



Bassett Creek Watershed Management Commission

Regular Meeting

8:30 a.m. – 11:00 a.m.

Thursday, January 16, 2014

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 – December 19, 2013 Commission Meeting
- B. Approval of Financial Report
- C. Approval of Payment of Invoices
 - i. Keystone Waters, LLC – December 2013 Administrator Services
 - ii. Barr Engineering – Engineering Services
 - iii. Amy Herbert – December 2013 Secretarial Services
 - iv. ACE Catering – January 2014 Meeting Refreshments
 - v. Wenck – December WOMP Station Operation
 - vi. Hedberg Maps – Map Project Down Payment Invoice
 - vii. Hoshal Advertising – Map Project Down Payment Invoice
 - viii. CNA Surety Payment
 - ix. Golden Valley Invoice for Services of Deputy Treasurer
- D. Approval of Reimbursement Request from City of Golden Valley for Main Stem Project Wisconsin Ave. to GV/Crystal Border
- E. Approval of Final Financial Report to Close-out BWSR Clean Water Fund Grant for the Wirth Lake Outlet Modification Project
- F. Resolution 14-01 approving reimbursement to the BCWMC 2.5% of the tax levy request to Hennepin County for collection in 2013 for admin expenses of the CIP projects and approving the transfer of those funds to the BCWMC's FY2013-2014 Administrative account
- G. Resolution 14-02 approving the transfer of 2013 BCWMC funds from its Administrative account to its Erosion/Sediment account (channel maintenance fund) and Long-term Maintenance account

5. NEW BUSINESS

- A. Presentation by Christine Baeumler (U of M) on Use of Art and Aesthetics in Water Quality Improvement Projects
- B. Consider Request for Development of Educational Sign at Sweeney Lake
- C. Consider Proposal from Wenck Assoc. for 2014 WOMP Station Operation
- D. TAC Recommendations
 - i. 2016 – 2020 CIP Projects
 - ii. 2014 Channel Maintenance Fund Use
 - iii. Water Quality Standards and Triggers

6. OLD BUSINESS

- A. Four Seasons Area Water Quality Project – Drainage Improvement Alternatives
- B. Receive Update on Next Generation Plan Development
 - i. Progress on Development of Draft Policies
 - ii. Possibility of February Commission Workshop
 - iii. Draft Next Generation Plan Steering Committee 11/18/13 and 12/16/13 Meeting Notes
- C. Update on Medicine Lake Water Level Issue
 - i. Letter Sent to Stakeholders Outlining Commission Process Moving Forward
 - ii. Draft Letter to the Editor from Chair Black
 - iii. List of Components and General Budget for Study of Outlet Modifications
 - iv. Compilation of Stakeholders' Responses to Survey of Issues
 - v. Plans for Large Stakeholder Meeting
- D. Update on Performance Evaluation of Administrator

7. COMMUNICATIONS

- A. Administrator's Report
- B. Chair
- C. Commissioners
- D. Committees
- E. Legal Counsel
- F. Engineer - Update on Request to Remove Wirth Lake from 2016 303(d) List of Impaired Waters

8. INFORMATION ONLY (Information online only)

- A. WCA Notices, Plymouth
- B. Presentation on Water Quality Standards by MPCA
- C. Grant Tracking Summary and Spreadsheet

9. ADJOURNMENT

Upcoming Meetings

- XP-SWMM Tutorial: Tuesday January 14, 2014, 3:30 – 5:00 Barr Engineering
- Next Gen Plan Steering Committee: Monday January 27, 2014, Golden Valley City Hall

Future Commission Agenda Items list

- Possible 2015 Commission budget items: converting paper files to electronic files and complete website redesign
- Develop fiscal policies
- Develop a post-project assessment to evaluate whether it met the project's goals
- Medicine Lake rip-rap issue over sewer pipe
- Presentation on joint City of Minnetonka/ UMN community project on storm water mgmt
- State of the River Presentation
- Presentation by Claire Bleser and Kevin Bigalke on Chloride

Future TAC Agenda Items List

- Develop guidelines for annualized cost per pound pollutant removal for future CIP projects
- Stream identification signs at road crossings
- Blue Star Award for cities
- Look into implementing "phosphorus-budgeting" in the watershed – allow "x" pounds of TP/acre.



Bassett Creek Watershed Management Commission

AGENDA MEMO

Date: January 8, 2014

To: BCWMC Commissioners

From: Laura Jester, Administrator

RE: Background information on 1/16/14 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 from 12/19/13 Commission Meeting - ACTION ITEM with attachment
 - B. Approval of Financial Report - ACTION ITEM with attachment
 - C. Approval of Payment of Invoices - ACTION ITEM with attachments
 - i. Keystone Waters, LLC – December 2013 Administrator Services
 - ii. Barr Engineering – Engineering Services
 - iii. Amy Herbert – December 2013 Secretarial Services
 - iv. ACE Catering – January 2014 Meeting Refreshments
 - v. Wenck – December WOMP Station Operation
 - vi. Hedberg Maps – Map Project Down Payment Invoice
 - vii. Hoshal Advertising – Map Project Down Payment Invoice
 - viii. CNA Surety Payment
 - ix. Golden Valley Invoice for Services of Deputy Treasurer
 - D. Approval of Reimbursement Request from City of Golden Valley for Main Stem Project Wisconsin Ave. to GV/Crystal Border ACTION ITEM with attachment

Staff reviewed the reimbursement request from the City of Golden Valley for the restoration work along the Main Stem per the agreement between the City and the Commission. Staff recommends approval of payment in the amount of \$42,470.15. This is the final reimbursement request for this project.
 - E. Approval of Final Financial Report to Close-out BWSR Clean Water Fund Grant for Wirth Lake Outlet Modification Project - ACTION ITEM with attachment – *The Commission received a 2011 \$75,000 Clean Water Fund Grant for the Wirth Lake outlet project. The funds were expended and the grant period expired 12/31/13. Staff recommends authorizing the Commission Chair or Acting Chair to sign final financial form and for staff to submit final paperwork to the BWSR.*
 - F. Resolution 14-01 approving reimbursement to the BCWMC 2.5% of the tax levy request to Hennepin County for collection in 2013 for admin expenses of the CIP projects and approving the transfer of those funds to the BCWMC's FY2013-2014 Administrative account - ACTION ITEM with attachment – *Staff recommends approving the attached resolution directing the transfer of \$24,650 from the CIP project funds to the Administrative Fund, (which is 2.5% of the 2013 Hennepin County tax request) to be used for administrative tasks related to the CIP program.*

- G. Resolution 14-02 approving the transfer of 2013 BCWMC funds from its Administrative account to its Erosion/Sediment account (channel maintenance fund) and Long-term Maintenance account - **ACTION ITEM with attachment** – *Staff recommends approving the attached resolution to transfer \$25,000 into the channel maintenance fund and \$25,000 into the long-term maintenance funds from the Administrative Fund.*

5. NEW BUSINESS

- A. Presentation by Christine Baeumler (U of M) on Use of Art and Aesthetics in Water Quality Improvement Projects – **INFORMATIONAL ITEM no attachment**
Staff with the City of Golden Valley requested to have Ms. Baeumler give a presentation to the Commission. Ms. Baeumler is an art professor at the U of M and she works as artist-in-residence with the Capitol Region and Ramsey-Washington Watershed Districts. Ms. Baeumler's projects seek to improve the ecological condition of urban green spaces, increase natural habitat, mitigate storm water pollution, and engage community members in the creative process.
- B. Consider Request for Development of Educational Sign at Sweeney Lake – **ACTION ITEM with attachment** – *A resident concerned about the conditions of Sweeney Lake would like to donate funds for the design and fabrication of an educational sign at Sweeney Lake. The attached letter outlines some ideas for messages on the sign. Staff recommends directing the Administrator to work with the donor and the Commission's Education Committee to bring a draft sign design to a future meeting.*
- C. Consider Proposal from Wenck Associates for 2014 WOMP Station Operation – **ACTION ITEM with attachment** – *Staff recommends continuing to contract with Wenck Associates for WOMP Station operation in 2014. Wenck's proposal and contract are attached. Operations went smoothly throughout 2013 with their services. Their proposed budget is the same as 2013 and is also in line with the Commission's budgeted amount for 2014 WOMP operations.*
- D. TAC Recommendations
The Technical Advisory Committee met on 1/7/14 and has recommendations on the following items. See notes below and TAC memo attached.
- i. 2016 – 2020 CIP project **ACTION ITEM** – *The TAC discussed possible CIP projects for the 2016 – 2020 list. The TAC recommends the Commission direct the TAC to meet in March to finalize the CIP recommendations.*
 - ii. 2014 Channel Maintenance Fund Use – **ACTION ITEM** – *The TAC recommends the Commission approve the City of Minneapolis' requested use of its allocated Channel Maintenance Funds (\$26,747.50) to perform stream restoration work on the Main Stem in the Glenwood Inglewood area.*
 - iii. Water Quality Standards and Triggers – **FOR INFORMATION** – *The TAC discussed standards and triggers for the Next Generation Watershed Plan at the request of the Plan Steering Committee. The TAC recommends the Committee consider the TAC's suggested standards and triggers (as presented in the TAC memo) at a future meeting.*

6. OLD BUSINESS

- A. Four Seasons Area Water Quality Project – Drainage Improvement Alternatives – FOR DISCUSSION with attachment – *This item was held over from the November Commission meeting. TAC member Asche would like more feedback from the Commission on this issue as there was little time at the November meeting for a good discussion and some residents were not able to attend that meeting. After receiving feedback from the Commission, Mr. Asche will host a neighborhood meeting to discuss the neighborhood concerns, the Commission feedback, and the City's needs.*
- B. Receive Update on Next Generation Plan Development
- i. Progress on Development of Draft Policies – INFORMATION ITEM no attachment – *A verbal update will be provided to the Commission.*
 - ii. Possibility of February Commission Workshop – DISCUSSION ITEM no attachment – *The Plan Steering Committee will likely be ready to hold a Commission workshop in the near future to gather input from the Commission, TAC, and review agencies on multiple draft policies. The Commission should discuss possible timing for a workshop.*
 - iii. Draft Next Generation Plan Steering Committee 11/18/13 and 12/16/13 Meeting Notes – INFORMATION ITEM with attachment
- C. Update on Medicine Lake Water Level Issue – DISCUSSION ITEMS with attachments
- i. Letter Sent to Stakeholders Outlining Commission Process Moving Forward – *As directed by the Commission at their November meeting, the attached letter was sent to Medicine Lake stakeholder groups outlining the Commission's process for continued dialogue facilitation, information gathering, and hosting of a stakeholder meeting.*
 - ii. Draft Letter to the Editor from Chair Black – *Chair Black would like the Commission to consider a response to the 12/5/13 letter to the editor of the Plymouth Sun Sailor (Found at <http://sailor.mnsun.com/2013/12/05/concerning-bassett-creek-watershed-commission/>). A draft letter by Chair Black was distributed to Commissioners and Alternates on 1/4/14 to gather comments; those submitted are shown as tracked in the attached draft. Some Commissioners expressed concern over the idea of a letter coming from the Commission. The Commission should decide how or if to develop a response that would come from the Commission.*
 - iii. List of Components and General Budget for Study of Outlet Modifications – *As directed by the Commission at their November meeting, the Commission Engineer developed the attached list of components and general budget for a study of outlet modifications.*
 - iv. Compilation of Stakeholders' Responses to Survey of Issues – Medicine Lake *stakeholder groups were asked about issues facing Medicine Lake. Attached is a memo with their responses compiled.*
 - v. Plans for Large Stakeholder Meeting – *The Commission should discuss the possible timing, agenda and speakers for a large stakeholder meeting. The purpose of the meeting would be to share information and ideas, dispel miscommunication, and hear from experts to learn more about issues facing the lake including water level management, aquatic invasive species, aquatic plant growth, dredging, recreational goals, etc.*

D. Update on Performance Evaluation of Administrator – **INFORMATION ITEM no attachments**

A verbal update will be provided by Vice Chair Jim de Lambert on the performance evaluation process.

7. COMMUNICATIONS – INFORMATIONAL ITEMS with attachments

- A. Administrator's Report – *Report is attached*
- B. Chair
- C. Commissioners
- D. Committees
- E. Legal Counsel
- F. Engineer - *Attached is a memo regarding the request to the MPCA to consider removing Wirth Lake from the Impaired Waters list. Engineer Chandler will update the Commission on this item.*

8. INFORMATION ONLY – INFORMATION ITEMS with documents online

- A. WCA Notices, Plymouth
- B. Presentation on Water Quality Standards by MPCA
- C. Grant Tracking Summary and Spreadsheet

9. ADJOURNMENT

Upcoming Meetings

- XP-SWMM Tutorial: Tuesday January 14, 2014, 3:30 – 5:00 Barr Engineering
- Next Gen Plan Steering Committee: Monday January 27, 2014, Golden Valley City Hall



Bassett Creek Watershed Management Commission

Minutes of Regular Meeting December 19, 2013 Golden Valley City Hall, 8:30 a.m.

Commissioners and Staff Present:

Crystal	<i>Not represented</i>	Robbinsdale	<i>Not represented</i>
Golden Valley	Commissioner Stacy Hoschka, Treasurer	St. Louis Park	Commissioner Jim de Lambert, Vice Chair
Medicine Lake	Commissioner Clint Carlson	Administrator	Laura Jester, Keystone Waters LLC
Minneapolis	Alternate Commissioner Lisa Goddard	Attorney	<i>Not present</i>
Minnetonka	Commissioner Jacob Millner, Secretary	Engineer	<i>Not present</i>
New Hope	<i>Not represented</i>	Recorder	<i>Not present</i>
Plymouth	Commissioner Ginny Black, Chair		

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

Derek Asche, TAC, City of Plymouth	Jeff Oliver, TAC, City of Golden Valley
Richard McCoy, TAC, City of Robbinsdale	Liz Stout, TAC, City of Minnetonka
Perry Edman, TAC, City of St. Louis Park	David Tobelmann, Alternate Commissioner, City of Plymouth
Peter Tiede, Murnane Brandt	

1. CALL TO ORDER AND ROLL CALL

On Thursday December 19 2013, at 8:34 a.m. in the Council Chambers at Golden Valley City Hall, Chair Black called to order the meeting of the Bassett Creek Watershed Management Commission (BCWMC) and asked for roll call to be taken. The cities of Crystal, New Hope, and Robbinsdale were absent from the roll call.

2. CITIZEN FORUM ON NON-AGENDA ITEMS

Peter Tiede, an attorney with the firm Murnane Brandt representing Ms. Carolyn Amplatz, introduced himself but indicated he had no comments at this time; he was simply in attendance to take notes for Ms. Amplatz.

3. AGENDA

Administrator Jester requested the removal of item 5B from the agenda. Chair Black requested a new agenda item be added as (new) 5C titled "Letter to Editor or Guest Column for Sun Sailor." Commissioner Hoschka moved to approve the agenda as amended. Commissioner Millner seconded the motion. Upon a vote, the motion carried 6-0 [Cities of Crystal, New Hope, and Robbinsdale were absent from vote].

4. CONSENT AGENDA

Commissioner de Lambert moved to approve the Consent Agenda. Commissioner Millner seconded the motion. Upon a vote, the motion carried 6-0 [Cities of Crystal, New Hope, and Robbinsdale were absent from vote].

[The following items were approved as part of the Consent Agenda: the November 20, 2013, BCWMC meeting minutes, , the monthly financial report, payment of the invoices, Approval of the Reimbursement Request from the City of Crystal for the North Branch Erosion Control Project, Approval of the Proposal for the 2013 financial audit.]

The general and construction account balances reported in the Financial Report prepared for the December 19, 2013, meeting are as follows:

Checking Account Balance	\$488,125.45
TOTAL GENERAL FUND BALANCE	\$488,125.45
TOTAL CASH & INVESTMENTS ON-HAND (12/12/13)	\$2,705,194.39
CIP Projects Levied – Budget Remaining	(\$2,957,894.38)
Closed Projects Remaining Balance	(\$252,699.99)
2013 Anticipated Tax Levy Revenue	\$15,330.79
Anticipated Closed Project Balance	\$657,630.80

5. NEW BUSINESS

A. Set January 2014 TAC Meeting

Administrator Jester reported that the Technical Advisory Committee should meet in early January to continue discussions about the 2016 – 2020 Capital Improvement Project list, to review requests from cities for use of the 2014 channel maintenance funds, and to discuss possible modifications to the Commission's water quality standards and criteria for the Next Generation Watershed Management Plan. There was

consensus that these TAC agenda items are appropriate. Chair Black and Commissioner de Lambert indicated they may be able to attend the TAC meeting.

B. Conduct Performance Evaluation of Administrator

Commissioner de Lambert distributed a performance evaluation form he had developed for use in discussing and rating Administrator Jester's performance over the last year. Chair Black indicated the format of the evaluation was revised from the City of Plymouth's form used to evaluate the city manager. Commissioner de Lambert noted the form divided the duties into four main categories which mirrored the Administrator's duties in the Commission's Roles and Responsibilities document. Chair Black indicated she would like to get more input from Commissioners and Alternate Commissioners on the Administrator's performance rather than conducting the actual evaluation at this meeting. The group agreed this was an appropriate approach. Commissioner de Lambert will send the form to Ms. Herbert for distribution to all Commissioners and Alternate Commissioners. Administrator Jester was asked to evaluate herself using the form, as well. It was decided the performance evaluation would be conducted at a future Administrative Services Committee meeting after feedback from other Commissioners and Alternates.

