between Grantee and Sub-grantee. No other understanding, agreements or understandings regarding the Grant Agreement, or this Agreement, may be used to bind either party.

8. Indemnification. Sub-grantee will indemnify, defend, and hold harmless the State and Grantee, its officers, agents, and employees, from any claims or causes of action, including

attorney's fees incurred by Grantee, arising from the performance of this Agreement by Sub-grantee, or its officers, agents or employees.

9. Audit. Sub-grantee's books, records, documents and accounting procedures and practices relevant to this Agreement are subject to examination by the State of Minnesota and/or the state auditor or legislative auditor, as appropriate, for a minimum of six (6) years from the end of this Agreement.

10. Data Practices. Sub-grantee shall comply with applicable provisions of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13. If Sub-grantee receives a request to release data referred to in this paragraph, Sub-grantee must immediately notify Grantee. Grantee will give Sub-grantee instructions concerning the release of the data to the requesting party, prior to such release.

11. Workers' Compensation. Sub-grantee certifies that it is in compliance with Minnesota Statutes, Section 176.181, Subd. 2, pertaining to workers' compensation insurance coverage. Sub-grantee's employees and agents will not be considered employees of Grantee. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of employees of Sub-grantee, and any claims made by any third party as a consequence of any act or omission on the part of such employees are in no way the obligation of Grantee or the State of Minnesota.

12. Publicity. Any publicity regarding the subject matter of this Grant Agreement must identify the State and the Bassett Creek Watershed Management Commission as the sponsoring agencies and must not be released without prior written approval from the State's authorized representative as specified in the Grant Agreement. Publicity shall include information identified in the Grant Agreement to the extent required herein. Sub-grantee must not claim that the State or Grantee endorses its products or services.

13. The law governing the obligations of this Agreement and the venue for all legal proceedings associated therewith shall be in accordance with the Grant Agreement.

14. This Agreement is subject to termination in accordance with the termination provision of the Grant Agreement. However, the provisions in the Grant Agreement regarding Liability, State Audits, Government Data Practices, Intellectual Property, and Governing Law, Jurisdiction and Venue will survive termination or cancellation of this Agreement or of the Grant Agreement.

15. This Agreement is conditioned on approval by the State as provided in the Grant Agreement.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands as of _____, 2015.

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

By:_____
Its Chair

And by:_____
Its Secretary

Date:_____

CITY OF NEW HOPE

By: _____
Its Mayor

And by: _____
Its Manager

Date: _____

EXHIBIT ONE
Grant Agreement

[attached hereto]

Item 6Bvi.
BCWMC 8-20-15

COOPERATIVE AGREEMENT
(Honeywell Pond Expansion Project)

This Agreement is made as of this 20th day of August, 2015, by and between the Bassett Creek Watershed Management Commission, a joint powers watershed management organization (hereinafter the "Commission"), and the City of Golden Valley, a Minnesota municipal corporation (hereinafter the "City").

WITNESSETH:

WHEREAS, the Commission adopted the Bassett Creek Watershed Management Commission Watershed Management Plan on September 16, 2004 (the "Plan"), a watershed management plan within the meaning of Minn. Stat. § 103B.231; and

WHEREAS, the Plan, as amended, includes a capital improvement program ("CIP") that lists a number of water quality project capital improvements; and

WHEREAS, one of the water quality projects identified in the CIP is a water quality improvement project described as the Honeywell Pond Expansion Project (BC-4) in the City of Golden Valley (the "Project"), as more fully described in the feasibility report for the Project prepared by WSB & Associates, Inc., entitled Feasibility Report for Honeywell Pond Enhancement/Improvement Project dated July 14, 2015, which is attached and made a part hereof (the "Feasibility Report"); and

WHEREAS, the amended cost estimate for the Project is $1,260,930; and

WHEREAS, the Plan specifies that the Project will be funded by a County tax levy under Minn. Stat. § 103B.251; and

WHEREAS, on August 20, 2015, the Commission adopted a resolution ordering the Project and directing that it be constructed by the City; and

WHEREAS, project costs were certified to Hennepin County, which will levy taxes throughout the watershed for the Project costs in 2015 for collection and settlement in 2016; and

WHEREAS, the City is willing to construct the Project on the terms and conditions hereinafter set forth.

NOW, THEREFORE, ON THE BASIS OF THE PREMISES AND MUTUAL COVENANTS HEREINAFTER SET FORTH, THE PARTIES AGREE AS FOLLOWS:

1. Project. The Project will consist of expanding the size and depth of Honeywell Pond, diverting low flows into the pond from the storm sewer line in Douglas Drive,

and creating a buffer area around the perimeter of the pond, as described in the Feasibility Report for the Project.

2. Design and Plans. The City will design the Project and prepare plans and specifications for construction of the Project. The 50% and 90% plans and specifications, and any changes to such plans and specifications, shall be submitted to the Commission for approval. Minor change orders that 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 City without requiring approvals by the Commission.

3. Contract Administration. The City will advertise for bids and award contracts in accordance with the requirements of law. The City will award the contract and supervise and administer the construction of the Project to ensure that it is completed in accordance with the approved plans and specifications. The contract may only be let to a responsible contract in accordance with Minn. Stat. § 16C.285 and the City will require the contractor to provide all payment and performance bonds required by law. The City will require the Contractor to name the Commission as additional insured on all liability policies required by the City of the contractor and the Commission shall be given the same notification of cancellation or non-renewal as is given to the City. The City will require the contractor to defend, indemnify, protect and hold harmless the Commission and the City, their agents, officers, and employees, from all claims or actions arising from negligent acts, errors or omissions of the contractor. The City will supervise the work of the contractor. However, the Commission may observe and review the work of the Project until it is completed. The City will display a sign at the construction site stating "Paid for by the Taxpayers of the Bassett Creek Watershed".

4. Contract Payments. The City will pay the contractor and all other expenses related to the construction of the Project and keep and maintain complete records of such costs incurred.

5. Commission Reimbursement. The Commission will use its best efforts to secure payment from the County in accordance with Minn. Stat. § 103B.251 in the amount of Eight Hundred Ten Thousand Nine Hundred **and** Thirty Dollars ($810,930) by tax levy in 2015 for collection in 2015. The total reimbursement will not exceed Eight Hundred Ten Thousand Nine Hundred **and** Thirty Dollars ($810,930), less Commission expenses.

Out-of-pocket costs related to the Project, incurred and paid by the Commission including, but not limited to, feasibility studies, publication of notices, securing County tax levy, preparation of contracts, review of proposed contract documents, administration of this contract and up to a 2.5% administrative charge shall be repaid from the amount specified above from funds received in the tax settlement from Hennepin County. All such funds in excess of such expenses are available for reimbursement to the City for costs incurred by the City in the design and

construction of the Project. Reimbursement to the City will be made as soon as funds are available, provided a request for payment has been received from the City that contains such detailed information as may be requested by the Commission to substantiate costs and expenses.

6. Limits on Reimbursement. Reimbursement to the City will not exceed the amount specified above from the amount received from the County for the Project, 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. Reimbursement will not exceed the costs and expenses incurred by the City for the Project, less any amounts the City receives for the Project as grants from other sources. All costs of the Project incurred by the City in excess of such reimbursement, which are currently estimated to be Four Hundred Fifty Thousand Dollars ($450,000), shall be borne by the City or secured by the City from other sources.

7. Audit. All City books, records, documents, and accounting procedures related to the Project are subject to examination by the Commission.

8. Environmental Review. The City will perform all necessary investigations of site contamination and secure all necessary local, state, or federal permits required for the construction of the Project and will not proceed with the Project until any required environmental review and remediation of site contamination is completed or a plan for remediation is approved by appropriate regulatory agencies.

9. **Ongoing Maintenance.** Upon completion of the Project, the City will assume responsibility for its ongoing maintenance.

10. Data Practices. The City shall retain and make available data related to the letting of contracts and construction of the Project in accordance with the Minnesota Government Data Practices Act.

11. Term. 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 City as provided herein.

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:_____

CITY OF GOLDEN VALLEY

By: _____
Its Mayor

And by: _____
Its Manager

Date: _____

Document comparison by Workshare Compare on Tuesday, August 11, 2015 3:45:25 PM

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Description	DOCSOPEN-#465479-v3-Cooperative_Agreement_-_Golden_Valley_(Honeywell_Pond_Expansion)
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Description	DOCSOPEN-#465479-v4-Cooperative_Agreement_-_Golden_Valley_(Honeywell_Pond_Expansion)
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Statistics:	
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Insertions	5
Deletions	1
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Moved to	0
Style change	0
Format changed	0
Total changes	6

Item 6C.
BCWMC 8-20-15

resourceful. naturally.
engineering and environmental consultants

BARR

Memorandum

To: Bassett Creek Watershed Management Commission

From: Barr Engineering Company

Subject: Item 6C – Plymouth Creek Restoration Feasibility Study
BCWMC August 20, 2015, Meeting Agenda

Date: August 12, 2015

6C. Order Feasibility Study for Plymouth Creek Restoration

Recommendations:

1. Consider approving the scope of work and $52,700 (or $59,700 with Phase I study) budget presented in this memorandum and direct the Engineer to complete the feasibility study for the restoration of Plymouth Creek from Annapolis Lane to 2,500 feet upstream of Annapolis Lane (2017CR-P) to be constructed in 2017.
2. Direct the Engineer to consult with the U.S. Army Corps of Engineers (USACE) to determine whether the Resources Management Plan Pre-application Consultation Protocols may apply for this project.
3. Direct the Engineer to prepare a stream feasibility study that complies with the requirements of the USACE.

Background

This project would address needed restoration between Annapolis Lane and approximately 2,500 feet upstream of Annapolis Lane in Plymouth. The project is in the Bassett Creek Watershed Management Commission's (BCWMC) current CIP (2017CR-P) and scheduled to be constructed in 2017. A portion of the project reach is included in the BCWMC's 2009 Resource Management Plan (RMP).

A feasibility study must be completed that includes a preliminary analysis and design for the project along with construction cost estimates; and the study must be completed prior to BCWMC holding a hearing as preface to ordering the project. Since a portion of the reach is included in the RMP, it is expected that the USACE will require this feasibility study to meet the pre-application protocols laid out for the RMP restoration projects. The protocols include review of cultural resources, wetland delineations, wetland functional assessment, and wetland impacts, which are beyond the typical scope of feasibility studies.

Content and Scope for a Feasibility Study for Plymouth Creek Restoration Project

Through the BCWMC's RMP process, the US Army Corps of Engineers (USACE) and the BCWMC agreed on a series of steps, work items, deliverables (called "protocols") that must be accomplished and submitted to complete the RMP process and USACE review/approval process. Most of the protocols must be addressed as part of the feasibility study, in addition to the usual tasks that would be performed as part of a feasibility study. The feasibility study will also address criteria adopted by the BCWMC in October 2013, including:

- Analysis of multiple alternatives, including the following for each alternative:
    - Pros and cons analysis
    - Cost estimate for construction and a "30-year cost"
    - Analysis of life expectancy
    - Summarize each alternative for the Commission to judge its merits
    - Cost estimate for annualized cost per pound of pollutant removal.
- Evaluation of new and/or innovative approaches
- Identification of permitting requirements

In addition to the RMP protocols and specific criteria adopted by the BCMWC, it is important to gather public input early and often in the process. The Engineer will work with the BCWMC Administrator and City of Plymouth staff to identify the means that are likely to be most effective in gathering public input and begin the public involvement process. Prior to finishing a draft feasibility report, we will seek ways to communicate to impacted landowners and users of adjacent public lands what has been identified as a problem and discuss with them means that are being considered to address the issue.

Below is a summary of the required feasibility study content for of this project:

Discuss project requirements with the USACE / MN DNR

- Hold two meetings with USACE, MN DNR, City staff and BCWMC Administrator to discuss initial and refined concept alternatives and likely permit requirements for this project.
- Obtain written confirmation of discussion results.

Discuss project impacts with public

- Coordinate with BCWMC Administrator and City staff to determine best means to gather public input, such as mailings, newspaper articles, open houses, etc.
- Assist with public involvement process as necessary.

Reach Evaluation and Concept Plans

- Field work and site visits of the reach to evaluate the reach and identify potential project features
- Review available hydraulic modeling for this reach
- Estimate pollution reduction potential
- Analysis of multiple alternatives for addressing identified issues within the reach.
- Develop draft concept plans and cost estimates for stream restoration for this reach
- Refine concept plans and cost estimates based on input from City, USACE, MN DNR, and BCWMC

Wetland Impacts Evaluation

- Collect base data (GIS air photos, soil survey, NWI maps, etc.) for field wetland assessments that were not included in the areas covered by the RMP. If wetlands are found on site, full delineation and assessment will occur during design phase.

Archeological Evaluation

- Perform Phase 1A desktop cultural resource reconnaissance surveys for areas not covered by the RMP that will scope potential issues that may factor into the USACE permit conditions and cost estimate.

Feasibility Report

- Draft report for review by City and BCWMC
- Present draft feasibility study findings at BCWMC meeting
- Final report for project hearing

Optional Scope Item

The stream restoration project will include excavation and grading activities which may have the potential to encounter legacy contamination issues associated with historical land uses at properties adjoining the creek. Environmental investigations should be conducted to further address that concern. The Engineer recommends completing a limited Phase I Environmental Site Assessment (Phase I) either during the feasibility study or early in the design to review available records for properties in the project area (regulatory databases, historical air photos, interviews with people knowledgeable about the historical land use, etc.).

If the potential for contamination is discovered during the Phase I process, then a Phase II investigation may be necessary and would include collection of environmental samples from the project area for

laboratory analysis to determine if contamination is present. If a Phase II investigation is necessary, then the cost and scope of a Phase II investigation would be guided by the results of the Phase I. In general, the Phase II would focus on areas where historical contamination is suspected and where data is not already available, with emphasis on locations where excavation is planned for the stream restoration project.

Based on current knowledge of the project area, it is assumed that a Phase II investigation will not be necessary, so it is not included in this scope of work. If the Phase I investigation finds areas of potential contamination, then the alternatives analysis will consider the impacts of disturbing areas where contamination may be present and whether a Phase II will be necessary to complete feasibility or if it should be completed during final design.

Cost Estimate

We have prepared the following cost estimate for the scope of work outlined above.

Task	Estimated Cost
Meetings with USACE, MN DNR, City, and BCMWC	$2,500
Public involvement	$2,500
Reach evaluation, alternatives analysis, pollution reduction estimates, and cost estimates	$19,600
Wetland assessment	$4,600
Archeological evaluation	$3,700
Feasibility Report and presentation to BCWMC	$19,800
Total	**$52,700**
Optional: Phase I soil contamination investigation	$7,000
Total with Optional Phase I soil investigation	**$59,700**

Schedule

We will be able to complete the tasks and milestones outlined in the scope of work on the following schedule.

