Bassett Creek Watershed Management Commission

Regular Meeting
Wednesday, November 18, 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 - October 15, 2015 Commission Meeting
   - B. Approval of November 2015 Financial Report
   - C. Approval of Payment of Invoices
     - i. Keystone Waters, LLC – October 2015 Administrator Services
     - ii. Barr Engineering – October 2015 Engineering Services
     - iii. Amy Herbert – October 2015 Secretarial Services
     - iv. ACE Catering – November 2015 Meeting Refreshments
     - v. Wenck – October 2015 WOMP Monitoring
     - vi. HDR – September 2015 Website Redesign Project
     - vii. Kennedy Graven – September 2015 Legal Services
     - viii. Hennepin County – 2015 River Watch Program
   - D. Approval of MDNR Flood Reduction Grant Contract
   - E. Approval of Project at 239 Peninsula Road, Medicine Lake
   - F. Approval of Project at 1130 Angelo Drive, Golden Valley

5. **BUSINESS**
   - A. Receive Final Report on CR2012 Main Stem Restoration Project Through Wirth Park
   - B. Consider Approval of City of Minneapolis Reimbursement Request for CR2012 Main Stem Restoration Project Through Wirth Park
   - C. Consider Approval of 90% Plans for Northwood Lake Water Quality Improvement Project NL-1
   - D. Consider Approval of 90% Plans for Honeywell Pond Expansion Project BC-4
   - E. Consider Golden Valley's Request to Review Douglas Drive Project Using Former BCWMC Standards
   - F. Consider Approval of Technical Advisory Committee Recommendations
     - i. Channel Maintenance Fund Policy
     - ii. Request by City of Crystal for Use of Channel Maintenance Fund
     - iii. Agreement with City of Crystal for Use of Channel Maintenance Fund
   - G. Receive Updates on Feasibility Studies for 2017: Plymouth Creek Restoration Project and Main Stem Erosion Repair Project

6. **COMMUNICATIONS**
   A. Administrator's Report
      i. Website Redesign Project Update
      ii. December 2015 – April/May 2016 Commission Meeting Location: Plymouth City Hall
   B. Chair
   C. Commissioners
      i. Report on Water Resources Conference
   D. TAC Members
   E. Committees
   F. Legal Counsel
   G. Engineer
      i. Update on Schaper Pond Diversion Project

7. **INFORMATION ONLY (Information online only)**
   A. CIP Project Update Chart
   B. Grant Tracking Summary and Spreadsheet
   C. 2015 Water Resources Conference Abstracts https://www.wrc.umn.edu/waterconf
   D. NEMO Workshop Summaries
   E. West Metro Water Alliance Fall Water Links Newsletter
      http://content.govdelivery.com/accounts/MNHENNE/bulletins/11fe9ea

8. **ADJOURNMENT**

Upcoming Meetings & Events

- Metro Summit for Lake and River Groups: Tuesday December 1st, 5:30 – 8:30 p.m. http://freshwater.org/metrosummit2015/
- BCWMC Regular Meeting: Thursday December 17th, 8:30 a.m. Plymouth City Hall
- BCWMC TAC Meeting: Thursday January 9th, 1:30 p.m. Plymouth City Hall

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: November 11, 2015
To: BCWMC Commissioners
From: Laura Jester, Administrator
RE: Background Information for 11/18/15 BCWMC 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 – October 15, 2015 Commission meeting- **ACTION ITEM with attachment**
   B. Approval of November 2015 Financial Report - **ACTION ITEM with attachment**
   C. Approval of Payment of Invoices - **ACTION ITEM with attachments**
      i. Keystone Waters, LLC – October 2015 Administrator Services
      ii. Barr Engineering – October 2015 Engineering Services
      iii. Amy Herbert – October 2015 Secretarial Services
      iv. ACE Catering – November 2015 Meeting Refreshments
      v. Wenck – October 2015 WOMP Monitoring
      vi. HDR – September 2015 Website Redesign Project
      vii. Kennedy Graven – September 2015 Legal Services
      viii. Hennepin County – 2015 River Watch Program

   D. Approval of MDNR Flood Reduction Grant Contract - **ACTION ITEM with attachment** – *At the October meeting, the Commission approved a resolution agreeing to be the legal sponsor for the project contained in the Flood Damage Reduction Grant Assistance Program Application submitted on August 24, 2015 and authorizing the BCWMC Administrator to apply to the DNR for funding of this project on the Commission's behalf. Staff recommends approval of this grant contract to receive $93,000 in MDNR funding towards the development of the XP-SWMM model.*

   E. Approval of Project at 239 Peninsula Road, Medicine Lake – **ACTION ITEM with attachment** - *The proposed project includes installation of two solar panels at a residence in the City of Medicine Lake, within the floodplain of the lake. The project will result in no fill within the floodplain. Approximately 400 square feet will be graded to construct the project and the project will result in 84 square feet of additional impervious surface on the parcel. Staff recommends approval of the project.*

   F. Approval of Project at 1130 Angelo Drive, Golden Valley – **ACTION ITEM with attachment** - *The proposed project is located in the Sweeney Lake subwatershed within the floodplain of the lake. Approximately 5,000 square feet will be graded to construct the project. The proposed project results in no change of impervious surface on the parcel, and includes removal of an existing failing railroad tie retaining wall and installation of 12 -18 inch fieldstone riprap along the shoreline. Native plant plugs will be installed between the rocks and 10 feet back from the riprap. There will be no fill within the floodplain. Staff recommends approval of the project.*

5. **BUSINESS**

   A. Receive Final Report on CR2012 Main Stem Restoration Project Through Wirth Park – **INFORMATION ITEM with attachment** – *The Main Stem Restoration Project (CR2012) through Wirth Park is complete. The City of Minneapolis submitted the attached final project report for the Commission's review prior to considering a final reimbursement request found in Item 5B.*

B. Consider Approval of City of Minneapolis Reimbursement Request for CR2012 Main Stem Restoration Project Through Wirth Park – **ACTION ITEM with attachment (full documentation available online)** – *On 9/15/11, the Commission entered an agreement with the City of Minneapolis to design and construct the CR2012 Main Stem Restoration Project. Additionally, at their meeting on 1/16/14, the Commission approved a TAC recommendation allowing the City of Minneapolis to use $26,747.50 from its allocated Channel Maintenance Fund amount to augment funds needed for this project. The entire project is now complete and the City is requesting a reimbursement of $96,800.29 from the CIP fund for this project and $26,747.50 from Channel Maintenance Funds. Staff reviewed the invoices and documentation accompanying the reimbursement request and recommends approval of the request. There are no CIP funds remaining for this project (no funds transferring to Closed Project Account). Staff will submit a Clean Water Fund final report and grant reimbursement request from BWSR for this project by the end of January 2016.*

C. Consider Approval of 90% Plans for Northwood Lake Water Quality Improvement Project NL-1 – **ACTION ITEM with attachment (full plan set online)** – *At their September meeting, the Commission approved the 50% design plans for this project (with Commission Engineers comments). The City of New Hope recently submitted 90% design plans with many of the recommendations on the 50% plans addressed. The attached memo from the Commission Engineer includes comments on the plans and tables showing volume reductions, pollutant removals, and lake level changes. Staff recommends conditional approval of the 90% plans with Commission Engineer comments and authorization for the City of New Hope to finalize the plans and submit to the Commission Engineer for administrative review and final approval.*

D. Consider Approval of 90% Plans for Honeywell Pond Expansion Project BC-4 – **ACTION ITEM with attachment** – *At their September meeting, the Commission approved the 50% design plans for this project (with Commission Engineers comments). The City of Golden Valley recently submitted 90% design plans with many of the recommendations on the 50% plans addressed. The attached memo from the Commission Engineer includes comments on the plans and a table comparing pollutant removals from the feasibility study, 50% designs, and 90% designs. Staff recommends conditional approval of the 90% plans with Commission Engineer comments and authorization for the City of Golden Valley to finalize the plans and submit to the Commission Engineer for administrative review and final approval.*

E. Consider Golden Valley's Request to Review Douglas Drive Project Using Former BCWMC Standards – **ACTION ITEM with attachment** – *The City of Golden Valley recently submitted plans for the Douglas Drive Reconstruction Project. The beginning of this project dates back to 2007. (The Commission's Honeywell Pond Expansion Project is being planned in conjunction with this road reconstruction project.) Design of the water resources portion of the project is based on BCWMC standards from its 2004 Watershed Management Plan (which were the standards in place during the planning/design phase of the project). The city is requesting that this project be reviewed for compliance with the 2004 BCWMC standards rather than the Commission's new standards (MIDS) adopted 9/17/15. Please see the city's request in the attached letter.*

F. Consider Approval of Technical Advisory Committee Recommendations – **ACTION ITEM with attachments** – *The TAC met on 9/8/15 and 11/5/15 to discuss and refine policies related to the Channel Maintenance Fund, a request by the City of Crystal to use the Channel Maintenance Fund to repair an eroding area on the North Branch Bassett Creek, and items related to the roles and responsibilities for the BCWMC Flood Control Project. The TAC memo attached includes recommendations for the first two items with documents attached in 5Fi and 5Fii. Discussions regarding the Flood Control Project are ongoing with the TAC. A complete recommendation on this item is expected in 2016. Staff recommends approval of the TAC's recommendations.*

   i. Channel Maintenance Fund Policy – **attachment for ACTION in 5F** – *The TAC recommends changes to the Channel Maintenance Fund Policy. The revised policy reflects current practice and is shown with new provisions underlined and now irrelevant policies struck out. The agreement shown as Attachment 1 was recently reviewed and revised by the Commission's legal counsel.*

ii. Request by City of Crystal for Use of Channel Maintenance Fund – **attachment for ACTION in 5F** – *The TAC recommends approving Crystal's request to use $31,675 of its allocated Channel Maintenance Funds to repair an eroding section of the North Branch Bassett Creek. This area is within the prior BCWMC CIP project: North Branch Bassett Creek Restoration Project. Provision #7 of the revised Channel Maintenance Fund Policy above (Item 5Fi) allows the use of these funds to repair of a former CIP project.*

iii. Agreement with City of Crystal for Use of Channel Maintenance Fund – **ACTION ITEM with attachment** – *If the request in Item 5Fii is approved, the Commission should enter an agreement with the City of Crystal to direct the use of the Channel Maintenance Funds.*

G. Receive Updates on Feasibility Studies for 2017: Plymouth Creek Restoration Project and Main Stem Erosion Repair Project – **INFORMATION ITEM with attachment** – *Plymouth Creek Restoration Project: A technical stakeholder meeting was held on 10/26/15 at the project site and included me, the Commission Engineer, Commissioner Black, City of Plymouth staff, Army Corps of Engineers, and the MDNR. A public meeting was held the evening of 10/26/15 and was attended by me, the Commission Engineer, Mr. Asche, Commissioner Black, and Alt. Commissioner Crough as well as eleven residents from 8 different properties adjacent to the project area. No major concerns were raised at the meeting. A webpage for the project was established at: http://www.bassettcreekwmo.org/CIP-Information/CIP-Projects/Plymouth/PlymouthCreek-Plymouth-2017/PlymouthCreek-CIP-Project2017-Plymouth.htm. Main Stem Erosion Repair Project: The Commission Engineer is beginning the technical portions of the feasibility study. A public stakeholder engagement plan was developed (attached) to inform and engage the residents and businesses in the Bryn Mawr and Harrison Neighborhoods. A letter to all households in both neighborhoods is slated to be mailed the week of November 16th. A webpage for the project was established at: http://www.bassettcreekwmo.org/CIP-Information/CIP-Projects/Minneapolis/MainStem-Minneapolis-2017/MainStem-CIP-Project2017-Minneapolis.htm.*

6. COMMUNICATIONS

A. Administrator's Report – **INFORMATION ONLY with attachment**
   a. Website Redesign Project Update
   b. December 2015 – April/May 2016 Commission Meeting Location: Plymouth City Hall
B. Chair
C. Commissioners
   a. Report on Water Resources Conference – **INFORMATION ONLY with attachment**
D. TAC Members
E. Committees
F. Legal Counsel
G. Engineer
   a. Update on Schaper Pond Diversion Project – **INFORMATION ONLY no attachment**

7. INFORMATION ONLY (Information online only)

A. CIP Project Update Chart
B. Grant Tracking Summary and Spreadsheet
C. 2015 Water Resources Conference Abstracts https://www.wrc.umn.edu/waterconf
D. NEMO Workshop Summaries
E. West Metro Water Alliance Fall Water Links Newsletter
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8. ADJOURNMENT

Upcoming Meetings & Events

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- BCWMC TAC Meeting: Thursday January 9th, 1:30 p.m. Plymouth City Hall

Item 4A
BCWMC 11-18-15

Bassett Creek Watershed Management Commission

Minutes of Regular Meeting
October 15, 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	Kyle Hartnett, Kennedy & Graven
Minnetonka	Commissioner Jacob Millner, Secretary	Engineer	Karen Chandler, Barr Engineering
New Hope	Alternate Commissioner Pat Crough	Recorder	Amy Herbert
Plymouth	Commissioner Ginny Black		

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

Lois Eberhart, TAC, City of Minneapolis	Alexandra Prasch, citizen
Dan Fetter, Barr Engineering Company	Mark Ray, TAC, City of Crystal
Erick Francis, TAC, City of St. Louis Park	Ben Scharenbroich, City of Plymouth
Richard McCoy, TAC, City of Robbinsdale	Liz Stout, TAC, City of Minneapolis
Jeff Oliver, TAC, City of Golden Valley	David Tobelmann, Alternate Commissioner, City of Plymouth
Bob Paschke, TAC, City of New Hope	Wayne Sicora, Commissioner, City of Robbinsdale

1. CALL TO ORDER AND ROLL CALL

On Thursday, October 15, 2015, at 8:34 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 [Cities of Medicine Lake and Minneapolis absent from roll call].

2. CITIZEN FORUM ON NON-AGENDA ITEMS

No issues raised.

3. AGENDA

Commissioner Mueller moved to approve the agenda as presented. Commissioner Hoschka seconded the motion. Upon a vote, the motion carried 7-0 [Cities of Medicine Lake and Minneapolis absent from vote.]

[Commissioner Carlson, City of Medicine Lake, arrived].

4. CONSENT AGENDA

Alternate Commissioner Scanlan moved to approve the Consent Agenda as presented. Commissioner Black 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 September 17, 2015, BCWMC meeting minutes, the October 2015 financial report, the payment of invoices, Approval to Set Technical Advisory Meeting for November 5, 2015, Approval of City of Minneapolis Reimbursement Request for CR2012 Main Stem Restoration Project, Approval of Residential Project in Golden Valley, Approval of User Agreement with Hennepin County for Use of Pictometry Data.]

The general and construction account balances reported in the Fiscal Year 2015 Financial Report prepared for the October 15, 2015, meeting are as follows:

Checking Account Balance	$580,260.54
TOTAL GENERAL FUND BALANCE	$580,260.54
TOTAL CASH & INVESTMENTS ON-HAND (9/9/15)	$3,296,350.04
CIP Projects Levied – Budget Remaining	($3,459,234.37)
Closed Projects Remaining Balance	$162,884.33
2012-2014 Anticipated Tax Levy Revenue	$5,585.36
2015 Anticipated Tax Levy Revenue	$495,084.26
Anticipated Closed Project Balance	$337,785.29

5. BUSINESS

A. Receive Financial Accounting of Watershed Management Plan Development

Administrator Jester pointed out that the meeting packet contains a memo and a spreadsheet detailing the financial accounting of the development of the watershed management plan. She reminded the Commission that the process was very involved, and she pointed out that the Commission hadn't originally budgeted for a very involved process but had budgeted for a plan update. Administrator Jester stated that as the plan process proceeded, the BCWMC had a very robust public input process and also the Plan Steering Committee, TAC Committee, and Commission heavily discussed and debated policies as part of the plan process.

[Commissioner Welch, City of Minneapolis, arrived].

Administrator Jester said that the Commission had set its original plan budget in February 2013 at an amount of $95,485. She said that this budget was set before the Commission understood how complicated the plan discussions were going to be. Administrator Jester reminded the Commission that in subsequent years, the Commission budgeted additional funds for the plan development, for a total plan development budget of $150,000 over four years. She reported that the Commission spent $148,120 on plan development over the four years. Administrator Jester noted that the amount spent does not include Administrator Jester's time spent on the plan, which totaled $21,000.

Several Commissioners offered comments on the plan development process. Chair de Lambert noted the Plan process was good and he thought the total price was fair and in line with outcomes. Commissioner Black remarked that not included in the plan development cost accounting is the XP-SWMM and P8 model updating, which the Commission did alongside of the plan update and which she considers as part of the plan development process. She said that the cost of the XP-SWMM and P8 model updates brings the cost of the plan update much higher. Commissioner Black said that the models are good tools but will need maintenance that should be budgeted in future years along with other long-term costs to the Commission.

B. Consider Ordering Feasibility Study for Bassett Creek Main Stem Restoration Project, Minneapolis (2017CR-M)

Administrator Jester reminded the Commission that at its September meeting it reviewed a proposal for a feasibility study for the Main Stem project in Minneapolis. She said that at that time the City of Minneapolis was proposing to do the feasibility study and the Commission had a motion on the floor to proceed with parts of that feasibility study and that motion is still on the table. Administrator Jester announced that in the time since last month's meeting, the City of Minneapolis has requested that the Commission do the feasibility study rather than entering into an agreement for the City to perform the study. She noted that this is the process that the Commission is following for the Plymouth Creek feasibility study.

Administrator Jester said that the proposal has been revised since the last meeting and also has been revised since the version included in the meeting packet, which is why a new proposal was emailed to the Commission last night and distributed at the meeting.

Engineer Chandler introduced Dan Fetter from Barr Engineering Company and said that he is very familiar with Phase 2 work and can provide more information on that proposed work. Engineer Chandler highlighted the changes in the most recent proposal, including that the changes resulted in changes to the proposed cost and proposed schedule. She said that the first change addresses the concern that the Commission needs to obtain not only access to private property in order to gather soil samples but also needs to obtain indemnification from the property owners. Engineer Chandler said that the second change is that the proposal now includes the step of sending the Minnesota Pollution Control Agency (MPCA) the Phase 2 work plan and asking for MPCA approval of the work plan, after the work plan comes to the Commission, likely at the Commission's December meeting. She said that the third change adds a consideration of naturalizing creek sections that have invasive species and including this work in the feasibility study's prioritization list. Engineer Chandler said that the additional scope increased the estimated cost by $8,500, so the estimated total cost of the study is $95,300 for all three reaches.

There was a short discussion on whether or not contamination would be found. Commissioner Hoschka said that it would be valuable to know what lessons were learned from the City's previous work in this project area. Commissioner Black was glad to see additional soil investigation work proposed. Mr. Fetter talked about the MPCA's newest guidelines regarding what can be labeled clean soils, and he explained that the purpose of the Phase 2 investigation is to examine soils that would be removed from the site.

Commissioner Welch stated that residents and stakeholders are already asking about the project, including the hope for significant changes to the valley and stream remeandering. He noted that while those are good plans that they would most likely come with significant redevelopment in the area and are out of the scope of this project. He recommended that the Commission do restoration without getting into areas in which the project would require a lot of soil export, which is really expensive. Commissioner Welch said that an important project component will be managing expectations of the residents due to the limited scope of the project.

Commissioner Black said that she assumes an option explored in the feasibility study would be the option of not removing contaminated soils and she would be interested in seeing that option. She said she would be interested in exploring options for dealing with contaminated soils onsite, such as using composting to remediate metals.

Ms. Eberhart said that in project sites like this where the soils are composed of a lot of fill, instead of touching all of the soil with soil borings, one can also work with the MPCA on what is called a response action plan. She said that with the response action plan, if something during the construction phase is discovered that could be contamination, the action is already laid out in the response action plan. She said it is good to do borings in key strategic locations.

Chair de Lambert asked if he is correct in assuming that it is likely that the project will take part in the Voluntary Investigation Cleanup program (VIC). Ms. Eberhart said that the private property owner would need to be the VIC applicant. Mr. Fetter said that the VIC program could be a project component. He said that if the Commission proposes to get access to another person's property and do investigations and clean up actions, the Commission could seek technical review through the VIC program, which would give the Commission the comfort that the VIC program is in agreement with the Commission's proposed approach. Mr. Fetter said that doing the Phase 1 and Phase 2 review in the feasibility study phase positions the Commission to move to the response action plan that Ms. Eberhart mentioned and to be able to apply for grants to assist in the cost of clean-up. Mr. Fetter noted that collecting the samples also would reveal if there are areas the project should avoid.