There was also consensus that other contractors should be similarly evaluated at least once every two years before consultant services are solicited.

C. Letter to Editor or Guest Column to Sun Sailor

Chair Black reported she was working on drafting a letter to the Sun Sailor editor in response to Mr. Scott Marks' letter to the editor (dated 12-5-13 in Plymouth Sun Sailor) regarding the issue of Medicine Lake water levels. There was discussion about when, if and how Chair Black or the Commission should respond to Mr. Marks' letter through the Sun Sailor. Chair Black indicated she thought more facts on the issue should be provided to the public. There were comments that the letter should present the law and facts as well as the Commission's plan for moving forward on this issue (as approved at the November Commission meeting). Chair Black noted that one good venue for public discussion is through letters to the editor. There was consensus the letter should be kept short and it should reiterate that the Commission is working through a process and acting as a facilitator. Chair Black agreed to rewrite the letter, send to Administrator Jester who will then gather comments from Commissioners and place on January Commission agenda for further discussion before being sent to press.

6. OLD BUSINESS

A. Consider Proposal for Development of Watershed Map

- i. Hoshal Advertising Proposal
- ii. Hedberg Maps Proposal

Administrator Jester noted these proposals were discussed at the November Commission meeting. At that time, Counsel LeFevre had some suggested changes to the contracts and asked that the Commission wait on approving them. Mr. LeFevre has since worked with Hoshal Advertising and Hedberg Maps to address his concerns. Both he and Administrator Jester recommend Commission approval of the contracts as presented at this meeting. There was discussion about how the watershed map is an opportunity to connect people with the creek and can be used as a conduit for a water quality message.

Commissioner de Lambert moved to approve the contracts with Hoshal Advertising and Hedberg Maps for design, development, and printing of the watershed maps. Alternate Commissioner Goddard seconded the motion. Upon a vote, the motion carried 6-0 [Cities of Crystal, New Hope, and Robbinsdale were absent from vote].

Administrator Jester noted the time frame for project completion was tight. Commissioners agreed that a March delivery would be preferred but if more time is needed, they do not want the project to be rushed and could grant an extension.

7. COMMUNICATIONS

- A. Administrator:** Written report was included in meeting packet. Administrator Jester also verbally noted some current projects she is coordinating. There was some discussion about the XP-SWMM tutorial and the need for more information on the differences between the model just completed and the proposed "Phase II" of the model.
- B. Chair:** No Communications
- C. Commissioners:** No Communications
- D. Committees:** No Communications

8. INFORMATION ONLY (Available at <http://www.bassettcreekwmo.org/Meetings/2013/2013-December/2013DecemberMeetingPacket.htm>)

- A. WCA Notices of Decision, Plymouth
- B. Grant Tracking Summary and Spreadsheet

9. ADJOURNMENT

Chair Black adjourned the Bassett Creek Watershed Management Commission Regular Meeting at 9:42 a.m.

Laura Jester, Administrator

Date

Secretary

Date

General Fund (Administration) Financial Report

(UNAUDITED)

Fiscal Year: February 1, 2013 through January 31, 2014

MEETING DATE: January 16, 2014

Item 4B.
BCWMC 1-16-14

BEGINNING BALANCE	11-Dec-13		488,125.45
-------------------	-----------	--	------------

ADD:

General Fund Revenue:

Interest (Bank Charges)	(6.25)
LMCIT - Insurance Dividend	1,081.00
2013-14 Assessments:	
Minnetonka-2013 balance	3,544.00
Transfer 2.5% of Tax Collection for Admin Expenses	24,650.00
Reimbursed Construction Costs	48,203.65

Total Revenue and Transfers In	77,472.40
---------------------------------------	------------------

DEDUCT:

Checks:

2596	Barr Engineering	Dec Engineering	18,947.24
2597	D'Amico Catering	Jan Meeting	118.43
2598	Amy Herbert LLC	Dec Secretarial	945.00
2599	Keystone Waters LLC	Dec Administrator	2,632.50
2600	Wenck Associates	Dec WOMP	742.60
2601	City of Golden Valley	Financial Mgmt	3,045.00
2602	Hedberg Maps Inc	Down pymt-map project	5,363.75
2603	Hoshal Advertising Inc	Down pymt-map project	1,500.00
2604	City of Golden Valley	Wisc Ave/Duluth Street	42,470.15
Total Expenses			75,764.67

Transfers:

EROSION/SEDIMENT (CHANNEL MAINT)	25,000.00
LONG TERM MAINTENANCE	25,000.00
Total Transfers	50,000.00

ENDING BALANCE	8-Jan-14		439,833.18
----------------	----------	--	-------------------

PREPAID:

2605	CNA Surety	PREPAID-2015	100.00
------	------------	--------------	--------

	2013/2014 BUDGET	CURRENT MONTH	YTD 2013/2014	BALANCE
OTHER GENERAL FUND REVENUE				
INTEREST EARNED (BANK CHARGES)		(6.25)	(67.67)	
ASSESSMENTS	515,045.00	3,544.00	515,046.00	(1.00)
PERMIT REVENUE	48,000.00	0.00	50,100.00	(2,100.00)
REVENUE TOTAL	563,045.00	3,537.75	565,078.33	(2,101.00)
EXPENDITURES				
ENGINEERING				
TECHNICAL SERVICES	120,000.00	5,651.00	117,403.24	2,596.76
PLAT REVIEW	60,000.00	476.00	62,334.78	(2,334.78)
COMMISSION MEETINGS	14,250.00	405.00	15,437.15	(1,187.15)
SURVEYS & STUDIES	10,000.00	106.00	9,388.50	611.50
WATER QUALITY/MONITORING	40,000.00	2,963.50	33,663.11	6,336.89
WATER QUANTITY	11,000.00	434.38	8,756.84	2,243.16
WATERSHED INSPECTIONS	7,000.00	0.00	4,790.12	2,209.88
ANNUAL FLOOD CONTROL INSPECTIONS	15,000.00	0.00	3,024.45	11,975.55
REVIEW MUNICIPAL PLANS	2,000.00	0.00	0.00	2,000.00
ENGINEERING TOTAL	279,250.00	10,035.88	254,798.19	24,451.81
PLANNING				
WATERSHED-WIDE SP-SWMM MODEL	0.00	0.00	488.00	(488.00) A
WATERSHED-WIDE P8 WATER QUALITY MODEL	0.00	0.00	9,967.00	(9,967.00) B
NEXT GENERATION PLAN	40,000.00	3,162.36	37,155.09	2,844.91
PLANNING TOTAL	40,000.00	3,162.36	47,610.09	(7,610.09)
ADMINISTRATOR	50,000.00	2,632.50	43,938.89	6,061.11
LEGAL COSTS	18,500.00	0.00	14,345.69	4,154.31
AUDIT, INSURANCE & BONDING	15,225.00	0.00	13,000.00	2,225.00
FINANCIAL MANAGEMENT	3,045.00	3,045.00	3,045.00	0.00
MEETING EXPENSES	2,750.00	118.43	1,820.93	929.07
SECRETARIAL SERVICES	40,000.00	960.50	28,857.15	11,142.85
PUBLICATIONS/ANNUAL REPORT	2,000.00	0.00	1,947.50	52.50
WEBSITE	2,500.00	0.00	201.00	2,299.00
PUBLIC COMMUNICATIONS	3,000.00	0.00	1,867.41	1,132.59
WOMP	17,000.00	742.60	10,548.35	6,451.65
EDUCATION AND PUBLIC OUTREACH	14,775.00	6,863.75	10,592.32	4,182.68
WATERSHED EDUCATION PARTNERSHIPS	15,000.00	0.00	7,600.00	7,400.00
EROSION/SEDIMENT (CHANNEL MAINT)	25,000.00	25,000.00	25,000.00	0.00
LONG TERM MAINTENANCE (moved to CF)	25,000.00	25,000.00	25,000.00	0.00
TMDL STUDIES (moved to CF)	10,000.00	0.00	0.00	10,000.00
GRAND TOTAL	563,045.00	77,561.02	490,172.52	72,872.48

	Current	YTD
Construct Exp	48,203.65	1,450,786.77
Transfers		
Total	125,764.67	1,940,959.29

A: 1/17/13 Commission action to carryover \$490.57 from 2012 unspent funds for this line item into 2013 expenses

B: 1/17/13 Commission action to carryover \$9,968.42 from 2012 unspent funds for this line item into 2013 expenses

BCWMC Construction Account
Fiscal Year: February 1, 2013 through January 31, 2014
January 2014 Financial Report

(UNAUDITED)

Cash Balance 12/11/13			
Cash		1,700,395.61	
Investments: RBC - Federal National Mortgage - 0.85% - Callable 5/23/14		1,004,798.78	
Total Cash & Investments			2,705,194.39
Add:			
Interest Revenue (Bank Charges)		(36.87)	
Market Value Homestead Credit		14.35	
Total Revenue			(22.52)
Less:			
CIP Projects Levied - Current Expenses - TABLE A		(68,232.65)	
Proposed & Future CIP Projects to Be Levied - Current Expenses - TABLE B		0.00	
Total Current Expenses			(68,232.65)
Total Cash & Investments On Hand	01/08/14		2,636,939.22
Total Cash & Investments On Hand		2,636,939.22	
CIP Projects Levied - Budget Remaining - TABLE A		(2,889,661.73)	
Closed Projects Remaining Balance		(252,722.51)	
2013 Anticipated Tax Levy Revenue - TABLE C		15,330.79	
2014 Anticipated Tax Levy Revenue - TABLE C		895,000.00	
Anticipated Closed Project Balance		657,608.28	
Proposed & Future CIP Project Amount to be Levied - TABLE B		0.00	

TABLE A - CIP PROJECTS LEVIED

	Approved Budget	Current Expenses	2013 YTD Expenses	INCEPTION To Date Expenses	Remaining Budget
Plymouth Creek Channel Restoration (2010 CR)	965,200.00	0.00	135.00	933,688.61	31,511.39
Wisc Ave/Duluth Street-Crystal (2011 CR)	580,200.00	42,470.15	527,128.55	580,200.00	0.00
North Branch-Crystal (2011 CR-NB)	834,900.00	0.00	487,919.63	713,240.29	121,659.71
Wirth Lake Outlet Modification (WTH-4)(2012)	202,500.00	897.50	168,847.56	198,989.44	3,510.56
5/13 Increase Budget - \$22,500					
Main Stem Irving Ave to GV Road (2012 CR)	856,000.00	155.00	41,737.92	135,530.05	720,469.95
Lakeview Park Pond (ML-8) (2013)	196,000.00	4,050.00	6,511.95	11,589.50	184,410.50
Four Seasons Mall Area Water Quality Proj (NL-2)	990,000.00	20,600.00	31,006.30	101,635.49	888,364.51
2014					
Schaper Pond Enhance Feasibility/Project (SL-1)(SL-3)	612,000.00	60.00	19,079.54	63,285.00	548,715.00
Briarwood / Dawnview Nature Area (BC-7)	250,000.00	0.00	6,477.29	6,630.09	243,369.91
Twin Lake Alum Treatment Project (TW-2)	163,000.00	0.00	13,678.55	15,349.80	147,650.20
	5,649,800.00	68,232.65	1,302,522.29	2,760,138.27	2,889,661.73

TABLE B - PROPOSED & FUTURE CIP PROJECTS TO BE LEVIED

	Approved Budget - To Be Levied	Current Expenses	2013 YTD Expenses	INCEPTION To Date Expenses	Remaining Budget
2015					
Main Stem 10th to Duluth	0.00	0.00	1,358.75	1,358.75	(1,358.75)
2015 Project Totals	0.00	0.00	1,358.75	1,358.75	(1,358.75)
Total Proposed & Future CIP Projects to be Levied	0.00	0.00	1,358.75	1,358.75	(1,358.75)

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
2014 Tax Levy	895,000.00		895,000.00	-			895,000.00	895,000.00
2013 Tax Levy	986,000.00		986,000.00	14.35	970,669.21	970,669.21	15,330.79	986,000.00
2012 Tax Levy	762,010.00		762,010.00		3,413.09	757,825.45	4,184.55	762,010.00
2011 Tax Levy	863,268.83	(2,871.91)	860,396.92		442.84	855,075.82	5,321.10	862,400.00
2010 Tax Levy	935,298.91	(4,927.05)	930,371.86		158.70	927,513.77	2,858.09	935,000.00
2009 Tax Levy	800,841.30	(8,054.68)	792,786.62		162.59	792,894.98	(108.36)	800,000.00
2008 Tax Levy	908,128.08	(4,357.22)	903,770.86		320.25	904,044.53	(273.67)	907,250.00
				<u>14.35</u>			<u>922,312.50</u>	

BCWMC Construction Account

Fiscal Year: February 1, 2013 through January 31, 2014

(UNAUDITED)

January 2014 Financial Report

OTHER PROJECTS:

	Approved Budget	Current Expenses / (Revenue)	2013 YTD Expenses / (Revenue)	INCEPTION To Date Expenses / (Revenue)	Remaining Budget
TMDL Studies					
TMDL Studies	135,000.00	0.00	1,815.00	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	<u>254,000.00</u>	<u>0.00</u>	<u>1,815.00</u>	<u>156,117.37</u>	<u>97,882.63</u>
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	598,373.00	2,410.00	2,410.00	15,976.33	582,396.67
Sweeney Lake Outlet (2012 FC-1)	250,000.00	2,211.00	166,876.13	178,524.28	71,475.72
Annual Water Quality					
Channel Maintenance Fund	275,000.00	0.00	0.00	59,718.10	215,281.90
Total Other Projects	<u>1,877,373.00</u>	<u>4,621.00</u>	<u>171,101.13</u>	<u>410,336.08</u>	<u>1,467,036.92</u>

Cash Balance 12/11/13 **1,178,251.27**

Add:

Transfer from GF 50,000.00

MPCA Grant-Sweeney Lk 0.00

Less:

Current (Expenses)/Revenue (4,621.00)

Ending Cash Balance 01/08/14 **1,223,630.27**

Additional Capital Needed **(243,407)**

CIP Projects Levied											
	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)- Crystal (GV)	2011 North Branch - Crystal (2011 CR-NB)	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)
Original Budget Added to Budget	5,627,300 22,500	965,200	580,200	834,900	180,000 22,500	856,000	196,000	990,000	612,000	250,000	163,000
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	102,445.83	30,887.00	34,803.97	31,522.86	2,910.00	1,720.00		602.00			
Feb 2011 - Jan 2012	987,730.99	825,014.32	9,109.50	10,445.00	22,319.34	71,647.97	1,476.00	8,086.37	39,632.49		
Feb 2012 - Jan 2013	336,527.46	47,378.09	9,157.98	183,352.80	4,912.54	20,424.16	2,964.05	61,940.82	4,572.97	152.80	1,671.25
Feb 2013 - Jan 2014	1,302,522.29	135.00	527,128.55	487,919.63	168,847.56	41,737.92	6,511.95	31,006.30	19,079.54	6,477.29	13,678.55
Total Expenditures:	2,760,138.27	933,688.61	580,200.00	713,240.29	198,989.44	135,530.05	11,589.50	101,635.49	63,285.00	6,630.09	15,349.80
Project Balance	2,889,661.73	31,511.39		121,659.71	3,510.56	720,469.95	184,410.50	888,364.51	548,715.00	243,369.91	147,650.20

	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)- Crystal (GV)	2011 North Branch - Crystal (2011 CR-NB)	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)
Project Totals By Vendor											
Barr Engineering	383,449.71	47,863.10	48,811.20	36,727.71	28,040.69	87,137.98	6,338.95	49,708.34	62,610.00	5,591.74	10,620.00
Kennedy & Graven	13,870.30	2,120.10	1,052.50	832.45	2,225.15	1,862.25	1,200.55	2,034.15	675.00	1,038.35	829.80
City of Golden Valley	691,803.86		526,318.80		165,485.06						
City of Minneapolis	30,718.11					30,718.11					
City of Plymouth	911,036.86	861,143.86						49,893.00			
City of Crystal	665,295.13			665,295.13							
Com of Trans	3,900.00										3,900.00
S E H											
Misc											
2.5% Admin Transfer	80,664.30	22,561.55	4,017.50	10,385.00	3,238.54	15,811.71	4,050.00	20,600.00			
Total Expenditures	2,780,738.27	933,688.61	580,200.00	713,240.29	198,989.44	135,530.05	11,589.50	122,235.49	63,285.00	6,630.09	15,349.80