Tasks and milestones	Estimated Completion Date
Kick-off meeting with City of Plymouth	September 1, 2015
Information review and initial reach evaluation	September 7, 2015
Complete wetland assessment	September 25, 2015
Complete archeological investigation	September 25, 2015
Phase I soil contamination investigation	September 25, 2015

Develop initial concept alternatives; develop preliminary cost estimates	October 9, 2015
Hold initial meeting with USACE, MN DNR, City and BCWMC	October 23, 2015
Revise and refine concept alternatives and cost estimates	November 6, 2015
Draft Feasibility Report for City review	December 11, 2015
Draft Feasibility Report for BCWMC review	January 13, 2016,
Present draft feasibility report findings at January 2016 BCMWC meeting	January 21, 2016
Final Feasibility Report for March 17, 2016 BCWMC meeting	March 9, 2016

All comments and responses are open for discussion, however, staff would like Commission input on those in gray boxes, in particular. The draft Plan submitted for 90-day review (which includes tracked changes resulting from the 60-day review) is found here: http://www.bassettcreekwmo.org/NextGenerationPlan2015/2015WatershedManagementPlanHome.htm

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
1	Minneapolis	ES-2 (paragraph 2, sentence 3)	"The Board has duties . . . standards, accumulating funds, . . ." Suggest add "and disbursing" ("accumulating and disbursing funds")	Text will be revised as suggested.
2	Minneapolis	ES-3, surface water paragraph 2	The list of lakes impaired for chlorides and nutrients doesn't appear to match Table 2-5. See if Sweeney should be added for chlorides, and Medicine for nutrients.	The executive summary will be updated to match all revisions to Table 2-5 following the 60-day draft
3	Minneapolis	ES-3, surface water paragraph 3	Clarify in the paragraph that 2014 listings are still proposed, not final yet.	Text will be revised to note draft status, similar to Section 2.
4	Minneapolis	ES-3, surface water paragraph 3	Should the fish bioassessments status be included?	The executive summary will be updated to match all revisions to Table 2-5.
5	Minneapolis	ES-3, water quantity and flooding section	"The principal feature . . . which replaced the century-old Bassett Creek tunnel." Could be misinterpreted that the old tunnel is no more. Suggest change to, "The principal feature . . . which replaced the century-old Bassett Creek tunnel for conveyance of Bassett Creek. (The old tunnel remains in place, but takes only local drainage. It no longer carries Bassett Creek, except for allowance of a small amount of overflow from Bassett Creek in the event of an extreme storm.)" (re-wording is of course fine)	This section is intended to be a summary. Additional text can be added to the inventory section noting that the old tunnel exists.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
6	Minneapolis	ES-6, policy 12	In reference to the MIDS Design Sequence Flow Chart, Minneapolis requests additional language of, "or approved alternative". This is because the MIDS Flowchart can be customized for a given community. For example, Minneapolis will be able to make a more user-friendly chart by eliminating the "karst" section [no karst in Minneapolis] and language particular to "MnDOT, and can amplify the ultra-urban language which is pretty specific to the two core cities. This addition would be consistent with the MWMO, which at the request of Minneapolis has in their plan, ". . . MWMO Design Sequence Flow Chart or a MWMO-approved alternative shall be used to identify a path to compliance through Flexible Treatment Options.] (page 28 of 731)	The use of MIDS as the BCWMC's adopted water quality performance standard was discussed by the Technical Advisory Committee (TAC) in winter 2014. The language of policy 12 was presented and approved at a Commission workshop in April 2014. The suggested change is reasonable for cities that have adopted MIDS with minor modifications to the flow chart; the Commission will consider revising the text of this policy to include "or approved alternative."
7	Minneapolis	ES-6, policy 32	Could not Policies 12 and 32 be combined, for clarity?	These policies are similar in reference to MIDS, but the first is intended to address water quality, while the second is intended to address water quantity. The inclusion of both separately makes more sense in the context of Section 4 (Goals and Policies).
8	Minneapolis	ES-7, policy 64	"Member cities may allow . . . Up to 20 feet in width, with that width being added to the required buffer width." 20 feet is excessive. Why was this width chosen?	This distance was discussed at the June 5, 2014 TAC meeting. As noted in the policy, the member cities may allow such an exception. The cities are not required to allow this exception and can choose to put in place stricter buffer requirements than those in the BCWMC Plan.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
9	Minneapolis	ES-7, policy 64	"Member cities may allow . . . Up to 20 feet in width, with that width being added to the required buffer width."When Minneapolis suggested the exemption for public trails, and there was general agreement, there was no discussion about adding that width to the required buffer width. Minneapolis does not agree that the width of a public trail should be added to the required buffer width. This is not appropriate for some of the lands along Bassett Creek under the stewardship of the Minneapolis Park & Recreation Board.	No change to the Plan is proposed. The TAC met to discuss buffers in the spring of 2014. At the TAC meeting, it was noted that trails and other public facilities should be allowed to "interrupt" the buffer width. For example, if the minimum buffer width is 10 feet, and a 15-foot wide trail is located 5 feet from the shoreline, then the buffer must include the 5 feet between the shoreline and the trail, and an additional 5 feet on the inland side of the trail.Policy 64 was presented at a Commission workshop on August 11, 2014. The policy was discussed at the workshop and approved with minimum widths and the public trail exemption, although the trigger was reduced from one acre of impervious area (originally proposed) to either 200 cubic yards of cut/fill or 10,000 square feet of disturbance. The revision regarding the trigger was approved by the Plan Steering Committee at their 8/25/14 meeting.While this policy may not be ideal in all areas, it should be noted that the buffer requirement along Bassett Creek will only be triggered by redevelopment and/or significant improvement projects.
10	Minneapolis	ES-9, 3rd bullet	The draft BCWMC Plan does not cite rules and statutes consistently (meaning some places they are cited, other places not). The Minnesota Statute should be cited here. In general, I suggest that it is best to cite the appropriate Rules and Statutes that apply to passages in the Plan as it is helpful to member cities and other interested parties.	This section is intended to be a summary of Section 5 (Implementation). The additional text in section 5 details the drivers for these responsibilities (including statutes).

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
11	Minneapolis	ES-9, 6th bullet	"Acquiring the necessary easements or right-of-way or interest in land upon order of the BCWMC."Out of context, bullet point is still unclear. Possibly say, "For some capital projects, it is necessary to acquire easements or right-of-way or interest in land. The BCWMC will order the acquisition, and it is the role of the member city is to carry it out."	This section is intended to be a summary of Section 5 (Implementation). The additional text in Section 5 provides more detailed context.
12	Minneapolis	page 1-2	"The downstream end of the BCWMC is a tunnel . . ." Sentence needs an "at". Could be, "At the downstream end of the BCWMC is the new tunnel built as part of the Bassett Creek Flood Control Project, which conveys. . ."	The sentence will be reworded to read "The downstream end of Bassett Creek is a tunnel..." and a new sentence will be added immediately following the first sentence: "The legal boundary of the BCWMC ends at the new tunnel."
13	Minneapolis	page 1-2	These paragraphs are generally in reverse chronological order. For clarity, I suggest re-ordering the cities in chronological order. Start with "A 1979 BCWMC document provides . . . Closely follow the natural watershed divides.", followed by the sentence that begins "A 1985 order by the . . .". Next would be the full paragraph that starts "In 2000, the BCWMC . . .", followed by the sections last sentence -- "A legal description for the entire . . . in Appendix J." Last would be the paragraph, now first, about the tunnel under downtown Minneapolis. If you adopt this re-ordering, maybe change the first sentence of that paragraph to, "The new tunnel, built as part of the Bassett Creek Flood Control Project, is at the downstream end of the BCWMC and conveys Bassett Creek . . ."	The paragraph will be revised to follow the chronology.
14	Minneapolis	page 1-3	". . . the cities . . . Acted together as a committee . . . " Are the dates of the committee known? If yes, please add.	This section is intended to be a brief summary. Specific dates are beyond the level of detail intended for this section.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
15	Minneapolis	page 2-1	From the point, "Prior to 2004, the BCWMC tracked discrepancies . . . " Could language be added as to why this changed in 2004?	The process prior to 2004 was discontinued based on revised policies adopted in the 2004 Plan. The text will be revised to state "Prior to the adoption of the 2004 BCWMC Plan..."
16	Minneapolis	pages 2-1 and 2-2; Section 2.1.1 second paragraph	"Until the early 2000s, a portion of the eastern Bassett Creek watershed within the City of Minneapolis was served by a combined storm sewer and sanitary sewer system. The Bassett Creek Flood Control Project design assumed that the entire tributary area from the City of Minneapolis was separated and that the stormwater drains to the creek rather than to wastewater treatment facilities." PLEASE CHANGE TO: "Stormwater and sanitary sewer waste for much of the City of Minneapolis was formerly discharged to a combined sanitary sewer/storm sewer system. While almost all of the discharges have now been separated into two systems, there is still some stormwater and clear water conveyed by the sanitary sewer system. The Bassett Creek Flood Control Project design assumed that the entire tributary area from the City of Minneapolis was separated and that the stormwater drains to the creek rather than to wastewater treatment facilities, and therefore whenever additional projects are completed, they are already accounted for in the Project's design capacity."	The text will be revised to read as follows: "Stormwater and sanitary sewer waste for much of the City of Minneapolis was formerly discharged to a combined storm sewer and sanitary sewer system. Efforts began in the 1930s to build separate systems and separate the existing flows. While almost all of the discharges have now been separated into two systems, there is still some stormwater and clear water conveyed by the sanitary sewer system. The Bassett Creek Flood Control Project design assumed that the entire tributary area from the City of Minneapolis was separated and that the stormwater drains to the creek rather than to wastewater treatment facilities. Therefore, whenever additional projects are completed to separate the remaining combined systems, they are already accounted for in the Project's design capacity."