Commissioner Welch moved to remove the motion from last month from the table. Alternate Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 9-0.

Chair de Lambert called for a vote on the motion made by Alternate Commissioner Scanlan at last month's meeting [*the motion was to approve going forward with the feasibility study for Reach 1, Cedar Lake Road to Irving Avenue, as identified in the proposal and to include proposed Reach 2, Irving Avenue to the entrance to the Old Bassett Creek Tunnel.]* Upon a vote, the motion failed 0-9.

Commissioner Black moved to approve staff recommendations 1, 2, and 3 in the October 14, 2015, Engineer Memo. Commissioner Welch seconded the motion. Upon a vote, the motion carried 9-0.

C. Receive Update on XP-SWMM Phase II Project

Engineer Chandler said that the update in the meeting packet is an update on the 2015 scope of the development of the model for Plymouth Creek and Medicine Lake watersheds. Engineer Chandler thanked the member cities for all of the assistance they have provided on this model update. Engineer Chandler said that for the 2015 portion of the project, just under $42,000 has been spent out of the $103,000 budgeted.

Engineer Chandler reported that the DNR has offered the Commission a grant for $93,000 from the Flood Damage Reduction Grant fund for work on this project in 2016. She added that there is a plan to revisit the grant program in 2016 to see if additional funds are available.

Commissioner Black moved to adopt the resolution presented at the meeting authorizing the Commission

Administrator to apply for funding and execute agreements, needed to accept the $93,000 from the Department of Natural Resources. Commissioner Millner seconded the motion. Upon a vote, the motion carried 9-0.

D. Receive Update on Feasibility Study for 2017 Plymouth Creek Restoration Project (2017CR-P)

Administrator Jester reported that staff is well underway with the feasibility study for the Plymouth Creek Restoration project. Administrator Jester listed what has been completed to date (and noted this information is included in the Administrator's memo in the meeting materials), and she reported that the cultural and resources review has been initiated and staff has begun to develop concepts that will be presented to stakeholders. Administrator Jester stated that she has been working on getting public input and in the meeting packet is a letter that went out earlier this week to landowners in the vicinity of the project. She announced that the Commission is holding a public open house and input meeting on October 26 between 7:00-8:30 p.m. at Plymouth City Hall. She talked about the resources that will be available at the public open house, and she noted where the open house notices have been posted and published. Administrator Jester announced that there will be a technical stakeholder meeting on this project at 1:00 p.m. on October 26 at Plymouth Creek Park.

Engineer Chandler reported on the project timeline. Commissioner Welch remarked that the project web pages for both this project and the Main Stem Restoration project should go up on the Commission's website as soon as possible.

E. Receive Update on Website Redesign Project

Administrator Jester reported that HDR continues its work on the redesign and plans to meet the project deadline of the end of November. She announced that there are a lot of documents posted on the Commission's current website that need to be moved to the new site. She explained that HDR is saying that moving all of the content over to the new site would be out of the budget for the project and that it would be an additional 50 hours of work on top of the original estimate. Administrator Jester said that she will communicate with HDR about this information because the Commission's RFP included that a component of the project is that all of the current content would be moved to the new site and this task was included in HDR's approved project proposal. She said that if in the case that HDR doesn't move all of the content over under the current contract for services, she would like Commission direction on how she can get the work done. Administrator Jester offered ideas such as paying a high school student. The Commission offered ideas such as using an intern and using temporary staff.

Commissioner Welch moved to authorize the Administrator to spend up to $2,000 from the website budget for technical administration of the website transfer. Commissioner Millner seconded the motion. Commissioner Mueller recommended that the Administrator prepare a memo to the Commission that documents the objective selection of the technical resource. Commissioner Black suggested that Administrator Jester include this information in the Administrator's memo instead of in a separate memo. Upon a vote, the motion carried 9-0.

F. Consider Administrator Request to Attend Minnesota Association of Watershed District's Annual Conference

Administrator Jester described her attendance at last year's Minnesota Association of Watershed District (MAWD) conference and requested approval from the Commission to attend this year's conference on the Commission's behalf. She said that there is a pre-conference workshop she would like to attend as well and she is requesting funds not to exceed $545 to attend the conference. Administrator Jester said that this amount fits into her 2015 administrator budget. Commissioner Welch moved to approve the request. Commissioner

Mueller seconded the motion. Upon a vote, the motion carried 9-0.

6. COMMUNICATIONS

A. Administrator:

i. Administrator Jester reminded the Commission that its November meeting will be held on the Wednesday the day before the third Thursday of the month (November 18th)

ii. Administrator Jester gave an overview of NEMO's winter maintenance workshop held last week in Minnetonka.

iii. Administrator Jester reported that she has started communications with the Metropolitan Council regarding the Commission's request that the SWLRT reimburse the Commission's expenses on the project.

iv. Administrator Jester announced that this meeting room at Golden Valley City Hall will not be available from December – April, and she asked for suggestions for other meeting space. Administrator Jester took down the suggestions and said that she will follow up.

B. Chair:

i. Chair de Lambert reported that he attended last week's Water Resources Conference, and he provided an update.

C. Commissioners:

i. Commissioner Mueller provided an update on last week's Water Resources Conference.

ii. Commissioner Hoschka provided an update on the Water Resources Conference and particularly the session on chloride and the concern about chloride entering ground water.

iii. Commissioner Sicora provided an update on the Water Resources Conference and noted that both he and Alternate Commissioner Goddard are on the conference's planning committee.

iv. Commissioner Welch reported on the Golden Valley Arts and Music Festival.

v. Alternate Commissioner Scanlan reported on the Water Resources Conference and in particular the session on the Wirth Lake delisting.

D. TAC Members: No TAC Communications

E. Committees: No Committee Communications

F. Legal Counsel: No Legal Communications

G. Engineer:

i. Engineer Chandler announced that the annual flood control project inspection happens this week and the member cities have been notified.

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

A. CIP Project Update Chart

B. Grant Tracking Summary and Spreadsheet

C. WMWA Water Links Newsletter

D. BCWMC Volunteer Appreciation Press Release

8. ADJOURNMENT

Chair de Lambert adjourned the meeting at 10:05 a.m.

_____

Date

_____

Date

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report **(UNAUDI**
Fiscal Year: February 1, 2015 through January 31, 2016
MEETING DATE: November 18, 2015

BEGINNING BALANCE	**7-Oct-15**				**580,260.54**
ADD:					
General Fund Revenue:					
Interest less Bank Fees				(12.94)	
2016-17 Assessments-Prepaid					
Minnetonka				27,536.00	
St Louis Park				18,433.00	
Permits:					
Proto Labs		BCWMC 2015-29		2,200.00	
Blue Horizon Energy		BCWMC 2015-30		600.00	
Lerfald Landscaping		BCWMC 2015-31		600.00	
WSB & Associates		BCWMC 2015-32		1,700.00	
Reimbursed Construction Costs				160,018.00	
		Total Revenue and Transfers In			**211,074.06**
DEDUCT:					
Checks:					
2794	Barr Engineering	October Engineering		77,913.69	
2795	D'Amico Catering	November Meeting		126.65	
2796	Amy Herbert LLC	October Secretary		2,499.82	
2797	Kennedy & Graven	Sept Legal		1810.9	
2798	Keystone Waters LLC	October Administrator		5,150.00	
2799	Wenck Associates Inc	Oct Outlet Monitoring		425.08	
2800	HDR Engineering Inc	Website Design		1,088.17	
2801	Henn County	River Watch Program		2,000.00	
2802	Minneapolis Finance	CR2012-Final Pymt		123,547.79	
		Total Checks			**214,562.10**
Outstanding from previous month:					
2788	Minneapolis Finance	CR2012-Main Stem		555,322.76	
		Total Expenses			**214,562.10**
ENDING BALANCE	**10-Nov-15**				**576,772.50**

Bassett Creek Watershed Management Commission General Account
General Fund (Administration) Financial Report **(UNAUDITED)**
Fiscal Year: February 1, 2015 through January 31, 2016
MEETING DATE: November 18, 2015

	2015 / 2016 BUDGET	CURRENT MONTH	YTD 2015 / 2016	BALANCE
OTHER GENERAL FUND REVENUE				
ASSESSEMENTS TO CITIES-PREPAID		45,969.00	45,969.00	
ASSESSEMENTS TO CITIES	490,345	0.00	490,342.00	3.00
PERMIT REVENUE	60,000	5,100.00	51,600.00	8,400.00
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**	**51,069.00**	**592,411.00**	**43,903.00**
EXPENDITURES				
ENGINEERING & MONITORING				
TECHNICAL SERVICES	120,000	13,641.05	90,158.34	29,841.66
DEV/PROJECT REVIEWS	65,000	5,769.95	38,113.95	26,886.05
NON-FEE/PRELIM REVIEWS	15,000	4,534.38	30,258.27	(15,258.27)
COMMISSION AND TAC MEETINGS	14,500	400.00	9,257.65	5,242.35
SURVEYS & STUDIES	20,000	873.50	19,731.28	268.72
WATER QUALITY/MONITORING	63,000	7,808.87	40,421.53	22,578.47
WATER QUANTITY	11,500	1,244.70	7,335.80	4,164.20
WATERSHED INSPECTIONS	1,000	0.00	0.00	1,000.00
ANNUAL FLOOD CONTROL INSPECTIONS	10,000	4,184.50	4,272.00	5,728.00
REVIEW MUNICIPAL PLANS	2,000	0.00	0.00	2,000.00
WOMP	17,000	689.58	11,623.71	5,376.29
ENGINEERING & MONITORING TOTAL	**339,000**	**39,146.53**	**251,172.53**	**87,827.47**
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	615.93	28,277.50	1,722.50
PLANNING TOTAL	**30,000**	**615.93**	**28,277.50**	**1,722.50**
ADMINISTRATION				
ADMINISTRATOR	62,000	5,150.00	45,111.32	16,888.68
LEGAL COSTS	18,500	935.30	8,311.15	10,188.85
AUDIT, INSURANCE & BONDING	15,500	0.00	13,081.00	2,419.00
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	126.65	1,300.11	1,199.89
ADMINISTRATIVE SERVICES	32,000	2,549.02	22,846.49	9,153.51
ADMINISTRATION TOTAL	**136,200**	**8,760.97**	**90,650.07**	**45,549.93**
OUTREACH & EDUCATION				
PUBLICATIONS/ANNUAL REPORT	4,000	0.00	1,430.00	2,570.00
WEBSITE	12,000	1,088.17	8,142.07	3,857.93
PUBLIC COMMUNICATIONS	3,000	0.00	2,270.42	729.58
EDUCATION AND PUBLIC OUTREACH	17,000	0.00	12,745.31	4,254.69
WATERSHED EDUCATION PARTNERSHIPS	15,500	2,000.00	7,200.00	8,300.00
OUTREACH & EDUCATION TOTAL	**51,500**	**3,088.17**	**31,787.80**	**19,712.20**
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	2,932.50	7,263.00	12,737.00
TMDL WORK TOTAL	**20,000**	**2,932.50**	**7,263.00**	**12,737.00**
TOTAL EXPENSES	**626,700**	**54,544.10**	**409,150.90**	**217,549.10**

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

Cash Balance 10/7/15					
Cash			2,304,350.04		
		Total Cash		2,304,350.04	
	Capital One Bk-Glen Allen VA C/D (9/25/2017 1.15%)		248,000.00		
	Capital One Bk-McLean VA C/D (9/25/2017 1.15%)		248,000.00		
	Ally Bk Midvale Utah C/D (9/25/2017 1.25%)		248,000.00		
	Key Bk Natl Assn Ohio C/D (10/02/2014 1.15%)		248,000.00		
		Total Investments		992,000.00	
		Total Cash & Investments			3,296,350.04
Add:					
	Investment Interest				
	Interest Revenue (Bank Charges)		(77.45)		
		Total Revenue			(77.45)
Less:	CIP Projects Levied - Current Expenses - TABLE A		(97,169.29)		
	Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B		(12,136.38)		
		Total Current Expenses			(109,305.67)
		Total Cash & Investments On Hand 11/10/15			**3,186,966.92**

Total Cash & Investments On Hand	3,186,966.92
CIP Projects Levied - Budget Remaining - **TABLE A**	(3,362,065.08)
Closed Projects Remaining Balance	**(175,098.16)**
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	**325,571.46**
Proposed & Future CIP Project Amount to be Levied - **TABLE B**	1,633,070.00

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	97,169.29	677,915.05	856,369.00	(369.00)
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					
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	68,862.65	80,042.00	1,422,958.00
	6,317,900.00	97,169.29	778,426.61	2,929,674.09	3,362,065.08

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)	810,930.00	80.00	3,992.53	11,454.48	799,475.52
Northwood Lake Pond (NL-1)	822,140.00	48.00	8,540.10	13,658.85	808,481.15
2016 Project Totals	1,633,070.00	128.00	12,532.63	30,396.13	1,602,673.87
2017					
Main Stem Cedar Lk Rd to Dupont (2017 CR-M)		2,677.00	2,677.00	2,677.00	(2,677.00)
Plymouth Creek Restoration (CR-P)		9,331.38	18,639.63	18,639.63	(18,639.63)
2017 Project Totals	0.00	12,008.38	21,316.63	21,316.63	(21,316.63)
Total Proposed & Future CIP Projects to be Levied	1,633,070.00	12,136.38	33,849.26	51,712.76	1,581,357.24

BCWMC Construction Account
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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	23,964.83	66,008.01	109,203.49	514,169.51
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	26,747.50	26,777.35	121,242.95	178,757.05
Total Other Projects	1,927,373.00	50,712.33	92,785.36	566,305.99	1,361,067.01

Bassett Creek Construction Project Details

11/10/2015

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	778,426.61	5,350.56			677,915.05		25,866.35			432.00	68,862.65
Total Expenditures:	2,929,674.09	939,039.17	580,200.00	201,513.94	856,369.00	11,589.50	127,501.84	89,594.90	19,598.09	24,225.65	80,042.00
Project Balance	3,362,065.08			986.06	(369.00)	184,410.50	862,498.16	522,405.10	230,401.91	138,774.35	1,422,958.00

	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	383,939.60	47,863.10	48,811.20	30,565.19	101,812.38	6,338.95	28,670.54	75,251.50	13,089.74	15,712.00	15,825.00
Kennedy & Graven	16,246.65	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	2,223.75
City of Golden Valley	753,797.11		526,318.80	165,485.06							61,993.25
City of Minneapolis	786,775.66				736,882.66		49,893.00				
City of Plymouth	892,360.77	866,494.42					25,866.35				
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	2,929,674.09	939,039.17	580,200.00	201,513.94	856,369.00	11,589.50	127,501.84	89,594.90	19,598.09	24,225.65	80,042.00

	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						
MPCA Grant-CWPGrant											
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
		BWSR Final									
BWSR Grants Received		4/8/13		67,500	108,750						

FY11 Competetive Grant Program - received $7500 on 11/6/14

MPCA Grant-CWP (Total $300,000)

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)	2017 Main Stem-Cerar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)	
Original Budget	1,633,070		810,930	822,140			
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	33,849.26		3,992.53	8,540.10	2,677.00	18,639.63	
Total Expenditures:	51,712.76	5,282.80	11,454.48	13,658.85	2,677.00	18,639.63	
Project Balance	1,581,357.24	(5,282.80)	799,475.52	808,481.15	(2,677.00)	(18,639.63)	

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	9,575,843.00
Added to Budget					(250,000.00)	250,000.00		(3,660.83)
MPCA Grant	163,870.64		163,870.64					163,870.64
From GF	280,000.00	30,000.00			125,000.00		125,000.00	280,000.00
Expenditures:								
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	92,785.36				66,008.01		26,777.35	905,061.23
Total Expenditures:	730,176.63	107,765.15	212,222.86		109,203.49	179,742.18	121,242.95	3,711,563.48
Project Balance	1,361,067.01	27,234.85	70,647.78	500,000.00	514,169.51	70,257.82	178,757.05	6,304,489.33

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)	2017 Main Stem-Cerar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)
Project Totals By Vendor						
Barr Engineering	49,692.91	5,282.80	10,658.48	12,435.00	2,677.00	18,639.63
Kennedy & Graven	2,019.85		796.00	1,223.85		
City of Golden Valley						
City of Minneapolis						
City of Plymouth						
Blue Water Science						
S E H						
Misc						
2.5% Admin Transfer						
Transfer to General Fun						
Total Expenditures	30,396.13	5,282.80	11,454.48	13,658.85	2,677.00	18,639.63

	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	304,958.65	104,888.70	94,948.17		87,111.88	18,009.90		738,591.16
Kennedy & Graven	6,982.14	1,164.30	2,902.59		1,099.35	1,461.15	354.75	25,248.64
City of Golden Valley	215,558.63					160,271.13	55,287.50	969,355.74
City of Minneapolis								786,775.66
City of Plymouth	38,823.35						38,823.35	931,184.12
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	703,399.28	107,765.15	212,222.86		109,203.49	179,742.18	94,465.60	3,684,786.13

	Total Proposed & Future CIP Projects (to be Levied)	2016 Bryn Mawr Meadows	2016 Honeywell Pond Expansion (BC-4)	2016 Northwood Lake Pond (NL-1)	2017 Main Stem-Cerar Lk Rd to Dupont (2017 CR-M)	2017 Plymouth Creek Restoration (2017 CR-P)	
Levy/Grant Details							MPCA Grant
2009/2010 Levy							
2010/2011 Levy							2010/2011
2011/2012 Levy							2011/2012
2012/2013 Levy							2012/2013
2013/2014 Levy							2013/2014
2014/2015 Levy							
2015-2016 Levy							
Construction Fund Balance							2014/2015
BWSR Grant- BCWMO							
MPCA Grant-CWPGrant	75,000			75,000			
Total Levy/Grants	75,000			75,000			

	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	60,000.00	10,000			25,000		25,000	220,700
2011/2012 Levy	60,000.00	10,000			25,000		25,000	822,010
2012/2013 Levy	60,000.00	10,000			25,000		25,000	1,046,000
2013/2014 Levy	50,000.00				25,000		25,000	945,000
2014/2015 Levy								
2015-2016 Levy								
Construction Fund Balance	50,000.00				25,000		25,000	1,434,228
BWSR Grant- BCWMO								504,750
MPCA Grant-CWPGrant								
Total Levy/Grants	443,870.64	30,000	163,870.64		125,000		125,000	5,875,150

102835 / 3000086682

STATE OF MINNESOTA GRANT CONTRACT WITH THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION FOR PERFORMING WATERSHED MODELING IN THE BASSETT CREEK WATERSHED

This grant contract is between the State of Minnesota, acting through its Commissioner of Natural Resources, ("State") and the Bassett Creek Watershed Management Commission, 16145 Hillcrest Lane, Eden Prairie, Minnesota 55346 ("Grantee").

Recitals

1. Under Minn. Stat. Section 84.026, Subdivision 2, the State is empowered to enter into this grant agreement.
2. Minnesota Session Laws 2015, 1st Special Session, Chapter 5, Article 2, Sec 2, authorizes the Commissioner to provide funding for flood hazard mitigation in the areas included in disaster declaration DR-4182.
3. The Grantee represents that it is duly qualified and agrees to perform all services described in this grant contract to the satisfaction of the State. Pursuant to Minnesota Statutes §16B.98 Subdivision 1, the Grantee agrees to minimize administrative costs as a condition of this grant contract.
5. The Grantee attests it has the financial capacity to provide any required local match for the project or phase funded under the terms of this grant contract, and agrees to complete the project or phase if the costs exceeds the total funding provided by the State.

Grant Contract

1 Term of Grant Contract

1.1 ***Effective date***: December 1, 2015 or the date the State obtains all required signatures under Minnesota Statutes §16C.05, subdivision 2, whichever is later.

1.2 ***Expiration date***: June 30, 2017 or until all obligations have been satisfactorily fulfilled, whichever occurs first. This expiration date includes the certification period as authorized in Minn. Stat. 16A.28, subd.6.

1.3 ***Survival of Terms.*** The following clauses survive the expiration or cancellation of this grant contract: 7. Liability; 8. State Audits; 9. Government Data Practices and Intellectual Property; 11. Publicity and Endorsement; 12. Governing Law, Jurisdiction, and Venue; and 14. Data Disclosure.

2 Grantee's Duties

The Grantee, who is not a state employee, will be responsible for performing detailed hydraulic and hydrologic modeling of the North Branch Bassett Creek and the Bassett Creek main stem from Medicine Lake to the confluence with North Branch, as described in the 2016 budget table included in the *Flood Damage Reduction Grant Assistance Program* application dated August 24, 2015. State shall withhold 10% of the total grant amount until Grantee provides the State with a report summarizing the results of modeling funded with this grant.