	Total CIP Projects Levied	2010 Plymouth Creek Channel Restoration (2010 CR)	2011 Wisc Ave (Duluth Str)- Crystal (GV)	2011 North Branch - Crystal (2011 CR-NB)	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)
Levy/Grant Details											
2009/2010 Levy	902,462	902,462									
2010/2011 Levy	576,100		160,700	415,400							
2011/2012 Levy	762,010				83,111	678,899					
2012/2013 Levy	986,000						162,000	824,000			
2013/2014 Levy											
Construction Fund Balance	1,300,728	62,738	419,500	419,500	21,889	177,101	34,000	166,000			
BWSR Grant- BCWMO	504,750	212,250			75,000	217,500					
Total Levy/Grants	5,032,050	1,177,450	580,200	834,900	180,000	1,073,500	196,000	990,000			

BWSR Final
4/8/13

Bdgt Exp Balance

West Medicine

Twin Lake

Main Stem Crystal to Regent(2010 CR)

Project closed 6/30/12

Project closed 4/11/13

Project closed 11/20/13

1,100,000.00

140,000.00

636,100.00

744,633.58

5,724.35

296,973.53

355,366.42

134,275.65

339,126.47

***\$673.50 of expenses are from 2013.

Bassett Creek Construction Project Details

Other Projects

Total					2012		
Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
1,647,373.00	105,000.00	119,000.00	500,000.00	748,373.00 (250,000.00)	250,000.00	175,000.00	7,274,673.00
163,870.64		163,870.64					22,500.00
230,000.00	30,000.00			100,000.00		100,000.00	163,870.64
							230,000.00
6,949.19				3,954.44			637.50
10,249.09	637.20			9,611.89		2,994.75	6,949.19
113,141.44	23,486.95	89,654.49					10,249.09
117,455.33	31,590.12	47,041.86					113,141.44
76,184.64	31,868.63	44,316.01				38,823.35	138,409.58
45,375.25	15,005.25	25,920.00			4,450.00		85,504.59
12,656.65	168.00	5,290.50			7,198.15		147,821.08
21,094.00	3,194.00					17,900.00	1,000,387.64
171,101.13	1,815.00			2,410.00	166,876.13		357,621.46
							1,474,982.17
574,206.72	107,765.15	212,222.86		15,976.33	178,524.28	59,718.10	3,335,703.74
1,467,036.92	27,234.85	70,647.78	500,000.00	582,396.67	71,475.72	215,281.90	4,355,339.90

Total					2012		
Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
228,588.19	104,888.70	94,948.17		11,959.32	16,792.00		613,147.90
5,907.54	1,164.30	2,902.59		24.75	1,461.15	354.75	20,026.59
180,811.13					160,271.13	20,540.00	872,614.99
38,823.35						38,823.35	30,718.11
3,992.26				3,992.26			949,860.21
101,598.10		101,598.10					665,295.13
14,486.15	1,712.15	12,774.00					7,892.26
							101,598.10
							14,486.15
							80,664.30
574,206.72	107,765.15	212,222.86		15,976.33	178,524.28	59,718.10	3,356,303.74

Total					2012		
Other Projects	TMDL Studies	Sweeney Lake TMDL	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	Sweeney Lake Outlet (FC-1)	Channel Maintenance	Totals - All Projects
163,870.64		163,870.64					
60,000.00	10,000			25,000		25,000	902,462
60,000.00	10,000			25,000		25,000	636,100
60,000.00	10,000			25,000		25,000	822,010
50,000.00				25,000		25,000	1,046,000
				25,000		25,000	50,000
							1,300,728
							504,750
393,870.64	30,000	163,870.64		100,000		100,000	5,262,050

Item 4D.
BCWMC 1-16-14
Additional backup documentation
available online



7800 Golden Valley Road
Golden Valley, MN 55427

January 7, 2014

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

Subject: 2012 Bassett Creek Reach I Restoration Project (City Project No. 10-29)
Final Request for Reimbursement

Dear Ms. Jester:

Enclosed you will find documentation for engineering and construction expenses for the 2012 Bassett Creek Reach I Restoration Project. This is the second and final request to the Bassett Creek Watershed Management Commission (BCWMC) for reimbursement of expenses incurred under this project.

The City is requesting reimbursement of \$42,470.15 from the BCWMC for funds spent since the previous reimbursement, per the terms of the Cooperative Agreement for the Bassett Creek Main Stem Restoration dated October 21, 2010. The Cooperative Agreement, expenditure report, invoices for professional services, and contract pay vouchers are attached to this letter for reference.

The attached expenditure report called "General Ledger Activity" shows all expenses incurred on the project. As you may recall, the contract included work in the St. Croix Avenue area (Area B1), which was funded by private sources. Although shown in the general ledger, all costs associated with Area B1 have been removed from the reimbursement request as summarized below:

Total Project Costs eligible for reimbursement (Area B1 removed)

	\$ 89,403.00	Professional Services
	475,666.06	Construction Contract
	8,139.82	City Staff Time (salaries, insurance, retirement)
	206.50	Operating Supplies
	<hr/>	
	\$573,415.38	
Less	\$483,848.65	Previous Reimbursement
=	\$89,566.73	Project Costs Eligible for final Reimbursement Request

Laura Jester
January 7, 2014
Page 2

As anticipated when the contract was awarded, the overall project costs exceed the funding provided by BCWMC. Therefore, the City is requesting the remaining BCWMC project balance of \$42,470.15 as final reimbursement. The City will fund the remaining project costs not covered by BCWMC using City Storm Sewer CIP funds programmed for this project.

Reimbursement to the City should be sent to my attention at:

Eric Eckman, Public Works Specialist
City of Golden Valley
Public Works Department
7800 Golden Valley Road
Golden Valley, MN 55427

Thank you again for your support in making this a successful project. If you have any questions regarding this submission, please contact me at 763.593.8084.

Sincerely,



Eric Eckman
Public Works Specialist

Enclosures

C: Jeannine Clancy, Director of Public Works
Jeff Oliver, PE, City Engineer
Sue Virnig, Finance Director
Laura Jester, Administrator, BCWMC
Amy Herbert, BCWMC Recording Administrator, w/encl.
Karen Chandler, Barr Engineering Co., Engineer for BCWMC

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4E –Approval of Final Financial Report to Close-out the BWSR Clean Water Fund Grant for the Wirth Lake Outlet Modification Project
BCWMC January 16, 2014 Meeting Agenda
Date: January 8, 2014
Project: 23270051 2013 624

4E. Approval of Final Financial Report to Close-out the BWSR Clean Water Fund Grant for the Wirth Lake Outlet Modification Project

Recommendations:

- a. Authorize Commission Chair (or acting Chair) to sign the Final Financial Form for the 2011 Minnesota Board of Water and Soil Resources (BWSR) Clean Water Fund grant and authorize staff to submit the executed form to BWSR.

Background

The Minnesota Board of Water and Soil Resources (BWSR) awarded the Commission a \$75,000 2011 Clean Water Fund (CWF) grant for the redesign and construction of the Wirth Lake Outlet. The Commission's original budget for the project was \$180,000; the Commission approved an additional budget of \$22,500 for the project, bringing the total budget to \$202,500. The BWSR CWF grant represented approximately 37% of the total budgeted project cost. BWSR classifies the remaining 63% of the budget as "local match" to be paid by the grantee (the Commission). The Commission funded the remaining 63% (\$127,500) of the project budget through an ad valorem tax and the Commission's closed project fund account.

Upon Commission staff completion of a work plan in early 2011, BWSR and the Commission executed a grant agreement, and BWSR issued an initial grant payment of \$67,500, equal to 90% of the total grant amount. The original grant had a December 31, 2012 expiration date. In December 2012, BWSR approved a grant extension; the grant agreement expired on December 31, 2013.

During project design and construction, Commission staff completed semi-annual reporting requirements to provide updates on project progress and expenditures, as required by BWSR. Now that the project is

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4E – Approval of Final Financial Report to Close-out the BWSR Clean Water Fund Grant for the Wirth Lake Outlet Modification Project
Date: January 8, 2014
Page: 2
Project: 23270051 2013 624

complete and the Commission has made final reimbursements to the City of Golden Valley, Commission staff is in the process of completing final reporting to BWSR prior to the January 31, 2014 grant agreement reporting deadline. Attached is BWSR's Final Financial Report for the project, which requires an authorized Commission signature for BWSR to release the final 10% of the grant (\$7,500). This report must be signed prior to the January 31, 2014 grant agreement reporting deadline. Therefore, staff recommends that the Commission authorize its Chair (or acting Chair) to sign the Final Financial Form, and authorize its Engineer to send the signed form to BWSR.

The following table provides a summary of total project budgets and expenditures as reported to BWSR, which provides more detail than shown in the Final Financial Form.

Activity	Source Type	Budget	Expenditures	Balance
Tech & Engineering	Local Match	\$ 25,000.00	\$ 44,469.01	\$ (19,469.01)
Tech & Engineering	State Grant	\$ 15,000.00	\$ 15,000.00	\$ -
Grant Administration	Local Match	\$ 2,000.00	\$ 7,374.30	\$ (5,374.30)
Grant Administration	State Grant	\$ -	\$ -	\$ -
Project Development	Local Match	\$ 40,000.00	\$ 11,416.14	\$ 28,583.86
Project Development	State Grant	\$ -	\$ -	\$ -
Construction	State Grant	\$ 60,000.00	\$ 60,000.00	\$ -
Construction	Local Match	\$ 108,000.00	\$ 50,450.60	\$ 57,549.40
		\$ 250,000.00	\$ 188,710.05	\$ 61,289.95



Financial Report

2011 - Runoff Reduction

Grant Title: 2011 - Runoff Reduction - Bassett Creek WMO (WMO)

Grant ID: C13-6224

Organization: Bassett Creek WMC

Grant Revenue	Amount
Total Awarded	\$75,000.00

Grant Expenditures

Grant Activity Category	Amount
Technical/Engineering Assistance	\$15,000.00
Administration/Coordination	
Urban Stormwater Management Practices	\$60,000.00
Project Development	
Total Spent	\$75,000.00
Returned Amount	\$0.00
Balance Remaining	\$0.00
Percent Spent	100%

This is to certify that the information is a true and accurate representation of the grant program accounts for the 2011 - Runoff Reduction - Bassett Creek WMO (WMO)- Bassett Creek WMC. We believe our records are complete and subject to an audit.

SIGNATURE OF AUTHORIZED REPRESENTATIVE

DATE

Please forward this completed form to your Board Conservationist.

If returning program funds, please use the Returned Check form.

Make checks payable and mail to:
Board of Water and Soil Resources
520 Lafayette Road N.
St. Paul, MN 55155

RESOLUTION NO. 14-01

Member _____ introduced the following resolution and moved its adoption:

A RESOLUTION APPROVING THE REIMBURSEMENT TO THE BASSETT CREEK WATERSHED MANAGEMENT COMMISSION 2.5% OF THE TAX LEVY REQUEST TO HENNEPIN COUNTY FOR COLLECTION IN 2013, FOR ADMINISTRATIVE EXPENSES FOR CAPITAL IMPROVEMENT PROGRAM (CIP) PROJECTS AND APPROVING THE TRANSFER OF THE FUNDS FROM THE CIP ACCOUNT TO THE ADMINISTRATIVE ACCOUNT

BE IT RESOLVED by the Bassett Creek Watershed Management Commission of the Cities of Crystal, Golden Valley, Medicine Lake, Minneapolis, Minnetonka, New Hope, Plymouth, Robbinsdale, and St. Louis Park that:

1. The Bassett Creek Watershed Management Commission (BCWMC) will be reimbursed \$24,650, which is 2.5% of the BCWMC's September 2012 tax request in the amount of \$986,000 to Hennepin County for collection in 2013, for administrative expenses for Capital Improvement Projects.
2. The Bassett Creek Watershed Management Commission directs its Deputy Treasurer to transfer the reimbursed funds from the Commission's CIP Account to its Administrative Account.

Attest:

Vice Chair

Date

Secretary

Date

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

Member _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. 14-02

A RESOLUTION APPROVING THE TRANSFER OF BASSETT CREEK
WATERSHED MANAGEMENT COMMISSION FUNDS FROM THE
ADMINISTRATIVE ACCOUNT TO THE EROSION/SEDIMENT (CHANNEL
MAINTENANCE) ACCOUNT AND LONG-TERM MAINTENANCE ACCOUNT

BE IT RESOLVED by the Bassett Creek Watershed Management Commission
that:

1. \$25,000 will be transferred from the Bassett Creek Watershed Management Commission's Administrative Account to the Erosion/Sediment (Channel Maintenance) account.
2. \$25,000 will be transferred from the Bassett Creek Watershed Management Commission's Administrative Account to the Long-Term Maintenance account.

Vice Chair

Date

Attest:

Secretary

Date

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



Item 5B.
BCWMC 1-16-14

January 8, 2014

Reply to St. Paul

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

Re: Donation of an educational sign at Sweeney Lake

Dear Bassett Creek Watershed Management Commission:

I am writing this letter on behalf of our client, who wishes to remain anonymous. Our client wishes to donate, design, with input and approval from the commission, fabricate and install an educational sign near the Sweeney Lake boat/canoe launch on Island Drive within the Hidden Lakes 2nd Addition PUD No. 74, Golden Valley, Minnesota.

Our client has generously offered to pay for the educational sign as she resides near the lake and has genuine concerns for the quality of the lake water.

Our client would like to post a Public Notice sign notifying the public of the Minnesota Impaired Water status and conveying the following messages (I believe I found this list on your website.)

1. **FERTILIZE SMART** – Make sure your fertilizer is phosphorus-free. Sweep up fertilizer that spills onto hard surfaces.
2. **GRASS, DON'T BLOW IT OFF** – Blow or rake grass clippings and leaves out of the street. Leave them on your lawn, use them for compost, or bag them up.
3. **USE YOUR RUNOFF** – Direct your downspouts onto your lawn or garden or into a rain barrel.
4. **SCOOP THE POOP** – Grab a bag when you grab the leash, and pick up after your pets.
5. **USE CHEMICALS WISELY** – Use chemical products according to label directions. Consider alternative or natural remedies to control weeds and pests.
6. **KEEP A HEALTHY LAWN** – Aerate your lawn, seed bare patches and mow at a higher setting.
7. **PLANT A RAIN GARDEN** – Capture, clean and infiltrate rainwater that would otherwise run off your property.
8. **REPLACE TURF WITH NATIVE PLANTS** – Swap some of your high-maintenance lawn for low-maintenance native ground cover, plants or grasses.
9. **REDUCE YOUR FOOTPRINT** – Replace some pavement – such as a walk, patio, or driveway – with pavers or pervious pavement.

10. **ADOPT A STORM DRAIN** – Keep neighborhood storm drains free of leaves, seeds and grass clippings.

We would also like to include the information below pertaining to blue-green algae and harmful algal blooms found on the Minnesota Pollution Control Agency website.

Summertime in Minnesota: When in doubt, best keep out!

When temperatures climb and the summer sun beats down, conditions are ripe for Minnesota lakes to produce harmful algae blooms, some of which can be harmful to pets and humans.

What: Harmful algal blooms (HAB) are blue-green (cyanobacterial) algal blooms containing toxins or other noxious chemicals, which can pose harmful health risks.

Why is this a concern? People or animals may develop skin irritation or upper respiratory problems from exposure to HAB, and in extreme cases, dogs and other animals have even died after drinking lake water containing these toxins.

Where: Severe blue-green algal blooms typically occur on lakes with poor water quality (high in nutrients), and look like green paint, pea soup, or a thick green cake. HAB often result in extremely low water clarity (less than 1 foot). There is no visual way to predict the toxicity of an algal bloom.

What should I do if I suspect a HAB on my lake? When these conditions are present, people should avoid contact with the water and they should prevent animals from swimming in or drinking the water. Scientists do not yet know what causes some blooms to produce toxins while others do not, so the safest course of action is to avoid contact with all blue-green blooms.

What does it look like? Blue-green algae can be hard to distinguish from other types of algae. While it's often described as looking like pea soup or spilled green paint, it can take other forms as well.

Images of several signs by Dogtooth Designs with similar messages is attached. Our client would like something similar designed for Sweeney Lake. We would like to get the Commission input on the sign and work with Administrator Jester to bring a draft design to a future Commission meeting.

Please include this letter on the January agenda.

Sincerely,



Sherri Weiss

Paralegal

sweiss@murnane.com

SW/cs/1799770

Enclosures



Graphic Arts / Interpretive Media

[x Home](#) [x FAQ](#) [x Contact](#)

© DogTooth Design 2011

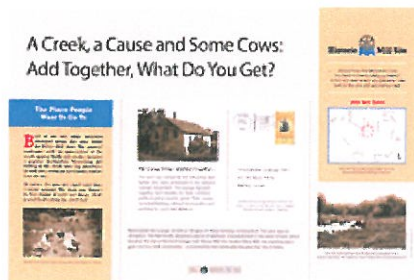
Gallery >

Interpretive Signs ...

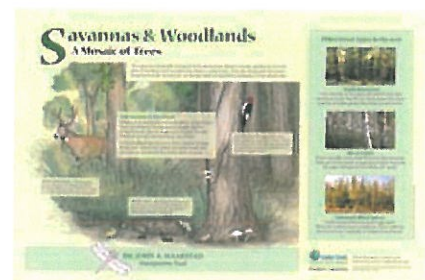
Examples of signage used in interpretation, wayfinding and identification.



