



MINNESOTA WATER
LET'S KEEP IT CLEAN

12.21.2015

Dear friends,

Clean Water Minnesota is a collaborative outreach project of the Metro Watershed Partners. Working together, we provide resources, training, and support to partners as they work with homeowners in the Twin Cities metro area to keep water clean and healthy.

In the past few years, the steering committee of the Metro Watershed Partners has introduced our members to the very best professional development and social science to help our target audiences adopt more water-friendly behaviors. You told us you needed help with educational messaging, and we heard you.

Based on your feedback, we have been working with Eric Eckl and the team at Water Words that Work, LLC to create a focused communications plan with consistent messages and strategies that you, our member organizations, can use in your outreach work.

Over the next three years we will produce new photographs, social media posts, blog and newsletter articles, a new Cleanwatermn.org website, materials to organize and publicize Clean Water Clean-ups, and start an Adopt-a-Drain program in your service area. You will be able to track and report on who gets your messages, who responds, and who takes action in your service area.

To do this work, we need to raise \$100,000 per year. Your contribution will ensure that the people you are trying to reach hear you. Please contribute membership funds now, and make a plan to support us throughout this 3-year campaign. For MPCA permitted cities and watersheds, your membership contribution helps you meet your MS4 public education requirements.

Please find a more detailed description of what you will get and what we need from you to make this happen on the following pages. Then find your city or organization on the attached funding table to see the the level of funding we are requesting from you. These funding recommendations are based on population size for cities, and annual budget for watershed districts. The approach is modeled on the funding structure for the Minnesota City Stormwater Coalition, and based on the level of funding received by Watershed Partners from similar organizations over the last five years.

We know you'll have questions about all of this, so feel free to contact anyone on the steering committee for further information.

Sincerely, the 2015 Steering Committee of the Metro Watershed Partners—

Anne Weber, City of St. Paul Public Works,
651-266-6245, anne.weber@ci.stpaul.mn.us

Angie Hong, Washington Conservation District,
651-330-8220 ext. 35, angie.hong@mnwcd.org

Cole Landgraf, Minnesota Pollution Control Agency
651-757-2880, cole.landgraf@state.mn.us

Erica Sniegowski, Nine Mile Creek Watershed District
952-358-2276, esniegowski@ninemilecreek.org

Jessica Bromelkamp, Rice Creek Watershed District
763-398-3073, JBromelkamp@ricecreek.org

Lyndon Torstenson, National Park Service, Mississippi National River & Recreation Area
651-293-8426, lyndon_torstenson@nps.gov

Peggy Knapp, Freshwater Society,
952-471-9773, pknapp@freshwater.org

Telly Mamayek, Minnehaha Creek Watershed District
952.641.4508, TMamayek@minnehahacreek.org

Tracy Fredin, Hamline University, Center for Global Environmental Education
651-523-3105, tfredin@hamline.edu

The Watershed Partners (WSP) has completed a three-year plan to roll out a new strategy and new products for clean water communications.

Year One—Communications calendar

Shared consistent messages you can use with your audiences to encourage behaviors that improve water quality:

- New, seasonal images of smiling people engaging in target behaviors
- Articles about water-friendly yard practices
- Social media posts for use on Facebook and Twitter

WSP will centralize and track clean water communications for your service area by creating:

- a blog Clean Water MN website providing information on water-friendly yard maintenance to home owners in the Twin Cities
- A centralized email system
- A system to create trackable links in articles and social media posts
- A centralized event registration system

In 2016, Watershed Partners will infuse technology trainings into our meeting schedule so partners can use these tools effectively.

To have materials ready for fall of 2016, we need to raise \$100,000 by the end of April 2016. The level of funds received by April 2016 will determine the pace at which we can roll out this exciting new campaign. Please contribute membership funds now, and make a plan to support us throughout this 3-year campaign. For MPCA permitted cities and watersheds, your membership contribution helps you meet your MS4 public education requirements.