3 Time

The Grantee must comply with all the time requirements described in this grant contract. In the performance of this grant contract, time is of the essence.

4 Consideration and Payment

4.1 ***Consideration***. The State will reimburse for all eligible services performed by the Grantee under this grant contract as follows:

(a) Compensation. The Grantee will be reimbursed 100% for eligible project expenses, not to exceed $93,000.00. Grantee is not required to provide a match to the State funding.

(b) Travel Expenses. Reimbursement for eligible project-related travel and subsistence expenses actually and necessarily incurred by the Grantee as a result of this grant contract will be reimbursed in the same manner and in no greater amount than provided in the current "Commissioner's Plan" promulgated by the Commissioner of Minnesota Management and Budget (MMB). The Grantee will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out of state travel. Minnesota will be considered the home state for determining whether travel is out of state.

(c) Eligible Expenses. Eligible expenses are those costs directly incurred by the Grantee that are solely related to and necessary for producing the work products described in Provision 2 of this Agreement. Eligible costs may include the following:

advertising costs for bids and proposals; capital expenditures for facilities, equipment and other capital assets as expressly approved by the State; materials and supplies; architectural and engineering services; construction management and inspection services; surveys and soil borings; attorney fees solely related and necessary to accomplish the Project, as determined by the State and actual construction of the Project.

Certain other types of costs may be eligible provided that they are (1) directly incurred by the Grantee; (2) are solely related to, and necessary for, producing the work products described in Provision 2; and (3) have prior written approval of the State. Any cost not defined as an eligible cost or not included in the Project Plan shall not be paid from State funds committed to the Project.

(d) Ineligible Expenses. Non-eligible costs for reimbursement means all costs not defined as eligible costs, including but not limited to the following:

fund raising; taxes, except sales tax on goods and services; insurance, except title insurance; attorney fees not necessary to accomplish the project; loans, grants, or subsidies to persons or entities for development; bad debts or contingency funds; interest; operation and maintenance costs; options for acquisition of real estate; lobbyists; and political contributions.

4.2. ***Payment***

Invoices. To obtain reimbursement for eligible costs under this Grant, the Grantee shall provide the State with invoices and evidence that the portion of the Project for which payment is requested has been satisfactorily completed. All invoices shall be sent to the person designated in Section 5. Grantee shall submit invoices and evidence that the required contribution toward any required local match are being met. Invoices will be submitted for the amount and should differentiate, when applicable, between the Federal and Non-Federal Project costs, as well as the State and local share of the Project costs. Invoices must be received by the State within thirty (30) days after the completion of the Project or the expiration of this Grant as set forth in Section 1.2, whichever occurs first. Invoices received after that date may not be eligible for reimbursement, at the State's discretion. The State's authorized agent has final authority for acceptance of Grantee's services, determination as to whether the expenditures are eligible for reimbursement under this Grant, and verification of the total amount requested. The Grantee shall not receive payment for work found by the State to be unsatisfactory, or performed in violation of federal, state or local law, ordinance, rule or regulation. At its discretion, the State may retain 10% of the total grant award until the State has determined that the Grantee has satisfactorily fulfilled all of the terms of this Grant. If requested by the State, the Grantee shall arrange for a tour of the Project area prior to release of the final ten (10) percent of the funds. Invoices must be submitted timely and according to the following schedule:

It is required that invoices be submitted, at a minimum, at the close of each state fiscal year which is July 1 – June 30. If expenses are extensive, reimbursement requests may be submitted monthly or quarterly. Please itemize the eligible expenses by the month of occurrence, not liquidation. If invoices are not received in this format, it could delay receipt of payment.

5 Authorized Representative

The State's Authorized Representative is Patrick Lynch, Floodplain Hydrologist, Department of Natural Resources, 500 Lafayette Road, St. Paul, Minnesota, 55155, 651-259-5691, pat.lynch@state.mn.us , or his/her successor, and has the responsibility to monitor the Grantee's performance and the authority to accept or reject the services provided under this grant contract. If the services are satisfactory, the State's Authorized Representative will certify acceptance on each invoice submitted for payment.

The Grantee's Authorized Representative is Laura Jester, Administrator, Bassett Creek Watershed Management Commission, 16145 Hillcrest Lane, Eden Prairie Minnesota, 55346, 952-270-1990, laura.jester@keystonewaters.com . If the Grantee's Authorized Representative changes at any time during this grant contract, the Grantee must immediately notify the State.

6 Assignment, Amendments, Waiver, and Grant Contract Complete

6.1 ***Assignment.*** The Grantee shall neither assign nor transfer any rights or obligations under this grant contract without the prior written consent of the State, approved by the same parties who executed and approved this grant contract, or their successors in office.

6.2 ***Amendments.*** Any amendments to this grant contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original grant contract, or their successors in office.

6.3 ***Waiver.*** If the State fails to enforce any provision of this grant contract, that failure does not waive the provision or the State's right to enforce it.

6.4 ***Grant Contract Complete.*** This grant contract contains all negotiations and agreements between the State and the Grantee. No other understanding regarding this grant contract, whether written or oral, may be used to bind either party.

7 Liability

The Grantee must indemnify, save, and hold the State, its agents, and employees harmless from any claims or causes of action, including attorney's fees incurred by the State, arising from the performance of this grant contract by the Grantee or the Grantee's agents or employees. This clause will not be construed to bar any legal remedies the Grantee may have for the State's failure to fulfill its obligations under this grant contract.

8 State Audits

Under Minn. Stat. §16B.98, Subd.8, the Grantee's books, records, documents, and accounting procedures and practices of the Grantee or other party relevant to this grant agreement or transaction are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this grant agreement, receipt and approval of all final reports, or the required period of time to satisfy all state and program retention requirements, whichever is later.

9 Government Data Practices

The Grantee and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, as it applies to all data provided by the State under this grant contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Grantee under this

grant contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data referred to in this clause by either the Grantee or the State.

If the Grantee receives a request to release the data referred to in this Clause, the Grantee must immediately notify the State. The State will give the Grantee instructions concerning the release of the data to the requesting party before the data is released. The Grantee's response to the request shall comply with applicable law.

10 Workers' Compensation

The Grantee certifies that it is in compliance with Minn. Stat. § 176.181, subd. 2, pertaining to workers'compensation insurance coverage. The Grantee's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees and any claims made by any third party as a consequence of any act or omission on the part of these employees are in no way the State's obligation or responsibility.

11 Publicity and Endorsement

11.1 ***Acknowledgments***. The Grantee agrees to acknowledge the State's financial support for the Project. Any statement, press release, bid, solicitation, or other document issued describing the Project shall provide information reflecting that State funds were used to support the Project and will contain the following language:

> ***This Project is made possible in part by a grant provided by the Minnesota Department of Natural Resources, through an appropriation by the Minnesota State Legislature.***

Any site developed or improved by the Project shall display a sign, in a form approved by the State, stating the same information.

11.2 ***Endorsement***. The Grantee must not claim that the State endorses its products or services.

12 Governing Law, Jurisdiction, and Venue

Minnesota law, without regard to its choice-of-law provisions, governs this grant contract. Venue for all legal proceedings out of this grant contract, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

13 Termination

13.1 ***Termination by the State.*** The State may immediately terminate this grant contract with or without cause, upon 30 days' written notice to the Grantee. Upon termination, the Grantee will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

13.2 ***Termination for Cause.*** The State may immediately terminate this grant contract if the State finds that there has been a failure to comply with the provisions of this grant contract, that reasonable progress has not been made or that the purposes for which the funds were granted have not been or will not be fulfilled. The State may take action to protect the interests of the State of Minnesota, including the refusal to disburse additional funds and requiring the return of all or part of the funds already disbursed.

14 Data Disclosure

Under Minn. Stat. § 270C.65, Subd. 3, and other applicable law, the Grantee consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state tax agencies and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state tax laws which could result in action requiring the Grantee to file state tax returns and pay delinquent state tax liabilities, if any.

1. STATE ENCUMBRANCE VERIFICATION
Individual certifies that funds have been encumbered as required by Minn. Stat. §§ 16A.15 and 16C.05.

Signed: Felicia Barnes

Date: 11/05/2015

Contract/PO No. 102835/3000086682

2. GRANTEE
The Grantee certifies that the appropriate person(s) have executed the grant on behalf of the Grantee as required by applicable articles, bylaws, resolutions, or ordinances.

By: _____

Title: _____

Date: _____

3. STATE AGENCY
Individual certifies the applicable provisions of Minn. Stat. § 16C.08, subdivisions 2 and 3 are affirmed.

By: _____
(with delegated authority)

Title: _____

Date: _____

Distribution: Agency
Grantee
State's Authorized Representative - Photo Copy

By: _____

Title: _____

Date: _____

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4E – 239 Peninsula Road Project – Medicine Lake
BCWMC November 18, 2015 Meeting Agenda
Date: November 11, 2015
Project: 23270051 2015 2061

4E 239 Peninsula Road Project – Medicine Lake

Summary:

Proposed Work: Installation of solar panels

Basis for Commission Review: Work within the floodplain

Impervious Surface Area: Increase 84 square feet

Recommendation: Approval

General Background & Comments

The proposed project includes installation of two solar panels at 239 Peninsula Road in the City of Medicine Lake. The project is in the Medicine Lake direct subwatershed. The project parcel is 0.41 acres; approximately 400 square feet will be graded to construct the project. The proposed project results in an increase of 84 square feet of impervious surface on the parcel, and the parcel has an existing impervious area of approximately 7,400 square feet.

Floodplain

The project is located within the Medicine Lake floodplain (elevation 890.3). As part of the project, concrete footings will be constructed in the floodplain to support two solar panels. The concrete footings will be placed below grade, with final grade restored to match the existing surface elevation. Material excavated for the installation of the concrete footings will be disposed off-site outside of the floodplain. The project will result in no fill within the floodplain.

Wetlands

The Bassett Creek Watershed Management Commission is the LGU for administering the Minnesota Wetland Conservation Act of 1991 in the City of Medicine Lake. As such, the BCWMC must investigate and appropriately address any wetland impacts. Based on a review of the National Wetland Inventory mapping, it appears there are no wetlands within the project area.

Stormwater Management

Under existing conditions the northern portion of the site drains north toward Peninsula Road and the southern portion of the site drains south toward Medicine Lake. Under proposed conditions the drainage patterns of the site will remain the same.

Water Quality Management

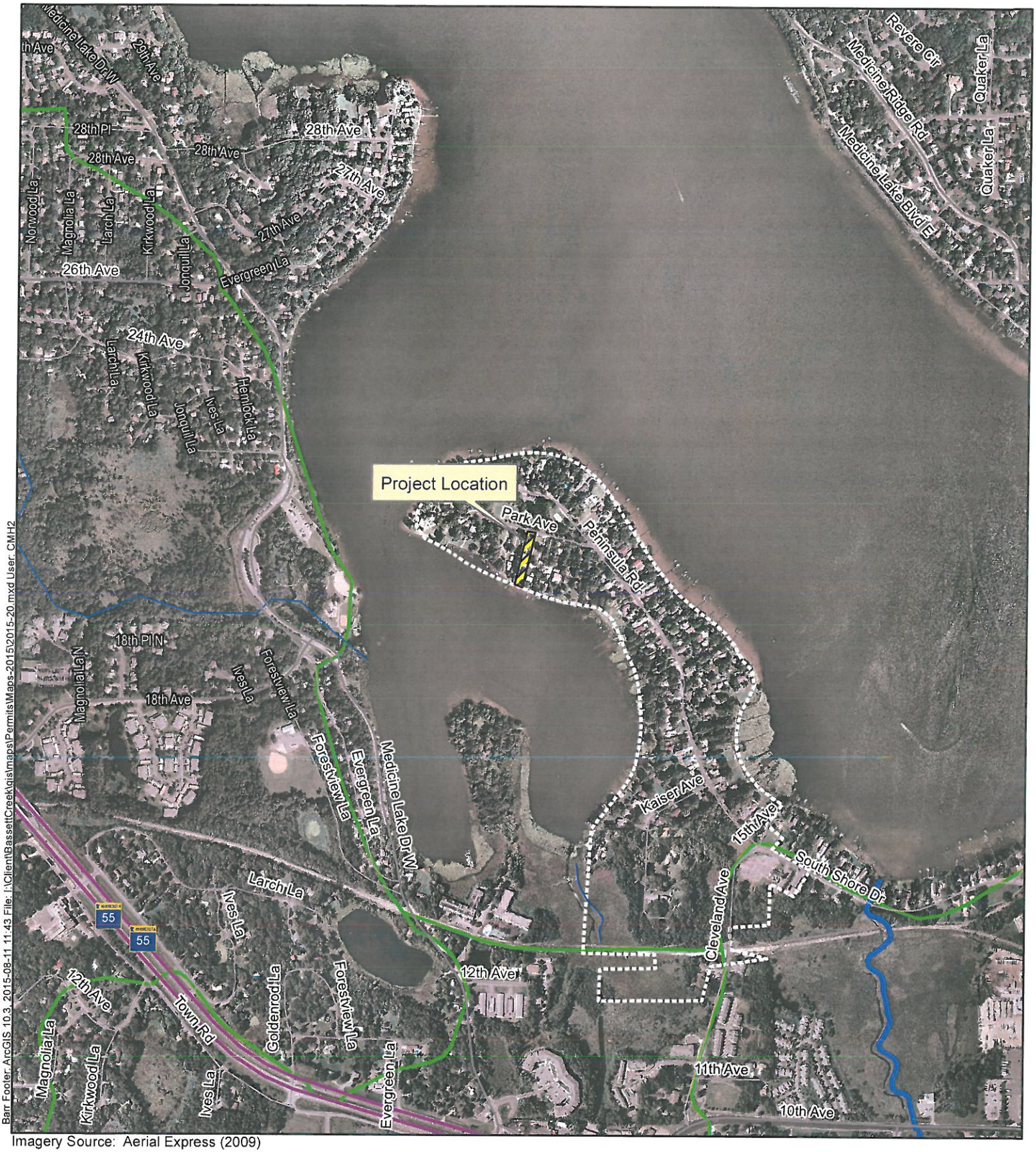
There is currently no constructed water quality treatment provided on the site. Because the project is creating and/or reconstructing less than one acre of impervious surface, no water quality treatment is required on-site. The BCWMC encourages the use of infiltration, filtration, or other abstraction of runoff from impervious area for all development and redevelopment projects as a best practice to reduce stormwater runoff. The amount of impervious surface constructed during the project will be disconnected impervious surface from small individual concrete footings and will have a minimal impact to water quality.

Erosion and Sediment Control

Since the area to be graded is less than 10,000 square feet and the project involves less than 200 cubic yards of cut or fill, the proposed project is not required to meet the BCWMC erosion control requirements.

Recommendation

Approval.



Barr Footer: ArcGIS 10.3, 2015-08-11 11:43 File: I:\Client\BassettCreek\GIS\Maps\Permits\Maps-2015\2015-20.mxd User: CMH2

Imagery Source: Aerial Express (2009)

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

Feet

0 500 1,000 1,500 2,000

Bassett Creek Watershed Management Commission

LOCATION MAP
APPLICATION 2015-30
239 Peninsula Road
Medicine Lake, MN

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4F – 1130 Angelo Drive Project – Golden Valley
BCWMC November 18, 2015 Meeting Agenda
Date: November 11, 2015
Project: 23270051 2015 2062

4F 1130 Angelo Drive Project – Golden Valley

Summary:

Proposed Work: Removal of railroad tie retaining wall and installation of riprap along shoreline

Basis for Commission Review: Work within the floodplain

Impervious Surface Area: No change

Recommendation: Approval

General Background & Comments

The project is located at 1130 Angelo Drive in the Sweeney Lake subwatershed. The project parcel is 0.92 acres; approximately 5,000 square feet will be graded to construct the project. The proposed project results in no change of impervious surface on the parcel, and the parcel has an existing impervious area of approximately 2,800 square feet.

The proposed project includes removal of an existing failing railroad tie retaining wall and installation of 12 -18 inch fieldstone riprap along the shoreline. Native plant plugs will be installed between the rocks and 10 feet back from the riprap. Existing turf will be removed to facilitate installation of the native plantings.

Floodplain

The project is located within the Sweeney Lake floodplain (elevation 831.5). The project will replace the failed railroad tie retaining wall with riprap. A portion of the existing shoreline slope will be removed and graded to facilitate installation of the riprap so the project does not result in loss of floodplain storage.

Wetlands

The City of Golden Valley is the LGU for administering the Minnesota Wetland Conservation Act of 1991, and will address any wetland impacts.

Stormwater Management

Under existing conditions the site drains east toward Sweeney Lake. Under proposed conditions the drainage patterns of the site will remain the same.

Water Quality Management

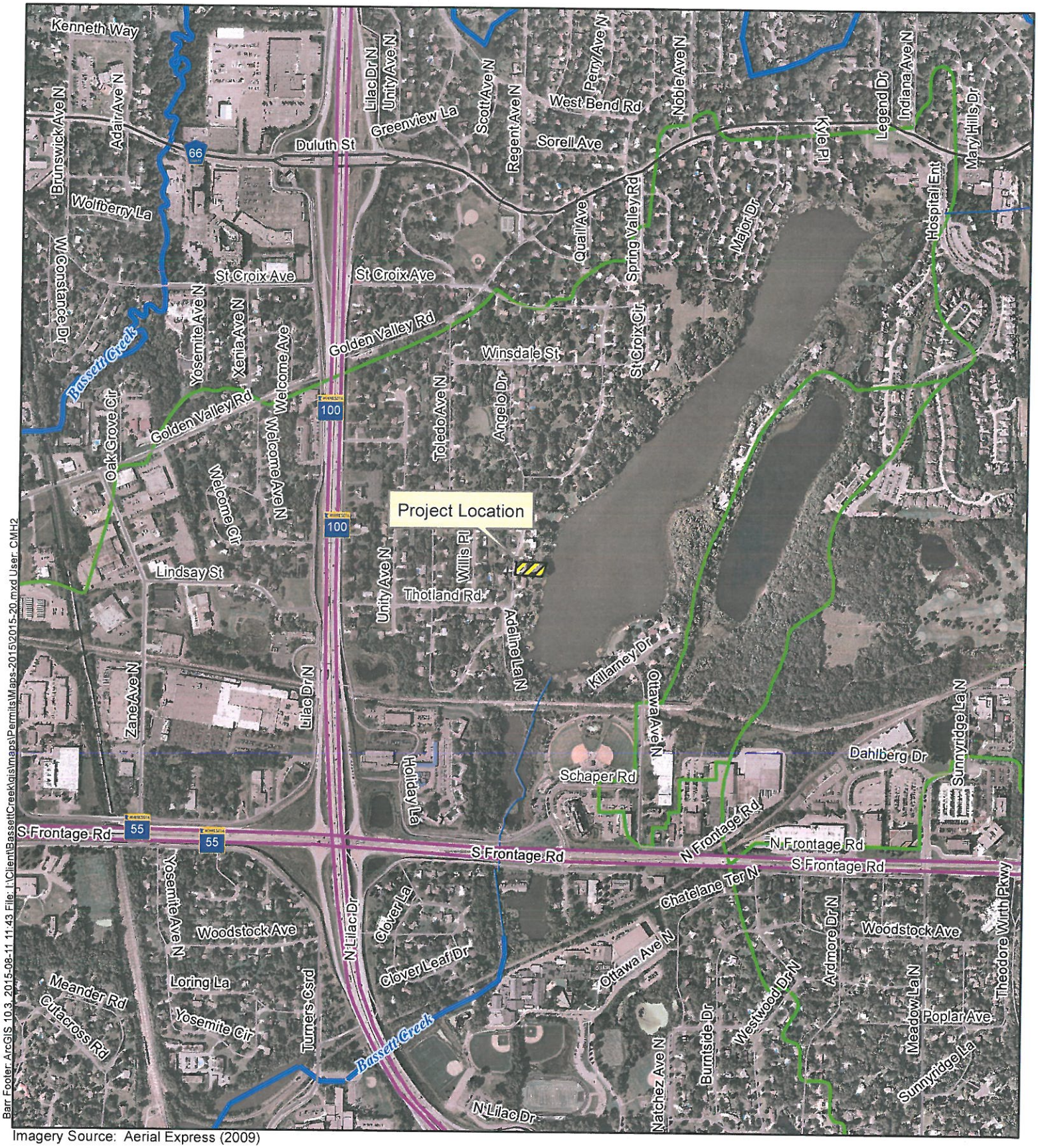
There is currently no constructed water quality treatment provided on the site. Because the project is creating and/or reconstructing less than one acre of impervious surface, no water quality treatment is required on-site. The BCWMC encourages the use of infiltration, filtration, or other abstraction of runoff from impervious area for all development and redevelopment projects as a best practice to reduce stormwater runoff. The project will replace turf with native plantings within the project area which will provide water quality benefits.