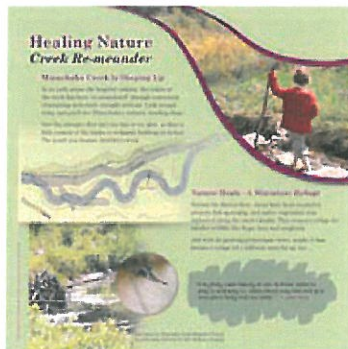
Keller Golf Course, Ramsey County
« Shoreline restoration »



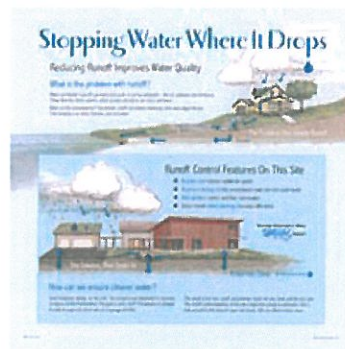
City of Edina
« Historic mill site »



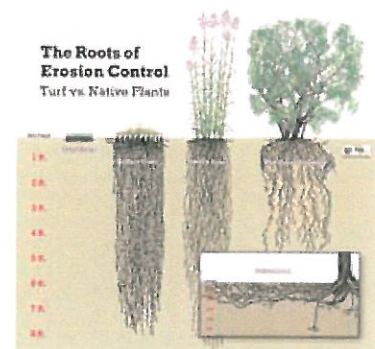
Cedar Creek Ecosystem Science Reserve
« Native forest ecosystem »



Minnehaha Creek Watershed District
« Re-meander of creek »



Ramsey-Washington Watershed District
« Site stormwater management »



River Keepers
« Erosion control »



Minnesota Landscape Arboretum
« Landscape design »



City of Lakeville
« Native planting marker »



City of St. Paul
« Prairie restoration »



Wenck Associates, Inc.
1800 Pioneer Creek Ctr.
P.O. Box 249
Maple Plain, MN 55359-0249

(763) 479-4200
Fax (763) 479-4242
E-mail: wenckmp@wenck.com

January 3, 2014

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

Re: Bassett Creek Watershed Outlet Monitoring Program

Dear Ms. Jester,

Thank you for the opportunity to provide a scope and budget to continue operating the 2014 Met Council Environmental Services' (MCES) Watershed Outlet Monitoring Program (WOMP) station for Bassett Creek. Wenck has a long history of providing stream monitoring expertise to our clients and are confident this expertise will provide the Bassett Creek Watershed Management Commission (BCWMC) the highest quality stream monitoring.

SCOPE OF WORK

Wenck Associates will complete the following tasks MCES requires for local WOMP cooperators in accordance with the attached Metropolitan Council Environmental Services Quality Assurance Program Plan: Stream Monitoring, dated December 2003, updated January 2011 and attached Grant Agreement between Bassett Creek and MCES.

1. Ensure that monitoring equipment is in working order
2. Routine maintenance of the WOMP site and equipment.
3. Collect a minimum of 12 non storm event grab samples throughout the year as well as 10-15 flow-weighted composite samples during storm runoff events in the open-water (ice-free) season.
4. Make in-situ field measurements according to procedures specified by the terms of a contractual agreement with Met Council Environmental Services.
5. Coordinate sample delivery to MCES Laboratory

COST ESTIMATE

Wenck proposes to perform the Scope of Work stated above on a time and materials basis for a total estimated cost of \$10,350 for the 2014 monitoring season. A detailed breakdown of our cost estimate is provided below.

Table 1. Tasks and Estimated Costs

Task	Description	Cost
1 and 2	2.5 staff hours per month	\$3,000 (labor)
3 and 4	2 staff hours per sampling event (27 total events) 40 miles per sampling event (27 total events)	\$5,400 (labor) \$600
5	Sample delivery by Wenck or courier to MCES Laboratories (27 total events)	\$1,350
TOTAL (tasks 1-5)		\$10,350

SUMMARY

Thank you for this opportunity to work with the Bassett Creek Watershed Management Commission. If you have any questions or need additional information, please do not hesitate to contact me at (763) 479-4233 or jstrom@wenck.com.

Sincerely,

Jeff Strom
Water Quality Scientist
Wenck Associates, Inc.

Diane Spector
Principal
Wenck Associates, Inc.

AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT made and entered into this day of January 8, 2014

Between Bassett Creek Watershed Management Commission
4700 W 77th Street
Minneapolis, MN 55435

(hereinafter called "CLIENT")

And: Wenck Associates, Inc.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249

(hereinafter called "WENCK")

(and together "the Parties")

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

1. **PROJECT**
This Agreement pertains to the provision of engineering services for the Proposal for the Bassett Creek Watershed Outlet Monitoring Services dated January 8, 2014 hereinafter called the "Project".
2. **SCOPE OF SERVICES**
The services to be performed by Wenck for the Project are set forth in WENCK's proposal referred to as the "2014 Bassett Creek Watershed Outlet Monitoring Program Services". The Services may be modified by a written, mutually agreeable Change Order.
3. **COMPENSATION**
Compensation shall be paid in accordance with the Proposal. The project will be invoiced on a monthly basis for professional time completed and expenses incurred with a 0% mark-up. Invoices are to be paid within 45 days of receipt of the invoice.
4. **TERM**
WENCK will commence the Services promptly, provide appropriate expertise and will proceed with due diligence until December 31, 2014.
5. **TERMINATION**
This Agreement may be terminated by CLIENT upon 5 days notice in writing to WENCK. CLIENT shall forthwith pay to WENCK all amounts, including all expenses and other charges payable as of termination date.
6. **STANDARD OF CARE/INDEMNITY**
WENCK will provide:
 - A. The standards of care, skill and diligence normally provided by a professional in the performance of the Services contemplated by this Agreement.
 - B. Wenck agrees to indemnify and hold CLIENT harmless from any claim, cause of action, demand or other liability of any nature or kind (including the costs of reasonable attorney's fees and expert witness fees) arising out of any negligent act or omission of Wenck or any subcontractor of Wenck in connection with work performed under the terms of this Agreement.
7. **DISPUTE RESOLUTION/GOVERNING LAW**
If a dispute arises out of or in connection with this Agreement or the breach thereof, the Parties will attempt to settle the dispute by negotiation before commencing legal action. The governing law shall be the law of State of Minnesota.
8. **NOTICE AND OFFICIALS**
WENCK will appoint a Project Manager who shall be in charge of the Project for WENCK. CLIENT shall designate in writing an official who shall be authorized to act for the CLIENT. The person so appointed by WENCK will maintain close contact with the authorized representative of CLIENT. All notices to WENCK, including without limitation, those concerning changes in the scope of Services shall be directed in writing to the appointed Project Manager at the address shown above. Notices to CLIENT shall be directed in writing to CLIENT at the address of CLIENT shown above or to such other address as the CLIENT may in writing designate.
9. **MISCELLANEOUS**
This Agreement i) constitute the entire agreement between the Parties, ii) supersedes any previous representations or agreements between the Parties with respect to the Service, iii) may be modified or amended only in a writing signed by the Parties, and iv) shall inure to the benefit of and be binding upon the Parties, their respective permitted successors and assigns. Neither Party may assign this Agreement in whole or in part without the express written consent of the other Party. Nothing in this Agreement is to be construed to create any rights in any third party (including without limitation vendors and contractors working on the Project whether as third party beneficiaries or otherwise.
10. **GRANT REQUIREMENTS**
WENCK recognizes that CLIENT has undertaken certain obligations as part of the "Grant Agreement Between the Metropolitan Council and Bassett Creek Watershed Commission For The Metropolitan Area Watershed Outlet Monitoring Program (WOMP2)" (the "Metropolitan Council Grant"), a copy of which is attached to the proposal, and the State Grant which is attached to the Metropolitan Council Grant as Exhibit EC. WENCK agrees that obligations imposed by the Metropolitan Council Grant on subgrantees and subcontractors are hereby made binding on WENCK, and that the terms of said agreement are incorporated into this agreement to the extent necessary for the Metropolitan Council to meet its obligations under the State Grant Agreement. Terms of the Metropolitan Council Grant that are specifically incorporated include, without limitation, the terms of paragraphs 4.02 and 9.10 of the Metropolitan Council Grant.

IN WITNESS WHEREOF the parties have duly executed this Agreement.

"CLIENT"

"WENCK"
Wenck Associates, Inc.

By: _____

By: _____

[Signing Officer(s)]

[Signing Officer]



Item 5D.
BCWMC 1-16-14

Memorandum

To: Bassett Creek Watershed Management Commission
From: Technical Advisory Committee
Subject: January 7, 2014 Technical Advisory Committee Meeting
Date: January 8, 2014

The Technical Advisory Committee (TAC) met on January 7, 2014. The following TAC members, city representatives, BCWMC commissioners, and BCWMC staff attended the meeting:

City	TAC Members/Alternates	Other City Representatives
Crystal	Tom Mathisen	
Golden Valley	Jeff Oliver, Joe Fox, Eric Eckman	
Medicine Lake	Absent	Commissioner Clint Carlson
Minneapolis	Lois Eberhart	
Minnetonka	Liz Stout	
New Hope	Bob Paschke	Alt. Commissioner Pat Crough
Plymouth	Derek Asche, Ben Scharenbroich	Commissioner Ginny Black
Robbinsdale	Richard McCoy	
St. Louis Park	Perry Edman	
BCWMC Staff & Others	Karen Chandler (Barr Engineering), Jim Herbert (Barr Engineering), Laura Jester (Administrator), Rachael Crabb (Minneapolis Park and Recreation Board (MPRB))	

Fox opened the meeting at 2:45 p.m. Introductions were made around the table. There were no communications by members to report.

The Technical Advisory Committee (TAC) forwards the following recommendations and information to the Commission for its consideration (and to the Plan Steering Committee for item #3 below). This memorandum presents the TAC's recommendations and information relating to 1) developing CIP project list for 2016 - 2020; 2) requests for use of 2014 Channel Maintenance Funds; and 3) possible changes to Commission standards and triggers for the next generation Watershed Management Plan.

1. Develop CIP Project List for 2016 - 2020

The group continued their discussion of the possible projects to include on the 2016 – 2020 CIP project list that began at the November 7, 2013 TAC meeting.

Oliver brought up two new projects that Golden Valley would like to be considered for the CIP:

- One would be located in Medley Park, in the Medicine Lake subwatershed. The city will be re-purposing space in the park (e.g., moving ball fields) and the city wants to investigate adding a water quality improvement project in the park. Ideally, this project would be implemented in 2016,

when the city will be reconstructing streets in the area, but the project could be implemented in a later year, if need be.

- The second project would be located in the Sweeney Lake subwatershed, south of Highway 55 (and south of/tributary to Schaper Pond). The city is considering re-routing the Sweeney Branch through an existing pond and making pond improvements (e.g., dredging). However, the potential benefits need to be evaluated before adding this project to the CIP project list.

Oliver noted the city does not have any cost estimates yet for the projects.

Chandler noted that the draft 2016 CIP project list already includes projects that total over \$1 million for that year.

The TAC needs to complete their final draft recommended CIP list so it can be reviewed by the Commission at the March Commission meeting, with final Commission approval in April. The TAC recommends that they meet in March to develop their final draft recommended CIP list.

Recommendations

The TAC recommends that the Commission direct the TAC to meet in March to develop their final draft recommended CIP list.

2. Review Requests for Use of 2014 Channel Maintenance Funds

Cities were asked to submit requests for use of the 2014 Channel Maintenance Funds allocated to them. The City of Minneapolis submitted the attached request. Eberhart explained Minneapolis' funding request – MPRB and Minneapolis are working on a stream restoration project stemming from the upcoming redevelopment of the Glenwood Inglewood site (see memo from Lois). Tough access issues prevented this work from inclusion in the Commission's 2012 CIP Main Stem project (Cedar Lake Rd to Golden Valley Rd), but now there is an opportunity to add this unanticipated work to the 2012 Main Stem project. Channel maintenance funds (that often go unused) would be a good fit for this project. An engineer's cost estimate is not available right now, but Minneapolis is requesting one from the MPRB's consultant for the 2012 Main Stem project. Eberhart noted this is phase I of this project, with more work expected in 2017.

The TAC approved recommending the City of Minneapolis' requested use of these Channel Maintenance Funds to the Commission for consideration.

Recommendations

The TAC recommends the Commission approve the City of Minneapolis' requested use of its allocated Channel Maintenance Funds (\$26,747.50) to perform stream restoration work on the Main Stem in the Glenwood Inglewood area.

3. Discuss Possible Changes to Commission Standards and Triggers for Watershed Management Plan

At the November 18, 2013 Next Generation Plan Steering Committee meeting, the Committee discussed and considered possible changes to the Commission's water quality standards and triggers for development and projects. The committee asked for TAC input on the issue.

Chandler distributed revised tables comparing the current BCWMC water quality standards and triggers with the new MS4 permit, the NPDES general construction stormwater permit and Minimal Impact Design Standards (MIDS) guidelines. The revised tables include more details about the BCWMC triggers for redevelopment review and application of the BCWMC's "nondegradation" standard, which can be much lower (i.e., smaller parcel size) than other BCWMC triggers. With the exception of the details regarding the BCWMC triggers for redevelopment review, the same information was discussed at the Plan Steering Committee meeting. Herbert noted that the triggers for redevelopment review and application of the BCWMC's "nondegradation" standard were developed for the BCWMC's revised "Requirements Document."

Eberhart noted that because Minneapolis is covered by an individual NPDES Stormwater Permit (Phase I city), the city does not have a volume control requirement, but they do need to turn in a volume control plan soon. Eberhart noted that the MIDS guidance includes a decision tree regarding volume requirements that use total phosphorus (TP) and total suspended solids (TSS) as volume surrogates when volume control cannot or should not be implemented. She is not sure if it's appropriate for the Commission to adopt the MIDS guidance. Eberhart is not in favor of a BCWMC volume control requirement and recommends holding off on volume control requirements until other agencies "catch up" (e.g., U.S. Environmental Protection Agency). Oliver agreed with Eberhart's recommendation, especially since BWSR does not require that the Commission have a volume control requirement. Eberhart stated that if the Commission adopts a volume control requirement, they should pay close attention to exemptions and cautions. She is not opposed to volume control where it works, but there are many places where it does not work or is not appropriate. Chandler stated that the Plan Steering Committee has already been talking about situations where volume control may or may not be appropriate; policies are already drafted with those caveats (similar to MIDS off-ramps). Eberhart said that Minneapolis does not need to be exempt from a volume control requirement, but would rather that the Commission not have such a requirement at all.

The group discussed the current BCWMC review triggers and how all of the BCWMC member cities, other than Minneapolis, have to meet volume control requirements through their MS4 permits. Construction projects (including those in Minneapolis) also have to meet the volume control requirements of the NPDES general construction stormwater permit.

Asche said that he likes the MIDS approach, as it provides consistency and flexibility. He noted that the best place to obtain water quality improvements is in redevelopment. Asche is interested in further exploring MIDS and Plymouth is considering adopting MIDS. Eberhart cautioned that some watershed organizations are adopting the MIDS volume control standards but not the whole package, which creates problems because it eliminates flexibility.

Asche noted that the complexity of multiple agency review has been an issue for him for a long time. He likes MIDS because it's complete and covers all of the bases. He wondered if Plymouth adopts MIDS, if that would satisfy the Commission's current or future requirements.

The group discussed the option of collecting funds (one of the MIDS off-ramps) from developers that can't meet requirements in order to install more regional water quality improvement measures.

Jester asked the group about overlaps or gaps/opportunities—e.g., what is or is not working right now?

Eberhart recommended that the Commission triggers stay the same. Eckman noted that the cities would still have to make sure that MS4 and NPDES requirements are being met.

Herbert asked if the redevelopment (trigger) exemptions should be eliminated.

The group discussed what the triggers and water quality treatment standards should be used for BCWMC review. A main point of discussion was whether the trigger should be as low as ½ acre. The group concluded that a trigger less than 1 acre often results in the implementation of “dysfunctional” BMPs and developers “walking away” from projects. The group also discussed whether the trigger should be based on parcel size, disturbed area, or new impervious surface, and agreed it should be based on disturbed area. After further discussion, the group agreed on the following triggers and standards for the Plan Steering Committee to consider:

- Trigger (for application of BCWMC water quality standards):
 - For all commercial, industrial and institutional development and redevelopment: 1 acre of disturbed area
 - For all residential development and redevelopment: 2 acres of disturbed area and 4 units
- Standard: Level 1 standards for all development and redevelopment

The group noted that these recommended triggers and standards would be simpler than the Commission’s current triggers and standards and would eliminate the confusion over development vs. redevelopment vs. expansion (as defined in the current “Requirements” document). The group also acknowledged that there will likely be situations where a developer will not be able to meet the Level 1 requirements, but they could go through the Commission’s variance process. Although the TAC does not recommend a volume reduction requirement, it should be listed as an option in the Requirements document and the document should be updated to include more “approved” volume reduction practices.