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
17	Minneapolis	page 2-2, first full paragraph, first full sentence	"The City of Minneapolis obtains its water supply from the Mississippi River for municipal and industrial purposes." Since the City has some industrial customers, it seems that "and industrial" should be stricken. The industrial uses ARE already included in "municipal purposes", no different than industrial customers in other municipalities.	Noted. Text will be changed.
18	Minneapolis	page 2-2 and elsewhere	Although I cannot provide all the relevant passages numbers, it seems that the Plan sometimes states that all of the watershed is now within the MUSA area, and sometimes states that there is still a small area outside the MUSA, in Plymouth.	Text will be revised to reflect all of the BCWMC is within the 2020 MUSA.
19	Minneapolis	Table 2-2	For clarity, please separate the table into two parts: One for the Rainfall events, and one for the Snowmelt events. Please also remove "Runoff Events" from the title - the table is quantifying Precipitation events, not Runoff events.	The title of the table will be changed to "Selected Rainfall and Snowmelt Runoff Events."
20	Minneapolis	page 2-6, paragraph 5	Can you clarify the missing 11%? (30% B, +26% C, +20% C/D,+13% A = 89%)	There are also type "D," "B/D," and "A/D" type soils that are shown on Figure 2.5 but are not described in the text due to their limited presence.
21	Minneapolis	page 2-8	Three buried erosional valleys (presumably the same as the "intersecting buried bedrock valleys" mentioned in 2.5.2.1). Are they shown on a map? If yes, please add reference. If no, could they be?	The current figures do not show bedrock features. A map showing these features will be created in the near future (following Plan adoption)
22	Minneapolis	Table 2-3	With respect to the "discharges to" data for Spring Lake, City and MPRB staff have not been successful in locating a discharge pipe from Spring Lake to the Bassett Creek Tunnel. If BCWMC has additional knowledge, it would be appreciated.	Table 2-3 will be updated to note that the outflow to Bassett Creek is the suspected discharge direction, if this cannot be confirmed internally.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
23	Minneapolis	Section 2.6.5.2, paragraph 1, 3rd to last sentence	"An additional 2.5. square miles . . and Minneapolis is tributary . . . Between the confluence with the North Branch . . . And confluence with the Sweeney Lake Branch." I think listing Minneapolis here must be an error. But if it is not an error, I would like more information.	This is limited to a ~20 acre area along Theodore Wirth Parkway near St. Margaret Mary's Church, based on the XP-SWMM watershed divides.
24	Minneapolis	Section 2.6.5.2, paragraph 2	Is MPCA being requested to re-consider the fish bio-assessments? If so, could be mentioned here.	The BCWMC did not request that the MPCA reconsider-the fish bio-assessments.
25	Minneapolis	Section 2.7, paragraph 2	"The principal pollutants found in runoff include . . . Trash and debris." "trash" and "debris" are not "pollutants" although they obviously are vectors for pollution. Suggest change to: End the sentence with "chlorides", and add an additional sentence, "Trash and debris may carry many contaminants, and are themselves degrading to aesthetics and wildlife."	Pollution is a broad term, and herein is intended to include trash and debris. Trash is regulated under the Clean Water Act once it is in the water. The text will be revised to note that trash and debris also carry additional chemical pollutants.
26	Minneapolis	Table 2-4	Here "Trash and Debris" are listed in the "Stormwater Pollutant" column, but as this is probably how it was used in the cited publication, it is appropriate.	Noted.
27	Minneapolis	page 2-27	If the BCWMC is asking for reconsideration of the fish bioassessments impairment, is there interest in mentioning it in this section?	See response to comment #24.
28	Minneapolis	page 2-27; 3rd bullet	"Main Stem of Bassett Creek at Irving Avenue, upstream of the conduit, in Minneapolis" Unclear what the term "conduit" is referring to	The text will be revised to say double box culvert.
29	Minneapolis	Table 2-5	Although the title states, "including 2014 proposed listings and Wirth Lake delisting", I would suggest it could be made more clear within the respective rows, not just relying on the title and footnote 1.	The delisting of Wirth Lake is described in the text as well as in Table 2-5.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
30	Minneapolis	Section 2.8.1, paragraph 2, first sentence	"With the BCWMC Flood Control Project in place, runoff from the watershed area tributary to the old tunnel no longer flows to Bassett Creek. In 2000, the . . ."For those unfamiliar, I suggest adding a sentence to clarify, as follows: "With the BCWMC Flood Control Project in place, runoff from the watershed area tributary to the old tunnel no longer flows to Bassett Creek. This is because the old tunnel was left in place for its direct watershed, but a new tunnel project was built to convey the actual Bassett Creek. In 2000, the . . ."	The text in this section will be revised to note the current function of the old tunnel.
31	Minneapolis	pages 2-38 and 2-39	I didn't actually check, but is there a figure (specifically a map) that very clearly illustrates all of this, with the change in tunnels, the 3 tunnel phases, where the creek used to discharge, where it discharges now, and so forth? If yes, a reference to the map should be added. If no, a map should be created and referenced.	Labels will be added to Figure 2-14 (Flood Control Project Features) clearly identifying the old and new tunnels.
32	Minneapolis	pages 2-56 and 2-57	Would the Plan want to include much more natural history? One resource is *Geology of the Bassett Valley Area.* Minnesota Geological Survey, Gary N. Meyer, January 1996. -- although this resource is pretty specific to the Minneapolis area.	Thank you for the reference.
33	Minneapolis	page 2-58	I imagine the winter aeration system is operated by the MPRB, if so please mention this.	If the MPRB confirms their operation of the aeration system, it will be noted.
34	Minneapolis	Section 2.10.1.4, paragraphs 1 and 2	I imagine that the "since 2007" language in paragraph 2 is related to the 2012 MDNR survey mentioned in paragraph 1. If so, this could be clarified by putting the sentence "Wirth Lake was most recently surveyed . .." at the beginning of paragraph 2 (instead of BEFORE the "A winter aeration system is operated . . .", which breaks the continuity of the 2012 MDNR survey to paragraph 2.	The sentence may be moved for clarity.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
35	Minneapolis	Section 2.11, paragraph 1, last sentence.	"The presence of soil contamination at many of these sites may limit or prevent infiltration as a stormwater management option."Possibly add", if not removed", as in, "The presence of soil contamination at many of these sites, if not removed, may limit or prevent infiltration as a stormwater management option." Removal of contaminated soils can certainly be considered - (and may actually become more common, considering the SRV's that MPCA is proposing.)	The additional text will be added.
36	Minneapolis	page 3-6, second paragraph	Can this paragraph address the process by which BCWMC floodplains will be updated to Atlas 14?	This process has not been determined at a level sufficient to describe in the Plan beyond what is stated in Policy 25.
37	Minneapolis	page 3-20, 2nd bullet	"Hennepin County is responsible . . . And 156." I don't know if this is true. Not sure why this is relevant to the Plan, suggest it be removed.	The information is intended to describe those systems for which another entity (i.e., not cities or the BCWMC) has maintenance responsibility.
38	Minneapolis	page 3-20, 2nd bullet	"Cities are responsible for maintaining storm sewer catch basins and leads in the county roads." This is not a correct statement. These infrastructure components are the responsibility of the county, however in the case of Minneapolis, we do maintain them BY AGREEMENT WITH THE COUNTY. I don't know how this works in other cities. Not sure why this is relevant to the Plan, suggest it be removed. If kept, I suggest you change the sentence to say, "The county is responsible for the storm sewer catch basins and leads in the county roads, but maintenance may be performed by cities through agreement."	Text will be revised to clarify that agreements may exist between cities and counties regarding these systems.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
39	Minneapolis	page 4-4, policy 13, first sentence	Add, "triggers and flexible treatment options", so that the full sentence reads, "The BCWMC will review projects and developments to evaluate compliance with the MPCA's Minimal Impact Design Standards (MIDS) performance goals, triggers and flexible treatment options (which are adopted by the Commission as BCWMC water quality management standards) if the projects are located in member cities that have not adopted the MIDS performance goals, triggers and flexible treatment options, or at the request of the member city.	The first sentence of the policy will be revised to be consistent with the rest of the policy in referencing the performance goal, triggers, and flexible treatment option. [Note that while this is a change to a significant policy, the suggested change is consistent with the intention of the policy, as adopted by the Commission.]
40	Minneapolis	page 4-4, policy 15	"Member cities shall not allow the drainage of sanitary sewerage or industrial wastes onto any land or into any watercourse or storm sewer discharging into Bassett Creek."The MPCA, and not the member cities, is in charge of NPDES Permits for industrial wastes. Therefore it is necessary to change the sentence to, "Member cities shall not allow the drainage of sanitary sewerage or non-permitted industrial wastes onto any land or into any watercourse or storm sewer discharging into Bassett Creek."	The text will be revised to exclude permitted industrial waste discharges.
41	Minneapolis	page 4-5, policy 25	Can a timeline and/or frequency be included?	A timeline has not yet been developed.
42	Minneapolis	page 4-6, policy 29	". . . including minimum building elevations of at least 2 feet above the 100-year flood level, as outlined . . .". Please add, "for new buildings", as in, ". . . including minimum building elevations of at least 2 feet above the 100-year flood level for new buildings, as outlined . . .".	The policy includes a reference to the BCWMC rules (Appendix H), which notes that the requirement is applicable to new structures. The text of Policy 29 will be revised to include "for new structures" as described in the BCWMC rules.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
43	Minneapolis	page 4-7, policy 34, policy 35	"The BCWMC will allow only those land uses . . ." In some cases, it is unavoidable to exclude other infrastructure -- whether public or private -- than just "public utility lines". Possibly add, "unless a variance is granted", as in, "The BCWMC will allow only, unless a variance is granted, those land uses . . .". It is essential that a variance process be in place. To be sure that Items 34 and 35 are not contradictory I suggest they be combined and re-worked.	During Plan development, there was periodic discussion about variances. Ultimately, the Plan Steering Committee decided that variances may be requested for any number of requirements specified in the Plan, and should not be referenced for specific policies unless the variance is categorical in nature (e.g., trails in buffer areas). Appendix H includes the procedure for requesting a variance.
44	Minneapolis	page 4-7, policy 39	To clarify that there is a process involved, I suggest the following instead of the [current] sentence: "When WMO Plans are updated, approved and adopted, the BCWMC requires member cities to follow processes laid out in Minnesota Rules and Statutes to come into compliance with changes in WMO standards, including floodplain standards."	The recent update to Minnesota Rules 8410 has changed the process. The 8410 Rules no longer specify the local plan update cycle relative to the WMO Plan. Thus, the BCWMC Plan must now outline the process.
45	Minneapolis	page 4-7, policy 39	"The BCWMC requires member cities to maintain ordinances that are consistent with BCWMC floodplain standards."I suggest this sentence be removed. This goes beyond State requirements, and may not always be practical. Review by the BCWMC of updates to Local Surface Water Management Plans, which are the mechanism for coming into compliance with changes to WMO standards, should suffice.	Policy 39 refers only to those ordinances that include floodplain standards. Cities use other "local controls" in addition to their local water plans. It is necessary to review these to determine compliance with WMO requirements. This responsibility for oversight of the member cities was specifically mentioned by BWSR during plan development, and is noted in Section 5.1.1.6.
46	Minneapolis	page 4-11, policy 60	In regard to soft armoring techniques, since "wherever feasible" is not clearly defined, I suggest adding, "and where there is a high likelihood of durability." although soft armoring techniques are desirable, there are many case histories of failure.	The policy language provides flexibility in implementation. It is intended that "feasible" refers to longevity as well as installation.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
47	Minneapolis	page 4-17, policy 110	"The BCWMC will place a higher priority on projects that incorporate multiple benefits . . ." Suggest change from "will" to "may". Some single-purpose projects may be very important and high priority.	It is acknowledged that some projects with singular benefits may be prioritized above multiple-benefit projects based on several factors. However, it is generally true that the BCWMC will prioritize multiple-benefit projects. The bulleted criteria of Policy 110 and the text of Section 5 further describe the prioritization process and give the BCWMC adequate flexibility for prioritization.
48	Minneapolis	NA	In reference to application of the MIDS standard, I strongly suggest that the Plan state that, while the BCWMC considers the track portions of LRT projects to come under the Linear category for applicability of MIDS standards, the BCWMC considers the station portions of LRT projects to come under Development or Redevelopment (as the case may be) for applicability of MIDS standards.	This will be noted by the Commission moving forward. As written, the Plan should allow for flexibility in interpreting track portions of rail projects.
49	MnDOT	Appendix H, page 19, Section 2.11	"Road overlay projects and road resurfacing projects which do not disturb the road base will not be covered by the requirements of this policy" MIDS specifies projects "which do not disturb the underlying soil." Please match the MIDS requirement.	Appendix H will be revised to be consistent with MIDS language.
50	MnDOT	Appendix H, pages 6 and 9, sections 3.2 and 4.2	This section mentions an application fee. State agencies are exempted from fees in all other watersheds; please include this exemption.	Appendix H will be revised to note the exemption.

No	Commenter	Page/ Plan Section	Plan Language/Comment	Draft Response
51	MnDOT	Appendix H, page 9, section 4.1	"Linear projects disturbing less than 1 acre will be reviewed by the cities."MnDOT will follow BCMWC standards, but as a state agency, does not follow city standards. This will cause difficulty with the actual application process and the form and review by the cities. Please make an exemption for state agencies.	Section 3.1 of Appendix H states that the BCWMC will only review projects after the project has received preliminary review by the city (i.e., City review occurs prior to BCWMC review for all projects, including linear). In practice, the Commission will cooperate with City staff to make sure they are aware of the process/requirements applicable to MnDOT and other state agency projects.
52	MDA	page 5-8	The following could be added: "The Minnesota Department of Agriculture (MDA) is statutorily responsible for the management of pesticides and fertilizer other than manure to protect water resources. The MDA implements a wide range of protection and regulatory activities to ensure that pesticides and fertilizer are stored, handled, applied and disposed of in a manner that will protect human health, water resources and the environment. The MDA works with the University of Minnesota to develop pesticide and fertilizer Best Management Practices (BMPs) to protect water resources, and with farmers, crop advisors, farm organizations, other agencies and many other groups to educate, promote, demonstrate and evaluate BMPs, to test and license applicators, and to enforce rules and statutes. The MDA has broad regulatory authority for pesticides and has authority to regulate the use of fertilizer to protect groundwater."	The Minnesota Department of Agriculture's regulatory authority as related to water resources has been omitted from the plan due to the absence of agricultural uses within the BCWMC.

Northwood Lake Improvement Project
DRAFT Clean Water Fund Grant Application

Project Abstract

Northwood Lake is an impoundment of the North Branch of Bassett Creek located in the City of New Hope within the Bassett Creek Watershed Management Commission (BCWMC). Northwood Lake is a shallow lake with a fully developed watershed of 1,341 acres that provides very little stormwater treatment. The lake is used for aesthetic viewing, boating, and fishing, and is home to the City of New Hope's premier park, Northwood Park.

Northwood Lake is impaired due to nutrients and is included in the MPCA's impaired waters 303(d) list. The lake is classified as a Priority 1 lake by the BCWMC and City of New Hope. The BCWMC has developed strategies to improve Northwood Lake's water quality dating back to the 1996 Northwood Lake Management Plan and continuing into the 2015 BCWMC Watershed Management Plan. The components of this proposed project were analyzed and fully described in the Feasibility Study for the Northwood Lake Improvement Project (November 2014).

The proposed Northwood Lake Improvement Project will treat storm water runoff from over 110 acres of currently untreated urban land through a variety of practices at two different locations adjacent to the lake. The project includes rainwater gardens, underground stormwater collection and re-use, a structural pretreatment device, and a wet ponding basin. These practices will maximize storm water treatment while minimizing the amount of land removed from useable park space. These practices will combine to reduce phosphorus loading by 22 lbs per year, significantly increasing the regularity with which the lake meets applicable BCWMC and State water quality standards. Secondary benefits of the project will include water conservation (through stormwater re-use for irrigation), stormwater volume reduction, habitat improvements, open space preservation, development of innovative technologies, and education.

The project will be completed in partnership with the City of New Hope.

What organization will serve as the Fiscal Agent for this grant?

Bassett Creek Watershed Management Commission

Did your organization receive CWF grant dollars in FY 2013, FY 2014 and/or FY 2015? If less than 50% of the total grant amount awarded from FY 2013, FY 2014 and FY 2015 grants have been spent, please explain your organization's capacity to effectively implement additional Clean Water Fund grant dollars.

No, the Bassett Creek Watershed Management Commission last received a Clean Water Fund grant in FY2012.

Project Description: 1. (5 points) Identify the resource of concern for the proposed project. What nonpoint pollution problem(s) will be addressed with this project? Describe the public benefits of this project to the resource of concern from a local and state perspective, including how the resource of

concern aligns with at least one of the statewide priorities referenced in the "Projects and Practices" section of the RFP.

This project will improve the water quality of Northwood Lake and the North Branch of Bassett Creek while conserving drinking water and preserving open space. Northwood Lake is an impoundment of the North Branch of Bassett Creek. The lake and the creek flow into Bassett Creek's main stem which enters the Mississippi River in Minneapolis. Northwood Lake is a shallow lake with a fully developed watershed of 1,341 acres. The shoreline is developed with single family homes and the lake is used for aesthetic viewing, boating, and fishing. A popular community park, Northwood Park, is located on the lake. This is the City of New Hope's premier park hosting multiple community events and attracting residents from around the area.

Northwood Lake is included on the State's Impaired Waters List due to nutrients; the North Branch of Bassett Creek is impaired due to bacteria. This project aligns with the statewide priority to "restore and protect water resources for public use and public health, including drinking water." Pollutants including nutrients, bacteria, solids, chlorides, PAHs, etc. enter the lake from the fully developed watershed, much of which has little or no stormwater treatment.

The project includes practices adjacent to the lake that will maximize storm water treatment while minimizing the amount of land removed from useable park space and conserving drinking water. Project components include a structural treatment device for pre-treatment of runoff, underground storm water re-use chamber (160,000 ga.), distribution system to irrigate adjacent ball fields, and a series of raingardens to treat system overflow prior to discharging into Northwood Lake. Additionally, a wet ponding basin will be constructed to treat runoff from rear yard areas and Jordan Avenue on the west end of the lake. This project will treat runoff from 110 acres, reduce annual phosphorus loads to the lake by 22 lbs, and conserve up to 3.8 million gallons of drinking water each year.

Relationship to Plan: 2. (15 points) Describe how the resource of concern was prioritized. For the proposed project, identify the specific water management plan reference by plan organization, plan title, section and page number. In addition to the plan language, provide a brief narrative description of the impact of the action or objective cited. Provide web links to all referenced plans.

Northwood Lake is a priority lake for the BCWMC and the City of New Hope and has been the focus of monitoring and planning for decades. The BCWMC's 1996 Northwood Lake Watershed and Lake Management Plan identified BMPs to help improve water quality. The lake has been regularly monitored by the BCWMC and through the Citizen Assisted Monitoring Program since 1977. Once every 4 years the BCWMC collects data on water quality, zooplankton, phytoplankton, and aquatic plants.

The BCWMC 2015-2025 Watershed Management Plan (Plan) includes lake prioritization methods in Section 2.7.2.2 and Appendix C. Priority 1 lakes (like Northwood) are MDNR-designated Public Waters Lakes, >10 acres with public access or adjacent public land. The Plan includes this project to address water quality in Northwood Lake in its Capital Improvement Program in Table 5-3. The Plan also includes policies 1, 2, 4-6, and 9-11 in Section 4.2.1 regarding waterbody prioritization, water quality goals/standards, project implementation, and monitoring (see www.bassettcreekwmo.org). These policies work to ensure that water quality goals are in place and actions will be taken to protect and restore waterbodies for public use and aquatic health.