Erosion and Sediment Control

Since the area to be graded is less than 10,000 square feet and involves less than 200 cubic yards of cut or fill, the proposed project is not required to meet the BCWMC erosion control requirements. However, an erosion control plan was provided showing silt fence, biolog, and erosion control blanket.

Recommendation

Approval



Barr Footer: ArcGIS 10.3, 2015-08-11 11:43 File: I:\Client\BassettCreek\gis\maps\Permits\Maps-2015\2015-20.mxd User: CMH2

Imagery Source: Aerial Express (2009)

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

Feet

0 500 1,000 1,500 2,000

Bassett Creek Watershed Management Commission

LOCATION MAP
APPLICATION 2015-31
1130 Angelo Drive
Golden Valley, MN

Item 5A.
BCWMC 11-18-15

Main Stem Channel Restoration Project

Golden Valley road to Irving Avenue North, Minneapolis
BCWMC Project Number 2012CR-M

FINAL REPORT
November 2015

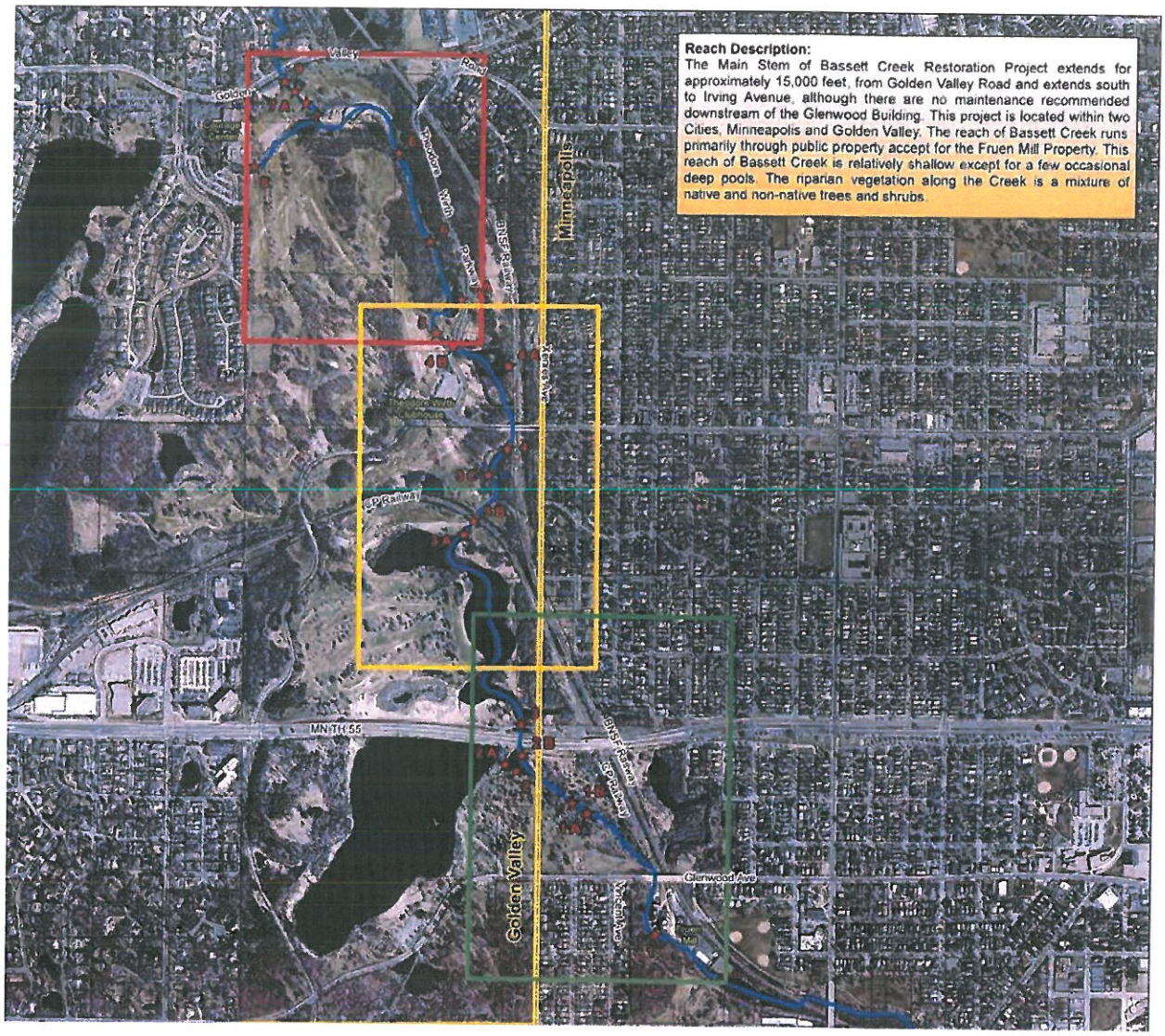
I. Project Timeline and Key Documents

- Amended BCWMC's Capital Improvement Program, September 2011, Resolution 11-08 http://www.bassettcreekwmo.org/Meetings/2011-September/SignedResolution11-08.pdf
- Feasibility report completed by Barr Engineering, June 2011 http://www.bassettcreekwmo.org/PlanAmendments/2011-MainStem-GV-to-IrvingAveNorth/Bassett%20Creek%20Restoration%20Project%20Feasibility%20Report_reduced.pdf
- Agreement between BCWMC and the city of Minneapolis approved, February 2012. http://www.bassettcreekwmo.org/Meetings/2012/2012-january/6A2-CooperativeAgreement-MainStemRestoration.pdf
- MPRB drafted Community Engagement Plan, February 2013 https://www.minneapolisparks.org/_asset/93cn6k/bassett_creek_CE_plan.pdf
- 50% Development Plans, September 2013 http://www.bassettcreekwmo.org/Meetings/2013/2013-September/Item%206E%20Bassett%20Creek%20Main%20Stem%20(CIP%202012%20CR)_50%25%20%20Memo.pdf
- 90% Development Plans, March 2014 http://www.bassettcreekwmo.org/Meetings/2014/2014-March/6A-Main%20Stem%20Project%2090%25%20Planset2-5-14.pdf
- Project construction milestones:
  - Begin Construction: October 2014
  - Substantial completion: Spring 2015
  - Project acceptance, final payment processed: November 2015
  - Final presentation to the Commission: September 2015
  - Maintenance and Monitoring: Continues for two years after construction completed.
- Dates and links to reimbursement requests to BCWMC
  - October 2014: $29,035.50 http://www.bassettcreekwmo.org/Meetings/2014/2014-November/4E-MPLS-reimbursement-request.pdf
  - May 2015: $25,006.00 http://www.bassettcreekwmo.org/Meetings/2015/2015-May/4F-MPLS-ReimbursementInvoiceC-35628-3withSupportingDocumentation.pdf
  - October 2015: $555,322.76 http://www.bassettcreekwmo.org/Meetings/2015/2015-October/4E-MPLS-InvoiceC-35628-4withSupportingDocumentation.pdf
  - November 2015: $123,547.79 – sent to Laura 11/5/2015

II. Project Area

The overall project area as proposed is a reach of the Bassett Creek Main Stem that extends approximately 15,000 feet from Golden Valley Road south to Irving Avenue North. The project is located within the cities of Golden Valley and Minneapolis and this section of the creek is primarily on public property owned by the Minneapolis Park and Recreation Board. As proposed, the project scope included work on the Fruen Mill property, on the south side of Glenwood Avenue North; however this work had access complications, and is now being anticipated to be completed as part of the proposed Bassett Creek Erosion Repair Project , 2017CR-M.

A map showing the project area is below:



III. Project Description and Outcomes

This section of eroded channel within the Bassett Creek Main Stem was stabilized and restored over the winter of 2014/2015. The purpose of this project was to improve water quality, prevent future erosion, protect existing public infrastructure, and improve the natural aesthetics and wildlife habitat in this section of Bassett Creek.

This project reach was originally identified in the 2005 Minneapolis Park and Recreation Board (MPRB) Erosion Site Survey. The problems identified in this report included degraded vegetative diversity and invasive species, areas of active bank erosion, and deposition of sediment.

Barr Engineering carried out the Feasibility Study. In 2011 Barr staff walked the reach and identified a total of eight critical sites that required stabilization to address bank erosion, scour, and/or bank failure. The total length of identified bank erosion was approximately 3,100 feet. The bank failures along this section of the creek were most likely caused by a combination of natural stream erosion processes and problems associated with the changed watershed runoff patterns due to historic development.

The project implemented a mixture of vegetative, or bioengineering practices, and hard armoring practices such as stone to stabilize the streambanks. The stabilization techniques included the following:

- Streambank slope shaping was used to flatten the streambanks to a 3:1 slope. This reduces the potential for erosion and provides a gentler slope that can be stabilized using vegetation.
- Bio-logs and live fascines were used to stabilize and protect the toe of the streambank in areas where creek velocities were low enough that rock was not needed. These techniques are used to stabilize the toe of the streambank with plantings on the upper banks to provide additional long term stabilization.
- Vegetated reinforced slope stabilization (VRSS) was used in some locations to provide slope stabilization in areas where there were steep, eroded banks. VRSS is a bioengineering technique that combines rock, geotextiles, soils, and plantings. It typically involves protecting layers of soil with a blanket or geotextile and vegetating the slope to provide long term stabilization.
- Fieldstone boulders that were about 30 to 34 inches in size and fieldstone rip rap that were about 12 to 18 inches in size were used in some locations to protect the toe of the streambank. Boulders and rip rap are most effective in shadier areas where planting would not be as effective and in stream locations with greater flow velocities and erosive potential.
- Rock vanes were installed in the creek to reduce erosion by redirecting the stream flow away from vulnerable stream banks and into the center of the channel.
- Establishment of native vegetation, including trees and shrubs was used throughout the project reach to provide a root mass that will stabilize the streambanks and provide improved wildlife habitat over the long term.

In addition, the following benefits and improvements were completed with this project, with cost participation by the City of Minneapolis and the Minneapolis Park & Recreation Board:

- Eight structures and storm sewer outfalls into Bassett Creek were stabilized and repaired. This work included reshaping slopes, shoring-up undermined structures, reinstalling pipe flared end sections, and reestablishing rip rap at the pipe outlets.
- Sediment deltas were removed from the creek at outfall locations.
- A side channel into Bassett Creek was dredged and stabilized. This was the historic main channel, before the Minnesota Department of Transportation rerouted the creek in the 1940s-50s to allow for widening of TH55 – Floyd B. Olson Memorial Highway.
- Trails within the MPRB property were repaired.

Completion of this project reduced the overall pollutant load to the Main Stem of the Bassett Creek. The feasibility report for the project estimated that the proposed work would reduce the total phosphorus load by about 60 pounds per year and the TSS load by about 105,000 pounds per year.

The City of Minneapolis and the Commission entered into an agreement for the project, with acknowledgment and approval by the City of Golden Valley. Subsequently the two cities entered into a Cooperative Agreement with the MPRB to carry out the project, with review and approval by the two cities, and with the City of Minneapolis acting as the fiduciary agent for the construction funds, as the MPRB is not a member of the Commission.

MPRB drafted a Community Engagement Plan for this project. This plan acted as a guide for the community engagement processes throughout the planning and construction of the project. MPRB identified the project stakeholders as the following: a technical advisory committee consisting of staff from BCWMC, Minneapolis, Golden Valley and MPRB, as well as a project advisory committee consisting of the attendees of the two public meetings. Public meeting were held on March 30, 2013 and on February 22, 2014. Information on those public meetings can be found on the MPRB website: https://www.minneapolisparks.org/park_care__improvements/park_projects/current_projects/bassett_creek_main_stem_erosion_repairs/#group_2_208387

IV. Funding

Bassett Creek Main Stem Restoration Project (2012CR-M):

$217,500	2012 Clean Water Grant Funds
$638,500	BCWMC CIP Levy

Additional work on the Park Board property and in some side channels of the main creek were completed as a part of this project. This additional work was completed with funding from the MPRB and the city of Minneapolis.

V. Lessons Learned

Communication with all stakeholders is important.
This project required cooperation among various departments/divisions of MPRB, the City of Minneapolis, the City of Golden Valley, and the BCWMC. Communication was vitally important to ensure that this project met the needs of the Commission to improved stream habitat and water quality and also met the city goals of improving and stabilizing infrastructure in and adjacent to the creek. Another important group of stakeholders were visitors to Wirth Park and nearby residents. It was important to identify a plan to engage all of these groups to complete a successful community project.

Establishing a maintenance plan for long term vegetation management should be considered as part of the project.
The key to a successful stream restoration project that relies heavily on native vegetation and plantings is to make sure that these plantings are well established during the first few years following the project and are continually maintained after that. Invasive species removal, additional plantings and spot correction of any erosion issues are part of the overall long term maintenance of the project.

Consider the appropriate time of year for construction.
Creek restoration projects are most successfully completed during the winter months. There is no flow within the creek channel to wash out disturbed soil and with the ground frozen there are limited impacts to any sensitive areas adjacent to the streambed.

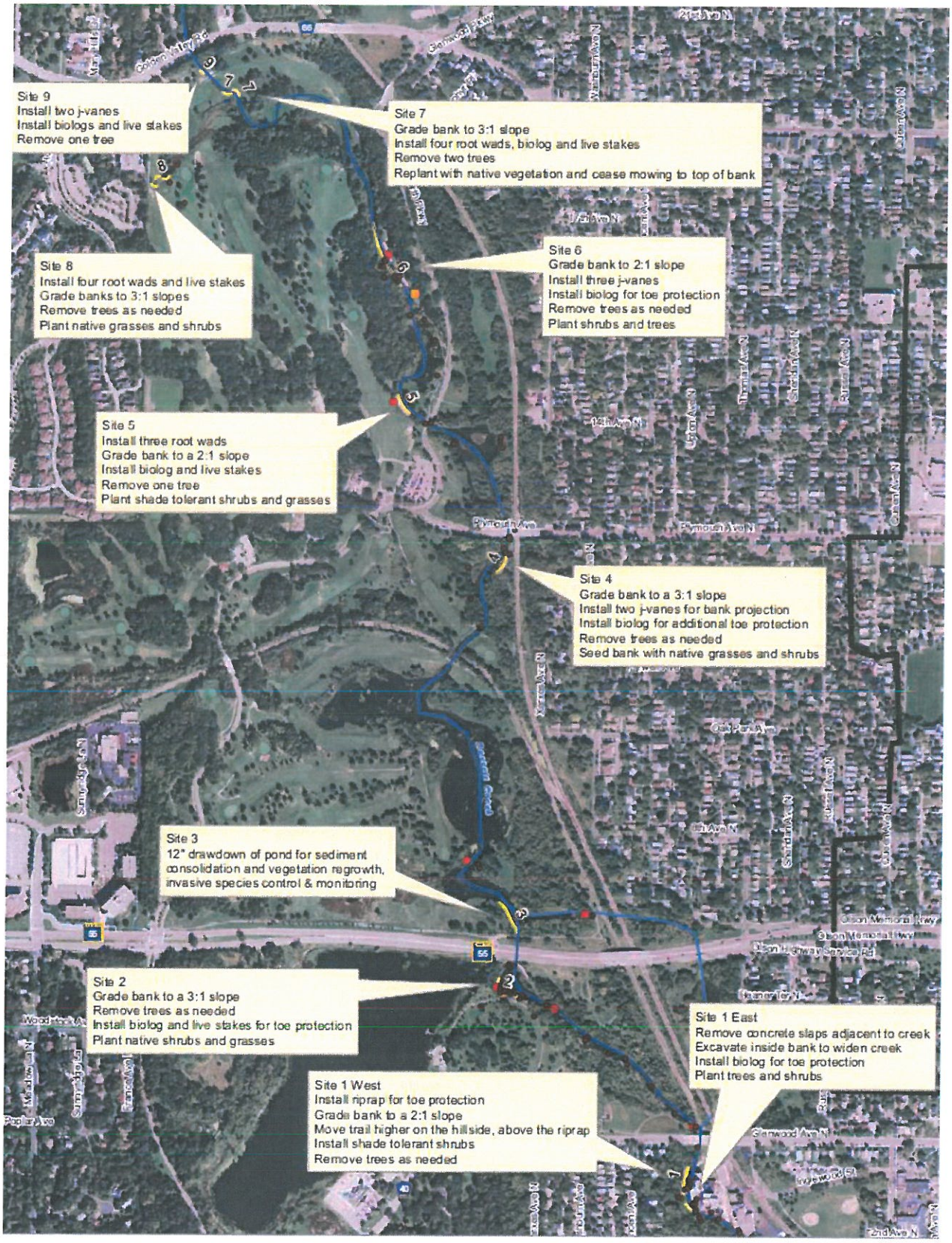
Build enough time into the schedule for obtaining necessary permits from the US Army Corps of Engineers.
The Corps' approval process was unexpectedly long due to additional revisions and submittals to secure approval from the State Historic Preservation Office (SHPO). Identifying cultural resources that may fall under the purview of SHPO should be done early as part of the feasibility study to expedite Corps review and permitting. The BCWMC Resource Management Plan drafted by the Commission's engineer has developed protocols to work with the Corps and avoid long delays in the future.

VI. Maintenance

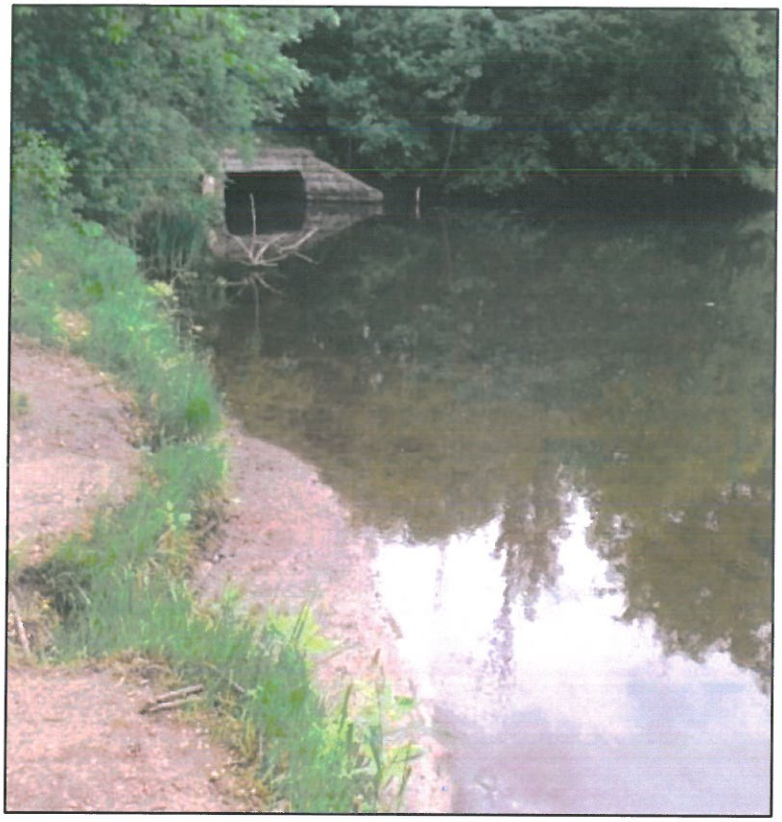
Following project completion there is a two year warranty period. During that time period the contractor will be responsible for ensuring that site erosion is controlled and vegetation is completely established. Maintenance of the newly planted vegetation and removal of invasive species is crucial to the long term success of the stabilization project. The MPRB will continue to inspect the creek through their property and will assume responsibility for routine maintenance such as tree removal, invasive species management, and the overall vegetation management.

Based on past project experience, very little maintenance will be required for the rock/hard armoring practices installed with this project.