Recommendations

The TAC recommends that the Plan Steering Committee consider the following triggers and standards for the next generation Watershed Management Plan:

- Trigger (for application of BCWMC water quality standards):
 - For all commercial, industrial and institutional development and redevelopment: 1 acre of disturbed area
 - For all residential development and redevelopment: 2 acres of disturbed area and 4 units
- Standard: Level 1 standards for all development and redevelopment

Should the Plan Steering Committee approve the TAC’s recommendations, the TAC further recommends that the Plan Steering Committee forward these recommendations on to the full Commission for their consideration.

4. Other Items

Jester requested that the cities prepare project fact sheets for current CIP projects. She will also make the request via email.

Carlson requested that the TAC further discuss XP-SWMM Phase II funding and timing.

The TAC meeting adjourned at 4:41 p.m. Next meeting is likely for March 6, 2014.

Future TAC Meeting agenda items:

1. Developing guidelines for annualized costs per pound pollutant removal for future CIP projects
Stream identification signs at road crossings
2. Blue Star Award for cities
3. Look into implementing “phosphorus-budgeting” in the watershed – allow “x” pounds of TP/acre.
4. Discuss issues/topics arising from Next Generation Plan process.



**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

Date: December 30, 2013

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

From: Lois Eberhart, BCWMC TAC Member, City of Mpls. Water Resources Admin.

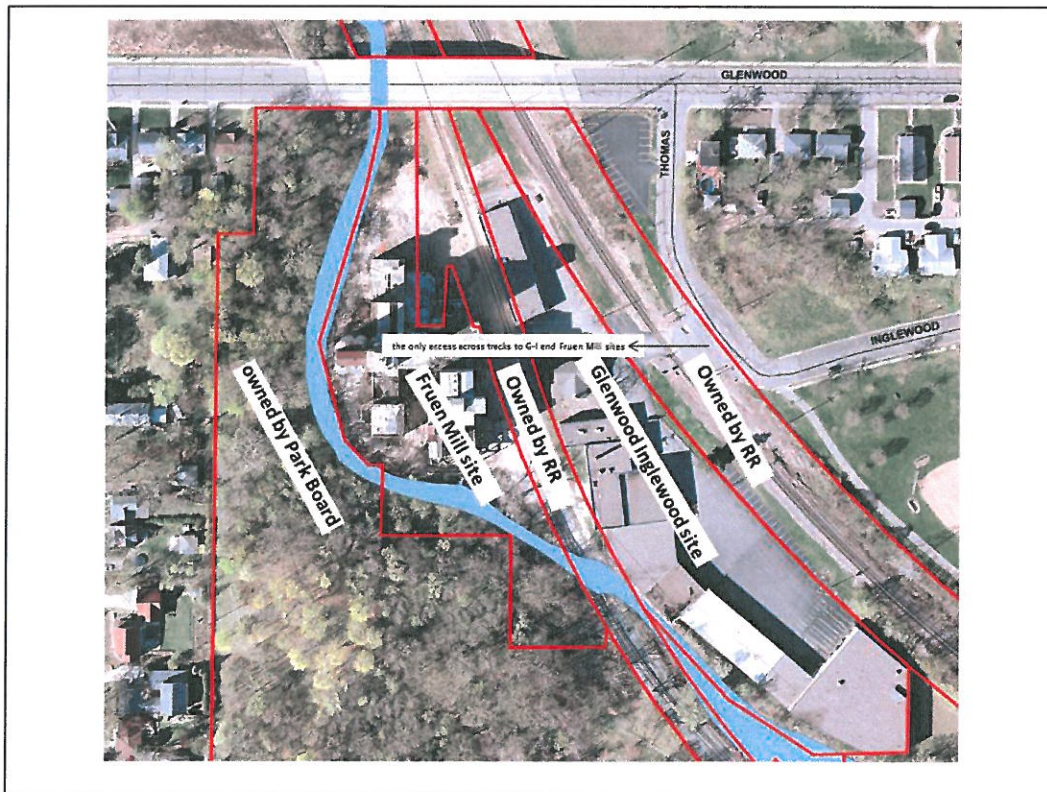
Cc: Andrea Weber and Cliff Swenson, Minneapolis Park & Recreation Board

Subject: Channel Maintenance Funds Request

The City of Minneapolis requests channel maintenance funds in the amount of \$26,747.50. These funds will supplement the existing \$856,000 grant for the Bassett Creek Main Stem Erosion Control Project. Redevelopment of the Glenwood Inglewood site was recently announced. This presents an unanticipated opportunity to carry out work in this area which was identified in the Main Stem Erosion Control Project Feasibility Study, but has access issues (see map below) which had been thought to impede work in this site. Access via the Glenwood Inglewood site may allow more feasible access to the Fruen Mill site as well, thus allowing the opportunity to work on both sites.

The timing is excellent because the additional work to be funded by the \$26,747.50 in Channel Maintenance Funds can be added with ease to the existing project being carried out in 2014 by the Minneapolis Park & Recreation Board, eliminating expenses that would be involved for a stand-alone project. The work will be guided by the Feasibility Study and subsequent engineering, and may include grading and shaping of banks, stabilization/removal or repair of existing retaining walls, limited use of boulders or rip rap where needed in the waterfall/riffle areas, vegetative stabilization, as well as temporary stabilization measures during construction.

Thank you for consideration of this request.



MEMO

CITY OF PLYMOUTH

3400 Plymouth Boulevard
Plymouth, MN 55447

DATE: November 12, 2013

TO: Ginny Black, Chair, Bassett Creek Watershed Management Commission

FROM: Derek Asche, Water Resources Manager

SUBJECT: FOUR SEASONS DRAINAGE IMPROVEMENT ALTERNATIVES

The Bassett Creek Watershed Management Commission (Commission) through their current Watershed Management Plan (2004) has set a phosphorus reduction goal of 73 pounds per year for Northwood Lake in New Hope. Additionally, Northwood Lake is listed as an impaired water body by the Minnesota Pollution Control Agency with a total maximum daily load (TMDL) anticipated in the next 10-15 years. May through October phosphorus concentrations in Northwood Lake are generally 2-3 times the State standard as measured through the Citizen Assisted Monitoring Program (CAMP) from 2000-2011 (see attached).

The feasibility study for the Four Seasons Drainage Improvement Project reviewed several alternatives for meeting the 73 pound phosphorus reduction goal with stream restoration and water quality ponding being selected as the most cost effective option (see attached). At their regularly scheduled meetings in September and October, 2013, the Commission requested additional alternatives analysis for the Four Seasons Drainage Improvement Project.

This memo is intended to summarize previous alternatives (Table 1) and to provide cursory analysis of additional alternatives (Table 2). The stream restoration and water quality ponding alternative was considered viable and moved forward to the design process while other alternatives were eliminated from consideration for various reasons. The cursory analysis assumes a project is technically feasible, however, the project may be impractical, un-permittable based on existing rules and regulations, ineffective, or other. Cost estimates provided are based on recent projects in Plymouth with the exception of the stream restoration and water quality ponding alternative currently proposed for which there is an engineers estimate.

Based on the alternatives presented in the feasibility study, the cursory analysis of additional options, and concerns brought fourth by residents in the area, it is recommended the Commission pursue a partnership with future development of the Four Seasons Mall site for construction of an alum injection facility. Should a partnership with future development be unachievable, it is recommended stream restoration and water quality pond be considered in the context of an approved Total Maximum Daily Load Plan.

Table 1. Alternatives analyzed in the Four Seasons Mall Drainage Improvement Feasibility Study.

Alternative	Estimated Cost	Comments
1. Pilgrim Park Storm Water Pond	NA	Eliminated from consideration based on high use of this area by residents.
2. Pilgrim Lane Elementary Pond	NA	Eliminated from consideration due to uncertainty with the school and unlikelihood the School Board would allow such a use.
3. 40 th Ave. Pond	\$400,000 ¹	Selected and approved by the Commission for design.
4. Four Seasons Mall Pond	\$290,000 ²	Selected and levied for by the Commission, however, would require a partnership with the property owner.
5. Channel Restoration	\$620,000 ¹	Selected and approved by the Commission for design.
6. Alum Injection Facility	\$1,200,000 ²	Feasibility determined this as a viable option to meet the 73 pound reduction goal, however, is was determined to be cost prohibitive when compared to ponding and channel restoration.
7. NB07 Wetland Conversion and Outlet Mod	NA	Eliminated from consideration as cost prohibitive due to limited effectiveness and wetland mitigation costs.
8. Infiltration	NA	Eliminated due to poor soils and limited effectiveness compared to drainage area.

1. From Engineers Estimate

2. From Feasibility Study

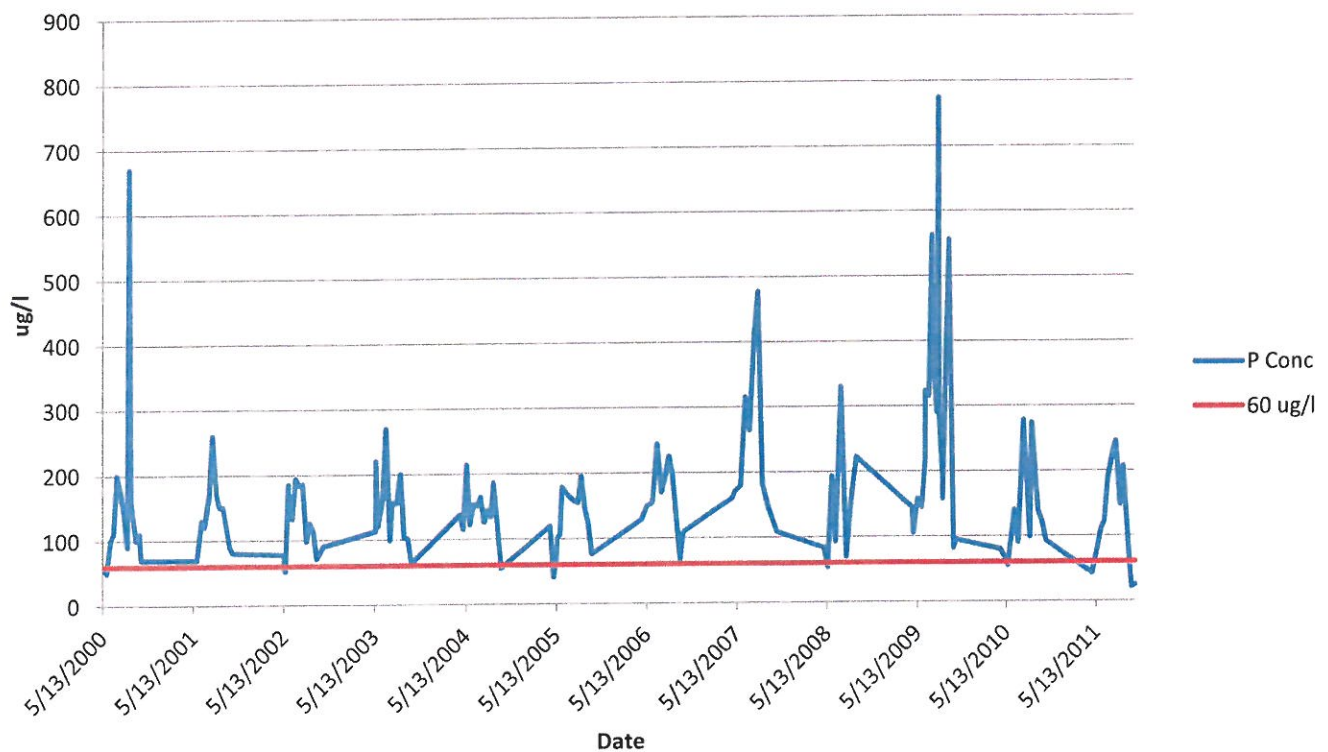
Table 2. Cursory review of Four Seasons Drainage Improvement project alternatives

Alternative	Estimated Cost	Comments
A. Ponding on East Side of Lancaster	\$1,344,000	Assumes 4 acres of wetland impact; 5 foot deep pond; 24,000 cubic yards of excavation (\$20/yd); non-contaminated soils; 8 acres of wetland mitigation; 20% eng/admin/cont. Modeling indicates pond would be ineffective due to high volumes.
B. Ponding on West Side of Lancaster	\$864,000	Assumes 2.5 acres of wetland impact; 5 foot deep pond; 16,000 cubic yards of excavation (\$20/yd); non-contaminated soils; 5 acres of wetland mitigation; 20% eng/admin/cont. Does not include channel restoration; P8 indicates removal of 45 lbs per year.
C. Rip Rap 3100 LF of channel	\$702,000	Assumes 500 trees removed at \$300 each; does not include water quality pond. Feasibility indicates P removal of 25 pounds per year; 20% eng/admin/cont.
D. Storm Sewer 3100 LF	\$754,800	Assumes 500 trees removed at \$300 each; does not include water quality pond; similar P removal of channel restoration of 25 pounds per year; 20% eng/admin/cont.
E. Water Quality Pond in Green Space	\$768,000	Assumes pond outlet of 925 (5 feet higher than proposed); Assumes pond sized as in feasibility study; Assumes 6 foot deep pond; 32,000 cubic yards of excavation (\$20/yd); non-contaminated soils; Feasibility indicates 59 lbs P removal.

Attachments: Northwood Lake P Concentration 2000-2011
Figure 3.1 Initial Project Identification Inventory
cc: CIM

Northwood Lake P Concentration 2000-2011

Citizen Assisted Monitoring Program



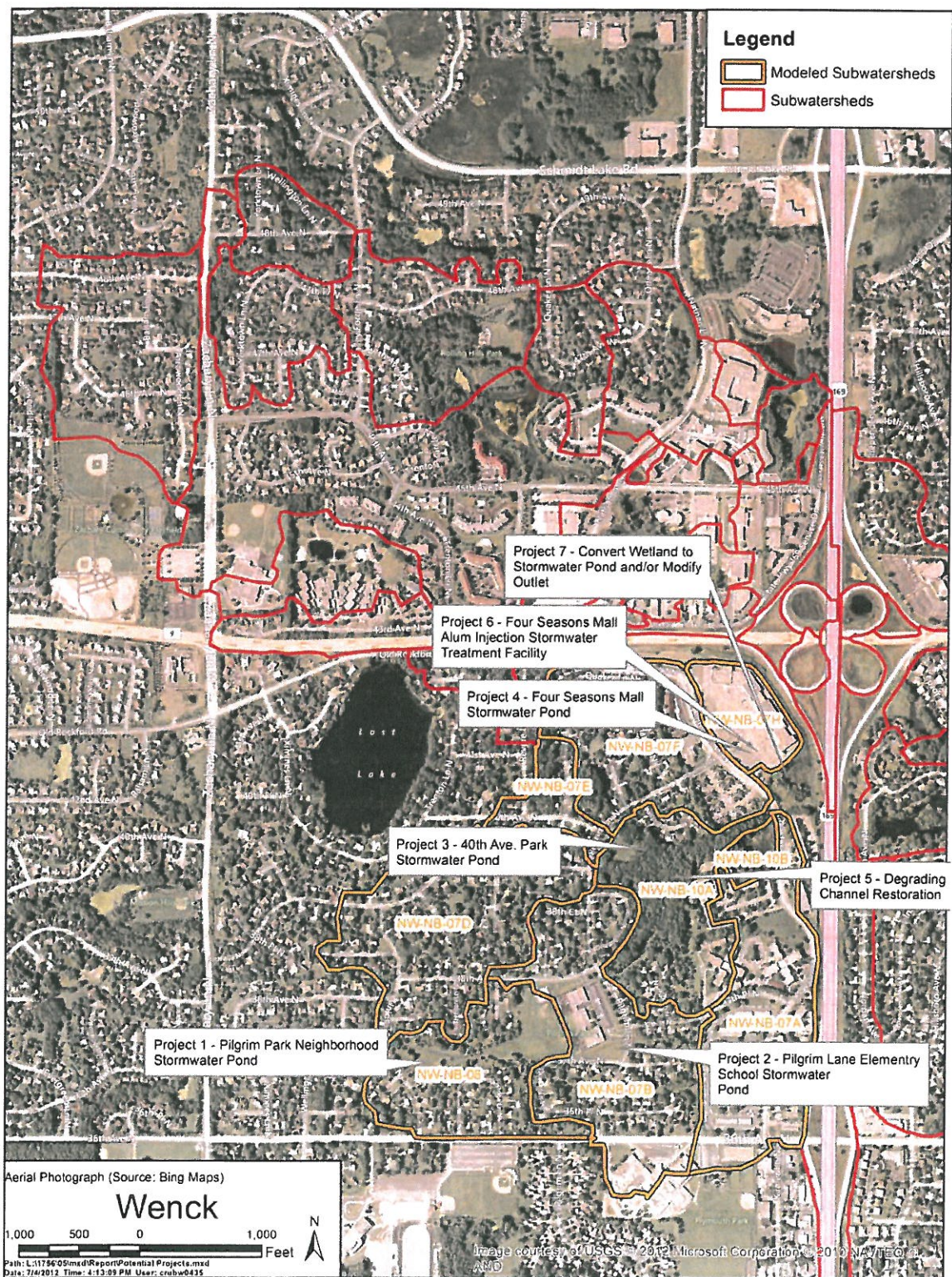


Figure 3.1. Initial Project Identification Inventory.