EDITORIAL CALENDAR BUDGET

Category	Budget
General Operating	\$30,000.00
Web Development	\$7,500.00
Background technology	\$22,000.00
Photographer	\$3,000.00
Writer	\$5,625.00
Graphic Designer	\$3,000.00
Project Management	\$30,000.00
Purchase radio ads	\$10,000.00
Total	\$111,125.00

Year Two—Clean water clean-ups

In year two, and in each subsequent year, WSP will create a new set of articles, photographs and social media posts for the editorial calendar. We will also add a new program—a metro-wide campaign to promote fall leaf-clean ups, with organized neighborhood clean-up events, and a mechanism for counting and reporting the cumulative pollution reduction, including:

- a “How to” kit for event organizers which highlights leaf and trash removal
- promotional materials with trackable links
- sharable signup forms that partners can post to their own websites
- a centralized registration database
- follow up communication materials for event participants, including pollution prevention messages and invitations to participate in Adopt-A-Drain
- a centralized data base for participants to report the number of bags/pounds of debris collected
- program evaluation

CLEAN WATER CLEAN-UPS BUDGET

Category	Budget
General Operating	\$30,000.00
Photographer	\$3,000.00
Writer	\$5,625.00
Graphic Designer	\$3,000.00
Create Clean-up Kit	\$5,000.00
Graphic Designer	\$1,500.00
Background tech	\$5,000.00
Project Management	\$40,000.00
Purchase Radio ads	\$10,000.00
Total	\$103,125.00

Year three—Adopt-a-Drain

In year three we will continue to provide resources for the Editorial Calendar and Clean Water Clean-ups. In addition, we will develop a website and materials for metro-wide implementation of Adopt-a-Drain, though implementation of the program will fall to individual partners. We will need to raise 100K in year three to implement this plan. A more specific budget will be available in year two.

2016 – 2018 ANNUAL SUPPORT REQUESTED

Watershed Agencies (Annual Budget)	Low	High	Current Supporters
\$5,000,000+	\$5,000	\$15,000	4
\$1,000,000-\$4,999,999	\$3,000	\$4,999	1
\$50,000-\$999,999	\$250	\$2,999	6
			11
Counties (Population)			
1,000,000+	\$10,000	\$15,000	
400,000-999,999	\$5,000	\$9,999	1
200,000-399,999	\$2,500	\$4,999	
95,000-199,999	\$1,500	\$2,499	1
			2
Cities (Population)			
400,000+	\$8,000	\$10,000	1
250,000-399,999	\$6,000	\$7,999	1
100,000-249,999	\$5,000	\$5,999	1
90,000-99,999	\$4,500	\$4,999	
80,000-89,999	\$4,000	\$4,499	1
70,000-79,999	\$3,500	\$3,999	1
60,000-59,999	\$3,000	\$3,499	2
50,000-59,999	\$2,500	\$2,999	1
40,000-49,999	\$2,000	\$2,499	-
30,000-39,999	\$1,500	\$1,999	3
20,000-29,999	\$1,000	\$1,499	5
10,000-19,999	\$500	\$999	1
1-9,999	\$350	\$499	3
			20
Other			
Support as able and appropriate	\$2,000	\$10,000	1
Total Cash Supporters			34



Membership INVOICE

FROM

Staff Contact:
City Name:
Address:
City and Zip:
Telephone:
E-mail:

TO

Metro Watershed Partners and its Clean Water MN Media Campaign

MEMBERSHIP AMOUNT

\$.....
Note: (see attached table with requested levels of funding)

FISCAL AGENT

Hamline University
1536 Hewitt Ave. MS-A1760
St. Paul, MN 55104
Tel: 651-523-2812 Email: jlarson25@hamline.edu

DESCRIPTION OF SERVICE

2016 membership support for the Metro WaterShed Partners and its Clean Water MN Media Campaign, a stormwater pollution prevention education campaign. Services include:

- Shared consistent messages to encourage behaviors that improve water quality.
- Technological framework to centralize and track communications, including click-through rates in member service areas.
- Technology trainings for partners to use these tools effectively.
- Development and implementation of clean water exhibits at the Minnesota State Fair in the DNR and Eco-experience buildings.
- Monthly meetings with information on partner activities, presentations by informative speakers, and updates on WSP activities.
- Maintenance of the Watershed Partners listserv.
- Radio PSAs during Minnesota Twins games
- Administration of media outreach and partner events and activities.

DURATION OF SERVICE

January 1, 2016 to December 31, 2016

\$110,000 is needed to fully implement year 1 activities. We will initiate phased implementation of the campaign upon receiving a minimum of \$70,000 in contributions. Funds unspent in 2016 will carry over to 2017 to continue project implementation.