The City of New Hope first identified needed water quality improvements for Northwood Lake in their 1996 Surface Water Management Plan. In 2008 the City adopted a Local Water Management Plan that identifies the need for water quality improvements for discharges to the lake in Table 6.2 (pg 31). Table 8.2 (pg 52) identifies water quality improvements within the drainage area tributary to Northwood Park as a "priority system improvement project" and Table 8.5 identifies water quality improvements at this location as "Implementation Activity #8".

Project timing coincides with city plans to redevelop Northwood Park where the BMPs will be located. Construction mobilization, earthwork, traffic disruptions, and park closures are hence limited to one timeframe.

Targeting: 3. (18 points) Describe the methods and results of inventory and source targeting done to date or that will be completed prior to project implementation. How was this used to identify the root cause of the most critical pollution sources or threats to surface and/or groundwater quality?

In 1996 the BCWMC completed the Northwood Lake Watershed and Lake Management Plan to establish implementation priorities and provide guidelines for the Cities of New Hope and Plymouth and the BCWMC. A P8 water quality model was used to estimate both the water and phosphorus loads introduced from the various inflow points to Northwood Lake. The annual runoff volumes in the model were calibrated to monitoring data collected from a previous study on the Minneapolis Chain of Lakes. The model was calibrated assuming the "average year" climatic data and the phosphorus loading values for various land uses were based on Bannerman (1983). The lake management plan resulted in specific recommendations and preliminary cost estimates for structural BMPs for multiple lake drainage areas.

In 2014, a feasibility study for this project was completed using the Minimal Impact Design Standards (MIDS) Calculator (Version 2: June 2014) to estimate the water quality treatment performance of the project components. The project will treat storm water runoff from over 110 acres of currently untreated urban land through the installation of a variety of practices at two different locations adjacent to the lake, including rainwater gardens, underground storage, a structural pretreatment device, and a wet pond. These practices will maximize storm water treatment while minimizing the amount of land removed from useable park space. These project components were analyzed and fully described in the Feasibility Study for the Northwood Lake Improvement Project (November 2014). In preparing the feasibility study, existing site conditions (including soil borings and infiltration conditions) were surveyed and analyzed to determine the best BMP options, their location, size, and pollutant removal effectiveness.

Targeting: 4. (5 points) How does this application fit into an overall watershed protection and/or restoration strategy implemented by your organization and your partners in the watershed? Listing in a plan does not necessarily constitute an overall strategy. Describe activities other than those funded by this application that affect the resource of concern including but not limited to other financial assistance or incentive programs, easements, regulatory enforcement, or community engagement activities that are indirectly related to this proposal.

This project is part of a comprehensive and robust Capital Improvement Program (CIP) implemented by the BCWMC in cooperation with its member cities and other partners. The BCWMC CIP includes

projects that improve water quality and/or alleviate flooding in all areas of the watershed, while incorporating additional secondary benefits where possible.

Although the CIP addresses multiple BCWMC goals, it is only one component of the larger BCWMC plan to restore and protect waterbodies, reduce flooding and the effects of development, use the opportunity of redevelopment to improve conditions, engage and educate residents, cooperate with multiple partners, and continue to assess resources (along with the effects of climate change).

There are multiple strategies the BCWMC uses to accomplish these goals. In addition to structural BMPs installed through the CIP, the BCWMC uses requirements for development and redevelopment to achieve water quality and rate control goals including the MPCA's Minimal Impact Design Standards and buffer requirements.

The BCWMC also educates the public about water quality and their role in improving waterbodies in their communities. Specifically, an active lake group - the Friends of Northwood Lake cooperates with the BCWMC and disseminates educational materials and information to its members and local residents, including hosting BCWMC and city staff speakers at annual meetings. The BCWMC also participates in the West Metro Water Alliance, sponsors multiple education programs (such as the Children's Water Festival and the Clean Water MN campaign, Non-Point Education for Municipal Officials), hosts watershed tours, and participates in several local events each year.

Targeting: 5. (2 points) Newsletters, signs and press releases are standard communication tools. Beyond those basics, describe any additional project activities that would be added to the grant work plan aimed at engaging your local community on the need, benefits and long term impacts of this project.

There has already been much public input and support for the project, including letters of support from the Friends of Northwood Lake and the City of New Hope and testimony at public meetings and BCWMC meetings. The BCWMC and the City of New Hope will build on that support and will keep the Friends of Northwood Lake and other residents engaged in the project and its outcomes through presentations, written materials, signage, and participation in events at Northwood Park and other venues.

Measureable Outcomes: 6. (10 points) What is the pollutant(s) of concern, such as dissolved phosphorus, nitrogen, sediment, etc., that is specifically being addressed by this project? Has there been a specific pollutant reduction goal set in relation to the pollutant of concern or the resource of concern that is the subject of this application? If so, what is that goal and what process was used to set this goal? If no pollutant reduction goal has been set, describe the water quality trends or other management goals that have been established.

Total phosphorus reduction is the primary goal of this project as the lake is officially impaired for nutrients. It is expected that significant sediment loading reductions will also be achieved. The BCWMC's water quality goal is consistent with State water quality standards for shallow lakes: 60 ug/L total phosphorus as a summer average. Although a TMDL has not been completed for Northwood Lake, the 1996 management plan included watershed and lake water quality modeling that estimated the total phosphorus loading capacity (and necessary load reductions) to meet lake water quality goals. The BCWMC and local residents have been monitoring and collecting data on Northwood Lake since 1977. In the last ten years, the average of all June-September observations show total phosphorus

concentrations of 215 ug/L., average chlorophyll a concentrations of 25 ug/L, and average Secchi depth measurements of 0.99 m. The latest monitoring data from 2013 confirms that Northwood Lake is still impaired for excess nutrients and not meeting State water quality standards for shallow lakes. However, chlorophyll-a and Secchi transparency levels have been quite close to the shallow lake eutrophication standards since 2000, with average annual chlorophyll-a and Secchi depth levels meeting the standards six and nine times, respectively, during the fourteen year period.

Comparison of the historical water quality, phytoplankton and macrophyte data indicates that the lake has switched into a more stable, plant-dominated system with fewer blue-green algae since 2000. As a result, it is expected that incremental reductions in phosphorus loading will significantly increase the likelihood that water quality standards will be met on a more regular basis. In addition, much of phosphorus load reduction realized from this project will target soluble phosphorus, resulting in disproportionately greater lake water quality benefits than other BMPs that only remove particulate phosphorus.

Measureable Outcomes: 7. (15 points) Describe how this project directly addresses the pollutant(s) of concern and how effective the project will be in solving the pollution problem(s). Describe how this project addresses the root cause of the problem. What is the annual reduction in pollutant(s) that will be achieved for the resource of concern after this project is completed?

This project will treat stormwater runoff from over 110 acres of currently untreated urban land and will reduce annual total phosphorus loads to the lake by 22 lbs. The project includes the installation of a variety of practices at two different locations adjacent to the lake that will maximize stormwater treatment while minimizing the amount of land removed from useable park space. At the east end of the lake project components include a structural treatment device for pre-treatment of runoff, underground storm water re-use chamber (160,000 gallons capacity), pump house, distribution system to irrigate 6.4 acres of adjacent ball fields, and a system overflow directed into a of raingardens prior to discharging into Northwood Lake. At the west end of Northwood Lake, a wet ponding basin will be constructed in a green space area between Trunk Highway 169 and Jordan Avenue. Storm water runoff from rear yard areas and Jordan Avenue draining from the south will be directed into the pond for treatment before discharging into an existing storm sewer pipe tributary to Northwood Lake.

Analysis performed as part of the 1996 management plan indicates that the root cause of high nutrients in Northwood Lake is mostly untreated runoff from residential and commercial land in its 1,341 acre watershed. This project captures and treats runoff from a portion of that land, resulting in a direct reduction of total phosphorus (and other pollutants) entering the lake.

Measureable Outcomes: 8. (10 points) Will the overall project have additional specific secondary benefits, including but not limited to hydrologic benefits, enhancement of aquatic and terrestrial wildlife, drinking water protection, enhancement of pollinator populations, or protection of rare and/or native species? If so, please specifically describe, or quantify if possible, what those benefits will be.

This project has significant secondary benefits. In addition to improving water quality in Northwood Lake and the North Branch of Bassett Creek by removing phosphorus, bacteria and other pollutants, this project will accomplish the following:

Water Conservation: The project will conserve up to 3.8 million gallons of drinking water each year through the use of captured stormwater to irrigate adjacent ballfields.

Volume Reductions: The stormwater reuse and raingarden components will reduce stormwater runoff volumes reaching the lake by 14% (through reuse and infiltration).

Habitat Improvements: Water quality improvements in the lake and creek will result in improved aquatic habitats (less algae, more dissolved oxygen, more sunlight for plants).

Open Space Preservation: This project preserves precious open space by capturing stormwater in underground chambers rather than treating it in a large pond within Northwood Park. The City of New Hope is fully developed and has a relatively low amount of public open space (compared to some neighboring communities). Therefore, the prospect of using valuable parkland for a stormwater pond was not amenable to city officials and residents.

Innovation: The large underground stormwater storage area and use of this stormwater to irrigate ballfields in the park is an innovative approach to stormwater management. As space (and public appetite) for traditional stormwater ponds decreases, innovative practices such as underground storage areas will become important to understand and implement efficiently. The BCWMC is willing and able to share design features and lessons learned about the project with other entities.

Education: This project will educate the public through the installation of a large educational sign describing components of the project and BMPs homeowners can use to help reduce polluted runoff.

Cost Effectiveness: 9. (5 points) What alternatives were considered to achieve the same type and amount of benefit outlined in the proposed project? Describe why the proposed management practice(s) are considered to be the most cost effective and reasonable means to attain water quality improvement or protection benefits. Consider such factors as, but not limited to BMP effectiveness, timing, site feasibility, practicality, and public acceptance.

The feasibility study for this project included an option for a stormwater pond at the east end of the lake in place of the planned underground stormwater reuse alternative. The BCWMC deliberated at length about the two different options and decided to implement the stormwater reuse option for multiple reasons. The reuse option removes slightly more total phosphorus and has the added benefits of drinking water conservation and stormwater volume reduction. These two options were also analyzed using the Envision rating system. Envision is a project assessment and guidance tool for sustainable infrastructure design, providing an objective framework of criteria and performance achievements that help users identify ways that sustainable approaches can be used to plan, design, construct, and operate infrastructure projects. Envision was useful in comparing the two project options which have different intangible benefits that were difficult to quantify through traditional measures. After analysis, Envision scored the stormwater reuse option higher or more desirable from a sustainability standpoint.

Another important consideration was community acceptance for the project. The stormwater pond option would have used 0.34 acres of precious parkland which was highly unfavorable to city officials and residents. The chosen stormwater reuse option had strong community support from the beginning including that of the Friends of Northwood Lake, the New Hope city council, and other residents. Two

neighborhood meetings were held in June and August 2014 in which participants voiced their strong support for improving lake water quality but WITHOUT installing a stormwater pond within the park.

Finally, cost effectiveness of the project is enhanced because the construction timing coincides with city plans to redevelop Northwood Park where the BMPs will be located. Construction mobilization, earthwork, traffic disruptions, and park closures are hence limited to one timeframe.

Project Readiness: 10. (5 points) Describe steps and actions already taken to ensure that project implementation can begin soon after grant award. Also describe any preliminary discussions with landowners/occupiers, agreements/contracts, contingency plans, and other project development activities to date that will ensure a smooth start to the project and minimize administrative or other critical delays.

A feasibility study for this project was completed and approved by the BCWMC in 2014. The BCWMC entered into an agreement with the City of New Hope to design and construct the project at their August 20, 2015 meeting. The City of New Hope will use its consulting engineering firm to design the project components according to the feasibility study and all necessary State and local permits will be sought. The BCWMC Engineer will review 50% design plans and will make recommendations to the BCWMC regarding approval. This process is repeated for the 90% (final) design plans. The City of New Hope will then submit bid documents, contract with a construction firm, and oversee construction. The City will report back to the BCWMC on construction progress and will prepare a final report at the end of the project. Construction is expected to begin in summer 2016 and should be completed in September 2016.

The BCWMC has managed its capital improvement program following the process described above with great success for over ten years, implementing 1 - 2 projects per year in cooperation with its member cities.

Project Readiness: 11. (5 points) List and provide the status of any permits (federal, state, or local) that may be required for this project (for example, NPDES construction permit applied for on January 1, 2015, archeological surveys, etc.). Describe any preliminary discussions with permitting authorities (if applicable).

The stormwater reuse feature requires a Minnesota Department of Natural Resources' (MDNR) Water Appropriations Permit. This feature will also require an NPDES Construction Storm Water Permit due to disturbance of more than one acre. The City of New Hope will require a permit for grading.

BBR: 12. (5 points) Did your organization submit a Biennial Budget Request (BBR) to BWSR in 2014?

Yes.

The Constitutional Amendment requires that Amendment funding must not substitute traditional state funding. Briefly describe how this project will provide water quality benefits to the State of Minnesota without substituting existing funding.

The BCWMC is committed to the improvement and protection of its lakes, streams, and wetlands and therefore implements a robust and comprehensive capital improvement program (CIP) in partnership

with its member cities. Every year since 2004, the BCWMC has levied, through Hennepin County, the funds needed to implement large-scale projects to improve impaired waterbodies or protect healthy waterbodies. This project is receiving local city funds of $300,000 and Clean Water Partnership grant funds (from MPCA) of $300,000. The BCWMC is prepared to fund the remainder of the project through a Hennepin County tax levy, as needed. However, there is a long list of projects in need of BCWMC financial support. Grant funding is sought to offset the BCWMC funds so that other projects can be implemented.

Item 6F.
BCWMC 8-20-15

Grant Application Form

FLOOD DAMAGE REDUCTION

FDR

GRANT ASSISTANCE PROGRAM

Prepared For
Local Government

MN DNR WATERS

Please return application and supporting materials to your DNR Waters Area Hydrologist.

FLOOD DAMAGE REDUCTION PROGRAMS
HAZARD MITIGATION GRANT APPLICATION

Application Date: 8/21/2015

Local Unit of Government Applicant: Bassett Creek Watershed Management Commission (BCWMC)

Authorized Agent: Laura Jester, Administrator

Address: 16145 Hillcrest Lane, (Number & Street) Eden Prairie, MN (City/State) 55346 (Zip code) Hennepin County (County)

Phone No:(952) 270-1990 Fax No:( ) Cell Phone: (952) 270-1990

E-mail address: laura.jester@keystonewaters.com

Contact person (if different from authorized agent): Karen Chandler, Barr Engineering

Address: 4700 W. 77th Street (Number & Street) Minneapolis, MN (City/State) 55435 (Zip code) Hennepin County (County)

Phone No:(952) 832-2813 Fax No:(952) 832-2601 Cell Phone:( )

E-mail address: kchandler@barr.com

Project Funding Breakout

Total Estimated Project Cost	$230,000
Amount Requested From DNR Waters	$158,000 maximum (see Section IV)
Amount from other state agencies	N/A
Total share of all local government sources	N/A (Staff time only)
Estimated in-kind match	$103,000 minimum (see Section IV)
Federal share	N/A
Private share	N/A

Check the following types of flood damage reduction activities included in project along with a quantity (if applicable) and cost or percentage of total project costs.