Bassett Creek Watershed Management Commission

Next Generation Plan Steering Committee

DRAFT Meeting Notes

4:30 p.m. ~ Monday December 16, 2013
Golden Valley City Hall

Attendees: Committee Chair Linda Loomis; Commission Chair Ginny Black; Commissioner Michael Welch; Alternate Commissioners Pat Crough and Lisa Goddard; TAC member Jeff Oliver; Engineer Karen Chandler; Administrator Laura Jester

1. Call Meeting to Order

The meeting was called to order by Chair Loomis at 4:40 p.m.

2. Approve Meeting Notes from November 18, 2013 Plan Steering Committee Meetings

There were no suggested changes to the notes from the November 18, 2013 meeting. Consensus to accept the notes as presented.

3. Next Steps for CIP Selection Criteria

The group reviewed the list of CIP selection criteria (including "gatekeeper questions") that resulted from discussions with the TAC and at the 11/18/13 Plan Steering Committee Meeting. Administrator Jester asked if a numeric or quantifiable ranking/rating system should be developed for use in conjunction with these criteria. The group discussed this idea; Mr. Oliver commented that not that many CIP projects are "lined up" so choosing which ones to select shouldn't be that difficult. The group also agreed that the four "gatekeeper" questions would automatically help give a sense of priority for each proposed project. Additionally, within the text of the Plan, it could state that "the more criteria met by the proposed project, the higher priority the project should be given."

There was some discussion about how projects that address water quality and flooding issues would be given highest priority. These two criteria are included in the four gatekeeper questions, so they do not need to be specifically called out.

There was consensus that no quantifiable or formal weighting system is needed for use with the CIP selection criteria; that the gatekeeper questions and the other ten criteria would be used in discussions during the CIP project selection process. The group approved revisions to criteria #8 to remove the italicized text and replace with the following text "Proposed CIP projects that address water quality and flooding concerns would be of higher priority."

There was also discussion about the Commission's primary focus of water quality and that with improving water clarity in lakes, aquatic plants usually increase. This could be an issue with some lake users as some people associate more plants with poorer water quality. There was consensus that the Commission's focus should be on improving water quality to meet State water quality

standards and that this is a higher priority than aquatic plant management and recreation. It was noted this priority should be stated in the Plan's Executive Summary and policies, and should be included in the Commission's outreach to the public. Additionally, the policies dealing with water quality should include a note about expected changes to aquatic plants with improvements in water quality.

4. Discussion of Groundwater Policies

Engineer Chandler distributed a "Groundwater Notes" document drafted by Greg Williams (Barr). The document summarizes the MDNR's draft Groundwater Management Strategic Plan, the possible impact of the strategic plan on BCWMC policies, and possible additional policies for the Plan Steering Committee to consider. Engineer Chandler reported that Williams had reviewed these strategies and considered some draft groundwater management strategies from another organization as well.

Draft policy #72 discussion: Engineer Chandler noted this policy may help to "fill in some gaps" and Commissioner Welch noted that, in general, the Commission's role with groundwater "open-ended" (not prescribed). There was discussion about the need for collaboration with other entities and possibly groundwater data collection. There was consensus that groundwater issues and management are still developing at various governmental levels and that the Commission may be able to help fill some roles. There was also recognition that active groundwater management is a new role for the Commission and will require Commission funding or grants.

There was consensus that policy #72, as written, allows the Commission to take the lead on a groundwater action plan or facilitates the discussion and forward action. With the addition of text to the third sub-bullet to also assess groundwater impacts of groundwater use, there was consensus to accept policy #72.

Commission Chair Black also noted that much background information (education) will be needed with the Commission when discussing draft groundwater policies.

Draft policy #71 discussion: Discussion centered around dewatering activities – both long term (or permanent) and temporary (typically for construction activities). One comment: there is a big gap with respect to dewatering regulation. However, it was noted that the new MS4 permit addresses construction-related dewatering for projects greater than one acre. There was discussion about the possibility for the Commission to review dewatering proposals that extend over a longer time frame. There was also acknowledgment that groundwater management is an evolving issue at the State with much attention right now and that it's not clear if dewatering is an issue. There was consensus to add a term like "consider" or "may" to policy #71 to leave the option open for the Commission to address in the future.

Draft policy #70 discussion: The group had no suggested changes to the draft policy but there was discussion about what MDNR appropriation permits are currently reviewed by the Commission. The group also wanted more information regarding whether the Commission receives appropriation permit applications for review/comment. There was also discussion on the fact that Hennepin County does not have a groundwater management plan. Commissioner Welch volunteered to contact County staff to discuss that situation.

Draft policy #74 discussion: The group noted that wellhead protection and well sealing are already State requirements with State certified contractors. There was consensus that there was very little or no Commission role in this issue and the policy should be deleted.

Draft policy #77 discussion: The group discussed the need for pond and other stormwater BMP construction to follow certain guidelines to protect groundwater from contamination. The group discussed using the same language as the NPDES construction permit but with a lower trigger. The group agreed that the policy should be rewritten to address: 1) whether stormwater infiltration practices are appropriate/allowed at a particular location; and 2) if allowed/appropriate, the design criteria/guidance that should be applied to stormwater infiltration practices. The policy should reference the NPDES Construction Stormwater Permit, the MIDS guidance, the MN Department of Health guidance.

Draft policy #79 discussion: The group acknowledged that Golden Valley, New Hope and Crystal do not use groundwater for drinking water and probably don't (and wouldn't) provide education on groundwater quality or quantity protection to residents. There was consensus the policy should be changed to "encourage" education rather than requiring education. Golden Valley staff indicated, however, that the city has several piezometers that are monitored for as part of their Inflow and Infiltration control efforts. The group thought that data may be valuable to the Commission or State agencies.

Additional policies considered (see "Groundwater Notes" handout)

The group discussed the first possible additional policy and agreed that a policy should be added that asks the cities to share groundwater data.

The group discussed the second possible additional policy and decided such a policy is not needed, as policy #72 would lead to such an action (if needed).

5. Discussion of Erosion and Sediment Control Policies

The group agreed draft policies #60 and #65 should be combined. These activities are already being performed by cities and they are not controversial.

Draft policy #61 discussion: There was discussion about the types of ordinances that would be reviewed by the Commission. It was noted that every city does zoning codes differently. Mr. Oliver noted that Golden Valley's stormwater management ordinances already mirror the Commission's requirements. Engineer Chandler indicated the Commission might be more concerned with zoning in floodplains and wondered if every city was appropriately following Commission rules, such as building elevations. The group also expressed concerns about reviewing the cities' comprehensive plans – what benchmarks would the Commission use to review the plans? Some also wondered what other watersheds are doing with regards to ordinance and comprehensive plan reviews. The group thought the policy could be re-worded to leave open the possibility of reviewing ordinance changes and/or comprehensive plans. Engineer Chandler will bring a reworded policy back to the Committee.

Draft policy #64 discussion: Engineer Chandler noted this policy is a significant shift in Commission activity and requires cities to perform erosion control inspections rather than the Commission. Cities are required by the State to perform these inspections and report permits issued and corrective actions to the State. The group recommended that the policy be revised to require annually reporting to the Commission – i.e., the cities could submit their annual MS4 reports regarding erosion control permits, inspections, and monitoring and possible problems in the watershed.

Draft policy #69 discussion: Engineer Chandler noted this draft policy is a result of an issue identified in the Gaps Analysis. There was discussion about whether or not this was an appropriate practice for the Commission, whether Commission funds should be spent on dredging sediment deltas and the exact definition of “sediment delta.” There was consensus that deltas formed as a result of sediment discharged from storm sewer pipes could possibly be addressed by the Commission. The policy should be reworded to indicate this activity “may” be funded by the Commission and/or the Commission may facilitate collaboration amongst responsible parties to dredge sediment deltas. It was also noted that this activity could be included in the Commission’s CIP.

6. Next Meeting and Adjourn

The next meeting of the Plan Steering Committee is scheduled for Monday January 27th at 4:30 – 6:30 p.m.

Meeting adjourned at approximately 6:30 p.m.



Bassett Creek Watershed Management Commission

Next Generation Plan Steering Committee Meeting Notes

4:30 p.m. ~ Monday November 18, 2013
Golden Valley City Hall

Attendees: Committee Chair Linda Loomis; Commission Chair Ginny Black; Commissioner Clint Carlson (partial attendance) Alternate Commissioners David Tobelmann and Pat Crough; TAC members Jeff Oliver and Joe Fox;; Engineer Karen Chandler; Administrator Laura Jester

1. Call Meeting to Order

The meeting was called to order by Chair Loomis at 4:32 p.m.

2. Approve Meeting Notes from October 18, 2013 Plan Steering Committee Meetings

There were no suggested changes to the notes from the October 18, 2013 meeting. Consensus to accept the notes as presented.

3. Plan Development Budget

Administrator Jester and Engineer Chandler updated the group on the status of the budget for the Plan. They indicated a possible \$8,000 budget shortfall in the policy development task. The savings realized from tasks completed earlier under budget have already been utilized. The scope of discussions continues to be more involved and detailed than initially budgeted. They are trying to defray some costs by having Administrator Jester assist more with drafting policies. They will continue to monitor the budget.

The group accepted this information and indicated this information should be reported to the Commission at their November meeting.

4. Determine Commission Priority Waterbodies

The group reviewed the staff-recommended highest priority, secondary priority waterbodies, and lower priority waterbodies. There was discussion about what the priority levels meant and if constructed ponds should be included in the table at all. Administrator Jester noted the highest priority waterbodies would be those monitored by the Commission and those where the Commission would put the most effort and funds for improvement. The group was concerned that the public's expectations for management of lower priority waterbodies (like constructed stormwater ponds) might be unrealistic. It was decided this waterbody priority table would not be included in the Watershed Plan. Rather, the Plan would include a list of priority 1 (highest) and priority 2 (secondary) waterbodies. All other waterbodies would not be the focus of the Commission. There was discussion about whether the priority waterbodies should be further classified or ranked with more criteria. The group decided the process for ranking CIP projects would automatically create another layer of ranking.

After discussion, the group agreed with staff's recommended rankings for the highest priority waterbodies. The group asked that the TAC review the list of secondary priority waterbodies.

There was also discussion about maps in the Watershed Plan. The group agreed the map should note all public waters and wetlands for informational and inventory purposes.

5. Discuss CIP Project Selection Criteria and Possible Weighted Ranking System

The group discussed the pros and cons of the possible CIP project selection criteria included on the agenda. There was discussion about the possible need for a "gatekeeper" question such as "Is the project part of the trunk system?" There was some explanation of past CIP projects that only focused on the trunk system but that some good projects were excluded from Commission funding due to this policy.

The group agreed that the "estimated costs per pound of pollutant removal" would not work as a criterion because those details are developed at the feasibility study point in the process. (CIP project selection is too early to know that level of detail.) The group also agreed that the "subwatershed draining to project is XX acres" should be removed from the list of criteria. Other changes were discussed and suggested for the list of criteria, including addition of "addresses significant infrastructure or property damage concerns" to the list. The group also agreed that in general, proposed CIP projects that address water quality and flooding concerns should rank the highest.

The group agreed on four "gatekeeper" criteria; one would have to answer yes to one of the four criteria (questions) before the project could be considered for BCWMC funding. The four gatekeeper criteria are:

- Project is part of the BCWMC trunk system
- Project improves water quality in a priority waterbody
- Project addresses an approved TMDL
- Project addresses flooding concern

The other remaining criteria would be used to weigh the merits of the proposed CIP projects.

There was discussion about the possibility of the Commission cost sharing (rather than fully funding) some smaller projects or those that rank lower in the criteria. Mr. Oliver noted he thought it was more cost-effective to fully fund a few large projects than partially fund many smaller projects. He noted it might be difficult for a city to spread the money over multiple projects. There was further discussion about possibly using a different funding formula for lower ranked projects or for secondary priority waterbodies.

In the end there was consensus to not utilize a cost sharing formula, but to only fully fund projects as is current practice.

Suggested changes to the CIP selection criteria will be incorporated into a final proposed list and could be re-reviewed by the TAC, if desired.

6. Discuss BCWMC Standards, Triggers, and Review Process

Engineer Chandler walked through the tables showing standards and triggers for the MS4 permit, NPDES general stormwater permit, minimal impact design standards (MIDS) (guidelines), and the

current BCWMC water quality requirements for improvements and development proposals. There was discussion about the merits of the various requirements. Mr. Oliver noted that the current BCWMC process of administrative review works well for most projects and is very helpful in certain cases. The group noted that the current BCWMC standards and triggers are fair and equitable and they do not put undue pressure on developers. It was noted that higher standards would be more difficult for redevelopers to meet so they may not undertake a project at all and thus losing an opportunity to improve water quality. The point was also made that it is less expensive to perform water quality treatment now rather than waiting for a larger, more difficult problem in need of fixing in the future.

There was some discussion about including a volume standard. Mr. Oliver noted that infiltration is very difficult within Golden Valley and also involves issues of inflow and infiltration which are difficult to manage. Engineer Chandler noted there are “off ramps” in the MIDS that offer caveats when infiltration is not possible. Chair Loomis also suggested that projects in different soils could have different volume standards.

There was acknowledgement that small “in-fill” developments are difficult to get water quality/quantity benefits. And, developers of larger projects might do smaller pieces incrementally to avoid triggers.

Engineer Chandler noted the Commission is in a difficult spot with regards to updating its standards and triggers due to the large changes in State requirements.

There was a general feeling that either lower thresholds or some volume standard may be appropriate for the Commission. The group agreed that improving water quality/quantity during redevelopment was the key in this watershed, especially in larger commercial and industrial areas.

The group agreed to send the issue to the TAC to discuss and make recommendations to the Plan Steering Committee. Specifically, the committee wants to know if a ½-acre development is too small to review. Other ideas included using the ≥ 1 acre land disturbance trigger from the MS4 permit (rather than the 1 acre new impervious trigger from the construction permit) and the volume control standard from the construction permit (1.0 in) or MIDS (1.1 in). Another idea discussed was for the BCWMC to use a lower trigger that would require adherence to BCWMC standards, but a higher trigger could be required for a BCWMC review. The group also wondered what other watersheds or communities are doing for standards and criteria.

7. Discuss Schedule and Agenda for Next Plan Steering Committee Meeting

The committee will discuss the schedule for the next Commission workshop at the next meeting.

The next meeting of the Plan Steering Committee is scheduled for Monday December 16th at 4:30 – 6:30 p.m.

Meeting adjourned at approximately 6:30 p.m.



Bassett Creek Watershed Management Commission

December 3, 2013

RE: Role of BCWMC in Addressing Issues on Medicine Lake

Dear Medicine Lake Stakeholder:

As you know, the Bassett Creek Watershed Management Commission (Commission) has been working to understand and respond to concerns from groups and residents regarding late season low water levels on Medicine Lake for several years (see attached). Through recent correspondence and meetings with various stakeholders like you, the Commission has determined that multiple issues exist within the lake that may affect various aspects of the lake and its uses including recreation, water quality, swimming, boating, fishing, and aesthetics.


The Commission is committed to continuing to understand the issues within the lake and the Commission will continue to play a role in facilitating information gathering and dissemination. However, the Commission also asks stakeholders to understand that the Commission may not ultimately be the implementer or funder of potential future projects, particularly those with the primary purpose of improving recreation. The Commission's primary goals include improving water quality and addressing flooding concerns within the watershed.

At their meeting on November 20, 2013 the Commission approved these actions as a way to progress in its role as facilitator:

1. Continue to gather information from all stakeholders on the issues within the lake, where they are occurring, what uses are being impacted and how each stakeholder prioritizes the issues.
2. Direct Commission Engineer to develop a list of components needed to study raising water levels and a ballpark figure for completing such a study in order to inform the issue.
3. Host a large meeting or summit of all stakeholders early in 2014 (facilitated by a third party) in order to:
 - a. Share information and ideas
 - b. Dispel miscommunication
 - c. Hear from experts to learn more about various issues and how they could be addressed
 - i. TRPD – swimming, swimmers itch, boat launches, vegetation
 - ii. Barr – components of a study to raise the dam
 - iii. Minnehaha Creek Watershed District – variable weir on Lakes Minnetonka and Nokomis
 - iv. ??? – lake dredging
 - d. Decide together on the next possible steps

The Commission looks forward to cooperating with you on these actions. Please let me know if you have any questions or comments at this point.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laura Jester".

Laura Jester
Administrator

CC: BCWMC Commissioners and Alternate Commissioners
City of Medicine Lake – Clerk, Mayor Holter, Councilmembers
City of Plymouth – Derek Asche
Three Rivers Park District - John Barten
AMLAC – Julie Rumsey, President
Hennepin County – Randy Anhorn



Bassett Creek Watershed Management Commission

History of Medicine Lake Water Level Issue with BCWMC (Compiled for 9/18/13 Administrative Services Committee Meeting)

October 2009: Memo from BCWMC to AMLAC on recent low water levels. Barr prepared a memo that reported on lake levels throughout the metro area as well as precipitation data. The memo also noted the level of the dam would not have an effect on the drought conditions in the lake.