Memorandum

To: Bassett Creek Watershed Management Commission (BCWMC)
From: Barr Engineering Co.
Subject: Item 5C. Consider Request from City of Minneapolis to Allow Southwest LRT Project to Make a New Connection to Bassett Creek Tunnel
BCWMC March 17, 2016 Meeting Agenda
Date: March 9, 2016
Project: 23270051 2016 3005

5C. Consider Request from City of Minneapolis to Allow Southwest LRT Project to Make a New Connection to Bassett Creek Tunnel

Recommendations:

- i. Conditional approval of the proposed connection of Southwest LRT Glenwood Station area

Background and comments

The City of Minneapolis requests that the Bassett Creek Watershed Management Commission (BCWMC) consider approval of a new direct connection to the new Bassett Creek storm water tunnel associated with the Southwest LRT Project (see attached March 9, 2016 letter). This new connection to the tunnel would modify the watersheds that are tributary to the Bassett Creek storm water tunnel and the Minnesota Department of Transportation (MnDOT) Interstate 94 storm water tunnels. The proposed changes are associated with the Southwest LRT drainage in the Glenwood Avenue area.

The new Bassett Creek tunnel, completed in 1992, was built in three phases and conveys Bassett Creek to the Mississippi River. The old Bassett Creek tunnel accepts local discharge from Minneapolis and is required to maintain capacity to convey 50 cfs overflow from the new tunnel.

This is only the second request for a direct connection to the new tunnel since its completion. The first request was in 2007, when the BCWMC approved a request from the City of Minneapolis to connect the Twins Stadium and City of Minneapolis combined sewer overflow (CSO) areas to the tunnel.

Figure 1 shows the following:

- The location of the Bassett Creek and I-94 tunnels, shown as a yellow dashed line. The location of the old Bassett Creek tunnel is shown as an orange dashed line.
- Watershed areas outlined in red are the watersheds currently tributary to the new Bassett Creek and I-94 tunnels, as determined by work completed in 2007 to evaluate the connection of the Twins Stadium and City of Minneapolis combined sewer overflow (CSO) areas to the tunnel.
- The proposed subwatersheds of the Southwest LRT at Glenwood Avenue are outlined in yellow. This area is partially landlocked (not served by any storm sewer), but during larger storms, flows will overtop the existing surface storage and drain to the old Bassett Creek tunnel. It is proposed that this

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area connect/drain directly to the new Bassett Creek and I-94 tunnel after passing through water quality treatment BMPs. This would add 9.61 acres (52.5% impervious) to the new tunnel watershed.

MnDOT completed the I-94 tunnel (including the Bassett Creek tunnel) downstream of Point A in 1979. The Corps of Engineers completed the Bassett Creek tunnel from point A to point B (see Figure 1) in 1992.

The BCWMC requirements that apply to the proposed connection include:

1. Policy 38 in the 2015-2025 BCWMC Watershed Management Plan (Plan), which requires that projects maintain no increase in flood level at any point along the trunk system. The BCWMC Requirements for Improvements and Development Proposals (Requirements) document requires "no increase in flood level" to be managed to a precision of 0.00 feet. This precision is based on directives from the Minnesota Department of Natural Resources (MnDNR) pertaining to no-rise certificates in Federal Emergency Management Agency (FEMA) floodplain "AE" zones (zones where there are published flood elevations). The BCWMC has applied this "no increase in flood level" standard to other recent projects along the Bassett Creek trunk system.
2. Policy 31 of the BCWMC Plan requires "cities to manage stormwater runoff so that future peak flow rates leaving development and redevelopment sites are equal to or less than existing rates for the 2-year, 10-year, and 100-year events."
3. Section VI of the 2000 Joint and Cooperative Agreement (JCA) between BCWMC, the City of Minneapolis, and the Middle Mississippi River WMO (now the Mississippi WMO) requires the written approval of the BCWMC to allow increases in tributary area, add connections or outlets to the new tunnel, and allow projects that change the rate of runoff to the new tunnel.
4. Section VI of the 2000 JCA also states that the BCWMC will only approve projects that will not increase either the first peak flow (specified as 1,030 cfs in the JCA) or the second peak flow (flow rate not specified in the JCA) to the new tunnel.