VII. Photos


Site 9
Install two j-vanes
Install biologs and live stakes
Remove one tree
Site 7
Grade bank to 3:1 slope
Install four root wads, biolog and live stakes
Remove two trees
Replant with native vegetation and cease mowing to top of bank
Site 8
Install four root wads and live stakes
Grade banks to 3:1 slopes
Remove trees as needed
Plant native grasses and shrubs
Site 6
Grade bank to 2:1 slope
Install three j-vanes
Install biolog for toe protection
Remove trees as needed
Plant shrubs and trees
Site 5
Install three root wads
Grade bank to a 2:1 slope
Install biolog and live stakes
Remove one tree
Plant shade tolerant shrubs and grasses
Site 4
Grade bank to a 3:1 slope
Install two j-vanes for bank projection
Install biolog for additional toe protection
Remove trees as needed
Seed bank with native grasses and shrubs
Site 3
12" drawdown of pond for sediment consolidation and vegetation regrowth, invasive species control & monitoring
Site 2
Grade bank to a 3:1 slope
Remove trees as needed
Install biolog and live stakes for toe protection
Plant native shrubs and grasses
Site 1 East
Remove concrete slaps adjacent to creek
Excavate inside bank to widen creek
Install biolog for toe protection
Plant trees and shrubs
Site 1 West
Install riprap for toe protection
Grade bank to a 2:1 slope
Move trail higher on the hillside, above the riprap
Install shade tolerant shrubs
Remove trees as needed

Site 2 – 82+00 - BEFORE



Site 2 – 82+00 - AFTER

Site 4 – Parkway Bridge – 127+50 – DURING

Site 4 – Parkway Bridge – 127+50 – AFTER

Site 4 – Parkway Bridge – 127+50 – AFTER

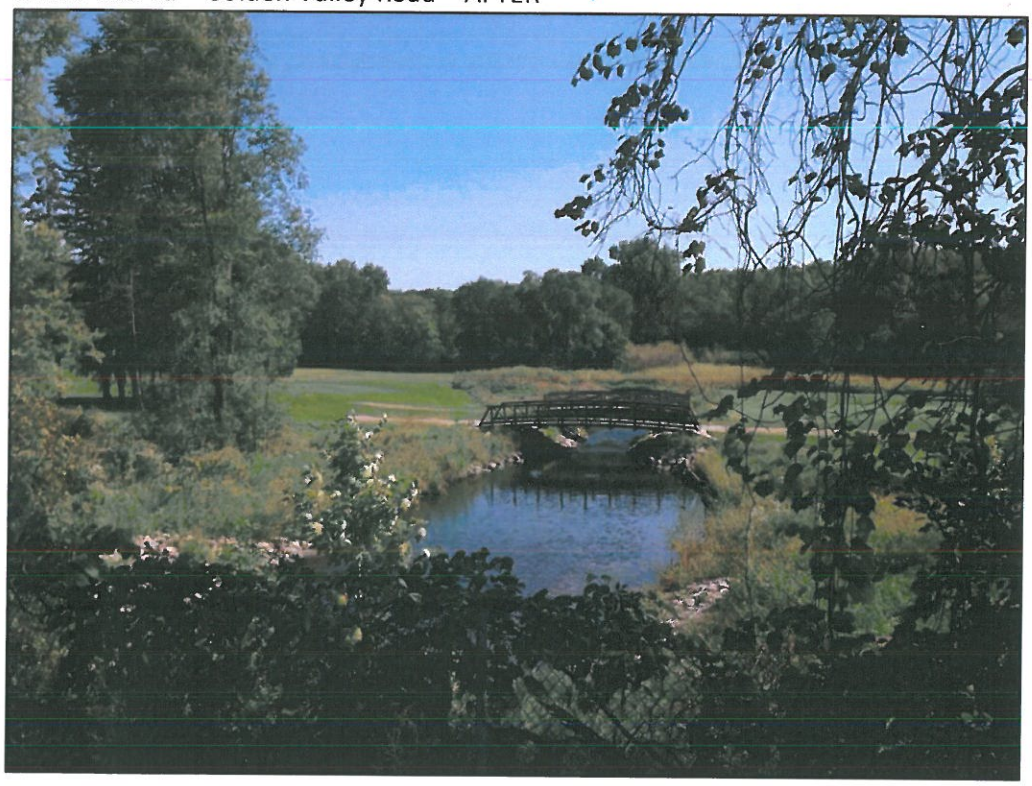
Site 6 – 139+00 - BEFORE

Site 6 – 139+00 - AFTER

Site 6 – 139+00 - AFTER

Sites 7 and 7a – Golden Valley Road – DURING CONSTRUCTION

Sites 7 and 7a – Golden Valley Road – AFTER



Bassett Creek Side Channel and Trail Work (work paid for by MPRB and city of Minneapolis) - BEFORE

Bassett Creek Side Channel and Trail Work (work paid for by MPRB and city of Minneapolis) – AFTER

Bassett Creek Side Channel and Trail Work (work paid for by MPRB and city of Minneapolis) - BEFORE

Bassett Creek Side Channel and Trail Work (work paid for by MPRB and city of Minneapolis) – AFTER

Minneapolis
City of Lakes

Department of Public Works
Steven A. Kotke, P.E.
City Engineer
Director

350 South 5th Street - Room 203
Minneapolis MN 55415

Office 612 673-2352
Fax 612 673-3565
TTY 612 673-2157

Item 5B.
BCWMC 11-18-15
Full documentation online

November 6, 2015

Bassett Creek Watershed Management Commission
c/o Laura Jester, Administrator, Keystone Waters, LLC (via mail and email)
16145 Hillcrest Lane
Eden Prairie MN 55346

Subject: INVOICE #C-35628-5
Cooperative Agreement for Bassett Creek Main Stem Restoration
Minneapolis Contract # C-35628
and Channel Maintenance Funds

Dear Ms. Jester:

The Cooperative Agreement provides for reimbursement to the City in an amount not to exceed $856,000.00, less project-related costs paid directly by BCWMC, including the Feasibility Report and other engineering and project costs. Previous reimbursements have been made to the City in the amount of $640,082.37. The amount remaining from the not to exceed amount of $856,000.00 is $96,800.29. Channel maintenance funds for reimbursement to the City total $26,747.50.

Please issue final payment to the City for this project in the amount of $123,547.79. This is reimbursement toward costs itemized below. Supporting documentation is enclosed. Please note that the amount of listed expenditures that exceed the reimbursement request are being funded by City of Minneapolis and by the Minneapolis Park & Recreation Board.

Engineering Fees and Project Management -- WSB & Associates, Project 01165-820, Invoice numbers:

26	$17,030.25
28	1,307.25
29	1,217.00
30	1,975.75
32	926.25
	$22,456.50

Contractor -- Rachel Contracting, Inc., Contract C-38995, Invoice numbers:

3	$67,196.19
4	194,140.69
5	42,920.33
	$304,257.20

Total of expenditures listed above: $326,713.71

Remaining funding from Bassett Creek Watershed Management Organization:

Remaining funds available from Capital Project 2012CR:	$ 96,800.29
Channel maintenance funds:	26,747.50
	$123,547.79

Total reimbursement from BCWMC to this project: $763,630.16

Please make check payable to Minneapolis Finance, and mail to City of Minneapolis, Lois Eberhart, Water Resources Administrator, 309 South Second Avenue, Room 300, Minneapolis MN 55401

Sincerely,

Lois E. Eberhart

Lois Eberhart, Public Works Surface Water & Sewers Division, phone 612-673-3260, lois.eberhart@minneapolismn.gov

Item 5C.
BCWMC 11-18-15
Complete Plan Set Online

engineering and environmental consultants

BARR

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5C. Consider Approval of 90% Plans for Northwood Lake Improvement Project (NL-1), New Hope
BCWMC November 18, 2015 Meeting Agenda
Date: November 11, 2015
Project: 23270051 2015 633

5C. Consider Approval of 90% Plans for Northwood Lake Improvement Project (NL-1), New Hope

Summary:

Proposed Work: Northwood Lake Improvement Project

Basis for Commission Review: 90% Design Review

Change in Impervious Surface: N.A

Recommendations:

1) Conditional approval of 90% drawings

The 2016 Northwood Lake Improvement project (NL-1) will be funded by the BCWMC's ad valorem levy (via Hennepin County). The City of New Hope provided the 90% design plans to the BCWMC for review and comment, as set forth in the BCWMC CIP project flow chart.

50% Design Review Summary

The BCWMC approved the 50% design plans for the Northwood Lake improvement project at the September 17, 2015 Commission meeting. The 50% design plans included the designs for Concept A (storm sewer diversion, subsurface stormwater reuse system, and rain gardens in Northwood Park) and Concept C (wet detention basin along Jordan Avenue) from the feasibility study.

Concept A includes the diversion of storm sewer along Boone Avenue, south toward Northwood Park and the subsurface storage for the stormwater reuse system. Prior to discharging into the subsurface storage system, the storm sewer diversion will pass through a treatment manhole (e.g. Stormceptor) to provide sediment removal prior to discharging into the subsurface treatment system. The subsurface storage tank will include pumps and a force main that will connect with the existing irrigation system for the ball fields in Northwood Park, east of Boone Avenue. Overflows from the underground storage system will be directed to a series of rain gardens along Ensign Avenue to provide additional treatment before

discharging to Northwood Lake. Concept C includes the diversion of storm sewer along Jordan Avenue into a new wet detention pond located west of Jordan Avenue, prior to discharging into Northwood Lake.

90% Design Review Summary

Many of the recommendations provided in the 50% review were addressed as part of the 90% design submittal. The table below compares the water quality treatment volumes to be provided by the project, as presented in the feasibility study, in the 50% design plans, and in the current 90% design plans. Additional discussion of the proposed design is discussed below.

	Underground Storage Volume (for Stormwater Reuse)	**Rain Garden Volume**	**Jordan Avenue Retention Pond Dead Storage Volume**
Feasibility Study (November 2014)	0.5 acre-ft (160,000 gallons)	0.37 acre-ft	0.7 acre-ft
50% Design Plans	0.24 acre-ft	0.34 acre-ft	1.55 acre-ft
90% Design Plans	0.491 acre-ft (159,982 gallons)	0.258 acre-ft	1.32 acre-ft

According to the information provided by the city's consultant (using the MIDS calculator), the project is anticipated to achieve the following annual total phosphorus (TP) and total suspended solids (TSS) reductions:

Concept	**Average Annual Volume Reduction (ac-ft/yr (%))**	**Average Annual TP Removal (lbs/yr (%))**	**Average Annual TSS Removal (lbs/yr (%))**
Concept A – Stormwater reuse for irrigation in Northwood Park	8.0 acre-ft (11%)	4.62 lbs/yr (11%)	519 lbs/yr (11%)
Concept A – Rainwater Gardens (3) along Ensign Avenue	0.89 acre-ft (1.3%)	20.19 lbs/yr (52.0%)	4,151 lbs/yr (92.7%)
Concept C – Jordan Avenue water quality treatment pond	0.0 acre-ft (0%)	5.67 lbs/yr (34%)	1,813 lbs/yr (60%)
Project Total	8.89 acre-ft	30.48 lbs/yr	6,483 lbs/yr

The November 2014 feasibility study estimated the average total phosphorus removal to be 22.0 pounds/year for the combination of Concepts A and C; the city's consultant used the MIDS calculator to arrive at this estimate.

The BCWMC Engineer also reviewed the Minnesota Department of Natural Resources (MnDNR) surface water appropriations permit application (as provided by the city's consultant). In the appropriations permit application, the city requested an appropriation of 1.5 million gallons per year from Northwood Lake. However, according to the information provided in the MIDS calculator, the estimated average annual volume to be used for irrigation is2.6 million gallons per year (8.1 acre-ft per year). The city should revise its permit application accordingly to adequately cover the expected pumping amount.

The city's consultant also provided a memo (dated November 5, 2015) and follow-up correspondence summarizing the results of the water level analysis performed for Northwood Lake. The city's consultant used the existing BCWMC P8 model to help understand the relative impacts of the proposed diversion of water away from Northwood Lake (used for irrigation in Northwood Park, downstream of Northwood Lake) on the resulting lake levels based on two scenarios. The first scenario reflects the existing watershed conditions. The second scenario assumes that the area tributary to the subsurface storage/irrigation system would be diverted entirely away from Northwood Lake, because the proposed irrigation area is downstream of Northwood Lake. This is a conservative (worst-case) scenario, as not all of the runoff from that watershed is diverted away from the lake. The current design directs runoff volumes greater than the subsurface storage volume to a series of rainwater gardens in Northwood Park that ultimately discharge to Northwood Lake. Per the MIDS evaluation, only 11% of the average annual runoff volume from the tributary watershed will be used for irrigation (i.e., diverted away from Northwood Lake), while the remaining volume will continue to discharge to Northwood Lake.

The following table summarizes the existing and proposed Northwood Lake levels as predicted by the P8 model for the two scenarios above:

Scenario	**Minimum Lake Level (ft)**	**Average Lake Level (ft)**	**Maximum Lake Level (ft)**
Existing Conditions	5.4	7.9	9.5
Proposed Conditions	5.4	7.2	9.1

The table above shows a 0.7-foot estimated reduction in the average lake level from existing to proposed conditions. However, as noted earlier, this estimate is based on diverting the entire area tributary to subsurface storage/irrigation system away from the lake, but only 11% of the average annual runoff volume is predicted to be diverted away from Northwood Lake for irrigation. As a result, a more likely impact on the average lake level would be 11% of 0.7 feet, or 0.08 feet (1 inch), a minimal impact. During flood events, an even smaller percentage of the runoff from the watershed would be diverted from the lake.

The BCWMC's review comments/recommendations regarding the 50% plans included comments regarding the level of stormwater treatment to be provided prior to the use of the stormwater for

irrigation. Based on information provided in the construction plans (Sheet P3.01) and in a November 2, 2015 letter from the city's consultant, the proposed system will use an online filter (200 micron), which is sufficient for the existing irrigation heads. The BCWMC's comments also included recommendations to incorporate an online UV treatment system and to consider other methods (i.e., timing of irrigation and signage) to limit the public's contact with the stormwater. The city decided not to use a UV treatment system, but the city's intent is to irrigate the fields at night to minimize public contact with the irrigation water and they also intend to install signs in the park regarding the use of non-potable water for irrigation. The 90% design plans do not include details on the signage; these details should be included with the final plan submittal.

Recommendations

A. Conditional approval of 90% drawings based on the following comments,:

1) The City should revise its MnDNR appropriations permit application so that it adequately covers the expected pumping amount.

2) Sheets P3.01 and P4.01 of the plans include details of the forcemain and the connection to the existing irrigation system.

   a. The existing irrigation box includes a backflow preventor. Verify that the backflow preventor meets the city/plumbing code requirements to prevent cross contamination of the potable water supply.

   b. Section A on Sheet _P3.01 indicates that there is a level transducer in the pump vault and Sheet E1.01 indicates there is a control panel, suggesting automated operation of the pumping system and control of the system valves. Additionally, Sheet P4.01 indicates there is an isolation valve and box along the potable water irrigation line downstream of the existing irrigation box. Section B on Sheet 3.01 indicates there is a check valve in the utility structure along the 4-inch stormwater forcemain that would prevent backflow into the filter and subsurface system. Verify that the function of the isolation valve and pumping system is automated and coordinated (based on the water level in the underground storage tank).

3) Details regarding signage in the park that address the use of non-potable water for irrigation need to be included with the final plan submittal.

4) Sheet C3.03 of the plans show a proposed filter media depth of 18 inches. The BCWMC Requirements document (current and previous version) and the Minnesota Stormwater Manual recommend a filter media depth of 30 inches (2.5 feet) or more to allow adequate filtration processes to occur. The final plan submittal should include a revised design that

meets the recommended filter media depth or an explanation should be provided as to why the filter media depth needs to be shallower (e.g., depth to groundwater).

5) The Minnesota Stormwater Manual requires a separation distance of 3 feet between the bottom of the bioretention (rainwater garden) practice and the elevation of the seasonally high water table. Based on the cross sections provided on Sheet C3.03 and the information provided in the soil boring logs dated October 13, 2015, soil boring 12 must be at least 0.6 feet deeper (11.6 feet in depth) to confirm that there is adequate separation to groundwater. This needs to be addressed in the final plan submittal.

6) Perimeter control should be added for the removals on Jordan Avenue (removals shown on Sheet C0.01). The November 2, 2015 letter from the city's consultant indicates perimeter control was added, but it does not appear to be shown on the plans in areas downgradient of the pavement and curb removal on Jordan Avenue. Perimeter controls and contours with labels should be added to Sheet C2.01 as part of the final plan submittal (the contours will facilitate review of the erosion control placement).

B. Authorize the City of New Hope to proceed with final plans; note that the parts of the project outside the scope of the BCWMC CIP will require separate review as part of the BCWMC project review program.

C. The final plans must be submitted to the BCWMC Engineer for administrative review and approval after modifications have been completed.

Item 5D.
BCWMC 11-18-15
Full Plan Set Available Online

engineering and environmental consultants

BARR

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D. Consider Approval of 90% Plans for Honeywell Pond Expansion Project (BC-4), Golden Valley
BCWMC November 18, 2015 Meeting Agenda
Date: November 11, 2015
Project: 23270051 2015 632

5D. Consider Approval of 90% Plans for Honeywell Pond Expansion Project (BC-4), Golden Valley

Summary:

Proposed Work: 2016 Honeywell Pond Enhancement/Improvements (CIP BC-4)

Basis for Commission Review: 90% Design Review

Change in Impervious Surface: N.A

Recommendations:

1) Conditional approval of 90% drawings

The 2016 Honeywell Pond Enhancement/Improvement Project (CIP BC-4) will be funded by the BCWMC's ad valorem levy (via Hennepin County). The City of Golden Valley provided the 90% design plans to the BCWMC for review and comment, as set forth in the BCWMC CIP project flow chart.

Feasibility Study Summary

The City of Golden Valley's *Feasibility Report for the Honeywell Pond Enhancement/Improvement Project* (WSB, July 14, 2015) examined the feasibility of several enhancement/improvement projects in the Honeywell Pond and nearby areas that will provide treatment of runoff from the watershed. Additional improvement alternatives were evaluated to reduce runoff rate, reduce runoff volume, and provide habitat enhancements in the area. The improvement options selected for implementation will be constructed as part of the Douglas Drive Improvement Project, scheduled for construction in 2016.

The feasibility report identified three improvement options for the Honeywell Pond and nearby areas, including:

- Option 1 – Expansion of Honeywell Pond, construction of a low flow diversion system from Douglas Drive, and establishment of a buffer/habitat around the perimeter of the pond.
- Option 2a – Construction of a lift station and force main to Sandburg Learning Center Ball Fields for irrigation, with a stub for irrigation at the Honeywell site and a force main to the south infiltration system (to be constructed as part of the Douglas Drive Project).

- Option 2b – Construction of a lift station and force main to Sandburg Learning Center Ball Fields for irrigation and a force main to the south infiltration system (to be constructed as part of the Douglas Drive Project). Assumes no irrigation at the Honeywell site.
- Option 3 – Combination of Option 1 and either Option 2a or Option 2b

At their November 19, 2014 meeting, the Commission approved the City of Golden Valley's final feasibility study for this project, and selected implementation of Option 3 (combination of Option 1 and either Option 2a or Option 2b).

50% Design Review Summary

The BCWMC approved the 50% design plans for the Honeywell Pond Enhancement/Improvement Project at the September 17, 2015 commission meeting. The 50% design plans included the designs for Option 3 (Option 1 and Option 2b from the *Feasibility Report for the Honeywell Pond Enhancement/Improvement Project* (WSB, July 14, 2015)), which includes the expansion of the dead storage in Honeywell Pond, the low flow diversion from the storm sewer along Douglas Drive to the Honeywell Pond and the installation of a pump station and force main to irrigate 17 acres at the Sandburg Ball Field with water from Honeywell Pond. The proposed system will pump water from the normal water level (NWL) to 1.5 feet below the NWL in Honeywell Pond and use this water for irrigation, at a rate of approximately 1 inch per week during the typical irrigation season (May through September). Also included in the 50% design plan set were components of a larger city project (Douglas Drive project) that are outside the scope of the BCWMC CIP project and will require review as part of the BCWMC project review program, including a force main to pump water from Honeywell Pond to an infiltration system south of the pond along Douglas Drive

90% Design Review Summary

Many of the BCWMC's comments and recommendations provided in the 50% review were addressed as part of the 90% design submittal. Below is a comparison of the estimated water quality treatment (annual total phosphorus (TP) removal, pounds per year) as provided in the feasibility study, the 50% design plans, and the current 90% design plans:

	Honeywell Pond Expansion	**Irrigation of Sandburg Ball Fields**	**Pumping to Douglas Drive Infiltration System**
Feasibility Study (July 2015)	51.6	5.77-11.54	2.04-4.08
50% Design Plans	60.9	12.3	2-4
90% Design Plans	60.9[1]	15.3[2]	

1 – Based on the P8 model for the 90% design plans.

2 – Based on the water balance model (which combines both the Sandburg irrigation and the Douglas Drive pumped infiltration volumes into a single volume) and applies an assumed TP concentration of 160 ug/L. See comments below in relation to the water balance model provided.

The table above includes the proposed pumping to the Douglas Drive infiltration system (not part of the Honeywell Pond project) because the two systems are closely tied together and both use water from Honeywell Pond.