June 2010 BCWMC Meeting: Responding to a request from the City of Medicine Lake to conduct hydrologic/hydraulic analysis and environmental assessment of the Medicine Lake Dam at Bassett Creek. The Commission directed Barr Engineering to meet with the Medicine Lake City Council regarding the issue and to provide an estimate of costs for further study.

August 2010 BCWMC Meeting: Memo provided by Barr reported on the meeting with Medicine Lake. There was discussion about forwarding the issue to the Technical Advisory Committee. However, the Commission took a motion to not forward the issue to the TAC. (In the past, the TAC recommended the dredging of Medicine Lake to improve water quality and provide better access not be added to the Commission's CIP program.)

November 2011: Written request from AMLAC to create a document that combines all pertinent data and information regarding the dam for broadcast among residents so that facts could be succinctly and accurately conveyed.

January 2012 BCWMC Meeting: In response to the above request, some discussion but tabled to March 2012 meeting.

March 2012 BCWMC Meeting: Much discussion about the Commission's role in this issue related to the priorities of the organization (flood control and water quality) and which entity should be responsible for contacting the DNR about the project. No action taken.

August 2012: Request from AMLAC to install controllable weir at ML dam (via email).

October 2012 BCWMC Meeting: Information presented on the dam and history of the water level issue. BCWMC discussed the issue and recommended that AMLAC work with cities of Plymouth and Medicine Lake and Hennepin County to discuss and determine "hurdles" before bringing a proposal to the BCWMC because conversations with those entities pre-empt the Commission. The Commission also noted that communication with the DNR is vital.

June 2013 Watershed Summit and Survey: The majority of the attendees prioritized the dam issue as their most important issue in the watershed. Multiple survey respondents commented on the degraded recreational capacity of Medicine Lake and low water levels.

Bassett Creek Watershed Management Commission

7800 Golden Valley Road | Golden Valley, MN 55427 | www.bassettcreekwmo.org | Established 1968

Crystal | Golden Valley | Medicine Lake | Minneapolis | Minnetonka | New Hope | Plymouth | Robbinsdale | St. Louis Park

DRAFT Letter to Editor or Guest Column in Sun Sailor, Plymouth

I ~~was disappointed to see~~would like to respond to Council Member Mark's December 5th letter in the Sun Sailor ~~which included inflammatory remarks~~ regarding the issue of water levels in Medicine Lake. I would like to present a ~~more factual~~different perspective on the matter.

The Bassett Creek Watershed Management Commission is , in fact, concerned about ~~not ignoring the issue of~~ water levels on Medicine Lake. ~~In fact, the~~The Commission discussed the issue at three of its Commission meetings in 2012, held three separate meetings on this issue in 2013 and had numerous discussions at the Commissions monthly meetings. All of these meetings were open to the public; representatives from the City of Medicine Lake were present at all of them. In addition, the Commission received and responded to many e-mails from residents of both Medicine Lake and Plymouth outlining a variety of issues.

~~Despite all of these meetings and communications, the exact nature of the problem is still unclear. It seems that t~~The most commonly voiced theme is that the water levels in the lake is~~are~~ too low ~~at during~~ some points in the year to allow ~~for~~ residents and non-residents users of the lake to ~~get their boats out on the lake and~~ enjoy Medicine Lake's the recreational opportunities ~~that lakes generally provide~~swimming, fishing and boating. The aesthetics of the lake are also diminished.

Possible solutions offered to correct this problem have been many and varied ranging from raising the height of the dam to hold more water in the lake permanently, to constructing a dam that allows the release of water more slowly thereby keeping the water level higher for some unspecified period, to constructing an adjustable dam that would maintain higher typical water levels but release more during high water events, to dredging channels from the shallower parts of the lake to the deeper parts of the lake.

Various stakeholders have raised sStill other concerns ~~have been raised by various stakeholders~~ including aquatic invasive species, the shallowness of the boat ramp at French Regional Park, sedimentation in the south bay of the lake contributing to aquatic plant growth, and aquatic plants in the middle of the lake impeding recreational activities.

Some stakeholders have expressed concerns over raising the water level, as their properties are in the current flood plain or very close to the flood plain, and they are concerned that raising the water level, even on a temporary basis, might expose their properties to a greater risk of flooding. Other stakeholders downstream of the lake have expressed concerns thta the creek will be dry more frequently and that the new baseflow may negatively affect the aquatic ecology.

Conversations I have had with MN DNR staff have clarified that any project that results in holding more water in the lake, be it changing the current dam structure or some other type of project, would require a considerable amount of study. Those studies would entail, at a minimum, the need to look at the in-lake impacts ~~in-lake~~, the impacts to properties surrounding the lake, and the impacts to properties and infrastructure downstream of the lake, etc.

Additionally, if changes to the current dam structure or a new dam structure are proposed, there would be engineering costs to design the new structure and of course, construction costs. Although the Commission is currently researching the components and possible costs of these studies, it's likely they

will considerably higher than the construction cost of the Lake Nokomis dam structure of \$73,000 identified by Council Member Marks.

The BCWMC Commissioners are taxpaying volunteers that work very hard to control the Commission's costs, while accomplishing the goals of the Commission to prevent property damage from flooding and improve the water quality of the lakes and streams within the watershed. Contrary to Council Member Marks' letter, the Commission's finances and funds are not flush with extra money. The funds include the operating budget of the Commission that is earmarked for on-going projects and programs; the long term funds designated to maintain flood control structures and provide emergency maintenance as needed; and Capital Improvement Project funds for large multi-year construction projects that are in various stages of completion.

The Commission is committed to continuing to facilitate a discussion about water levels and other issues facing Medicine Lake with all stakeholders. To that end, the Commission is planning a large meeting in early 2014 to bring together all stakeholders and regulators to discuss the issues, hear from each other directly, and learn more about all the challenges facing Medicine Lake. Based on this discussion, we hope to arrive at a strategy and timeline for moving forward, for analyzing our options, and for determining who will be responsible for both implementing and operating the changes, if any, to Medicine Lake's outlet flow controls.

Sincerely,

Ginny Black, Chair
Bassett Creek Watershed Commission

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: 6Ciii Update on Medicine Lake Water Level Issue—List of Components and General Budget for Study of Outlet Modifications
BCWMC January 16, 2014 Meeting Agenda
Date: January 8, 2014
Project: 23270051.34 2013

6Ciii Update on Medicine Lake Water Level Issue— List of Components and General Budget for Study of Outlet Modifications

Recommendations:

1. For information and discussion.

Background

At their November 20, 2013 meeting, the Commission discussed the Medicine Lake water level issue and approved the administrator's recommendations for moving forward. One of the administrator's recommendations was for the Engineer to pull together information to determine the components and "ballpark" costs of a study on possible alterations to the Medicine Lake outlet structure (dam). Per the Commission's approval of the administrator's recommendations, the Engineer developed a list of the likely components of such a study, along with a "ballpark" planning level budget estimate to perform the work.

Study Components and Planning Level Budget Estimate

Medicine Lake area residents have requested that the Commission study modifying the existing outlet structure to increase the normal water level of Medicine Lake by six inches. Modifying the outlet structure will change the overall hydraulics and dynamics of Medicine Lake and Bassett Creek and could have the following hydraulic impacts that must be considered:

- Increased normal water elevation of Medicine Lake.
- Increased flooding on Medicine Lake and on Bassett Creek, downstream of the lake (a number of homes are in the floodplain of Medicine Lake and Bassett Creek).
- Increased flowrates out of Medicine Lake and in Bassett Creek.

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: 6Ciii Update on Medicine Lake Water Level Issue—List of Components and General Budget for Study of Outlet Modifications
BCWMC January 16, 2014 Meeting Agenda
Date: January 8, 2014
Page: 2

The table below summarizes the tasks and a planning level budget estimate..

Task	
1	Establish 3 -4 alternative lake outlet modifications to be analyzed.
2	Perform hydrologic and hydraulic modeling of the 3-4 lake outlet modifications to determine: <ul style="list-style-type: none">• Changes in the 10-year, 50-year, and 100-year water surface elevations for Medicine Lake• Changes in peak flow rates out of Medicine Lake during different storm events• Changes in water surface elevation in Bassett Creek as a result of changes in flow rate• The time it takes for the lake to return to its normal water level after a storm event
3	Evaluate the changes in Medicine Lake and Bassett Creek water surface elevations, length of time Medicine Lake is elevated, and peak flow rates discharging from Medicine Lake and in Bassett Creek.
3	Prepare technical memorandum
4	Coordination and meetings
Total Estimated Budget: \$40,000 - \$50,000	

As noted above, the first task is to establish the lake outlet modifications to be analyzed. Options likely to be analyzed include:

- Increase normal water level by six inches (base option)
- Increase normal water level by six inches and install an adjustable weir
- Increase normal water level by six inches and install longer weir
- Pumping, likely in conjunction with one of the above options

Another major option would be managing the lake to a higher flood elevation, which could include easement acquisition, floodproofing and/or buying out homes. This option is not part of the hydrologic and hydraulic study tasks listed above.

If the current XP-SWMM model is used for this evaluation, relative changes in flow rate and water surface elevation could be calculated when modeling the lake outlet modification alternatives. If the evaluation used the updated, more detailed (future/Phase 2) XP-SWMM model, then absolute changes in flow rate and water surface elevation could be calculated. Absolute changes in water surface elevation would be needed to identify the impacts of higher water levels on individual properties (this work is not included in the hydrologic and hydraulic study tasks listed above).

There are a number of other impacts that need to be considered before any modifications to the Medicine Lake outlet are pursued. Some of these considerations are listed below for discussion purposes, but they are not included in the above overall planning level budget estimate.

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: 6Ciii Update on Medicine Lake Water Level Issue—List of Components and General Budget for Study of Outlet Modifications
BCWMC January 16, 2014 Meeting Agenda
Date: January 8, 2014
Page: 3

- Biological impacts of higher water levels on Medicine Lake, including impacts on aquatic plants and adjacent wetlands. During a recent meeting with Three Rivers Park District staff, they indicated their concerns about the potential impact of higher lake levels on aquatic vegetation (especially bulrush) and wetland saturation, and that a study would be needed to understand these impacts.
- Raising the normal water level of the lake would also likely change the ordinary high water level of the lake (this is the elevation where the vegetation around the lake changes from predominantly aquatic to predominantly upland); the Minnesota Department of Natural Resources (MDNR) may be concerned about this.
- Impact of higher Medicine Lake normal water levels on the functionality of stormwater BMPs located immediately upstream of the lake (e.g., at West Medicine Lake Park and East Medicine Lake Park).

There are likely other biological/environmental impacts that would need to be assessed. In addition, the MDNR permitting process for such a project could be quite extensive.

Continuous hydrologic and hydraulic modeling may be required to estimate how long the lake will remain elevated compared to existing conditions, and may be useful in analyzing some of the above additional impacts. While the XP-SWMM model can be used to perform continuous modeling, the modeling methodology used by the current model would need to be modified to support continuous modeling, and the updated (Phase 2) XP-SWMM model would need to be completed before the model could be used to perform continuous modeling.

To understand the impacts of higher Medicine Lake water levels on BMP functionality would require coordination with Plymouth staff, review of the BMP design documents and review of the hydraulic (XP SWMM) analysis. However, because the current XP-SWMM model does not include the upstream BMPs, the updated (Phase 2) XP-SWMM model would need to be completed before the model could be used to review the hydraulic functionality of the upstream BMPs.



Bassett Creek Watershed Management Commission

MEMO

TO: Bassett Creek Watershed Management Commissioners

FROM: Laura Jester, Administrator

DATE: January 8, 2014

RE: Compiled Responses from Stakeholders on Medicine Lake Issues

The following stakeholder groups were asked to answer four questions related to issues facing Medicine Lake: City of Medicine Lake, City of Plymouth, Association of Medicine Lake Area Citizens (AMLAC), Three Rivers Park District (TRPD), and Hennepin County.

Questions posed:

What problems exist in Medicine Lake?

Where are these problems occurring within the lake?

What use is impacted by each problem (e.g. swimming, boating, fishing, aesthetics)?

How would you rank each problem in order of importance/priority?

Responses:

City of Medicine Lake - via email from Mayor Holter (10/16/13)

It really is on behalf of Medicine Lake, not the City of Medicine Lake. French Park has in excess of 40,000 visitors annually most likely drawn by the allure of proximity to Medicine Lake. Medicine Lake was a key pride factor in Plymouth residents' eyes when the #1 place to live in America announcements were made. The problems that exist in Medicine Lake are excess vegetation and low lake water level. Ranking these problems by activity is near impossible; we believe all uses are equally impacted.

City of Plymouth – staff perspective via email from Derek Asche (11/21/13)

Existing problems in Medicine Lake include:

1. Water Quality Impairment
2. Infrastructure flooding at High Water Level
3. Potential for flooding of low laying private properties

City of Plymouth – Excerpt from minutes of Special Meeting of the City Council (10/29/13)

The majority of the Council stated they don't support raising the dam for recreational purposes.

AMLAC – see attached letter (10/22/13)

TRPD – *from meeting (12/4/13)*

TRPD staff listed the following issues, in order of priority:

1. Improve Water Quality
 - a. Lower total phosphorus concentrations
 - b. Lower bacteria at the beach (requires goose management)
2. Revisit Comprehensive Vegetation Management Plan – particularly with the goal of expanding and protecting the bulrush beds and other native plants.
3. Prevent Introduction of New AIS
4. Protect Ecological Function in Balance with Recreational Uses

Hennepin County – *staff perspective via email from Randy Anhorn (1/8/14)*

What problems exist in Medicine Lake?

Existing impairments (as listed on 303d), nutrients, chloride, and mercury in fish tissue.

Where are these problems occurring within the lake?

Whole lake.

What use is impacted by each problem (e.g. swimming, boating, fishing, aesthetics)?

Nutrients : Poor water quality, increased algal blooms (which in the case of B-Gs can be toxic) that impacts all that listed above

Chlorides : The accumulation and persistence of chloride poses a risk to the water quality and the plants, animals, and humans who depend upon it.

Mercury in fish tissue: Fish consumption—human health

How would you rank each problem in order of importance/priority?

I would rank all three similarly, however, we have the ability to remediate nutrient and chloride loading to the lakes (resulting in delisting) more so than fish consumption issues.



Bassett Creek Watershed Management Commission

MEMO

Date: January 8, 2013
From: Laura Jester, Administrator
To: BCWMC Commissioners
RE: **Administrator's Report**

Since the December Commission meeting, I spent time coordinating and attending various meetings, and responding to issues including correspondence and coordination for the following:

- Corresponding with representatives of a Sweeney Lake homeowner regarding a request for an educational sign
- Preparing for the January TAC meeting
- Drafting Plan Steering Committee meeting minutes
- Assisting with coordinating XP-SWMM model tutorial
- Drafting December Commission meeting minutes
- Assisting with letter regarding Medicine Lake water level issue, compiling stakeholder issues
- Attending MPCA Presentation on Water Quality Standards
- Preparing for January Commission meeting including drafting agenda, compiling materials, and reviewing invoices, contracts, reimbursement requests, technical memos, etc.

The following table provides detail on my activities December 1 - 31.

<p>Administration – Correspondence, informational meetings, general administration:</p> <p>Phone and email correspondence with various Commissioners, TAC members, consultants and other partners including: S. Virnig, J. Oliver, K. Chandler, A. Herbert, C. LeFevre, Chair Black, D. Asche, J. de Lambert, L. Goddard, C. Carlson, residents, developers, Friends of Bassett Creek, state agencies</p> <p>Coordination of various projects, meetings, and programs including Medicine Lake: surveying stakeholders, drafting and distributing Commission plan for facilitating continued discussions, coordinating meeting with Three Rivers Park District and drafting meeting notes, commenting on draft letter from Chair Black; coordinating XP-SWMM tutorial; working with A. Herbert to improve website; attending internal process improvement meeting; responding to resident concerns and coordinating meeting regarding Sweeney Lake outlet; coordinating with resident regarding educational sign at Sweeney Lake; attending presentation on MPCA's water quality standards and strategies; etc.</p> <p>Administration – Meeting attendance:</p> <p>12-4-13 Meeting with Three Rivers Park District re: Medicine Lake</p> <p>12-19-13 Commission Meeting</p> <p>Administration – Preparing agendas, meeting materials, meeting notes, follow up:</p> <p>Develop meeting agendas and materials and review relevant documents for BCWMC meeting, review meeting notes, perform follow up tasks; develop agendas and materials for January TAC meeting</p> <p>Administration - Watershed Management Plan Development:</p> <p>Review draft policies; develop and distribute agenda and meeting materials; attend 12-16-13 Plan Steering Committee meeting; draft meeting notes for 12-16-13 and 11-20-13 meetings</p>

In the coming month, I plan to work on the following items:

- Assist with preparations and follow up tasks for Commission and committee meetings
- Assist with development of educational sign on Sweeney Lake, if directed
- Assist with development of watershed map
- Research other organizations' budget carry over policies and prepare recommendation for Commission policy
- Attend XP-SWMM tutorial
- Assist the Board of Water and Soil Resources with staff interviews for Bassett's new Board Conservationist (at BWSR request)
- Work on fiscal year-end items with Deputy Treasurer
- Continue gathering input of Medicine Lake issues and work towards hosting a large stakeholder meeting
- Work to post pertinent Watershed Plan Development materials and current CIP project information online
- Continue to gather and post materials for new Commissioners
- Begin developing financial policies

Memorandum

To: Brooke Asleson and Pam Anderson, MPCA
From: Greg Wilson, Barr Engineering
Subject: Wirth Lake Delisting
Date: December 26, 2013
Project: 23/27-0051
cc: Karen Chandler, Barr Engineering and Laura Jester, Bassett Creek Watershed Management Commission (BCWMC)

Wirth Lake has shown significant water quality improvement in recent years. The TMDL report was approved in 2010 after the lake was originally listed for excess nutrient (phosphorus) impairment.