In January 2016, the BCWMC Engineer used a combination of the approved BCWMC HEC-1 model (to establish -year flows at the tunnel inlet (point B)) and the BCWMC Phase 1 (2012) XP-SWMM model (to model the portion of the watershed that drains directly to the new tunnel) to evaluate the impact of the proposed connection on the flows and flood elevations in the tunnel. The XP-SWMM model used the TP-40 100-year, 24-hour design storm event to estimate runoff and flows to the tunnel from the direct watersheds. The BCWMC Engineer used the combined HEC-1 and XP-SWMM model to evaluate the relative change in the 100-year elevations and peak flows at the following locations:

1. peak elevation at the tunnel inlet (point B) and at key points along the tunnel system
2. peak flows at three points in the tunnel that correspond with the locations outlined in the 2000 Joint and Cooperative Agreement (JCA) for Boundary Change between the BCWMC, the City of Minneapolis, and the Mississippi Watershed Management Organization (MWMO).

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The BCWMC Engineer evaluated the following alternatives:

- Existing Conditions: Evaluate the XP-SWMM model with no modifications for the TP-40 100-year, 24-hour design storm event to serve as the existing conditions reference.
- Proposed connection: Evaluate the impact of the proposed Southwest LRT connection for the TP-40 100-year, 24-hour design storm event.

The BCWMC Engineer's January 2016 evaluation indicated that the connection would result in a 0.01-foot increase in the 100-year flood elevation at the tunnel inlet. The BCWMC Engineer provided the models to the Southwest LRT consultant to evaluate alternatives to mitigate the increase in flood elevation.

The Southwest LRT consultant used the entire BCWMC XP-SWMM Phase I model to evaluate the Glenwood Avenue connection to the tunnel, and the impact of the proposed best management practices (BMPs) at the Bassett Creek Valley (Van White Avenue) station, just upstream of the tunnel inlet. The reductions in peak flow provided by the proposed Bassett Creek Valley station BMPs mitigate the increases in peak flow caused by the proposed Glenwood Avenue connection.

Following is a summary of key findings of the tunnel connection modeling analysis:

- Based on the model results, with the upstream peak flow mitigation at the Bassett Creek Valley Station, the relative impact of the connection of the proposed Southwest LRT watersheds to the tunnel at Glenwood Avenue results in no increase (i.e., less than 0.00-ft increase) in the flood elevation at the inlet to the tunnel.
- Under proposed Southwest LRT connection conditions, the model results show no increases in the expected peak discharge at the tunnel inlet and immediately downstream of the proposed Glenwood Avenue connection, when compared to existing conditions.
- Under existing and proposed conditions, the tunnel is pressurized (i.e., the water level/hydraulic grade line is above the top of the tunnel) during the 100-year event, beginning at a point approximately 1,600 feet upstream of point A and continuing downstream to the river. Based on the modeling results, there is no increase in the pressurization.
- Based on the HydroCAD modeling provided by the Southwest LRT project office, the proposed conditions peak discharges leaving the site are less than the existing conditions peak discharges for the 2-yr, 10-yr, and 100-year design storm events. However, under proposed conditions, the flows would be redirected to the new tunnel system, which requires BCWMC approval and MnDOT approval (based on the 1977 agreement between MnDOT and the City of Minneapolis).

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Recommendation

Conditional approval of the connection of the area around the Southwest LRT at Glenwood Avenue to the BCWMC tunnel system, based on the following comments:

1. Mitigating storage at the Bassett Creek Valley Station must be provided prior to completion of the direct connection to the Bassett Creek storm water tunnel. If additional mitigation is needed upon final evaluation (100% design plans), the City of Minneapolis will work with the SWLRT and the BCWMC Engineer to achieve the necessary mitigation.
2. Approval for the connection and/or change in tributary area must be obtained from MnDOT.
3. Final plans and documentation must be submitted to the BCWMC Engineer for administrative review and approval. These submittals should include the 100% design plans, updated XP-SWMM modeling, and the digital watershed divides.
4. Drawings and supporting information must be submitted to the BCWMC Engineer for separate review as part of the BCWMC project review program.

March 9, 2016

Mr. James de Lambert, Chair
Bassett Creek Watershed Management Commission
c/o Keystone Waters, LLC
16145 Hillcrest lane
Eden Prairie MN 55346

Dear Mr. de Lambert,

The City of Minneapolis requests the Commission's consideration of the following item:

- A direct connection to the new Bassett Creek Tunnel associated with the Southwest Light Rail Transit (SWLRT) project.