Additionally, the BCWMC received the Minnesota Department of Natural Resources (MnDNR) surface water appropriations permit application from the city's consultant. The appropriations permit application requested 7.725 million gallons per year to the infiltration system and 9.775 million gallons per year for irrigation of the Sandburg Ball Fields, for a total appropriation request of 17.5 million gallons per year. The estimated average annual volume to be used for irrigation and pumped to the infiltration system is 11.4 million gallons per year (see below for comments in relation to the water balance modeling and proposed infiltration system design).

Recommendations

A. Conditional approval of 90% drawings based on the following comments:

1) General Pond Design:

   a. Erosion control details must be shown on the plans. The SWPPP indicates the details are on Sheet 10, which does not appear to have been provided in the submittal.

   b. The erosion control plan showing the location of proposed erosion control devices must be provided for review. The SWPPP indicates this is on Sheets 218-222, which do not appear to have been provided in the submittal.

   c. The erosion and sediment control plan must incorporate the following notes and features:

      i. Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.

2) Pumping for irrigation of Sandburg Fields and infiltration for Douglas Drive Project (although the Douglas Drive infiltration system is not part of the Honeywell Pond project, the two systems are closely tied together and both use water from Honeywell Pond):

   a. Section VI of the hydraulic report submittal indicates that the soils are mostly hydrologic soil group (HSG) B; however, soil boring data is not included in the submittal. The water balance assumes an infiltration rate of 0.4 inch/hr, which is typical of HSG B. Soil boring data for the project needs to be provided, especially in the area of the proposed Douglas Drive infiltration basin.

   b. In the water balance model of the Sandburg Field irrigation system and the Douglas Drive infiltration system, it was stated that the daily infiltration volume for the Douglas Drive

system is 12,000 gallons per day. It is unclear how this volume was estimated. Details need to be provided regarding the infiltration volume estimate.

c. The proposed Douglas Drive infiltration basin must be designed in accordance with the Minnesota Stormwater Manual or as otherwise approved by the BCWMC, as outlined in the BCWMC's *Requirements for Improvements and Development Proposals*.

d. The dimensions of the Douglas Drive underground infiltration system must be clarified. Based on the plans and cross section, it appears to have a bottom area of 200 feet by 12 feet and a top area of 220 feet by 36 feet (7,920 square feet or 0.18 acres). This does not match the site area of 0.11 acres (4,790 square feet) as stated in the water balance provided by the city's consultant.

e. Based on the cross section provided on Sheet 180 of 340 and length of the system shown on the plans on Sheet 174 of 340, and assuming 40% voids in the clear rock section, it appears the storage volume in the Douglas Drive infiltration system is 5,027 gallons. This is smaller than the daily infiltration volume reported in the water balance model of 12,000 gallons per day. Based on the water balance model, it appears that the assumption is to pump from Honeywell Pond once every two days from May to September; however, it is unclear how the proposed pumping scheme will balance with available storage and infiltration rates to achieve the reported infiltration volume over the two-day time frame. Additional details need to be provided regarding the proposed pumping scheme for both the Douglas Drive infiltration system and the Sandburg Field irrigation system.

f. Typically, infiltration systems are designed to draw down within 48 hours. The proposed design includes a clear rock cross section with 40% voids at the proposed infiltration rate (0.4 in/hr). Based on these parameters, the maximum depth of the infiltration system would be 4 feet so that the water levels can draw down within 48-hours. However, the cross section provided on Sheet 180 of 340,shows a depth of 8 feet. How will the Douglas Drive infiltration system be managed to draw down within 48 hours?

g. If pumping will occur every two days for a volume to infiltrate within 48 hours, has consideration been given to the surface restoration of the system to account for the underground system always having standing water (i.e. what is the "compacted suitable material" shown in the cross section and will it be vegetated?)?

h. The MnDNR appropriations permit application for pumping water from Honeywell Pond to the Douglas Drive underground infiltration system indicates an appropriation of 7.725 million gallons per year. The narrative summarizing the expected annual treatment volume by the Douglas Drive infiltration system indicates that it will treat 5 acre-feet per

year, which is equivalent to 1.6 million gallons. Please explain the discrepancy between these two values.

i. Based on the additional data and clarification requested above in relation to the Douglas Drive infiltration system, the water balance model must be revised to reflect the final design.

j. Details provided on sheet 178 of 340 in relation to the pump in the Honeywell Pond, indicates there is an intake screen on the pumps in Honeywell Pond. However, beyond this, review of Sheets related to the irrigation system forcemain (Sheets 173-176 of 340), does not indicate any additional treatment before irrigation. Provide details of the proposed treatment (e.g. filtration, UV) prior to use for irrigation. The level of treatment for particulate removal should be based on the existing irrigation equipment needs and nozzle sizes, and to address public health risk concerns. Additionally, we recommend the incorporation of an online UV treatment system sized for the expected flow rate to address any public safety concerns in relation to pathogens. Other items to consider are timing of irrigation to minimize contact with stormwater and signage indicating that water being used to irrigate the fields is non-potable.

k. Sheet 176 of 340 indicates that a reduced pressure zone (RPZ) device will be used from the water main to prevent cross contamination; however no additional details were provided in the review documents. The plan sheets need to be provided that show the details regarding the connection to the existing irrigation system, including details for features addressing plumbing code requirements that prevent cross contamination of the potable water supply.

3) Section XI.D of the submittal includes improvement plans for the Sandburg Learning Center Athletic Fields, which are dated May 18, 2015. The BCWMC reviewed improvements for the Sandburg Learning Center Athletic Fields as Application #2015-12. The approved plans are dated June 16, 2015. The approved/most recent set of plans needs to be included with the submittal.

B. Authorize the City of Golden Valley to proceed with final plans.

C. The final plans must be submitted to the BCWMC Engineer for administrative review and approval after modifications have been completed.

Item 5E.
BCWMC 11-18-15

city of golden valley
7800 Golden Valley Road
Golden Valley, MN 55427

November 10, 2015

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

Subject: Douglas Drive Reconstruction Project
Bassett Creek Watershed Management Commission Review Considerations

Dear Ms. Jester,

The City of Golden Valley and Hennepin County have been working with stakeholders and advocacy groups on the reconstruction of Douglas Drive (CSAH 102) beginning in 2007. In 2009, a corridor study was completed. In November 2011, municipal consent for the preliminary layout was approved by the City and County. Since that time, project development has progressed with acquisition of necessary right-of-way, coordination with private utility companies, and final design of the project.

The City and its project consultants met with Bassett Creek Watershed Management Commission (BCWMC) staff on multiple occasions during the design process to discuss the project, its impacts, and potential water quality improvements (in addition to the planned Honeywell Pond Project) that could be implemented in the corridor. Design of the water resources portion of the project is based on BCWMC standards during the time of project development. As part of these standards, linear projects were required to use practical and feasible approaches within the constraints of the existing right-of-way available to implement water quality features. Using this approach, the project team developed a plan that included sump manholes, SAFL Baffles, and a remnant parcel infiltration basin.

On November 2, 2015, on behalf of the City of Golden Valley and Hennepin County, WSB and Associates submitted final Douglas Drive Reconstruction Project plans to the BCWMC for approval consideration at its November meeting.

In the submittal, it was noted that the new Minimal Impact Design Standards (MIDS) were adopted by the BCWMC in September and that this project did not meet the new MIDS

763-593-8000 FAX 763-593-8109 TTY 763-593-3968 www.goldenvalleymn.gov

standards. However, it was also noted that the project met and exceeded the previous water quality standards for linear projects.

Based upon the lengthy project planning and design process discussed above, the City respectfully requests that the BCWMC allow this project to be reviewed under the BCWMC standards prior to September 2015.

Sincerely,

Jeff Oliver, PE
City Engineer

Enclosure:

C: Marc Nevinski, Physical Development Director
Eric Seaburg, EIT, Engineer
Jason Staebell, Hennepin County
Pete Willenbring, WSB & Associates
Jacob Newhall, WSB & Associates

Item 5F.
BCWMC 11-18-15
See additional documents 5Fi. & 5Fii.

Memorandum

To: Bassett Creek Watershed Management Commission

From: Laura Jester, Administrator

Subject: September 8 & November 5, 2015 Technical Advisory Committee Meetings

Date: November 9, 2015

The Technical Advisory Committee (TAC) met on September 8 and November 5, 2015. Discussion at the September 8th meeting was continued on November 5th for each agenda item. This memo is a compilation of discussion from both meetings with recommendations made at the November 5th meeting for items 1 and 2. A recommendation for item 3C will be made to the Commission at a future meeting.

The following TAC members, city representatives, and BCWMC staff attended the meetings:

City	TAC Members/Alternates	Other City Representatives
Crystal	Mark Ray	
Golden Valley	Jeff Oliver	Eric Eckman (9/8 only)
Medicine Lake		
Minneapolis	Lois Eberhart	Liz Stout (11/5)
Minnetonka	Liz Stout (9/8) No representative on 11/5	Lee Gustafson (9/8 only)
New Hope	Chris Long	
Plymouth	Derek Asche	
Robbinsdale	Richard McCoy (11/5 only)	
St. Louis Park	Erick Francis	
BCWMC Staff & Others	Karen Chandler, Jim Herbert & Len Kremer (Barr Engineering), Laura Jester (Administrator), Charlie LeFevere (Kennedy & Graven) (9/8 only), Rachael Crabb (MPRB)	

TAC Chair Francis opened each meeting at approximately 1:30 p.m. Introductions were made around the table. Mr. Francis asked if there were any TAC members with announcements or communications. At the 9/8 meeting Ms. Eberhart announced that she recently hired Liz Stout as their water resources regulatory coordinator starting October 1st.

1. Channel Maintenance Fund Policy

Discussion on 9/8/15: Administrator Jester reported how she and the Commission Engineer had recently discovered discrepancies among various BCWMC documents regarding policies and uses of the Channel Maintenance Fund. She briefly reviewed some history of the fund within various

documents including a 2003 TAC Memo with recommendations approved by the Commission, the 2004 Watershed Management Plan, the 2011 BCWMC Policy Document, and the 2015 Watershed Plan. Engineer Kremer added some history about the creation of the Fund which included an assumption that cities would undertake projects in conjunction with private landowners. Hence, there was an initial recommendation/policy that the Commission would only fund up to 50% of the project cost. Mr. Eckman noted that Golden Valley only uses the Channel Maintenance Funds for small projects on private land and that it makes sense to have some ownership and accountability (cost share) with private landowners. Administrator Jester asked if cost share requirements could be an individual city's decision, given that the funds originated from the cities anyway. The group thought that was a good option. Mr. Gustafson also provided some history about the creation of the Fund and reminded the group it was created before large scale CIP projects (with levy funding) began. He noted that the situation and conditions have changed drastically so he thought a new policy was warranted. Ms. Eberhart noted the Fund is needed as it covers projects not required by MS4 permits.

Administrator Jester asked if TAC members thought the funds could be used to repair distinct portions of a previous CIP project (similar to Crystal's current request for the use of Channel Maintenance Funds). She noted that the agreement between a member city and the Commission to design and construct a CIP project requires the city to maintain the project. There was some discussion about the difference between maintenance and repair. There was consensus that cities should be able to use the funds to repair distinct portions of a previous CIP project.

Administrator Jester asked if the Fund should be available to remove sediment (as stated in the original action approved by the Commission in 2004). There was some discussion about the expense and recurrence of sediment removal and its relationship to the Flood Control Project. The group noted this was likely a future discussion for the TAC and Commission and/or could be figured out with the roles and responsibilities study of the Flood Control Project.

Discussion on 11/5/15: Administrator Jester distributed a Channel Maintenance Fund Policy that amended a previous policy approved in 2004. The revised policy (shown with new provisions underlined and now irrelevant policies struck out) reflects the TAC's discussion at the September meeting as well as current practice. Administrator Jester noted that the BCWMC legal counsel had reviewed and recommended changes to the agreement with cities (Attachment 1). The TAC discussed various provisions of the revised policy and the revised agreement. They noted the agreement may not be appropriate in cases where the funds are used by cities to provide cost share funds to projects on private property. Administrator Jester indicated she would have the legal counsel re-review the agreement.

Recommendation:
The TAC recommends that the Commission approve the revised Channel Maintenance Fund Policy and Agreement (see policy document) to guide the future use of these funds.

2. City of Crystal's Channel Maintenance Fund Request

At the September TAC meeting, the City of Crystal requested the use of Channel Maintenance Funds to repair a slumping streambank along the North Branch of Bassett Creek. The location is within the area of the creek that was restored through the BCWMC CIP: 2011 North Branch Bassett Creek

Restoration Project. There was minimal discussion about this item because whether or not the request could be granted hinged on the outcome of the discussion in item 1 above. Realizing that more information on the proposed project was needed, on September 29th the Commission Engineer and Administrator, Mark Ray (Crystal TAC), and Erick Francis (St. Louis Park TAC and former project manager at this site for WSB) met on site to view the area and discuss possible repair techniques. The Administrator directed the Commission Engineer to develop a general project description and cost estimate for the project so the TAC could make a recommendation to the Commission. At the November meeting, the TAC reviewed the project description and cost estimate and approved a recommendation to allow the City of Crystal to use up to $31,675 (their current Channel Maintenance Fund balance) on the proposed project.

Recommendation:
The TAC recommends that the Commission approve the request by the City of Crystal to use up to $31,675 of BCWMC Channel Maintenance Funds for the North Branch Bassett Creek Erosion Control Repair Project. (See Project Description and Agreement with City of Crystal attached.)

3. Study of Roles and Responsibilities of Flood Control Project

At both their September and November meetings, the TAC discussed various pieces of the responsibilities and possible funding mechanisms for the long term maintenance, repair, and replacement of the BCWMC Flood Control Project. These discussions are continuing as the Commission Engineer pulls together options and recommendations for the TAC's consideration. A complete recommendation on this item will be presented to the Commission in 2016. To date, topics discussed include:

- Annual, 5-year, and 20-year inspections of the Flood Control Project components;
- Identifying responsible parties for various tasks such as inspections, inspection reporting, regular maintenance, minor repairs, major rehabilitation;
- Definition of "routine maintenance and repair" as opposed to "major maintenance and repair";
- Possible funding mechanisms for various on-going tasks, future repairs/rehab, and emergency repairs; and
- Responsibilities for structures at road crossings and the history of those components during Flood Control Project construction.

No TAC Recommendation

The TAC meetings adjourned at approximately 3:42 and 3:30 p.m., respectively.

Future TAC Meeting agenda items:

1. Finalize recommendations for Channel Maintenance Fund policies
2. Develop guidelines for annualized costs per pound pollutant removal for future CIP projects
3. Agreements with cities to get credit for Commission education programs in MS4 permits
4. Stream identification signs at road crossings
5. Look into implementing "phosphorus-budgeting" in the watershed – allow "x" pounds of TP/acre.
6. P8 Model updates

1.1 Creek and Streambank Maintenance, Repair and Channel Sediment Removal Fund (Channel Maintenance Fund)

Policy: The BCWMC will maintain a Channel Maintenance Fund through its annual assessment to help finance minor stream maintenance, repair, stabilization, restoration, and restoration project and/or portions of larger stream restoration projects. (2015 BCWMC Watershed Plan Policy 57)

Policy: The Channel Maintenance Fund may also be used to finance the BCWMC's share of maintenance projects that have a regional benefit, or to partially fund smaller, localized projects that cites wish to undertake. (2015 BCWMC Watershed Plan Policy 58)

Policy: The member cities are responsible for funding maintenance and repairs that are primarily aesthetic improvements. (2015 BCWMC Watershed Plan Policy 62)

Description: The BCWMC established the Creek and Streambank Maintenance, Repair, and Sediment Removal Fund (Channel Maintenance Fund) through its annual assessment to cities in 2004. This fund is used to finance minor stream maintenance, repair, restoration, or sediment removal projects or to help fund portions of larger projects. The BCWMC established this policy and fund to realize benefits including reduced potential for flooding, water quality improvement, and mitigating water quality impairments along the BCWMC Trunk System. Member cities contribute through the annual assessment.

Applicable funding:	Streambank Maintenance, Repair, and Sediment Removal Fund
Adopted:	January 2004
Amended:	November 2015
Citation:	2015 BCWMC Watershed Management Plan; TAC memos 11/13/03 & 11/5/15

Strategies to Implement Policy:

1. Funds will be used for projects only along the BCWMC Trunk System as identified in the 2015 Watershed Management Plan, Table 2-9 and Figures 2.14 and 2.15.
2. Funds may be used to support creek bank maintenance projects that have regional benefit, or to partially fund relatively low-cost projects that cities wish to undertake.
3. Funds may be used for maintenance and repairs needed to restore and maintain designed flow rate. The designed flow rate is the flow for the regulatory flood levels used to set the Bassett Creek Flood Profiles Table 2.9 of the 2015 BCWMC Watershed Management Plan.
4. ~~Based on an assessment of benefits to be realized, finance restoration of a damaged creek or streambank structures, and take steps to prevent imminent structural damage.~~
5. Funds may be used on a portion of a project that provides watershed benefits, including reduced potential for flooding, mitigation of water quality impairment, or minimizing the potential for water quality impairment.
6. ~~Member cities will complete and update inventories of significant erosion and sedimentation areas along the Bassett Creek trunk system and will share this information with the BCWMC. The BCWMC will allocate funds from this fund only for those areas identified in a completed inventory.~~
7. Funds may be used to repair a previously constructed BCWMC Capital Improvement Project, but, except as noted in item 3 above, may not be used for regular and on-going maintenance of such projects including vegetation management.

8. Funds may be used for localized and permitted sediment removal projects along the BCWMC Trunk System.

9. The portion of the fund each member city is eligible to receive is based on the percentage of the BCWMC Trunk System that is located in each city.

City	Percent of Trunk System
Minneapolis	8.23
Golden Valley	48.99
Plymouth	26.42
New Hope	7.31
Crystal	9.05
Total	**100**

10. Funds may be used to pay for the project design, development of bid documents, and construction of the project.

11. The city will enter into an agreement with the BCWMC for use of the funds (Attachment 1).

12. Funds will be dispersed by the BCWMC after an approved reimbursement request and appropriate documentation from the city.

13. Cities may use the funds as a "cost share" with private landowners at the amount/percentage the city deems appropriate, or can use the funds to finance entire projects.

14. A cost share amount from the city will not be required by the BCWMC (although funds may not be adequate to finance entire projects).

Attachment 1

AGREEMENT FOR USE OF BASSETT CREEK WATERSHED MANAGEMENT COMMISSION CHANNEL MAINTENANCE FUNDS

This Agreement is made this _____ day of _____, 201__, by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization, ("BCWMC") and the City of _____, a Minnesota municipal corporation ("City");

WHEREAS, the BCWMC has established a program to work in cooperation with member cities to fund channel maintenance projects; and

WHEREAS, the City has applied to the BCWMC for funds for a channel maintenance project in the City, a description of which is attached hereto as Exhibit A and is made part of this Agreement (the "Project"); and

WHEREAS, the BCWMC is willing to provide funding for the City's Project in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, on the basis of the premises and the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. The City agrees to undertake and complete the work of the Project as described in the attached Exhibit A, and in accordance with BCWMC's policies regarding such grant projects. The City may request a change in the Project, which may be authorized, in writing, by the BCWMC's Administrator or Engineer.

2. The plans for the Project shall be reviewed by the BCWMC's Engineer, who may approve or require modifications to the Plans. Project design, construction and maintenance will conform to all conditions of approval imposed by the BCWMC.

3. The City shall require that engineers, architects and contractors for the work of each part of the Project have liability insurance in the amount of at least the current statutory limits specified in Minnesota Statutes, Chapter 466, and that the BCWMC and the BCWMC's Engineer are named as additional insureds on such policies. Before commencing construction of the Project, the City shall provide to the BCWMC a Certificate of Insurance demonstrating compliance with this requirement. The Certificate shall provide that the insurance may not be cancelled without giving the certificate holder the same notice of cancellation as is given to the policyholder. The City will require that the contractor defend, indemnify, protect and hold harmless the BCWMC and the City, their agents, officers, and employees, from all claims or actions arising from performance of the work of the Project conducted by the contractor.

4. The City shall undertake, or cause to be undertaken, the Project in accordance with the approved plans. Contracts will be awarded by the City in accordance with all applicable public bidding and contracting requirements including, but not limited to, requiring the contractor to provide performance and payment bonds to the extent required by law. The City will supervise the work of the contractor; however, the BCWMC may observe and review the work of the Project until it is completed. 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. The City shall be responsible for securing, or causing to be secured, all necessary permits for the work of the Project.