	Activity	Quantity		Cost or Percentage
	Acquisition		Number of Homes	
	Levee		Miles	
	Levee Improvement		Lineal Feet	
	Floodwall		Lineal Feet	
	Ring Dike		Number of Ring Dikes	
	Ring Dike Improvement		Number of Ring Dikes	
	Flood Storage Easement		Acres	
	Impoundment		Acre Feet	
	Impoundment Improvement			
	Flood Warning System			
	Feasibility Study			
	Flood Insurance Study			
	Floodplain Mapping			
	Geographic Information System			
X	Hydrology / Hydraulic Study	N/A		
	Other			

Project Narrative

(Please attach resolutions authorizing application and signature, a map of the site, highlighting area(s) damaged and the location of the proposed project.)

I. a.) Briefly describe and itemize the damage(s):

This application is for a hydrologic and hydraulic study of the Bassett Creek watershed. There are no damages associated with this project specifically.

See response under b) below regarding past and current flooding.

b.) Describe the repetitive nature of the flooding:

In the late 1990's the U.S. Army Corps of Engineers (ACOE), the Minnesota Department of Natural Resources and the Bassett Creek Watershed Management Commission (BCWMC) partnered to complete the Bassett Creek Flood Control Project. The project significantly reduced the risk of flooding in the watershed since it was completed. However, there are remaining at-risk properties in the floodplain of the Main Stem of Bassett Creek. Golden Valley recently identified the following at-risk properties along the Main Stem:

- three homes at high risk of flooding (no protective measures taken to date),
- 23 homes at medium risk of flooding (12 have ring berms and are vulnerable to pumps failing, around 10 have low openings within 1 foot of 1% chance flood),
- many more homes at low risk of flooding (property is in the floodplain, but home is likely outside of floodplain, based on TP 40)
- approximately three businesses at risk of flooding during 1% annual chance event (mostly loading docks with water against foundation only)
- Three streets closed due to flooding from creek during large precipitation events, and during 1% annual chance event, which results in at least six driveways blocked during flooding. The resultant road closures can last for long periods of times (days or more).

Also, Golden Valley identified a sewer lift station at risk of flooding along the Sweeney Branch.

Other properties outside of Golden Valley (e.g., Medicine Lake, Plymouth), but within the BCWMC, are also currently at risk of flooding.

In 2013 the National Oceanic and Atmospheric Administration completed a review of the last 50 years of climatological data and, based on that data, published new precipitation frequency estimates (Atlas 14) that significantly increased expected rainfall amounts for rare (i.e., <10% occurrence) events. The BCWMC determined that the watershed needs to be remodeled to assess how the level of protection provided by the Bassett Creek Flood Control Project has been affected by these revised rainfall amounts. The more detailed modeling will provide the cities in the watershed with a more current picture of the flooding risk in the watershed, which will likely affect how the cities respond to future rainfall events.

Project Narrative

II. **Describe the proposed project and its objective:**
(Please include project location, a list of funding sources, how local funding will be obtained and identify implementing parties and their roles.)

The goal of this project is to refine and update an existing hydrologic and hydraulic model to help quantify flood risk in the BCWMC.

The BCWMC developed HEC-1/HEC-2 models in the 1980's which were revised in the 1990's after the construction of the BCWMC flood control project. Because the ACOE's Hydrologic Engineering Center no longer supports the hydrologic models that were used to model Bassett Creek, the BCWMC converted the HEC-1/HEC-2 models to an XP-SWMM model in 2012.

Although the scale of the modeling was similar to the original HEC-1/HEC-2 models, the watershed divides were revised based on current digital topographic and storm sewer data, modifications to the hydrologic inputs, and enhancement of detail along the creeks by using updated channel geometry and current bridge and culvert information. However, during the conversion to XP-SWMM, the scope did not include subdividing watersheds or incorporating additional watershed storage upstream of the Bassett Creek system.

Although the XP-SWMM model was calibrated to flow monitoring data along the creek, the calibration was limited by the coarse resolution (simplification) of the upper watersheds in the model (e.g. large watersheds and limited storage included upstream of the creek). Because of this, the calibration required unrealistic changes to model parameters to achieve accurate calibration.

As a result, the BCWMC is refining and updating the XP-SWMM model by further subdividing the watersheds, incorporating upstream storage in the many water quality storage ponds that were constructed after the completion of the flood control project, along with many of the smaller stormwater storage areas that were not included in the original model, and the storm sewer conveyance between the storage areas. In addition, the revised model will incorporate Atlas 14 precipitation depths and the resultant new NRCS storm distributions, incorporate updated SSURGO soils data, update vertical datums for consistency, and use flow monitoring data to aid in model calibration.

The BCWMC budgeted for the XP-SWMM model updates to occur over the 2015 and 2016 BCWMC fiscal years. The BCWMC Engineer (Barr Engineering) is performing the model revisions. The member cities will provide information (such as pond outlet and storm sewer data/record drawings) for the updates (as requested) and will also be involved in review of the modeling results through the BCWMC Technical Advisory Committee (TAC) and BCWMC meetings.

Project Narrative

III. a.) **Summarize the alternative flood mitigation measures that were considered to achieve the desired benefits.**

N/A

b.) **Is the proposed project the least environmentally damaging alternative that is feasible and prudent? Why?**

N/A

(If project requires a mandatory environmental review)

c.) **Has an environmental review been completed for the proposed project? If not, is an environmental review part of the application proposal?**

N/A

Project Narrative

IV. **Describe and itemize the costs (including environmental and natural resource costs) associated with the project:**
(Please include a budget/cost schedule. If the project will be completed in phases, please include a phasing schedule for the project.)

Environmental costs do not need to be quantified in terms in money.

Below is the budget breakdown for the project over the two-year schedule.

Year	Study Area	Budget	Approximate Time to Complete
2015 (through January 31, 2016)	Detailed Modeling, Plymouth Creek Watershed	$54,000	Six Months
	Flow Monitoring, Plymouth Creek	$0	Completed
	Detailed Modeling, Medicine Lake Direct Watershed	$40,000	Four Months
	Three Months Flow Monitoring, North Branch Bassett Creek	$9,000	Three Months
2015 Total		**$103,000**	
2016 (through January 31, 2017)	Detailed Modeling, North Branch Bassett Creek	$39,000	Four Months
	Detailed Modeling, Bassett Creek Main Stem – Medicine Lake to Confluence with North Branch	$54,000	Five Months
	Detailed Modeling, Bassett Creek Main Stem – Downstream of the Confluence with North Branch (Including Sweeney Branch)	$49,000	Four Months
	Final Modeling Methodology Report	$16,000	Three Months
2016 Total		**$158,000**	
Phase 2 – Total		**$261,000**	

The BCWMC is currently performing the flow monitoring on the North Branch of Bassett Creek and the detailed modeling of the Plymouth Creek and Medicine Lake direct watersheds. This phase of the work is anticipated to be completed by January 31, 2016 (end of the BCWMC fiscal year).

As noted in the above table and the "Project Funding Breakout" section, the remaining work during the BCWMC 2016 fiscal year (February 1, 2016 – January 31, 2017) is expected to total $158,000. Although the BCWMC's request is for the full 2016 costs of $158,000, the BCWMC is willing to accept a smaller grant amount. For example, if grant funds are limited, the BCWMC requests that the MDNR consider funding one or more of the 2016 work phases listed in the table above.

Project Narrative

V. **Describe and itemize the benefits (including environmental and natural resource costs) associated with this project:**
(Please describe the anticipated results of this project.)

Environmental benefits do not need to be quantified in terms of money.

The XP-SWMM model will provide a tool that can assess and quantify flood risk in the BCWMC resulting from Atlas 14 precipitation events (using higher precipitation depths than past evaluation efforts). These efforts will help the BCWMC and member cities identify structures that are at-risk of flooding along the creek and in upstream areas. The model will also be a tool that will allow the BCWMC to evaluate potential modifications to the existing flood control project features.

By refining the level of detail in the watersheds, storage, and conveyance in the larger BCWMC watershed, the XP-SWMM model will also be a useful tool for the BCWMC and local entities to evaluate proposed projects and make informed management decisions.

VI. **List opportunities for public involvement and describe public response to the proposed project:**

Although there is no formal public involvement process for this hydrologic and hydraulic study, this project was approved by the Bassett Creek Watershed Management Commission (an all-citizen commission) after much discussion and input on the benefits and expected outcomes of the project. The modeling and results will be discussed at future BCWMC meetings, which are open to the public. Additionally, the TAC, which includes representatives from each of the member cities, was involved in the development of the project scope and will be involved in the development of the model by providing data as requested, and reviewing the XP-SWMM model results.

a.) Describe partners (if any) and their role in this project.

The BCWMC is funding this hydrologic and hydraulic study. Additionally, the BCWMC TAC (which includes the member cities) will be involved in model development (e.g. provide data such as record drawings as requested) and review of the results. The BCWMC Engineer (Barr Engineering) will perform the XP-SWMM modeling and collect flow monitoring data for the North Branch of Bassett Creek. Three Rivers Park District has collected flow monitoring data for Plymouth Creek on behalf of the City of Plymouth. The North Branch and Plymouth Creek flow monitoring data will be used in the calibration process. Flow monitoring data collected by the Metropolitan Council on the Main Stem of Bassett Creek (WOMP station) will also be used for calibration. Additionally, there may be potential FEMA funding available (administered through the MDNR) that the BCWMC is pursuing.

Project Narrative

VII. **Flood Insurance: Do the local government units within your jurisdiction participate in the National Flood Insurance Program?**

Yes

VIII. **Zoning Ordinances: Is your local government unit administering a state approved shoreland ordinance and flood plain ordinance?**

The cities have state approved ordinances.

The BCWMC does not have a state approved floodplain ordinance. However, through the BCWMC watershed management plan policies and the BCWMC development/project review program, the BCWMC implements floodplain policies.

IX. **Is this proposed study, plan, or project identified in a comprehensive local water plan prepared under M.S. Chapter 110B or 112 or M.S. 473.875-473.883?**

This hydrologic and hydraulic study is included in Table 5-4 of the 90-day review draft of the 2015-2025 BCWMC Watershed Management Plan, as item "Modeling to Update Flood Levels." The BCWMC anticipates BWSR Board approval of the Plan on August 26, 2015.

Item 6G.
BCWMC 8-20-15

Bassett Creek Watershed Management Commission

DRAFT

August 11, 2015

Brooke Asleson
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Re: Bassett Creek Watershed Management Commission Comments on Draft Twin Cities Metropolitan Area Chloride Management Plan and TMDL Reports

Dear Ms. Asleson:

Thank you for the opportunity to provide comments on the draft Metro Area Chloride Management Plan and TMDL report. The Bassett Creek Watershed Management Commission (BCWMC), which currently has listed impairments for Bassett Creek, Plymouth Creek, Parkers Lake, Sweeney Lake, Wirth Lake and Spring Lake, respectfully submit the following list of comments on the Minnesota Pollution Control Agency's (MPCA) draft reports:

- The Commission is concerned that the approach used to develop the TMDLs and associated allocations was highly simplified and could make it difficult for future assessment and demonstration of compliance with the relevant water quality criteria—i.e., translating future modeling/monitoring data into a context that actually fits with how the standard will get applied given the variability in the residence times for each of the listed lakes and streams. This concern is further exacerbated by the fact that two of the TMDLs in the BCWMC watershed have wasteload allocations that were assigned to industrial dischargers or wastewater sources. These combined wastewater sources were assigned 13 and 55 percent of the total loading capacity for Bassett Creek and Parkers Lake, respectively. Please provide BCWMC with the available monitoring records and permit conditions associated with all of the permitted wastewater sources in the watershed so that we can assess the magnitude and timing of these sources and what it might mean for future compliance with the chloride standard.

- In assigning the wasteload for MS4s the allocation methodology first subtracts the background load and margin of safety, which will require runoff concentrations below 230 mg/L, yet it is our understanding that the wastewater sources are permitted to continuously discharge at a chloride concentration of 230 mg/L. It is suggested that these permitted sources should be subject to a lower allocation to better accommodate the margin of safety under all seasons and flow conditions.

- The reports provide recommendations for future monitoring efforts but do not describe who will be responsible for the monitoring, how often the monitoring should occur and how the necessary resources will be provided. It will be especially important to plan for and devote enough resources future monitoring efforts, especially for watersheds that need to follow the

"High Risk Monitoring Recommendations." Finally, the recommendations do not include any mention of how the monitoring programs should account for NPDES permitted dischargers within the impaired and "high risk" watersheds.

- Much of the source material in these documents underestimates the chloride contributions from private applicators in the impaired watersheds. In addition, Section 8.3.3 of the TMDL indicates that the ordinance development and training elements of the Required Training Approach should be undertaken by the Cities within the impaired watersheds. This represents a poor allocation of resources for a source of chloride that could be controlled on a statewide/regional basis. The state should be promulgating the rules in place of an ordinance that each city would otherwise be requiring for certified private applicators and that would require significant city interactions with individual landowners. The Voluntary Training Approach described in Section 8.3.3 is also unlikely to succeed without significant expenditure of local resources to ensure that private applicators have the right equipment and training.

- The TMDL report outline is inconsistent in several areas in that Section 3.7 is labeled as Permitted Sources, yet many of the subsections include many sources that are not subject to permit conditions (such as non-permitted sources, agriculture, natural background, etc.). In addition, Subsection 3.7.1.2 is included as part of the MS4 Winter Maintenance Activities subsection, which is inconsistent with the categorization in the implementation strategies (Section 8). It is recommended that the subsection regarding Parking Lots, Driveways, and Sidewalks only be placed and discussed under the Non-permitted Runoff from Winter Maintenance Activities subsection as these are sources of chloride that are not under the direct control of MS4s. This will ensure consistency with Section 8.

- The first paragraph of Subsection 3.7.1.2 is also confusing in that the third sentence states that commercial sources likely represent between 10 to 20 percent of the salt applied, but the last sentence indicates that commercial applications account for between 5 and 45 percent of the total salt usage in the TCMA. It is recommended that you remove the first reference as it is too narrowly defined and based on older information.

Please contact Commission Engineer, Greg Wilson at Barr Engineering (952-832-2672 or gwilson@barr.com) if you have questions regarding these comments. Thank you.