The SWLRT project has submitted preliminary plans, modeling, and other required information needed to review the effect of this proposal to Barr Engineering, the Commission's engineer. Barr is performing analysis to ensure there will be no adverse effects on the discharge capacity of the tunnel or the flood level at the inlet to the tunnel.

We understand that the approval is conditional on meeting the requirements of the review by the Commission's engineer for consistency with the September 28, 2000 JOINT AND COOPERATIVE AGREEMENT FOR BOUNDARY CHANGE made by and between the City of Minneapolis, the Bassett Creek Watershed Management Commission, and the Middle Mississippi river Watershed Management Organization.

The City of Minneapolis appreciates the Commission's consideration of this item, and looks forward to working with the Commission to address any concerns this item may raise.

Sincerely,

Steven A. Kotke
City Engineer, Director of Public Works

Cc: Karen Chandler, Barr Engineering
Kelly Moriarity, Public Works Surface Water & Sewers Division
Lois Eberhart, Public Works Surface Water & Sewers Division

**A RESOLUTION APPROVING A DIRECT CONNECTION
TO THE NEW BASSETT CREEK TUNNEL AS PART OF
THE SOUTHWEST LIGHT RAIL TRANSIT PROJECT**

Bassett Creek Watershed Management Commission
Resolution #16-____

WHEREAS, the Bassett Creek Watershed Management Commission ("BCWMC") received a letter from the City of Minneapolis ("City") requesting approval for the Metropolitan Council to construct a direct connection to what is commonly known as the new Bassett Creek Tunnel ("New Tunnel") to address drainage in the Glenwood Avenue area as part of the Southwest Light Rail Transit Project ("SWLRT Project");

WHEREAS, the construction of the New Tunnel was a cooperative effort and involved a number of agreements, including a Joint and Cooperative Agreement for Boundary Change dated September 28, 2000 and entered into between the BCWMC, the City, and the Middle Mississippi Watershed Management Organization ("Agreement");

WHEREAS, Section 6.1.2 of the Agreement indicates the City is prohibited from adding connections or outlets to the New Tunnel without the written approval of the BCWMC;

WHEREAS, the Board of Commissioners ("Board") of the BCWMC previously approved the City to connect to the New Tunnel as part of the Twins stadium construction project; and

WHEREAS, while the Board generally discourages requests to connect to the New Tunnel, it recognizes that in certain limited circumstances it is appropriate to allow a direct connection, provided the connection is made in accordance with the terms and conditions of the Agreement.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Commissioners of the BCWMC that, pursuant to the Agreement, it hereby grants approval to the City to make a direct connection to the New Tunnel associated with the SWLRT Project, conditioned on the BCWMC engineer reviewing the plans for the proposed direct connection to ensure consistency with the provisions of the Agreement.

Adopted by the Board of Commissioners of the Bassett Creek Watershed Management Commission this 17th day of March, 2016.

Chair

Attest:

Secretary

Resolution No. _____: Offered by Commissioner _____, seconded by Commissioner _____, adopted by a vote of _____ at the regular meeting of the Board of Commissioners of Bassett Creek Watershed Management Commission on March 17, 2016.



March 8, 2016

Laura Jester, Administrator
Bassett Creek Watershed Management Commission
c/o Barr Engineering
4300 MarketPointe Drive
Minneapolis, MN 55435

Subject: City of Golden Valley 2016 Pavement Management Program

Dear Laura:

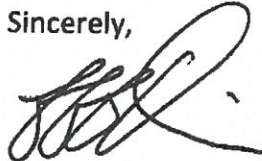
The City of Golden Valley is requesting a variance from the Bassett Creek Watershed Management Commission (BCWMC) water quality standards for the 2016 Pavement Management Project.

As discussed in the attached memo from the City's consulting engineers at Short Elliott Hendrickson, Inc. (SHE), the City will be constructing all the water quality best management practices that are practical and feasible with this project. These best management practices include installation of sump manholes with SAFL baffles, and reduction of the impervious pavement surfaces to the extent possible. Despite these efforts we are unable to meet the Minimum Impact Design Standards (MIDS) water quality requirements of the BCWMC. The improvements being constructed are consistent with the water quality requirements for linear projects prior to adoption of the BCWMC Comprehensive Plan in September, 2015, and will result in water quality improvements from the existing conditions.