6. Upon completion of the work of the Project, the City shall secure record drawings prepared by the design engineer or architect, with a certification by the Contractor that the work was completed according to the approved plans. A copy of the record drawings and certification shall be forwarded to the BCWMC's Engineer.

7. The City will submit invoices to the BCWMC, no more frequently than monthly, for partial reimbursement for the work of the Project. Reimbursable expenses include out-of-pocket costs incurred for construction and the costs of design, engineering, and contract administration. Reimbursement will be made subject to the following limitations:

   a) Total reimbursement for the work of the Project will not exceed $_____, and no reimbursement will be made for costs paid to the City by other parties.

   b) Reimbursements will be made from that part of the BCWMC's Creek and Streambank Trunk System Maintenance, Repair and Sediment Removal Fund (the "Channel Maintenance Fund") allocated to channel maintenance in the City. If the cost of the Project exceeds $_____, the City may apply to the BCWMC for additional reimbursement from funds allocated to the City in the Channel Maintenance Fund.

8. Claims by the City for reimbursement shall be accompanied by such proof of costs as may reasonably be requested by the BCWMC, and the books and records of the City shall be available for inspection by the BCWMC upon reasonable notice during normal business hours. If the City intends to seek reimbursement for design, engineering, or contract administration by City staff, it is required to maintain and provide to the BCWMC detailed time records showing daily records of time spent, description of activities, staff personnel involved, and rate of total compensation. Hourly rates charged will include pro-rated salary and fringe benefits in accordance with the schedule of rates attached to this Agreement as Exhibit B, which rates are subject to annual adjustment commensurate with changes in City costs of salary and benefits.

9. The BCWMC shall reimburse the City for eligible expenses in accordance with this Agreement within 45 days of receipt of an invoice therefor, provided the BCWMC determines the invoice contains adequate details to allow reimbursement. If the BCWMC determines an invoice is not adequate, within 10 days of receipt it shall notify the City in writing of the additional information needed to make the invoice complete.

10. This Agreement will terminate on the third anniversary of the effective date of this Agreement, unless extended by mutual agreement of the City and the BCWMC. The BCWMC will have no obligation to reimburse claims not submitted prior to the termination date, or any agreed upon extension.

11. The parties agree that the BCWMC's participation in the Project is limited to the payment of channel maintenance grant funds in accordance with this Agreement. This Agreement does not make the BCWMC a partner, agent or co-venturer in the City's Project and the BCWMC will incur no responsibility or liability for the work of the City's Project.

12. The City will defend, indemnify, protect and hold harmless the BCWMC and its officers, employees, and agents from any claims arising out of the design, construction, or maintenance of the Project, including environmental claims. Nothing herein shall be deemed a waiver of the limitations of liability in Minnesota Statutes, Chapter 466.

13. This Agreement, including the attached exhibits and BCWMC Channel Maintenance Fund policies, contains all negotiations and agreements between BCWMC and City regarding the subject of this Agreement. No other agreements or understandings regarding this Agreement may be used to bind either party.

14. City's books, records, documents and accounting procedures and practices relevant to this Agreement are subject to examination by the State of Minnesota and the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Agreement.

15. City shall comply with applicable provisions of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the date and year first written above.

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

By: _____
Chair

And by: _____
Secretary

CITY OF _____

By: _____
Mayor

And by: _____
Manager

Attachment 1

AGREEMENT FOR USE OF THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION CHANNEL MAINTENANCE FUNDS

This Agreement is made this _____ day of _____, 201__, by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization, ("BCWMC") and the City of _____, a Minnesota municipal corporation ("City");

WHEREAS, the BCWMC has established a program to work in cooperation with member cities to fund channel maintenance projects; and

WHEREAS, the City has applied to the BCWMC for funds for a channel maintenance project in the City, a description of which is attached hereto as Exhibit A and is made part of this Agreement (the "Project"); and

WHEREAS, the BCWMC is willing to provide funding for the City's Project in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, on the basis of the premises and the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. The City agrees to undertake and complete the work of the Project as described in the attached Exhibit A, and in accordance with BCWMC's policies regarding such grant projects. The City may request a change in the Project, which may be authorized, in writing, by the BCWMC's Administrator or Engineer. **To the extent the City uses the funds to support work being undertaken by a private party, the City shall be responsible for entering into such agreements and overseeing the work as needed to ensure the requirements of this Agreement are satisfied to the extent practicable. The City shall provide a copy of all such agreements to the BCWMC.**

2. The plans for the Project shall be reviewed by the BCWMC's Engineer, who may approve or require modifications to the Plans. Project design, construction and maintenance will conform to all conditions of approval imposed by the BCWMC.

3. The City shall require ~~that~~**the** engineers, architects and contractors **it hires** for the ~~work of each part of the~~ Project **to** have liability insurance in the amount of at least the current statutory limits specified in Minnesota Statutes, Chapter 466, and that the BCWMC and the BCWMC's Engineer are named as additional insureds on such policies. Before commencing construction of the Project, the City shall provide to the BCWMC a Certificate of Insurance demonstrating compliance with this requirement. The Certificate shall provide that the insurance may not be cancelled without giving the certificate holder the same notice of cancellation as is given to the policyholder. The City ~~will~~**shall** require ~~that~~ the contractor **it hires to** defend, indemnify, protect and hold harmless the BCWMC and the City, their agents, officers, and employees, from all

claims or actions arising from performance of the work of the Project conducted by the contractor.

4. The City shall undertake, or cause to be undertaken, the Project in accordance with the approved plans. Contracts will be awarded by the City in accordance with all applicable ~~public bidding and contracting requirements including, but not limited to, requiring the contractor to provide performance and payment bonds to the extent required by law~~**legal requirements**. The City will supervise the work of the contractor **it hires**; however, the BCWMC may observe and review the work of the Project until it is completed. The City will pay the contractor **it hires** and all other expenses related to the construction of the Project and keep and maintain complete records of such costs incurred.

5. The City shall be responsible for securing, or causing to be secured, all necessary permits for the work of the Project.

6. Upon completion of the work of the Project, the City shall secure record drawings prepared by the design engineer or architect, with a certification by the Contractor that the work was completed according to the approved plans. A copy of the record drawings and certification shall be forwarded to the BCWMC's Engineer.

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   b) Reimbursements will be made from that part of the BCWMC's Creek and Streambank Trunk System Maintenance, Repair and Sediment Removal Fund (the "Channel Maintenance Fund") allocated to channel maintenance in the City. If the cost of the Project exceeds $_____, the City may apply to the BCWMC for additional reimbursement from funds allocated to the City in the Channel Maintenance Fund.

8. Claims by the City for reimbursement shall be accompanied by such proof of costs as may reasonably be requested by the BCWMC, and the books and records of the City shall be available for inspection by the BCWMC upon reasonable notice during normal business hours. If the City intends to seek reimbursement for design, engineering, or contract administration by City staff, it is required to maintain and provide to the BCWMC detailed time records showing daily records of time spent, description of activities, staff personnel involved, and rate of total compensation. Hourly rates charged will include pro-rated salary and fringe benefits in accordance with the schedule of rates attached to this Agreement as Exhibit B, which rates are subject to annual adjustment commensurate with changes in City costs of salary and benefits.

9. The BCWMC shall reimburse the City for eligible expenses in accordance with this Agreement within 45 days of receipt of an invoice therefor, provided the BCWMC

determines the invoice contains adequate details to allow reimbursement. If the BCWMC determines an invoice is not adequate, within 10 days of receipt it shall notify the City in writing of the additional information needed to make the invoice complete.

10. This Agreement will terminate on the third anniversary of the effective date of this Agreement, unless extended by mutual agreement of the City and the BCWMC. The BCWMC will have no obligation to reimburse claims not submitted prior to the termination date, or any agreed upon extension.

11. The parties agree that the BCWMC's participation in the Project is limited to the payment of channel maintenance grant funds in accordance with this Agreement. This Agreement does not make the BCWMC a partner, agent or co-venturer in the City's Project and the BCWMC will incur no responsibility or liability for the work of the City's Project.

12. The City will defend, indemnify, protect and hold harmless the BCWMC and its officers, employees, and agents from any claims arising out of the design, construction, or maintenance of the Project, including environmental claims. Nothing herein shall be deemed a waiver of the limitations of liability in Minnesota Statutes, Chapter 466.

13. This Agreement, including the attached exhibits and BCWMC Channel Maintenance Fund policies, contains all negotiations and agreements between BCWMC and City regarding the subject of this Agreement. No other agreements or understandings regarding this Agreement may be used to bind either party.

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IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the date and year first written above.

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

By: _____
Chair

And by: _____
Secretary

CITY OF _____

By: _____
Mayor

And by: _____
Manager

EXHIBIT A TO
ATTACHMENT 1

Project Description

EXHIBIT B TO ATTACHMENT 1

Rate Schedule

Document comparison by Workshare Compare on Monday, November 09, 2015 10:43:50 AM

Input:	
Document 1 ID	PowerDocs://DOCSOPEN/470284/3
Description	DOCSOPEN-#470284-v3-Channel_Maintenance_Policy_and_Agreement
Document 2 ID	PowerDocs://DOCSOPEN/470284/4
Description	DOCSOPEN-#470284-v4-Channel_Maintenance_Policy_and_Agreement
Rendering set	TJG Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	18
Deletions	5
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	23

Memorandum

To: BCWMC Technical Advisory Committee
From: Jeff Weiss
Subject: North Branch Bassett Creek Project Description – Crystal Channel Maintenance Fund Request
Date: November 2, 2015
Project: 23270051.36

On Tuesday, September 29, Mark Ray (City of Crystal), Laura Jester (BCWMC Administrator), Erick Francis (City of St. Louis Park, formerly WSB & Associates), and Jeff Weiss (BCWMC Engineer) completed a site visit to look at stream bank erosion at 3451 Brunswick Ave N in Crystal (see Figure 1). Mr. Francis (when at WSB) worked on the original design of the BCWMC streambank stabilization CIP project through this reach of North Branch Bassett Creek, completed in 2011.

There are two areas of erosion on slopes above the bank stabilization measures installed on site as part of the CIP project completed in 2011. Photos 1 and 2 on the following pages show the two erosion areas.

The erosion problems became evident after heavy rains and a wet spring in 2014. The cause of the erosion at Site 1, shown in Photo 1, is somewhat uncertain. The backyard on the property is relatively flat but appears to drain to the vicinity of the corner of the lot immediately up the slope from the site of the erosion. The property owners have wood piles, piles of leaves. and lawn clippings at the edge of the yard. As they are currently situated, they appear to direct water to a different location on the slope than where the erosion is present; however the nature of the erosion is fairly consistent with channelized runoff on the slope.

The erosion at Site 2, in Photo 2, appears to be caused by natural sloughing of the steep slope above the stream bank stabilization measures.

There are large oak trees near the erosion at both locations. The arborist from the City of Crystal examined the oak trees and determined they are healthy and worth preserving, if possible.

Photo 1. Upstream erosion location. Purple box shows slope erosion upstream of oak tree.

Photo 2. Downstream erosion location. Purple box shows erosion above riprap.

Recommendations:

Based on the conclusions reached during the site visit, the initial recommendations for each of the two sites are summarized below. The costs for the recommendations is estimated to range from $17,500 to $25,000.

Site #1:

During the site visit, several ideas were discussed for stopping the erosion, with the assumption that the oak tree should be preserved. Two options appeared to be most feasible:

1) Vegetated Reinforced Soil Slope (VRSS) VRSS creates a partially engineered slope with approximately 12-inch thick layers of soil wrapped in erosion control fabric. The front of each layer, or soil lift, is set back from the edge of the one below to create the desired overall slope. Vegetation is planted between the lifts or on top of each soil lift. VRSS can be constructed on slopes as steep as 1:1 H:V. The BCWMC Engineer has successfully used VRSS in similar situations while utilizing shade tolerant shrubs as the plantings on each soil lift.
2) Coir Block Revetment. A coir block revetment would create a stable slope similar to that of the VRSS; however it would use pre-manufactured blocks of tightly packed coir material. The coir blocks come in various dimensions, but a typical dimension is 12-inches tall, 9-inches wide, and 10-feet long. The area behind the coir blocks could be backfilled with imported soil or material generated on site. Vegetation may be slightly more difficult to establish with this option because there is less soil at the front of the slope due to the width (~ 9 inches) of the coir block.

The two options are likely to have similar costs, based on past bid prices the BCWMC Engineer has seen for each method. The cost estimate range for design, construction, and construction oversight is $15,000-$20,000 for this site.

Site #2:

Given the location of the tall oak tree at the top of the eroding slope and the presence of riprap at the bottom of the eroding slope, the options for stabilizing this area are limited. During the site visit, there was consensus on trying to establish shade tolerant shrubs in eroding and poorly vegetated areas adjacent to the large oak tree. The cost estimate for installing such vegetation is $2,500 to $5,000, depending on the number of shrubs needed.

AGREEMENT FOR USE OF THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION CHANNEL MAINTENANCE FUNDS

This Agreement is made this 18th day of November, 2015, by and between the Bassett Creek Watershed Management Commission, a Minnesota joint powers organization, ("BCWMC") and the City of Crystal, a Minnesota municipal corporation ("City");

WHEREAS, the BCWMC has established a program to work in cooperation with member cities to fund channel maintenance projects; and

WHEREAS, the City has applied to the BCWMC for funds for a channel maintenance project in the City, a description of which is attached hereto as Exhibit A and is made part of this Agreement (the "Project"); and

WHEREAS, the BCWMC is willing to provide funding for the City's Project in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, on the basis of the premises and the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. The City agrees to undertake and complete the work of the Project as described in the attached Exhibit A, and in accordance with BCWMC's policies regarding such grant projects. The City may request a change in the Project, which may be authorized, in writing, by the BCWMC's Administrator or Engineer. To the extent the City uses the funds to support work being undertaken by a private party, the City shall be responsible for entering into such agreements and overseeing the work as needed to ensure the requirements of this Agreement are satisfied to the extent practicable. The City shall provide a copy of all such agreements to the BCWMC.

2. The plans for the Project shall be reviewed by the BCWMC's Engineer, who may approve or require modifications to the Plans. Project design, construction and maintenance will conform to all conditions of approval imposed by the BCWMC.

3. The City shall require the engineers, architects and contractors it hires for the Project to have liability insurance in the amount of at least the current statutory limits specified in Minnesota Statutes, Chapter 466, and that the BCWMC and the BCWMC's Engineer are named as additional insureds on such policies. Before commencing construction of the Project, the City shall provide to the BCWMC a Certificate of Insurance demonstrating compliance with this requirement. The Certificate shall provide that the insurance may not be cancelled without giving the certificate holder the same notice of cancellation as is given to the policyholder. The City shall require the contractor it hires to defend, indemnify, protect and hold harmless the BCWMC and the City, their agents, officers, and employees, from all claims or actions arising from performance of the work of the Project conducted by the contractor.

4. The City shall undertake, or cause to be undertaken, the Project in accordance with the approved plans. Contracts will be awarded by the City in accordance with all applicable legal requirements. The City will supervise the work of the contractor it hires; however,

the BCWMC may observe and review the work of the Project until it is completed. The City will pay the contractor it hires and all other expenses related to the construction of the Project and keep and maintain complete records of such costs incurred.

5. The City shall be responsible for securing, or causing to be secured, all necessary permits for the work of the Project.

6. Upon completion of the work of the Project, the City shall secure record drawings prepared by the design engineer or architect, with a certification by the Contractor that the work was completed according to the approved plans. A copy of the record drawings and certification shall be forwarded to the BCWMC's Engineer.

7. The City will submit invoices to the BCWMC, no more frequently than monthly, for partial reimbursement for the work of the Project. Reimbursable expenses include out-of-pocket costs incurred for construction and the costs of design, engineering, and contract administration. Reimbursement will be made subject to the following limitations:

   a) Total reimbursement for the work of the Project will not exceed $31,675, and no reimbursement will be made for costs paid to the City by other parties.

   b) Reimbursements will be made from that part of the BCWMC's Creek and Streambank Trunk System Maintenance, Repair and Sediment Removal Fund (the "Channel Maintenance Fund") allocated to channel maintenance in the City. If the cost of the Project exceeds $31,675, the City may apply to the BCWMC for additional reimbursement from funds allocated to the City in the Channel Maintenance Fund.

8. Claims by the City for reimbursement shall be accompanied by such proof of costs as may reasonably be requested by the BCWMC, and the books and records of the City shall be available for inspection by the BCWMC upon reasonable notice during normal business hours. If the City intends to seek reimbursement for design, engineering, or contract administration by City staff, it is required to maintain and provide to the BCWMC detailed time records showing daily records of time spent, description of activities, staff personnel involved, and rate of total compensation. Hourly rates charged will include pro-rated salary and fringe benefits in accordance with the schedule of rates attached to this Agreement as Exhibit B, which rates are subject to annual adjustment commensurate with changes in City costs of salary and benefits.

9. The BCWMC shall reimburse the City for eligible expenses in accordance with this Agreement within 45 days of receipt of an invoice therefor, provided the BCWMC determines the invoice contains adequate details to allow reimbursement. If the BCWMC determines an invoice is not adequate, within 10 days of receipt it shall notify the City in writing of the additional information needed to make the invoice complete.

10. This Agreement will terminate on the third anniversary of the effective date of this Agreement, unless extended by mutual agreement of the City and the BCWMC. The BCWMC will have no obligation to reimburse claims not submitted prior to the termination date, or any agreed upon extension.

11. The parties agree that the BCWMC's participation in the Project is limited to the payment of channel maintenance grant funds in accordance with this Agreement. This Agreement does not make the BCWMC a partner, agent or co-venturer in the City's Project and the BCWMC will incur no responsibility or liability for the work of the City's Project.

12. The City will defend, indemnify, protect and hold harmless the BCWMC and its officers, employees, and agents from any claims arising out of the design, construction, or maintenance of the Project, including environmental claims. Nothing herein shall be deemed a waiver of the limitations of liability in Minnesota Statutes, Chapter 466.

13. This Agreement, including the attached exhibits and BCWMC Channel Maintenance Fund policies, contains all negotiations and agreements between BCWMC and City regarding the subject of this Agreement. No other agreements or understandings regarding this Agreement may be used to bind either party.

14. City's books, records, documents and accounting procedures and practices relevant to this Agreement are subject to examination by the State of Minnesota and the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Agreement.

15. City shall comply with applicable provisions of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the date and year first written above.

BASSETT CREEK WATERSHED
MANAGEMENT COMMISSION

By: _____
Chair

And by: _____
Secretary

CITY OF _____

By: _____
Mayor

And by: _____
Manager

EXHIBIT A

Project Description

[As presented in Item 5Fii.]

EXHIBIT B

Rate Schedule

Not Applicable

Item 5G.
BCWMC 11-18-15

Bassett Creek Watershed Management Commission

Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M) Feasibility Study Public Stakeholder Engagement Plan

Project Background:

The proposed Main Stem Bassett Creek Streambank Erosion Repair Project is in the Bassett Creek Watershed Management Commission's (BCWMC) current Capital Improvement Program (2017CR-M) and scheduled to be constructed in 2017. The project would address needed stabilization and restoration along the Main Stem of Bassett Creek from Cedar Lake Road to Irving Avenue S. Additional areas under consideration for the project include a section of stream from Irving Avenue S to Dupont Avenue N and to 2nd Avenue N (the entrance to both the old and new tunnels); and an additional reach adjacent to the Fruen Mill.

As is required for BCWMC CIP Projects, a feasibility study to examine methods for stabilization and restoration must be completed and should include input from area residents, property owners, and other interested parties. This plan lays out a process to inform and engage public stakeholders at the beginning of the feasibility study and again when draft study results are available. Although technical stakeholders such as the City of Minneapolis and the Minneapolis Park and Rec Board are separate from public stakeholders, they will assist with implementation of this plan.