Sincerely,

Jim de Lambert, Chair

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Item 6H – Receive Information on Tasks Related to XP-SWMM Phase 2 Project
BCWMC August 20, 2015 Meeting Agenda
Date: August 12, 2015
Project: 23/27-0051 2015

6H Receive Information on Tasks Related to XP-SWMM Phase 2 Project

Recommendations

- Information only

The BCWMC approved the XP-SWMM Phase 2 work at their April 16, 2015 meeting and requested a Scope of Work from the Engineer at their July 16, 2015 meeting.

Scope of Work for the XP-SWMM Model (Phase 2)

Proper calibration of the XP-SWMM model using acceptable parameters requires enhancing the current XP-SWMM model by further subdividing the watershed divides, incorporating upstream storage in ponds and wetlands, and including the associated storm sewer data. The Phase 2 of the XP-SWMM modeling includes the following tasks:

- **Subdivision of watersheds:** The current XP-SWMM model contains 55 watersheds (from the original HEC-1 model). We will subdivide the watersheds for the BCWMC into approximately 890 watersheds (consistent with the watersheds in the BCWMC P8 water quality model). The table below summarizes the approximate number of watersheds expected in the various portions of the BCWMC. The subdivided watersheds are typically to the scale of the various ponds, wetlands, and other BMPs within the watershed. Major changes to the subwatersheds used for the P8 model development are not expected. However, minor changes to subwatershed divides may be required in select locations within the XP-SWMM model to better address the needs of hydrologic and hydraulic modeling (rather than water quality modeling) and to reflect any new data obtained during this process (e.g. storm sewer information, as-built drawings, topography).

Table 1 Phase 2 XP-SWMM Model Subwatershed Summary

Major Watershed	Approximate Number of Subwatersheds
Plymouth Creek (including Parkers Lake)	260
Medicine Lake	120
North Branch Bassett Creek	100
Main Stem Bassett Creek (Medicine Lake to North Branch)	250
Main Stem Bassett Creek (North Branch to Tunnel)	160
Total	**890**

- **Developing revised watershed hydrology inputs:** We will need to calculate the hydrology inputs for the subdivided watersheds. We will utilize the revised USDA SSURGO soils data (as available) to develop infiltration parameters based on the assigned hydrologic soil groups. For unclassified soil types, we will assume a soil type similar to adjacent classified soils. Subwatershed imperviousness will be based on the 2011 University of Minnesota Twin Cities metro area land cover/imperviousness data set. Subwatershed slopes will be developed based on the MnDNR 2011 LiDAR dataset. The initial subwatershed widths will be developed based on the subwatershed areas and the longest flowpaths.
- **Modeling of storm sewer & outlet structures:** The current XP-SWMM model does not model any of the existing storm sewer within the watershed and only includes channel cross-sections and bridge or culvert crossings along Bassett Creek. As part of Phase 2, we will incorporate information for storm sewer that convey flows between each of the modeled ponds (based on data provided by the member cities). However, we will not be modeling storm sewer systems within each of the subwatersheds. For any gaps in the required storm sewer or outlet data (e.g. pipe size, material, and upstream and downstream inverts), we assumed that the member cities will provide the information as necessary (e.g. record drawings, storm sewer data). If this information is not available from the cities, we will make assumptions based on the best available information (e.g. P8 model, storm sewer GIS data).
- **Integrating detailed storage within the watershed:** As previously mentioned the watersheds in the current XP-SWMM model are fairly large and only include storage along the Bassett Creek system. By refining the scale of the watersheds, we will incorporate the

storage associated with each of the modeled ponds, wetlands, and other BMPs within the watershed, upstream of the Bassett Creek system. We will develop the flood storage utilizing the Minnesota Department of Natural Resources (MnDNR) 2011 LiDAR data. For storage in the Bassett Creek channel, we will utilize the same cross section information as used in the current (Phase 1) XP-SWMM model.

- **Ensuring consistent vertical datums**: In using the current model, we have identified that select portions of the current model are not in the same vertical datum as the rest of the model. The majority of the current model was developed in NAVD88; however, portions of the larger model (e.g. DeCola Ponds area, Sweeney Lake area, and Wirth Lake area, which were developed as part of separate modeling efforts and provided to the BCWMC for use in the Phase 1 model development) are in NGVD29. The difference between these vertical datums is 0.18 feet and will require adjustments in the pipe inverts, overflows, and storage curves to maintain consistency in the Bassett Creek watershed.
- **Incorporating Atlas 14 precipitation data:** The current XP-SWMM model was developed prior to the release of the Atlas 14 precipitation data. We will revise the current XP-SWMM model to incorporate the Atlas 14 precipitation depths and the MN MSE3 storm distribution (replacement of "Type 2" storm distribution; developed by the Natural Resource Conservation Service (NRCS) and approved in early 2015) for the 100-year storm event and capture any "lost water" associated with this event and make sure all water is routed appropriately in the model. After calibration (discussed below), the calibrated model will be rerun utilizing the 100-year event to predict the expected 100-year flood elevations.
- **Flow monitoring & model calibration:** Phase 2 also includes additional flow monitoring and calibration at select locations in the watershed. For several years, the Three Rivers Park District has collected flow monitoring data at two locations along Plymouth Creek for the City of Plymouth. We assumed that the City of Plymouth will provide the flow monitoring data for Plymouth Creek. We installed a flow monitoring station on the North Branch of Bassett Creek to collect data for a 3 month period in 2015. We will also utilize the WOMP station flow data and the Wisconsin Avenue control structure flow data, along with any data logger water surface elevations at Medicine Lake (if available). For each monitoring location, we will calibrate to one smaller, lower intensity storm event and one larger, more intense storm event. Once calibrated, we will run the model for one additional storm event to validate the calibration. By utilizing flow monitoring data at locations throughout the watershed and incorporating the changes outlined above, we expect the modeled runoff rates to the creek system to more realistically represent actual conditions, resulting in an acceptable calibration.

- **Develop a modeling methodology report:** To summarize the modeling and calibration efforts, a brief modeling methodology report will be developed outlining the modeling process and results. We will develop tables summarizing the modeling results (100-year flood elevation tables) and figures showing the calibration plots and 100-year inundation mapping (including subwatersheds and modeled storm sewer).

Uses of the Updated Model (Phase 2)

With the changes summarized above, the Phase 2 XP-SWMM model could be used to determine (and compare) absolute water surface elevations and flow rates. The revised model results could be beneficial to the BCWMC and member cities for revising the BCWMC's jurisdictional flood elevations and the results could also be submitted to FEMA for possible use in future Hennepin County flood insurance rate maps. The model could also be useful to the member cities to assess flood elevations at other ponds or wetlands throughout the watershed. By refining and recalibrating the XP-SWMM model, the BCWMC will be more able to share the model with other units of government for use on public projects (e.g. Blue Line LRT). The updated model can also be used by the BCWMC and/or the member cities to evaluate the impacts of proposed projects on flood levels. It will also be important to periodically revisit and update the XP-SWMM model as conditions change and new hydrologic and hydraulic data is developed.

Cost Estimate and Schedule for Phase 2 Modeling

The BCWMC authorized completion of the Phase 2 modeling effort during the 2015 and 2016 fiscal year. The following table shows the estimated year, budget, and approximate schedule for the Phase 2 modeling to be completed in stages, moving from upstream to downstream in the watershed.

Table 2 Phase 2 XP-SWMM Modeling Schedule and Budget

Year	Study Area	Budget[1]	Approximate Time to Complete
2015 (through January 31, 2016)	Detailed Modeling, Plymouth Creek Watershed	$54,000	Six Months
	Flow Monitoring, Plymouth Creek	$0	Completed[2]
	Detailed Modeling, Medicine Lake Direct Watershed	$40,000	Four Months
	Three Months Flow Monitoring, North Branch Bassett Creek	$9,000	Three Months
2015 Total		**$103,000**	
2016 (through January 31, 2017)	Detailed Modeling, North Branch Bassett Creek	$39,000	Four Months
	Detailed Modeling, Bassett Creek Main Stem – Medicine Lake to Confluence with North Branch	$54,000	Five Months
	Detailed Modeling, Bassett Creek Main Stem – Downstream of the Confluence with North Branch (Including Sweeney Branch)	$49,000	Four Months
	Final Modeling Methodology Report	$16,000	Three Months
2016 Total		**$158,000**	
Phase 2 – Total		**$261,000**	

[1]Budget is based on 2015 dollars

[2]Utilize historic flow data along Plymouth Creek from Three Rivers Park District, collected for City of Plymouth

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Clean Water Partnership Project Work Plan

Doc Type: Contract

MPCA Use Only	
Swift #:	
CR #:	

Project Title: Northwood Lake Water Quality Improvement Project

1. Project Summary:

Organization:	Bassett Creek Watershed Management Commission
Contractor contact name:	Laura Jester
Title:	Administrator
Address:	16145 Hillcrest Lane Eden Prairie MN 55346
Phone:	952-270-1990
Fax:	NA
E-mail:	Laura.jester@keystonewaters.com

Subcontractor(s)/Partner(s):

Organization:	City of New Hope
Type of organization:	Municipality
Project manager:	Bob Paschke
Address:	5500 International Parkway New Hope MN 55428
Phone:	763-592-6766
Fax:	763-533-7650
E-mail:	bpaschke@ci.new-hope.mn.us

Subcontractor(s)/Partner(s):

Organization:	Stantec
Type of organization:	Consultant
Project manager:	Chris Long
Address:	2335 State Hwy 36 Service Rd Roseville, MN 55113
Phone:	651-636-4600
Fax:	
E-mail:	chris.long@stantec.com

MPCA contact(s):

MPCA project manager:	Rachel Olmanson
Title:	Watershed Project Manager
Address:	520 Lafayette Rd. St. Paul MN 55155
Phone:	651-757-2473
Fax:	651-297-8676
E-mail:	Rachel.olmanson@state.mn.us

Major watershed(s): Mississippi River – Twin Cities

Major watershed/HUC Code: 07010206

Latitude/Longitude for project: 45°01'31.12" N, 93°23'31.95" W

County: Hennepin

Project start/End dates: June 21, 2015 - June 30, 2018

Project Funding Type (check one):

☐ **CWP Resource Investigation**

☒ **CWP Implementation**

Grant Amount: $300,000

Proposed Cash Match Funds: $1,052,000

Proposed Inkind Match Funds: $0

Proposed Loan Funds: $0

Total project cost: $1,352,000

2. Statement of Problems, Opportunities, and Existing Conditions

This project will improve the water quality of Northwood Lake by treating storm water runoff from over 110 acres of currently untreated urban land. The project includes the installation of a variety of practices at two different locations adjacent to the lake that will maximize storm water treatment while conserving drinking water and preserving park land.

Northwood Lake is located along the North Branch of Bassett Creek in the City of New Hope. The North Branch of Bassett Creek flows directly into the lake at its northwest corner, and flows out of the lake through a control structure at its southeast corner. Therefore, the lake is directly tributary to the North Branch Bassett Creek which flows into Bassett Creek and into the Mississippi River. Northwood Lake is classified as a shallow lake with a watershed area of approximately 1,341 acres which lies within fully developed areas of the cities of Plymouth and New Hope. Northwood Lake is ringed with single family homes and is used for aesthetic viewing, boating, and fishing. A popular community park, Northwood Park, is located at the eastern end of the lake.

Northwood Lake is included on theState's Impaired Waters List (303(d) list) due to high nutrients. Pollutants enter the lake from the fully developed watershed, much of which has little or no stormwater treament. In addition to high phosphorus, pollutants entering the lake include bacteria, solids, chlorides, PAHs, and other toxins. The North Branch of Bassett Creek is impaired for bacteria.

A feasibility study for this project was completed in November 2014. The project will reduce total phosphorus loads by an estimated 22 pounds per year and will reduce other pollutants carried in storm water runoff and snowmelt. Water quality in Northwood Lake, the North Branch of Bassett Creek, the main stem of Bassett Creek and the Mississippi River will be improved through the implementation of this project.

The Bassett Creek Watershed Management Commission (BCWMC) is a joint powers watershed management entity comprising all or parts of nine cities in central Hennepin County. This project is part of the BCWMC's capital improvement program which it implements in partnership with its member cities to improve and protect water quality in its priority waterbodies and reduce flooding along Bassett Creek and its tributaries.

3. Goals, Objectives, Tasks, and Subtasks

Goal: Reduce total phosphorus to improve water quality in Northwood Lake by enhancing urban storm water treatment.

Objective 1: Design project components
The BCWMC subcontractor will complete the engineering, surveying, permitting, and administration needed to design and

prepare plans for the various components of this project. The BCWMC will review the plans at the 50% design and the 90% (final) design to ensure that the specifications, modeling, and other design components are appropriate and follow BCWMC goals and policies.

Task A: Design storm water reuse system and raingardens
Complete engineering, surveying, permitting, and administration to design and prepare plans for the following project components: redirection of storm sewer on Boone Ave, installation of a storm water treatment structure, underground storage tank and water reuse for ballfield irrigation, rain gardens, sump structure, curb cut, and emergency overflows.

Task A Responsible Party: City of New Hope staff, Stantec
Task A Timeline: July 2015 - January 2016
Task A Cost: $222,383

Task B: Design storm water treatment pond west of Northwood Lake
Complete engineering, surveying, permitting, and administration to design and prepare plans for the following project components: wet ponding basin between Trunk Highway 169 and Jordan Avenue; outlet structure from pond to existing storm sewer pipe tributary to Northwood Lake.

Responsible Party: City of New Hope staff, Stantec
Task B Timeline: July 2015 - January 2016
Task B Cost: $27,862

Objective 1 Timeline: July 2015 - January 2016
Objective 1 Cost: $250,245
Objective 1 Deliverables: Construction plans for storm water reuse system, raingardens, and storm water treatment pond

Objective 2: Construct storm water reuse system and raingardens (Figure 1)

Task A: Redirect storm sewer and install treatment structure
Approximately 84% of the drainage area flowing from the north of this site will be redirected through a new 36-inch storm sewer along the west side of Boone Ave. The new storm sewer will be routed through a storm water treatment structure which will capture course sediment as a means of pre-treatment of runoff prior to discharging to the underground storm water storage system.

Task A Responsible Party: City of New Hope staff, Stantec, and contracted construction crews (TBD)
Task A Timeline: April 2016 - October 2016
Task A Cost: $194,510

Task B: Install underground storage tank for water reuse
The underground storm water storage system will be installed in the northeast corner of Northwood Park. The concrete vault will hold approximately 160,000 gallons, capturing runoff from 89 acres of residential land.