The City will continue reconstructing streets within the Lakeview Park area of Golden Valley for the next several years. The City will strive to meet the MIDS requirements to the extent feasible as these projects are designed and constructed. These projects will include acquisition of four flood prone homes north of Olympia Street between Mendelssohn and Gettysburg Avenues immediately north of the 2016 Pavement Management Project. There is no feasible way to protect these homes from repeat flooding and therefore the long term use of the property will be the construction of a water quality best management facility as part of the upcoming street reconstruction projects. This facility has not yet been designed, but will provide nutrient and sediment removal from storm water runoff, and most likely include volume reduction, prior to its discharge into Medicine Lake.

Please feel free to contact me at 763-593-8034, or joliver@goldenvalleymn.gov if you would like to discuss this issue further.

Sincerely,

A handwritten signature in black ink, appearing to read 'JO', with a large, stylized loop at the end.

Jeff Oliver, PE
City Engineer

Enclosure

C: Marc Nevinski, Physical Development Director
 Sue Mason, SEH
 Brian Dahlberg, Engineering Technician



Building a Better World
for All of Us®

MEMORANDUM

TO: Jeff Oliver, PE City Engineer, City of Golden Valley

FROM: Susan Mason PE, Project Manager

DATE: March 8, 2016

RE: 2016 PMP Watershed Permit
SEH No. SEH 125641, City Project No. 16-1 14.00

Dear Jeff,

The following information has been compiled regarding our review of the Basset Creek Watershed MIDS Design Sequence Flow Chart. As you know, the 2016 PMP project was started in 2015 and is now needing to comply with the changes in the BCWMO rules. Currently, the 2016 PMP project is not conforming.

Background

The 2015/2016/2017 Pavement Management Projects were originally one project that were separated into 3 projects during preliminary design for financial reasons. The feasibility report/preliminary design was prepared in 2015 and addressed the entire project area, most all of which is part of the Medicine Lake sub-watershed area. The City invested in a Lakeview Park Pond study to try to provide water quality treatment, solve flooding in the neighborhood, and provide relief to the undersized storm sewer system that discharges from the project area, under TH 169 and in to Medicine Lake (an impaired water).

The Lakeview Park Pond study concluded that construction of a pond for water quality or rate control was not feasible in the park due to poor soils and homes with flooding risk. Later study found that four homes located north of Olympia Street between Independence Ave N and Mendelssohn Ave N, were experiencing frequent flooding without a feasible solution to mitigate other than to purchase the homes. The City has since committed to purchase of these 4 parcels, but must do over time as funding becomes available.

MIDS Performance Goals

SEH reviewed the 2016 PMP with the watershed's MIDS Design Sequence Flow Chart. As a linear street reconstruction project creating more than an acre of fully reconstructed impervious surface, the 2016 PMP is required to retain a volume of 0.55 inches of runoff from all new and fully reconstructed surfaces. The calculated performance goal requirement for the project is 3,614 cu ft. The project is able to reduce the impervious surface to the extent possible, from 1.98 acres to 1.81 acres, resulting in a credit of 522 cu ft. Full compliance with the performance goal of 3,614 cu ft. is not feasible due to lack of available ROW and soil conditions leading to the evaluation of Flexible Treatment Option (FTO) #2.

FTO #2 Feasibility

By minimizing and reducing the impervious surface with the project the City has achieved volume reduction to the greatest extent possible. FTO part 2.b requires the removal of 60% of the annual TP load. Barr's SHSAM model was utilized to evaluate the amount of total suspended solids (TSS) removed

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 3535 Vadnais Center Drive, St. Paul, MN 55110-5196

SEH is 100% employee-owned | sehinc.com | 651.490.2000 | 800.325.2055 | 888.908.8166 fax

in the project's proposed four, four foot deep sump manholes with SAFL baffles. The four inline treatment manholes are providing 14 to 25% TSS removal. Solids removal in that range is likely only settling out coarse solids, so phosphorus removal would be negligible. Removal of 60% of the annual TP load is not achieved and compliance with FTO#2 is not realized leading to the evaluation of FTO #3.

FTO #3 Feasibility

FTO #3 allows off-site mitigation (including banking or cash or treatment on another project), equivalent to the volume reduction performance goal, to be used in areas within the watershed's stated order of preference. The first order of preference is to complete the mitigation in an area where the same receiving waters are benefited.