Stakeholder Groups & Contacts:

- Bassett Creek Valley Redevelopment Oversight Committee (ROC): Vida Ditter <vidayditter@gmail.com>
- Bryn Mawr Neighborhood Association (BNNA): organizer@bmna.org Kevin Thompson, president@bmna.org, 612-26-5409 or organizer@bmna.org (Patricia Wycoff)
- Harrison Neighborhood Association (HNA): Noelle Barber, Environmental and Climate Justice Organizer Noelle@hnampls.org
- Friends of Bassett Creek (FOBC): Dave Stack ds329ds@hotmail.com
- City of Minneapolis Department of Community Planning and Economic Development, Beth Grosen, Beth.Grosen@minneapolismn.gov
- Minneapolis Park & Recreation Board: Cliff Swenson cswenson@minneapolisparks.org, 612-230-6473

Purpose of Early Public Engagement:

- Inform public of the nature and scope of the project
- Answer questions
- Understand concerns
- Gather information on the historic and current uses/condition of project area
- Gather feedback on different project elements and restoration techniques the BCWMC is considering

Initial Message:

- Description of problem, photos and maps of project area
- Goals of feasibility study
- Goals of project itself – streambank stabilization and in-stream/near-stream restoration (NOT creek realignment or other enhancements beyond stabilization)

Plan for Informing Stakeholders/Gathering Initial Input:

1. Website

Maintain a project webpage with pertinent documents, meeting announcements, project progress, and contact information. http://www.bassettcreekwmo.org/CIP-Information/CIP-Projects/Minneapolis/MainStem-Minneapolis-2017/MainStem-CIP-Project2017-Minneapolis.htm

2. Letter to Residents and Businesses

On or before November 17th: Mail a letter (postcard?) to residents and businesses in the Bryn Mawr and Harrison neighborhoods. The letter will include the "initial message" components stated previolusly and will invite residents and businesses to neighborhood meetings. The letter will include language translation services in Spanish, Hmong, and Somali. The letter will include the project website, BCWMC Administrator contact information, and offer to provide email address to stay informed through project email list.

3. Email List

Develop and maintain list of email addresses gathered at meetings, events, or other methods. Communicate project progress, meeting announcements, project milestones, etc. via email to any interested individuals or groups.

4. Neighborhood Meetings & Newsletters

The City of Minneapolis can assist with language translation, as requested, at meetings and in print materials. (City policy: Public meeting notices should include a line advising Limited English Proficiency individuals that interpreters will be provided upon request if there is at least 5 business days' notice.) Contact Howard Blin (612) 673-3163 or howard.blin@minneaplismn.gov.

Harrison Neighborhood Assoc. (HNA)

- November 21, 2015 – Attend quarterly Harrison Art Festival and have BCWMC display/vendor booth space
- December 14, 2015 – Present proposed project to HNA Board at regular monthly meeting
- Include informational article in HNA e-newsletter email: denetrick@hnampls.org

Bryn Mawr Neighborhood Assoc. (BMNA)

- December 9, 2015 – Present proposed project to BMNA Board at regular monthly meeting
- Include informational article in December BMNA newsletter (The Bugle) (with assistance from Commissioner Welch); deadline November 20th

Bassett Creek Valley Redevelopment Oversight Committee (ROC)

- Invite ROC members to attend BMNA or HNA meeting for project presentation and input

Friends of Bassett Creek (FOBC)

- Invite FOBC members to attend BMNA or HNA meeting for project presentation and input
- Request project information be shared through FOBC email listserve or posted on FOBC website http://www.mninter.net/~stack/bassett/index.htm

Plan for Input on Results of Feasibility Study:

In late January/early February, a second round of communication and presentations at meetings will be used (similar to the above) to gather feedback on the results of the feasibility study. Public feedback will be brought to the Commission ahead of their approval of the final feasibility study.

Item 6A.
BCWMC 11-18-15

Bassett Creek Watershed Management Commission

MEMO

Date: November 10, 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)

2017 Plymouth Creek Restoration Project, Annapolis Lane to 2,500 feet Upstream (2017CR-P): The feasibility study for this project is underway by the Commission. (Feasibility study proposal was approved at the September meeting.) A first draft of the study will be reviewed by the City of Plymouth in December. A technical stakeholder meeting was held on 10/26/15 at the project site and included me, the Commission Engineer, Commissioner Black, City of Plymouth staff (including Parks and Recreation and Public Works staff), Army Corps of Engineers, and the MDNR. The group walked the entire length of the project site and had a good discussion about options for restoration. A public meeting was held the evening of 10/26/15 and was attended by me, the Commission Engineer, Mr. Asche, Commissioner Black, and Alt. Commissioner Crough. Eleven residents attended from 8 different properties adjacent to the project area. No residents raised major concerns about the project – they were in support of restoration here even if some trees are removed in the process. A second public input meeting will be held in January to get feedback on the draft feasibility study before it goes to the Commission. A webpage for the project was established at: http://www.bassettcreekwmo.org/CIP-Information/CIP-Projects/Plymouth/PlymouthCreek-Plymouth-2017/PlymouthCreek-CIP-Project2017-Plymouth.htm.

2017 Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M) (See Item 5G): The feasibility study for this project is underway by the Commission. (Feasibility study proposal was approved at the October meeting.) The Commission Engineer is beginning the technical portions of the study. Additionally, I developed a public stakeholder engagement plan (with input from the Minneapolis Commissioners and city staff) to inform and engage the residents and businesses in the Bryn Mawr and Harrison Neighborhoods. (See the plan in Item 5G of this agenda.) A letter to all households in both neighborhoods is slated to be mailed the week of November 16th. A webpage for the project was established at: http://www.bassettcreekwmo.org/CIP-Information/CIP-Projects/Minneapolis/MainStem-Minneapolis-2017/MainStem-CIP-Project2017-Minneapolis.htm

2012 Main Stem Restoration Project, Golden Valley Rd. to Irving Ave. N., Minneapolis and Golden Valley (mostly in Wirth Park) (2012CR) (See Items 5A and 5B): This project was completed this fall. A final report is presented by the City of Minneapolis in Item 5A and a final reimbursement request is presented in Item 5B. The Minneapolis Park and Rec Board (MPRB) is managed the project and provided a presentation of the project at the September 2015 Commission meeting. A Clean Water Fund grant was awarded to the Commission for this project in 2012. The Commission Engineer will prepare a final grant report and reimbursement request by the end of January 2016.

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 2015 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. Construction is now expected to begin in mid-November 2015. Sunram expects that construction will take approximately two weeks to complete.

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, 2015 with 15,070 gallons being applied. Water temperatures and water pH stayed within the desired ranges for the treatment. Early transparency data from before and after the treatment indicates a change in Secchi depth from 1.2 meters before the treatment to 4.8 meters on May 20th. 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, completed the final punch list and other work including temporary stabilization of the disturbed areas and the utility work. City staff are working to process the final payment and close out the project. The native vegetation is coming in nicely and will remain the responsibility of the contractor for two years following the final completion date.

2015 Main Stem Restoration Project 10th Avenue to Duluth Street, Golden Valley (2015CR): The 90% design plans were approved by the Commission at their June 2015 meeting. The project is being constructed in two phases, each under separate contract. Phase one includes stream bank shaping, placement of field stone rock and 12-inch bio-logs, and repair of storm sewer outlets. Phase two includes the establishment of native vegetation along the stream which will commence immediately after phase one is completed and continue over two additional growing seasons to ensure proper establishment. Bids for the first phase of the project were opened on September 16, 2015. The five bids ranged from $765,736 to over $1M. The Golden Valley City Council awarded the contract to Rachel Contracting on October 20th in the amount of $765,736.20. Rachel will begin work during the week of November 16, 2015. The bid package for native vegetation establishment will go out in early 2016. It is anticipated that the total contract amounts for phase one and phase two work will be within the project budget.

2016 Northwood Lake Improvement Project, New Hope (NL-1) (See Item 5C): At the August meeting, the Commission entered 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 (CWP) grant work plan. At the September meeting, the Commission granted conditional approval of the 50% design plans for the project and authorized the City to proceed with final plans and contract documents. 90% design plans are presented in Item 5C at this meeting.

2016 Honeywell Pond Expansion Project, Golden Valley (BC-4): (See Item 5D) At the August meeting, the Commission entered an agreement with the City of Golden Valley to design and construct the project. At the September meeting, the Commission granted conditional approval of the 50% design plans for the project and authorized the City to proceed with final plans and contract documents. 90% design plans are presented in Item 5D at this meeting. 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 September 22nd where Minnehaha Creek Watershed District staff presented results of stream restoration and rehabilitation projects in cooperation with businesses and industries along the corridor. They also highlighted a new project completed with the City of Hopkins that was recently featured in the news (http://www.kare11.com/story/news/outdoors/2015/09/30/hopkins-celebrates-new-park-transformed-neighborhood/73099196/). Staff with the Freshwater Society also presented information about their outreach and policy related work. The next meeting of the Partnership is scheduled for December 1st to discuss the Emerald Ash Borer. I forwarded meeting information to TAC members as this may be a good meeting for city foresters to attend.

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.

Non-Point Education for Municipal Officials (NEMO) Workshops (See Item 7D) 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 23rd. A workshop on *Chlorides and Winter Road Management* was held on October 7th. A third workshop will not happen by the end of the year. Summary results of these workshops are presented in Item 7D. The NEMO planning team is assessing educational needs of local officials and will plan a 3rd workshop accordingly.

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. I met with Kelly to review the progress on October 8th and have since been in close contact with her. She is working to move all content (including all meeting materials) from the old site to the new site. The Commission Engineer, Commission Recording Secretary, and I have been gathering data and content for the site. We hope the Commission is able to preview the new site at their December meeting.

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.

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Notes and Takeaways from Sessions Attended at the 2015 Water Resources Conference

Guy Mueller, City of Crystal Commissioner
Bassett Creek Watershed Management Commission

NOAA Atlas 14 Rainfall Depth, NRCS Rainfall Distributions, and Dimensionless Unit Hydrographs
Amanda Smith

NOAA Atlas 14, published in 2013, has updated rainfall information for 405 MN data sets. MN now uses the MSE 3 rainfull distribution for the entire state and a peak rate hydrograph factor of 400 for determining discharge rates.

Determining Effective Impervious Area for Stormwater Runoff in Ungauged Urban Watersheds
Ali Ebrihimian and John S. Guliver

Effective impervious area (EIA) instead of total impervious area (TIA) provides a more accurate way to estimate runoff volumes. EIA is compromised of the impervious areas that are hydraulically (directly) connected to the storm sewer system. EIA average is about 20% and the EIA/TIA ratio is about 40%. The authors presented a method for using GIS, soil information, TIA, and NRCS-Runoff Curve numbers to estimate EIA. NRCS is the USDA National Resources Conservation Service. To reduce runoff, convert EIA to non-effective IA (=TIA-EIA) by breaking the hydraulic connection. Example: Install a trench drain at the end of a driveway to divert runoff to a raingarden.

Designing a City for Zero Stormwater Discharge
Brett Emmons and Carl Almer, Emmons and Oliver Resources (EOR)

A 3000-acre basin-shaped, mixed commercial-residential development site in Inver Grove Heights had no natural stormwater outlet. It was hydrologically land locked. Typical natural area has 10% runoff. This area had 0%. Pumping the added runoff from the new development all the way to the Mississippi through large pipes would have been cost prohibitive. Pumping and dumping it into a nearby chain of lakes was unacceptable. Goal: New Development with Zero Discharge. No pipe-and-pump "solutions" were allowed.

Instead, the IGH development used LID (low impact development) solutions to achieve zero runoff. The LID systems, which mimicked natural hydrology and maximized infiltration, saved $18,000,000 in capital costs and $30,000,000 in life cycle costs, including the costs of sediment removal from WQ ponds, because no WQ ponds were required. It also added green street and open space amenities, replenished ground water supplies, and earned EOR the 2015 National Award for Excellence in Engineering. LID methods utilized included curb cuts, porous pavement, permeable pavers, rain gardens, flexible zoning side-yard and setback requirements to create clustered development and more open space, and also innovative parking lot requirements. Boulevard medians, instead of being paved or landscaped mounds, became linear rain gardens fed by curb cuts. Many smaller BMPs were integrated into the site rather than larger downstream BMPs. This development managed stormwater runoff at its causal source, not its symptoms at the end of the pipe.

Could we do more to promote permeable pavers, tree trenches, and the like in our watershed's parking lots? More rain gardens even in our clayey soils—with soil amendments or infiltration conduits so that they would really work? Would there be any merit in having the new traffic circles on Douglas Drive in Golden Valley built not as paved/landscaped mounds but as landscaped bioretention basins? Will our

new website include content or links to DIY information and citizen stewardship opportunities—rain gardens, rainwater capturing systems, lawn alternatives, keeping leaves and grass clippings off the streets, adopt-a-drain, etc.? We have a section for "For Developers." How about a section "For Citizens (or Residents)"—what they can do to help and how they can get involved?

Mississippi Watershed Management Organization's New Headquarters: The Transformation of an Urban Industrial Site.
Keith Leuthold and Doug Snyder

The MWMO design team used a variety of proven and experimental BMPs to achieve zero runoff from the new headquarters site on the banks of the Mississippi and also to capture runoff from the site's two neighbors. Visitors are introduced to the principles and techniques of stormwater management as they are guided along a landscaped walk to the Mississippi River below. BMPs include shared parking with the bar next door, grass swales, partial green roof, large cistern with a flapper valve, sunken tree grove and boxes, sculptural scuppers and downspouts, and comparative side-by-side buried filter systems—spent lime, iron oxide, and sand (?). Spent lime has been proven to be effective in removing phosphorus while allowing more thru-put (less head loss) than iron oxide. The attractive building makes maximum use of natural light and affords views of the "Stormwater Park" and the river. Worthy of a visit by all!

Stormwater Reuse for Irrigation of Edison High School Football Field
Dan Edgerton and Mark Statz

The irrigation of the football field using reclaimed stormwater is just one of several components of Edison High School's Green Campus Initiative, which collaboratively involves a variety of stakeholders. Tree trenches and permeable pavers were recently installed; performance evaluation for this component will be undertaken soon. The football field was improved--soil amended with sand—and is now irrigated with water captured from the rooftop and parking lot, collected in an underground vault and pumped to the field. Debris must be filtered/settled out, so roof-top irrigation water sources are best. In the future, the plan is to use stormwater for the toilets, too, but code clarifications/revisions are needed. When gray water is used for irrigation, a 3:1 ratio of gray water-to-green is needed. Monitoring will be done at various outlets to assess the performance of the systems, including the volumes of water captured and reused, which will be displayed online as well as onsite for educational purposes. The presenters mentioned the availability of a stormwater worksheet from the Met Council.

Stream Channel Restoration to Improve Dissolved Oxygen—Clearwater River Watershed District
Rebecca Kluckhohn

Stream restoration typically focuses on bank stabilization and riffle-pool construction to improve habitat and reduce erosion. However, limiting improvements along these lines may miss opportunities to increase dissolved oxygen and biotic integrity through "re-meandering" or other channel naturalization strategies. The Clearwater River's Kingston wetland complex had a linear, single stage ditch cut through it, which was conveying phosphorus to downstream lakes. The stream was impaired for DO and E. coli, and a downstream lake also was impaired. The Watershed District abandoned the existing single-stage linear ditch and replaced it with a new sinuous, two-stage (stepped) channel, which had one curve immediately following the other. With the completion of the project, what was once straight had now become a series of curves. In addition to this re-meandering, the District installed a sediment trap at the

inlet and a limestone berm to filter out the phosphorus. Before and after water samples showed dramatic improvements in DO, phosphorus, and biotic indices, both in the channel's waters and in the downstream lake. Native plants also were beginning to re-establish themselves on their own, thus eliminating the need for re-vegetation work. Based on the photos shown, what was once a fairly grim sight is now an appealing natural area full of wildlife and water quality at nearly pre-agrarian levels.

Stream Restoration in Hardwoord Creek to Address Biotic Impairment—Rice Creek Watershed District
Matt Kocian and Walter Eshenaur

The Rice Creek Watershed District used a re-meandering strategy to address the biotic and sedimentation impairments of Hardwood Creek. Engineers in the 1960s had installed a linear ditch as a shortcut to bypass the historical meandering channel. The current project, finalized in 2014, filled in the 1960's linear ditch and restored the original, natural channel. The restored meandering channel included a 2-stage design with flood plain bench, riffles, root wads, bed gravel, and bank vegetation. In a segment farther upstream, the District kept the ditch in its current alignment but reworked the profile to establish a two-stage channel with floodplain bench. Cattle-crossing improvements in this upstream segment included a corduroy of concrete planks, similar to a boat launch, installed across the strea with the planks aligned parallel to the current. Before and after survey data show a more stable channel, reduced TSS and BOD (meeting goals), increased DO (above 5), improvements in stream health and presence of macroinvertebrates, and reduced nutrient delivery to Peltier Lake. The RCWD accommodated a property owner who wanted to retain a large, picturesque willow along the creek. The solitary, iconic tree was left intact and protected with berms. Its presence, in the opinion of the engineers, did not interfere with the performance of the restoration.

Lowertown Ballpark (CHS Field): Managing Runoff Differently—Capital Region Watershed District
West Saunders-Pearce and Nate Zwonitser

A 27,000 gallon cistern collects rainwater for irrigation and the flushing of toilets. The fully automated system has a vortex filter, settling/holding tank, 1 micron absolute bag filtration, UV treatment at the outlet, and potable water backup. Must meet E. coli, turbidity, and odor standards; so far so good. Other BMPs include rain gardens, bio swales, and tree trenches. Emphasis on education and art/illustrations that inform the public/fans. Challenges included multiple owners and buildings. Also, with potable water at a mere $0.003/gallon, the presenter said that the economics of SW reuse are not overly compelling.

Understanding the Role of Urban Trees in the Management of Nutrients in Stormwater
Benjamin Janke

Although trees take up atmospheric CO2, reduce the urban heat island effect, and reduce volumetric runoff, the tree canopy, especially the portion extending over streets, is a significant contributor to stormwater nutrient loading. Nutrient loading in wooded urban areas spikes during snowmelt, leaf-out, and leaf-fall periods. Policy implication: Cleanliness is next to godliness! Sweep the streets and do so with keen consideration for the timing of the sweeping operations, the density of tree canopies, and the tree species.

Using Natural Channel Design . . . the Stewart River Natural Channel Design Restoration Project—Lake County Soil and Water Conservation District
Ann Thompson, Dan Schutte, et al.

The 2012 flood wreaked havoc on this Northshore river and dramatically altered course of the channel's course. The resultant damages, which included bank erosion, sediment loading, channel widening, and increased temperatures, threatened the river's native brook trout populations. To more broadly restore the stream's functions and its stability, the LCSWCD engineering team embraced a comprehensive, "holistic" approach that took into account ecological and geomorphic considerations, including the restoration of the channel's flood plain connectivity. "Fluvial geomorphology" concerns a channel's shape longitudinally, laterally, and vertically and also a river's dynamic response to natural or manmade influences. Armoring banks, whether with hard riprap or "soft" plant materials, while ignoring geomorphological considerations, may prove catastrophically unwise, and the presenters showed several slides of failed riprap systems. To dissipate flow energy, sinuous or step flow strategies may be used. LCSWCD hired a geomorphologist to assist with this project and also to teach a course on geomorphology to 40 water resource professionals.

Geomorphic Characteristics, Processes, and Response of Duluth-Area Streams
Christopher Ellison and Faith Fitzpatrick, USGS

Ellison and Fitzpatrick analyzed before-and-after photographs and other data on Duluth area streams impacted by the 2012 flood. The flood left the meandering streams in the more gradually sloped upland areas largely intact. On the steeper slopes next to Lake Superior, the changes were dramatic. Pre-flood, shaded channels were widened and scoured, and the once habitat-friendly pools were filled in with smaller gravel debris. Much repair and restoration work remains to be done.

Ravine Erosion, Base Flow and Private Property: an Urban Stormwater Management Trifecta—Capitol Region Watershed District.
Anna Eleria and Todd Shoemaker

This was a difficult project on a very steep slope that drew runoff from ground seepages as well as surface waters. The project required flexibility and cooperation among engineer, contractor, property owners, and the CRWD. Rain and mud hampered the excavation work and one worker lost his finger in an accident, but was back on the job the next day. On the steepest part of the bluff, they conveyed the runoff through pipes. Elsewhere, they employed rock grade control structures, brush bundles, vegetated riprap, native plant revegetation, and a stormwater basin at the base of the bluff. Results: Annual sediment reductions of 30 tons and annual P reductions of 10 pounds.

Exhibitors—Engineering Firms, Equipment Suppliers, Etc.

There were lots of interesting products and equipment on display. Some of them, I thought, although not too glamorous, might be potentially useful in the BC watershed. Here are some selected examples:

- Gravity separators that could be installed in existing manholes
- Impressive new drainage paver systems suitable for parking lots and plazas
- Baffle boxes to capture and the dry-store solids, sediment, and debris. I would like to see something like this installed on the North Branch of BC just upstream of Basset Creek Pond. The Pond's water quality would be visibly improved and the baffle box might eliminate or significantly delay the need for future dredging of the pond.

One of the engineering firms exhibiting at the conference promoted their company as "using nature as infrastructure." This motto, in four short words, expressed the critical values that I believe effective stormwater management must embrace: to design with nature instead of against it, to respect the natural course of channels and riparian habitats instead of altering them, and--when alterations are required—to design improvements in ways that mimic, replicate, or restore natural systems.