Task B Responsible Party: City of New Hope staff, Stantec, and contracted construction crews (TBD)
Task B Timeline: April 2016 - October 2016
Task B Cost: $328,739

Task C: Install water reuse piping and pump house for irrigation
Piping and pumping mechanisms will be installed so that storm water in the storage tank can be used for irrigating adjacent ball fields. Storm water will be pumped from the tank, through a pipe to the irrigation box located on the east side of Boone Avenue and used to irrigate 6.4 acres of baseball and soccer fields.

Task C Responsible Party: City of New Hope staff, Stantec, and contracted construction crews (TBD)
Task C Timeline: April 2016 - October 2016
Task C Cost: $225,630

Task D: Install overflow raingardens and construct curb cut
A series of raingardens will be constructed along Ensign Avenue at the northern edge of Northwood Park. These raingardens will be constructed to receive overflows from the water reuse system during large events when runoff volumes exceed storage capacity. They will be designed to treat and infiltrate the storm water prior to discharging to Northwood Lake. A curb cut on Ensign Avenue will also direct street drainage into the raingardens. Construction in this task includes installation of draintile, a sump manhole, pipe, some rip rap, plantings, and trail reconstruction.

Task D Responsible Party: City of New Hope staff, Stantec, and contracted construction crews (TBD)
Task D Timeline: April 2016 - October 2016
Task D Cost: $220,817

Objective 2 Timeline: April 2016 - October 2016

Objective 2 Cost: $969,696
Objective 2 Deliverables: Completed constructed storm water reuse system, pumphouse, and raingardens

Objective 3: Construct storm water treatment pond west of Northwood Lake (Figure 2)

A wet ponding basin will be constructed in the open space between Trunk Highway 169 and Jordan Avenue. Storm water runoff from both rear yard areas and Jordan Avenue draining from the south will be directed into the basin for treatment before discharging into an existing storm sewer pipe tributary to Northwood Lake.

Task A: Construct storm water treatment pond west of Northwood Lake
The area will be cleared and grubbed, excavated, and graded. A sump manhole will be installed and a connection will be made to the existing storm sewer pipe leading into Northwood Lake. The area will then be seeded and mulched.

Task A Responsible Party: City of New Hope staff, Stantec, and contracted construction crews (TBD)
Task A Timeline: April 2016 - October 2016
Task A Cost: $121,479

Objective 3 Timeline: April 2016 - October 2016
Objective 3 Cost: $121,479
Objective 3 Deliverables: Completed constructed wet ponding basin west of Northwood Lake

Objective 4: Educate the public about raingardens, water conservation and water reuse

One large, permanent educational sign will be designed, constructed, and installed near the raingardens and water reuse system in Northwood Park. The sign will be designed to educate local residents and park users about pollutants in storm water runoff, the use of raingardens and other best management practices around the home, water conservation, and the water reuse system installed in the park.

Task A: Design educational sign
A designer will be hired to develop and layout the text and visual components of a large (approximately 3' x 4') educational sign. This task includes the coordination with sign fabricator.

Task A Responsible Party: BCWMC staff, City of New Hope, sign designer (TBD)
Task A Timeline: June 2016 – August 2016
Task A Cost: $1,000

Task B: Fabricate educational sign
This task includes the fabrication and the delivery of the sign to the City of New Hope. City crews will install sign once construction in the area is complete.

Task B Responsible Party: Sign fabricator, City of New Hope
Task B Timeline: August 2016 – October 2016
Task B Cost: $1,000

Objective 4 Timeline: June 2016 – October 2016
Objective 4 Cost: $2,000
Objective 4 Deliverables: Educational sign installed in Northwood Park

Objective 5: Manage project implementation and provide grant administration

The BCWMC will manage the project including administration of documents and agreements, coordination with subcontractor (City of New Hope), and technical review of project designs. The BCWMC will also perform grant administration including reporting, invoicing, and final report development with input from the City of New Hope.

Task A: Provide project management and administration
The BCWMC Administrator will develop and finalize project work plan, track the project status, implementation, and budget including coordination with the MPCA project manager and the City of New Hope throughout the life of the project. The BCWMC Administrator will report progress to the BCWMC Commissioners regularly.

Task A Responsible Party: BCWMC Administrator
Task A Timeline: July 30, 2015 – December 31, 2016
Task A Cost: $1,005

Task B: Provide technical review of project
BCWMC engineers will review the project designs at the 50% stage and the 90% stage and will coordinate with the City of New Hope to get questions answered and issues resolved. The BCWMC engineers will draft a memo for

presentation at a BCWMC meeting describing the 50% and 90% designs and presenting comments and recommendations. The Commission must approve the project design at each phase (50% and 90%) before the City of New Hope can proceed. After the 90% plans are complete, the BCWMC engineer will provide a final administrative review and approval of the final plans.

Task B Responsible Party: BCWMC Engineers
Task B Timeline: August 2015 – January 2016
Task B Cost: $5,230

Task C: Perform grant reporting and invoicing
The BCWMC Administrator will track the grant budget and project implementation, will coordinate with the City of New Hope to learn about progress and status of the project, and will prepare interim and final grant reports and quarterly invoices for submittal to the MPCA project manager. Interim project reports must meet MPCA requirements and are due February 1 and August 1 during the project period. A final project report is due at the end of the project and must meet MPCA requirements. Invoices will be submitted to MPCA at least quarterly.

Task C Responsible Party: BCWMC Administrator
Task C Timeline: July 2015 – January 2017
Task C Cost: $2,345

Objective 5 Timeline: July 30, 2015 – January 31, 2017
Objective 5 Cost: $8,580
Objective 5 Deliverables: Review memos for 50% and 90% project designs; quarterly invoices to MPCA; interim grant reports to MPCA; final grant report to MPCA including photos of completed project.

4. Measurable Outcomes

1: Water quality improvement

This project will capture and treat storm water running off 110 acres of developed land and is expected to remove approximately 22 pounds of total phosphorus from the runoff each year. Due to the use of much of the captured storm water for irrigating ball fields, the phosphorus removed includes both particulate and dissolved phosphorus. An improvement in the water quality of Northwood Lake is expected after project implementation. Water quality trends will be measured through the BCWMC's regular water monitoring program (described in Section 7).

2: Conservation of drinking water

This project will install a 160,000 gallon underground storage vault that will capture storm water runoff and reuse it for irrigating adjacent ball fields. It's estimated that the vault will provide storage for approximately 1 – 2 weeks of irrigation during dry periods. Pumping records will measure the amount of storm water used for irrigation.

3: Behavior change by local residents

Although it's difficult to measure, the education of residents and some subsequent behavior change is an expected outcome of the educational sign that will be placed at the site. The sign will describe the project features, inform viewers about typical storm water pollutants, and describe actions they can take to help improve surface water and conserve drinking water in their homes. A large, annual city festival is held at Northwood Park along with many other events each year, which will result in a high number of sign viewers. Further information dissemination and education is expected simply due to the construction activity in the park and news of the project in city newsletters, local newspapers, and through the Friends of Northwood Lake organization.

5. Gantt charts

See attached spreadsheet

6. Project Budget

See attached spreadsheet

7. Monitoring Plan

Although water monitoring is not part of this specific project, the BCWMC implements a robust lake and stream monitoring program in its priority waterbodies each year. The program is designed to track water quality and quantity trends in order to quantify immediate and long term changes in water conditions; provide a basis for water quality improvement projects; evaluate the effectiveness of implemented best management practices; and track progress toward water quality goals.

In 2016, the BCWMC will collect samples from the Northwood Lake sampling station representing the deepest location. Lake monitoring will occur on six occasions from April through September. Monitoring data will be submitted to the State's EQuIS by November 1st.

Details follow:

1. One sample shall be collected within two weeks after ice out
2. One sample shall be collected in mid-June
3. One sample shall be collected in mid-July
4. Two samples shall be collected in August, biweekly, during 1st and 3rd weeks
5. One sample shall be collected during the first week of September

Dissolved oxygen, temperature, specific conductance, pH, oxidation reduction potential (ORP), and Secchi disc transparency shall be measured in the field. Water samples will be collected for laboratory analysis for total phosphorus, soluble reactive phosphorus, total nitrogen, chlorophyll *a*, and chloride at depths.

Zooplankton and phytoplankton monitoring will also occur on Northwood Lake in 2016. The lake will be monitored on six occasions from April through September concurrent with water quality sampling events. Phytoplankton will be sampled as a single 0-2 meter composite sample at the location of water quality sampling. Zooplankton will be sampled using a bottom to surface tow with a zooplankton net at the location of water quality sampling. Phytoplankton analyses shall be completed using the inverted microscope procedure of Utermohl as described by Lund et al. (1958). Zooplankton analyses will be completed using the Sedgwick Rafter procedure described in Standard Methods. Zooplankton shown in Table 4 shall be identified to the species level and other zooplankton shall be identified to the genus level. Results will be expressed as number of zooplankton per square meter.

The BCWMC will perform a qualitative macrophyte survey in 2016 on Northwood Lake. The lake will be surveyed twice, in June and August. Plant surveys will assess the distribution and growth density of all plants. All sampling and data analysis will be conducted according to the methodologies described in the MNDNR protocol for aquatic vegetation surveys. This methodology is based upon the point intercept survey method developed by John Madsen in Aquatic Plant Control Technical Note MI-02, 1999.

The BCWMC will also fund the Metropolitan Council's Citizen Assisted Monitoring Program (CAMP) during years when detailed water quality monitoring is not planned. On a bi weekly basis (April - October), citizen volunteers will collect a surface water sample for laboratory analysis of total phosphorus, total Kjeldahl-nitrogen, and chlorophyll-a, obtain a Secchi transparency measurement, and provide some user perception information about each lake's physical and recreational condition. Laboratory analysis of collected samples will be performed consistent with CAMP protocols, as determined by the Metropolitan Council Environmental Services.

Item 6J.
BCWMC 8-20-15

Bassett Creek Watershed Management Commission

Date: August 12, 2015
From: Amy Herbert, Recording Secretary
To: BCWMC
Re: BCWMC Implements Soft Launch of Facebook Page

On July 15, 2015, BCWMC staff created and implemented a soft launch of the Bassett Creek Watershed Management Commission Facebook page at: https://www.facebook.com/BCWMC. The purpose of the page is to engage residents, BCWMC members, and others interested in the BCWMC and the Bassett Creek Watershed via the popular media/communication tool.

- Staff proposes to write/publish at least one post each day to the page.
- Staff will monitor site to ensure it is functioning, to collect comments, and to share pertinent news from other Facebook pages as appropriate.
- Posts will incorporate only public information such as BCWMC event/meeting/hearing announcements, BCWMC news and photos, BCWMC member and partner events and news, water/watershed education, and BCWMC/watershed historical information.
- The page is set up and ready for "likes," so if you are a Facebook user, go ahead and visit the page.
- To implement a hard launch of the page, staff proposes developing a communication to member cities, BCWMC partners, past/ present stakeholders, past/present volunteers announcing the launch of the Facebook fan page in conjunction with announcing the launch of the BCWMC's redesigned website (date TBD).
- Staff proposes that the BCWMC's Facebook fan page is promoted at education events, such as at the upcoming Golden Valley Are & Music Festival (adhering to Facebook's brand usage guidelines).
- Staff proposes that the redesigned BCWMC website include on its homepage a Facebook button to link visitors to the BCWMC's Facebook fan page.

Comments and questions can be directed to me at laura.jester@keystonewaters.com. For your interest, many BCWMC member cities have Facebook pages. Screenshot of the BCWMC Facebook page included below:

https://www.facebook.com/cityofcrystalmn

https://www.facebook.com/cityofgoldenvalleymn

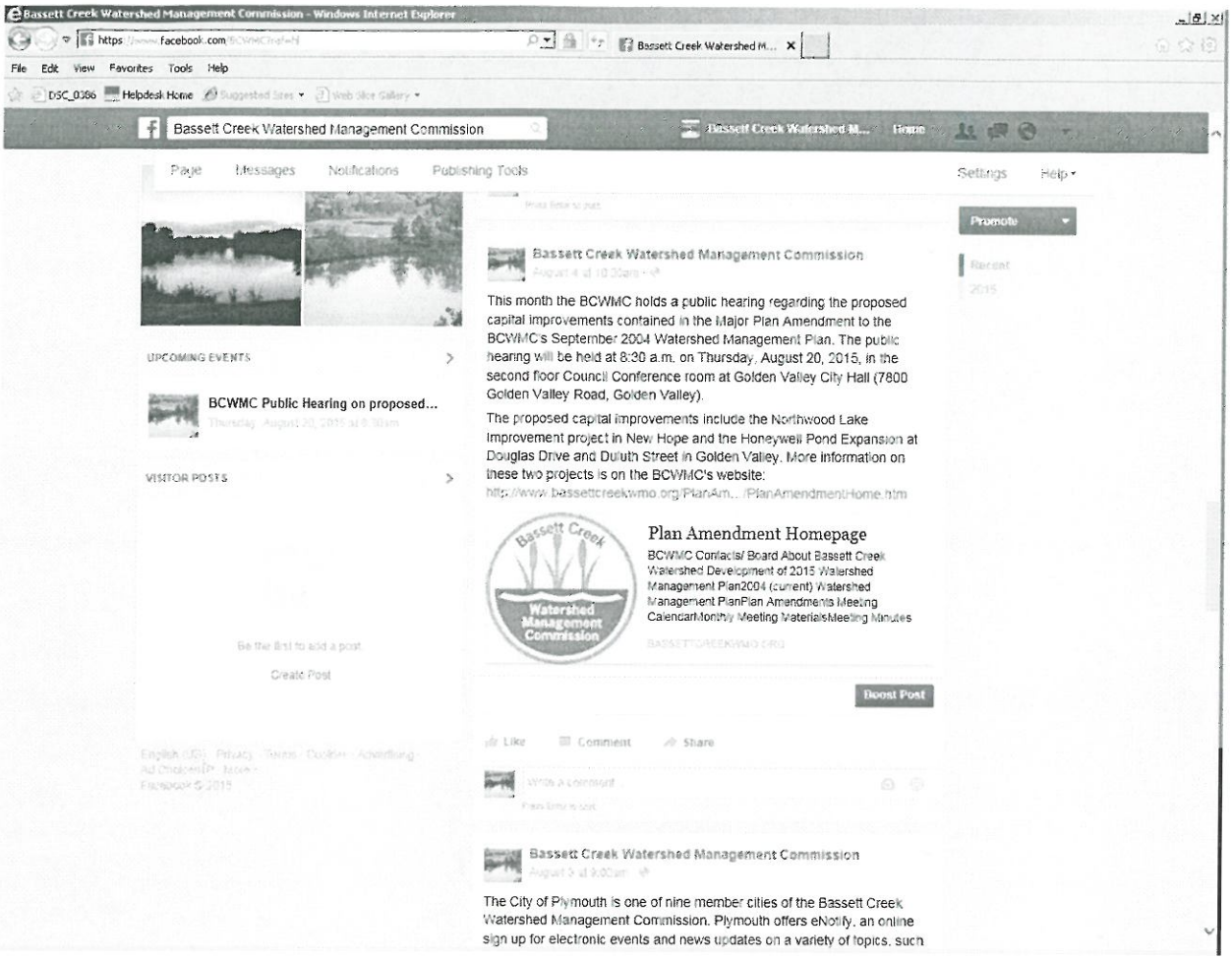
https://www.facebook.com/cityofminneapolis