It is understood that to be listed on the Minnesota Pollution Control Agency's (MPCA) 303(d) Impaired Waters List, the 10-year average of the growing season (June-September) for the causal factor (total phosphorus (TP)) must exceed the established water quality standard along with either one or both of the dependent factors (chlorophyll-*a* (chl-*a*) and Secchi depth(SD)). However, for Wirth Lake, the average of the most recent 10-years of water quality data would suggest that the lake is currently meeting the established water quality standards and/or no longer meet the MPCA 303(d) Impaired Waters listing criteria and should be removed the 303(d) list.

The following summarizes the historic water quality data for Wirth Lake including trends in the observed water quality and also discusses the potential factors that may be contributing to the improved water quality and continued protection of good water quality in Wirth Lake. Because the observed water quality in a lake can vary significantly throughout the seasons as well as from year to year; the long term (10-year average) is used in determining the overall trophic status of a lake and statistical analyses are used to evaluate water quality trends over time. Trend analyses of the data were performed using a Mann-Kendall analysis of the statistical significance of the trends at the 80, 90 and 95 percent confidence levels. For a trend to be statistically significant, the trend must be significant at the 95 percent confidence interval and must show significant improvement in water quality for all three parameters (TP, chl-*a*, and SD).

To: Brooke Asleson and Pam Anderson, MPCA
From: Greg Wilson, Barr Engineering
Subject: Wirth Lake Delisting
Date: December 26, 2013
Project: 23/27-0051
cc: Karen Chandler, Barr Engineering and Laura Jester, Bassett Creek Watershed Management Commission

Historic Water Quality

Wirth Lake is a 38-acre deep lake with a maximum depth of 26 feet. Historic water quality for the lake indicates that the water quality in Wirth Lake has been steadily improving. The 10-year average of the most recent water quality data (2003-2012) indicates that Wirth Lake is currently meeting the MPCA deep lake standards for TP and SD. The 10-year average chl-*a* concentration for Wirth Lake is 14.7 µg/L, which is within 1 µg/L of the 14 µg/L chl-*a* criteria. If provisional water quality monitoring data from 2013 is considered, the 10-year (2004-2013) average chl-*a* concentration for Wirth Lake becomes 12.9 µg/L, while the 10-year average TP (32.5 µg/L) and SD (2.56 m) are both significantly better than the respective listing criteria. Additionally, trend analysis of the historic water quality data indicates that over the entire period of water quality monitoring data (1992-2013), there have been significant improvements for all three water quality criteria at the 95 percent confidence level. The same is true for the trend analysis of the more recent data (2003-2012).

Reasonable Assurances That Standards Are Met

Much of the Wirth Lake watershed is developed and fairly stable with no undeveloped parcels remaining. Recently, there has been very little watershed disturbance due to development or redevelopment. With the exception of some direct drainage and one subwatershed (along Highway 55), the remaining watershed sources are receiving wet detention treatment of stormwater runoff. In addition, a detailed evaluation of lake level data indicates that the frequency of backwater inundation of Wirth Lake from Bassett Creek has decreased significantly (see Figure 4 in the TMDL Report).

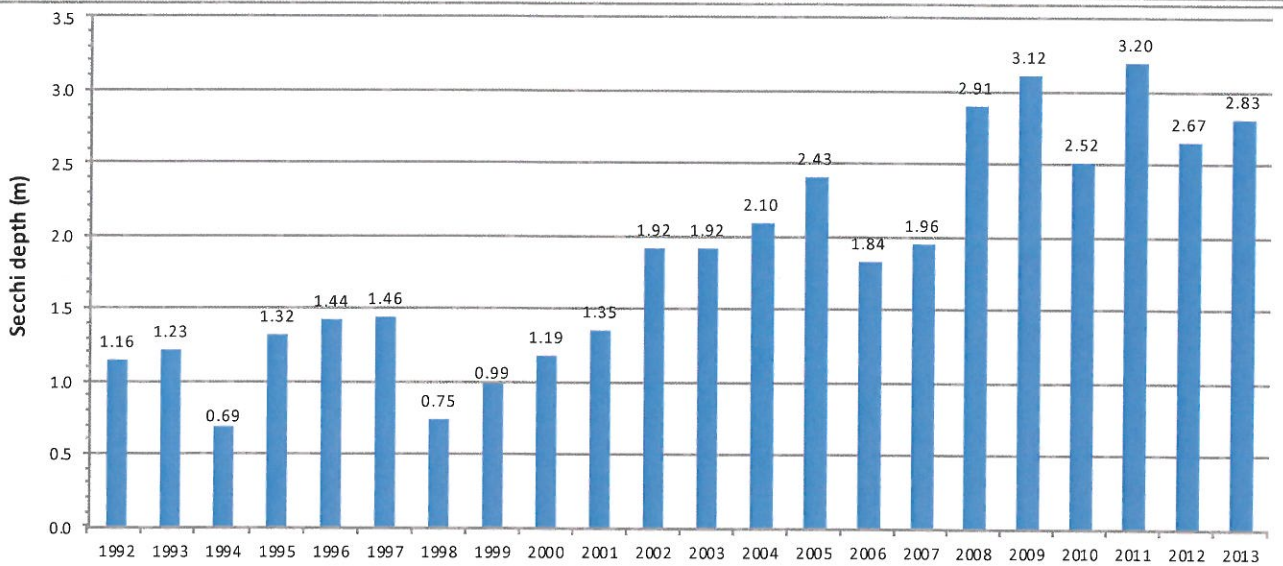
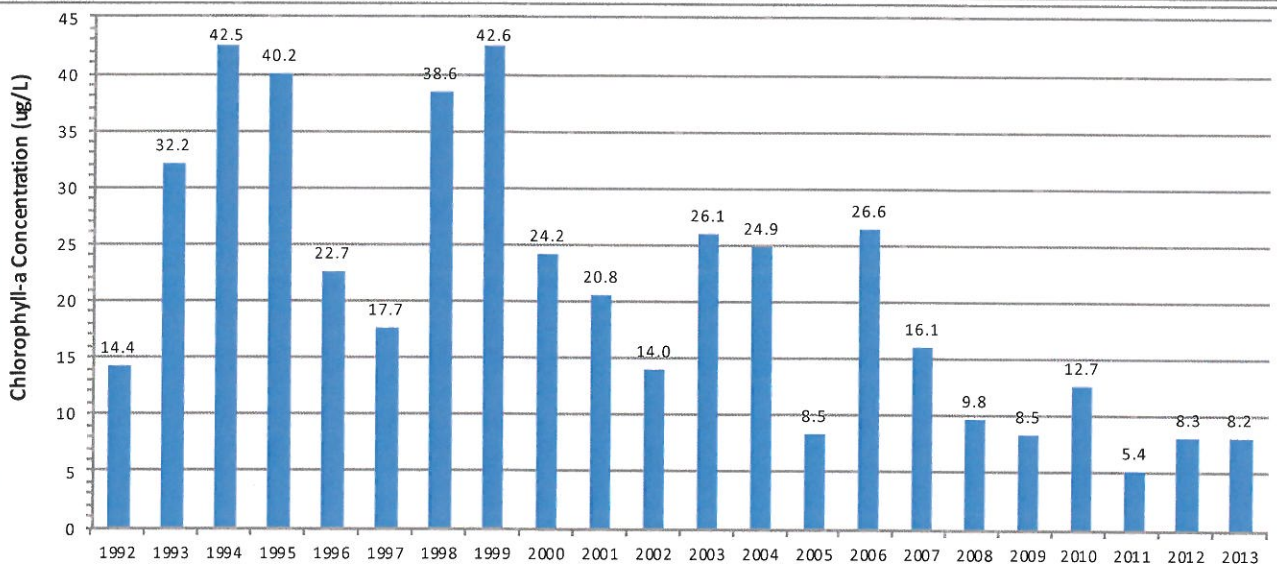
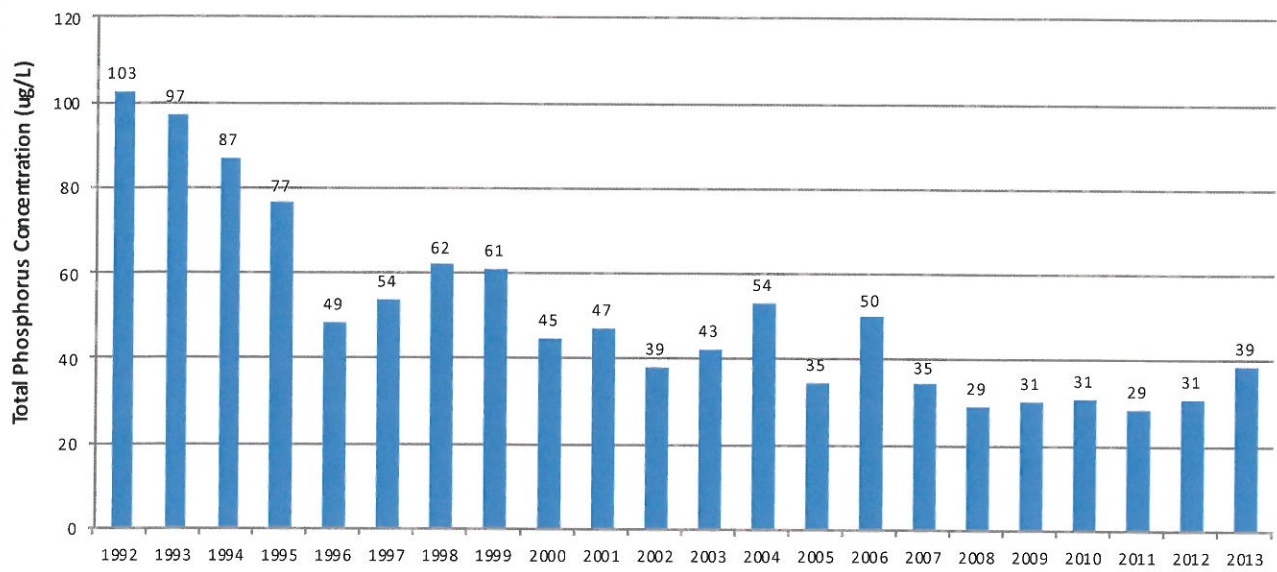
The stabilization of the watershed, due to nearly complete development, along with stricter stormwater quality treatment standards during construction and post-construction since the 1990's likely resulted in less loading from the watershed. Historically, the BCWMC had no water quality treatment requirements with the exception of some erosion control requirements. During the 1990's and early 2000's, water quality treatment to the NURP standards was required. Continued implementation of the Commission requirements for new development and redevelopment will help ensure the protection, and potentially the improvement, of water quality in Wirth Lake.

To: Brooke Asleson and Pam Anderson, MPCA
From: Greg Wilson, Barr Engineering
Subject: Wirth Lake Delisting
Date: December 26, 2013
Project: 23/27-0051
cc: Karen Chandler, Barr Engineering and Laura Jester, Bassett Creek Watershed Management Commission

In addition to stabilization of the watershed and the development of stormwater management requirements, the BCWMC and local project partners have implemented several water quality improvement projects within the watershed since the completion of the *Wirth Lake Watershed and Lake Management Plan* in 1996. The following is a list of the projects implemented in the Wirth Lake watershed, including a brief description:

- BCWMC and the City of Minneapolis entered into an agreement in 2005 to improve a stormwater quality treatment pond immediately west of the lake. That project was completed by the Minneapolis Park and Recreation Board (MPRB) in the spring of 2006.
- In the mid 1990's the MPRB modified the outlet structure for the lake to minimize flood flows to the lake from Bassett Creek, except for semi-rare backflow events.
- In 2002 the MPRB in cooperation with the Minnesota Department of Natural Resources installed an aeration system to prevent winter fish kills.
- As part of the 2006 renovation of the facilities at the swimming beach on the southeast corner of the lake, the MPRB constructed a stormwater treatment basin to treat stormwater runoff from the impervious surfaces at the beach.
- This past year a new lake outlet structure, designed to prevent backflow from Bassett Creek, was installed to ensure that future backflow events cannot deteriorate the water quality of Wirth Lake.

Wirth Lake Summer (June-Sept.) Average Data



Barr Engineering Co.

Mann-Kendall Statistical Test (revised 2/8/2005)

Notice: This spreadsheet is a modified version of the Wisconsin DNR Form 4400-215 (2/2001) referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It was provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background; only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than forty rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at 80 percent, 90 percent, and 95 percent confidence levels. If an increasing or decreasing trend is not present, an additional coefficient of variation test may be used to test for stability (Wiedemeier et al. 1999). For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =		Wirth Lake--Period of Record			BRRTS No. =		Well Number =	
Event Number	Sampling Date (most recent last)	Compound ->	TP	Chl-a	SD			
			Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)
1	1992		103	14.4	1.16			
2	1993		97	32.2	1.23			
3	1994		87	42.5	0.69			
4	1995		77	40.2	1.32			
5	1996		49	22.7	1.44			
6	1997		54	17.7	1.46			
7	1998		62	38.6	0.75			
8	1999		61	42.6	0.99			
9	2000		45	24.2	1.19			
10	2001		47	20.8	1.35			
11	2002		39	14.0	1.92			
12	2003		43	26.1	1.92			
13	2004		54	24.9	2.10			
14	2005		35	8.5	2.43			
15	2006		50	26.6	1.84			
16	2007		35	16.1	1.96			
17	2008		29	9.8	2.91			
18	2009		31	8.5	3.12			
19	2010		31	12.7	2.52			
20	2011		29	5.4	3.20			
21	2012		31	8.3	2.67			
22	2013		39	8.2	2.83			
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

Mann Kendall Statistic (S) =	-165.0	-125.0	165.0	0.0	0.0	0.0
Number of Rounds (n) =	22	22	22	0	0	0
Average =	51.22	21.14	1.86	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	21.996	11.989	0.771	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.429	0.567	0.414	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected n<4 n<4 n<4

Trend ≥ 80% Confidence Level	DECREASING	DECREASING	INCREASING	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	DECREASING	DECREASING	INCREASING	n<4	n<4	n<4
Trend ≥ 95% Confidence Level	DECREASING	DECREASING	INCREASING	n<4	n<4	n<4

Stability Test, If No Trend Exists at 80% Confidence Level	NA	NA	NA	n<4	n<4	n<4
--	----	----	----	-----	-----	-----

Data Entry By = Greg Wilson

Date = 26-Dec-13

Checked By =

Barr Engineering Co.

Mann-Kendall Statistical Test (revised 2/8/2005)

Notice: This spreadsheet is a modified version of the Wisconsin DNR Form 4400-215 (2/2001) referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It was provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background; only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than forty rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at 80 percent, 90 percent, and 95 percent confidence levels. If an increasing or decreasing trend is not present, an additional coefficient of variation test may be used to test for stability (Wiedemeier et al. 1999). For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =		Wirth Lake (2003-2012)			BRRTS No =		Well Number =	
Compound ->		TP	Chl-a	SD				
Event Number	Sampling Date (most recent last)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	Concentration (leave blank if no data)	
1	2003	43	26.1	1.92				
2	2004	54	24.9	2.10				
3	2005	35	8.5	2.43				
4	2006	50	26.6	1.84				
5	2007	35	16.1	1.96				
6	2008	29	9.8	2.91				
7	2009	31	8.5	3.12				
8	2010	31	12.7	2.52				
9	2011	29	5.4	3.20				
10	2012	31	8.3	2.67				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

Mann Kendall Statistic (S) =	-25.0	-27.0	25.0	0.0	0.0	0.0
Number of Rounds (n) =	10	10	10	0	0	0
Average =	36.70	14.69	2.47	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	8.903	8.244	0.504	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation (CV) =	0.243	0.561	0.204	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	DECREASING	DECREASING	INCREASING
Trend ≥ 90% Confidence Level	DECREASING	DECREASING	INCREASING
Trend ≥ 95% Confidence Level	DECREASING	DECREASING	INCREASING
Stability Test, If No Trend Exists at 80% Confidence Level	NA	NA	NA

Data Entry By =	Greg Wilson	Date =	26-Dec-13	Checked By =	
-----------------	-------------	--------	-----------	--------------	--