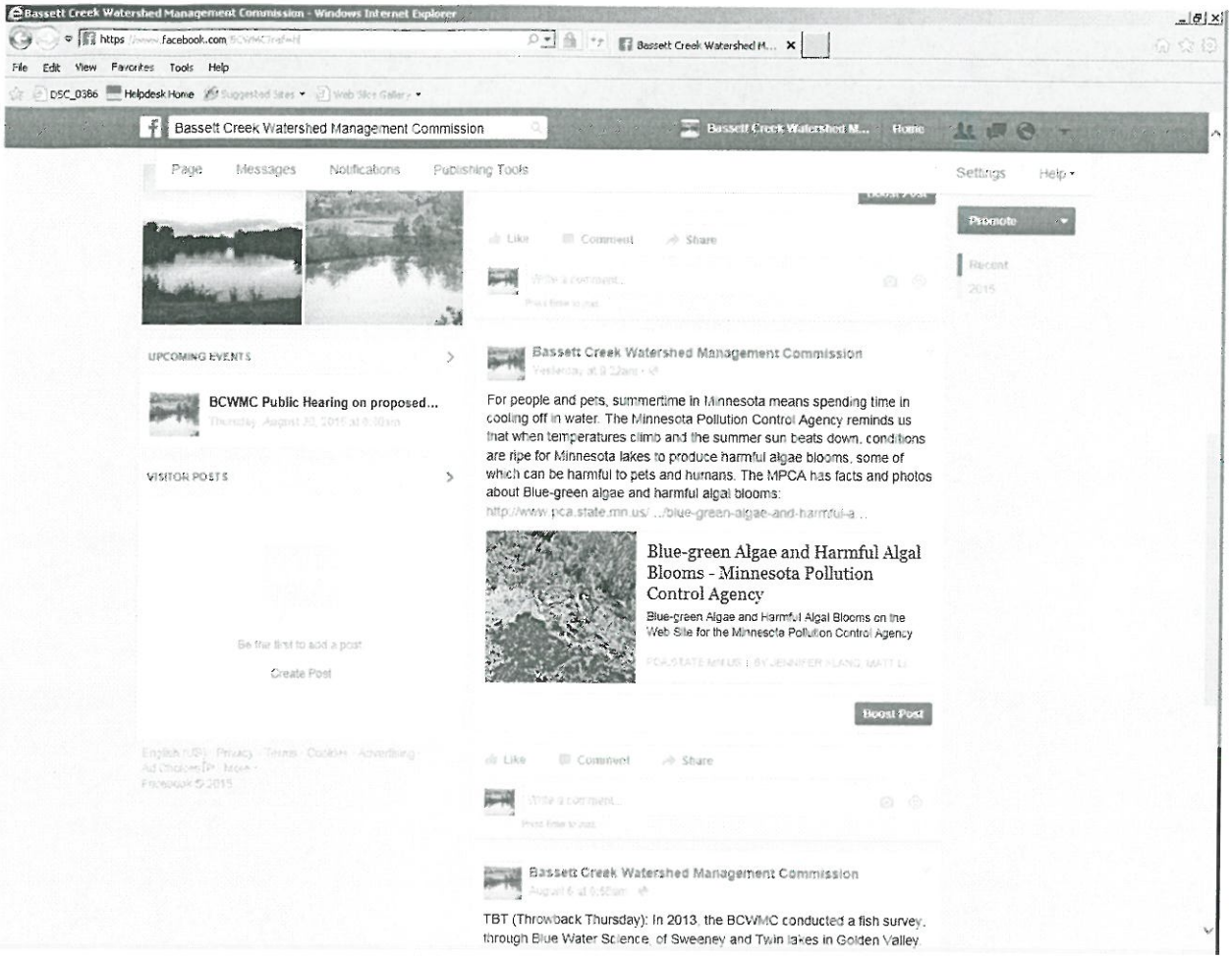
https://www.facebook.com/pages/City-of-Minnetonka/163899280333218

https://www.facebook.com/plymouthmn

https://www.facebook.com/CityOfRobbinsdale

https://www.facebook.com/stlouispark


Bassett Creek Watershed Management Commission - Windows Internet Explorer
File Edit View Favorites Tools Help
Bassett Creek Watershed Management Commission
Page Messages Notifications Publishing Tools
Settings Help
Promote
UPCOMING EVENTS
BCWMC Public Hearing on proposed...
VISITOR POSTS
Be the first to add a post.
Create Post
Bassett Creek Watershed Management Commission
This month the BCWMC holds a public hearing regarding the proposed capital improvements contained in the Major Plan Amendment to the BCWMC's September 2004 Watershed Management Plan. The public hearing will be held at 8:30 a.m. on Thursday, August 20, 2015, in the second floor Council Conference room at Golden Valley City Hall (7800 Golden Valley Road, Golden Valley).
The proposed capital improvements include the Northwood Lake improvement project in New Hope and the Honeywell Pond Expansion at Douglas Drive and Duluth Street in Golden Valley. More information on these two projects is on the BCWMC's website:
Plan Amendment Homepage
BCWMC Contacts/ Board About Bassett Creek Watershed Development of 2015 Watershed Management Plan2004 (current) Watershed Management PlanPlan Amendments Meeting CalendarMonthly Meeting MaterialsMeeting Minutes
Boost Post
Like Comment Share
Bassett Creek Watershed Management Commission
The City of Plymouth is one of nine member cities of the Bassett Creek Watershed Management Commission. Plymouth offers eNotify, an online sign up for electronic events and news updates on a variety of topics, such


Bassett Creek Watershed Management Commission - Windows Internet Explorer
https://www.facebook.com/BCWMCrafield
Bassett Creek Watershed M...
File Edit View Favorites Tools Help
DSC_0386 Helpdesk Home Suggested Sites Web Slice Gallery
Bassett Creek Watershed Management Commission
Bassett Creek Watershed M... Home
Page Messages Notifications Publishing Tools
Settings Help
Like Comment Share
Write a comment...
Press Enter to post.
Promote
Recent
2015
UPCOMING EVENTS
BCWMC Public Hearing on proposed...
Thursday, August 20, 2015 at 6:00pm
VISITOR POSTS
Be the first to add a post.
Create Post
Bassett Creek Watershed Management Commission
Yesterday at 9:22am
For people and pets, summertime in Minnesota means spending time in cooling off in water. The Minnesota Pollution Control Agency reminds us that when temperatures climb and the summer sun beats down, conditions are ripe for Minnesota lakes to produce harmful algae blooms, some of which can be harmful to pets and humans. The MPCA has facts and photos about Blue-green algae and harmful algal blooms:
http://www.pca.state.mn.us/.../blue-green-algae-and-harmful-a...
Blue-green Algae and Harmful Algal Blooms - Minnesota Pollution Control Agency
Blue-green Algae and Harmful Algal Blooms on the Web Site for the Minnesota Pollution Control Agency
PCA.STATE.MN.US | BY JENNIFER HUANG, MATT LI
Boost Post
Like Comment Share
Write a comment...
Press Enter to post.
Bassett Creek Watershed Management Commission
August 6 at 5:55am
TBT (Throwback Thursday): In 2013, the BCWMC conducted a fish survey, through Blue Water Science, of Sweeney and Twin lakes in Golden Valley.

Item 7A.
BCWMC 8-20-15

Bassett Creek Watershed Management Commission

MEMO

Date: August 11, 2015
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 (see CIP Project Update Chart in "Information Only Items" of this month's agenda)

2012 Main Stem Restoration Project, Golden Valley Rd. to Irving Ave. N., Minneapolis and Golden Valley (mostly in Wirth Park) (2012CR): The Minneapolis Park and Rec Board (MPRB) is managing this project and hired Rachel Contracting to construct the project. Two change orders have been approved for the work. Funding for the changes is from unused unit pricing, as well as additional funds from City of Minneapolis Public Works-Surface Water and Sewers (Stormwater) and MPRB Regional Park Grants. The change order that MPRB is funding for extended trail repair to the south of the project area was approved by the Park Board on August 5th. The Change Order for the side channel dredging has also been approved administratively. It is within the project contingency and is funded primarily with City of Minneapolis funding. We expect work to be completed for both of those areas soon, but do not have a schedule yet. Punch list repairs have been completed. The City and MPRB staff will update the Commission on the project at their September meeting.

2013 Four Season Area Water Quality Project (NL-2): The City of Plymouth has been looking at 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. Currently, the City is waiting for the Four Seasons Mall property to redevelop with hopes of building treatment into a redevelopment project.

2014 Schaper Pond Diversion Project, Golden Valley (SL-3): The Commission approved 90% plans at their February meeting. The City's consultant (Barr Engineering) completed contract documents for the project May 21st, the bid advertisement publication date. The city council awarded the contract on July 7th to Sunram Construction. The pre-construction meeting was held July 30th. The contractor indicated a tentative start date of October 18th, which depends on the manufacturing and delivery of the floating silt curtain. The curtain has been ordered and typically takes 7-9 weeks for fabrication and delivery. Sunram is expecting that construction will take approximately two weeks to complete, but must be completed no later than December 15 (before freezing temperatures).

2014 Twin Lake In-lake Alum Treatment, Golden Valley (TW-2): There are no updates to this project since the report in July. However, the volunteer collecting water samples reports the clarity has been over 4 meters all summer. From July: 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 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. City staff reports no complaints or comments from residents since the treatment and also reports consistently clear water since the last actual reading on May 20th.

2014 Briarwood/Dawnview Water Quality Improvement Project, Golden Valley (BC-7): NewLook Contracting, the contractor for this project, has completed the majority of the site work including temporary stabilization of the disturbed areas and the utility work. This includes setting a storm sewer structure in the street to divert a large trunk storm sewer line into the new treatment pond. The street was backfilled and paved and the pond has received final stabilization. Crews have also finished a few final tasks in the last couple weeks. A cover crop was planted to increase shade and allow more moisture to be held in the soil. With the consistent rainfalls this summer, the area has not needed additional watering. City staff indicate the vegetation in coming in nicely and looks healthy. The city will continue to monitor the vegetation and if necessary, have the contractor water the area. The city will make sure the native plantings are established before calling the project complete and submitting a final reimbursement request and final report later this year.

2015 Main Stem Restoration Project 10th Avenue to Duluth Street, Golden Valley (2015CR): (See Item 5E) The 90% design plans were approved by the Commission at their June 2015 meeting. The design plans and specifications are complete and the bid documents will be published on August 20th. The City of Golden Valley is working to secure the remaining construction easements permits. The City anticipates awarding a construction contract this fall.

2016 Northwood Lake Improvement Project, New Hope (NL-1): (See Items 5A, 6B, 6E in this month's agenda.) At this meeting, the Commission will solicit comments from the public and cities on this project during an official public hearing. Depending on the comments received the Commission will consider entering an agreement with the City of New Hope to design and construct the project and a sub-grantee agreement to carry out the majority of tasks in the Clean Water Partnership grant work plan. City staff and I completed a work plan, budget and Gantt chart for the grant project which was approved by the MPCA. Also at this meeting, the Commission will consider a Clean Water Fund (BWSR) grant application for this project. 50% project designs are expected to come to the Commission at the September meeting.

2016 Honeywell Pond Expansion Project, Golden Valley (BC-4): (See Items 5A & 6B in this month's agenda.) At this meeting, the Commission will solicit comments from the public and cities on this project during an official public hearing. Depending on the comments received the Commission will consider entering an agreement with the City of Golden Valley to design and construct the project. 50% project designs are expected to come to the Commission at the September meeting and the project will be let with the Douglas Drive project in February of 2016. Construction of the pond will likely occur in 2017.

Other Projects

Hennepin County Natural Resources Partnership: I attended a meeting on August 4th where attendees participated in a group discussion about the County's draft Natural Resources Strategic Plan and how the County can assist cities and watershed organizations accomplish their natural resources goals.

MPRB Ecological System Plan: This project is now on hold until approximately late winter to allow the MPRB staff to concentrate on a different major comprehensive planning effort.

Next Generation Watershed Management Plan: (See item 6D on this agenda.) The draft Watershed Management Plan was submitted for its 60-day review at the end of November. The review period ended

January 30, 2015. Comments were received from multiple State agencies and partners. At the April Commission meeting the responses to comments were approved and subsequently sent to review agencies and organizations. A public hearing was held during the May Commission meeting and no comments were received. At that meeting, the Commission approved the 90-day review draft of the Plan. The 90-day review period began on approximately June 1st. Comments were received from the City of Minneapolis, MnDOT, and the Department of Agriculture. The Commission will consider responses to comments at this meeting. Staff, Chair de Lambert, and Vice Chair Mueller attended the August 4th BWSR Metro Region Committee where Vic Chair Mueller gave a presentation on the Plan. The committee recommended approval of the Plan by the full BWSR Board.

Non-Point Education for Municipal Officials (NEMO) Workshops: As recommended by the Education Committee and approved at the March Commission meeting, I am assisting with the development of 3 NEMO workshops for appointed and elected officials in the west Metro. A workshop-on-the-water was held on Lake Minnetonka on July 23. Additional workshops include *Chlorides and Winter Road Management* on October 7th and *Green Infrastructure for Clean Water* later in the year.

Website Redesign Project: Our consultant, Kelly Spitzley with HDR, has been working on the layout, content map, and designs for the new site through an iterative process with review and comment from Amy and I. The Education Committee met on June 30th to review and provide comments on the site layout, content map, and design options. Kelly is now completing the structure of the site and populating it with existing information.

New Commissioner Materials: Posting of materials to the website were completed earlier this year and are available at:
http://www.bassettcreekwmo.org/CommissionOrientation/CommissionOrientationHomepage.htm.

Records Retention/Management and Data Practices: At the direction of the Administrative Services Committee, I updated the Commission's Records Retention Schedule and asked legal counsel to review and recommend any changes needed. Additionally, a Data Practices Procedure was drafted for the Commission by our legal counsel. The Commission will review these documents at a future meeting. Also, I continue to work on records management including locating all official records, determining what records should be disposed of or sent to the State Archives, how paper records can be digitized, and how and where to store our electronic records. I will be researching and gathering input on different options for records management and storage over the course of the year.

Organizational Efficiencies: At the direction of the Administrative Services Committee I will be drafting an organizational chart and have been discussing practices and procedures with TAC members, Commission staff, and Commissioners to ensure the proper and efficient use of staff's time and to streamline communications where needed.