Performing treatment in the same receiving waters would provide the best benefit to the sub-watershed, given the downstream receiving waters (Medicine Lake), the lack of capacity of the downstream pipe and the current difficult flooding situation north of Olympia. While the FTO #3 path could be pursued, a variance request from the performance requirement for this project is a preferred option, to give the City time to develop a water quality option that provides the best long term benefit to the most direct problem area.

Variance Request

Given that this project has clear constraints due to the linear nature of the project, poor soils not conducive to volume reduction and limited available right of way that is not feasible for the amount of treatment required (Lakeview Park is not feasible as a treatment or pond site), the City is not able to meet the performance goal and therefore should respectfully request a variance.

The granting of this variance will not be detrimental to the public welfare or injurious to the other property in the territory in which the property is situated. The granting of the variance will not be contrary to the intent of taking all reasonable and practical steps to improve water quality within the watershed, but rather only delay responsible and reasonable actions that will ultimately achieve the best outcome for the watershed, the City of Golden Valley and its residents.

smm

C:

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A RESOLUTION GRANTING A VARIANCE FROM WATER QUALITY TREATMENT REQUIREMENTS FOR THE 2016 GOLDEN VALLEY PAVEMENT MANAGEMENT PROGRAM

Bassett Creek Watershed Management Commission
Resolution #16-_____

WHEREAS, the Bassett Creek Watershed Management Commission (“BCWMC”) received a letter from the City of Golden Valley (“City”) requesting a variance from the BCWMC water quality treatment requirements, known as the Minimal Impact Design Standards (“MIDS”) performance goals, for the 2016 Golden Valley Pavement Management Program (“Project”);

WHEREAS, the City and its consulting engineer have studied the options available to meet the MIDS treatment standards for the Project and have determined that it is not feasible to satisfy the standards as part of the Project because of the linear nature of the Project, the existence of poor soils in the Project area that are not conducive to volume reduction, and the confined right-of-way area in which the Project will be constructed;

WHEREAS, the City will construct all practical and feasible water quality best management practices available in conjunction with this Project, including reducing impervious area and installing sump manholes with SAFL baffles, but despite these efforts the Project will not meet the MIDS performance goals including the three flexible treatment options;

WHEREAS, the City can provide equivalent offsite treatment to meet the MIDS performance goals for the Project by the end of 2018; and

WHEREAS, the Board of Commissioners (“Board”) has considered the request, the standards for issuing variances in the BCWMC’s Requirements for Improvements and Development Proposals, and finds and determines as follows:

- a. The linear nature of the Project, the poor soils, and the limited area in which the Project will be constructed constitute special circumstances or conditions such that the strict application of the provisions of the standards and criteria would deprive the City of the reasonable use of its right-of-way and its ability to construct improvements;
- b. The requested variance is necessary for the preservation and enjoyment of a substantial property right of the applicant in that the City is working to improve its right-of-way for the benefit of the public;
- c. Granting the variance will not be detrimental to the public welfare or injurious to the other property in the territory of the right-of-way being improved in that the Project will be increasing safety and addressing existing surface water issues;

- d. The Project does not relate to a use in the 1% (base flood elevation, 100-year flood) floodplain set forth in Table 2-9 of the Plan;
- e. Granting the variance will not be contrary to the intent of taking all reasonable and practical steps to improve water quality within the watershed in that the City will implement all practical and feasible water quality best management practices available in conjunction with this Project, including reducing impervious area and installing sump manholes with SAFL baffles.

NOW, THEREFORE, BE IT RESOLVED, by the Board of the BCWMC that, pursuant to its variance procedure the BCWMC Requirements for Improvements and Development Proposals, the findings contained herein, and the record of this matter, it hereby grants the City a variance from the MIDS performance goals for the Project conditioned on compliance with each of the following:

- 1. The City shall implement all practical and feasible water quality best management practices, including reducing impervious area and installing sump manholes with SAFL baffles, related to the construction of the Project; and
- 2. The City shall provide equivalent offsite treatment to meet the MIDS performance goals for the Project by the end of 2018.

Adopted by the Board of Commissioners of the Bassett Creek Watershed Management Commission this 17th day of March, 2016.

Chair

Attest:

Secretary

Resolution No. _____: Offered by Commissioner _____, seconded by Commissioner _____, adopted by a vote of _____ at the regular meeting of the Board of Commissioners of Bassett Creek Watershed Management Commission on March 17, 2016.



Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D – GV 2016 PMP STH 169-Plymouth Ave– Golden Valley
BCWMC March 17, 2016 Meeting Agenda
Date: March 9, 2016
Project: 23270051 2016 2072

5D GV 2016 PMP STH 169-Plymouth Ave – Golden Valley

Summary:

Proposed Work: Excavation, grading, concrete curb and gutter, bituminous paving, storm sewer, sanitary sewer repair, water main replacement, concrete sidewalk, and retaining wall construction.

Basis for Commission Review: Consideration of variance from MIDS performance goal

Impervious Surface Area: Decrease approximately 7,400 square feet (0.17 acres)

Recommendation: Conditional approval

General Background & Comments

The proposed project includes reconstruction of Independence Avenue North from Plymouth Avenue North to Olympia Street, Hillsboro Avenue North from Plymouth Avenue North to Winsdale Street, Winsdale Street from Mendelssohn Avenue North to Hillsboro Avenue North, Wisconsin Avenue North from Golden Valley Drive to Golden Valley Road, and Winnetka Avenue North from Highway 55 to Golden Valley Drive including storm sewer, sanitary sewer repair, water main replacement, concrete sidewalk, and retaining wall construction. The project is located primarily in the Medicine Lake Direct subwatershed with the Wisconsin Avenue North work in the Bassett Creek Main Stem subwatershed and the Winnetka Avenue North work in the Sweeney Lake subwatershed. 2.82 acres will be graded as part of the project. The proposed project results in a decrease of approximately 7,400 square feet (0.17 acres) of impervious surface, from 1.98 acres under existing conditions to 1.81 acres of impervious surface under proposed conditions.

Floodplain

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

Wetlands

The project appears to involve work adjacent to wetlands. The City of Golden Valley is the LGU for administering the Minnesota Wetland Conservation Act of 1991.

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D – GV 2016 PMP STH 169-Plymouth Ave – Golden Valley
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Stormwater Management

The drainage patterns under existing and proposed conditions will remain similar; this project will not result in major changes to land use or topography. This project will reduce stormwater volumes and rates by decreasing the amount of impervious surface within the project area.

Water Quality Management

There is currently little to no water quality treatment in the City's 2016 pavement management program (PMP) area. Because the project is a linear redevelopment that creates one acre or greater of new and/or fully reconstructed impervious surfaces, the September 2015 BCWMC Requirements for Improvements and Development Proposals (Requirements) document requires that the project capture and retain the larger of 1) 0.55 inches of runoff from the new and fully reconstructed impervious surfaces, or 2) 1.1 inches of runoff from the net increase in impervious area. In this case, 0.55 inches of runoff from the new and fully reconstructed impervious surfaces is the larger volume, resulting in a required treatment volume of 0.08 acre-feet (3,600 cubic feet). If the performance goal is unable to be met due to site restrictions, the Requirements document requires that the MIDS flexible treatment options approach be used, following the MIDS design sequence flow chart.

The City proposes to construct four sump manholes with SAFL baffles to provide water quality treatment for the project (approximately 14 to 25% TSS removal, negligible TP removal). The City is not proposing to construct any volume reduction BMPs.

Because the City is not able to meet the MIDS performance goal, the City's consultant provided a sequencing analysis following the MIDS design sequence flow chart and indicating what treatment options were explored and feasible on the site. Please see the attached letter from the City's consultant discussing the MIDS design sequence.

The City prepared the Lakeview Park Pond feasibility study in the project area to identify strategies to improve water quality treatment, address flooding issues in the neighborhood and provide relief to the undersized storm sewer system that discharges from the project area under TH 169 and into Medicine Lake. The study concluded that construction of a pond for water quality or rate control was not feasible in this area due to poor soils and homes with flooding risk. Because other areas in the watershed are not available and not suitable for construction of water quality treatment BMPs, the City cannot meet FTO 3 (off-site mitigation) as part of this project.

Because the City cannot meet any of the flexible treatment options as part of this project, the City proposes to provide equivalent offsite treatment to meet the MIDS performance goals for the project by the end of 2018. Therefore the City requests a variance from the MIDS performance goal in accordance with Section 3.3 of the Requirements document with the condition that the City provide future offsite treatment.

In granting variances, the Commission shall make a finding showing that all of the following conditions exist (*note the City's justification corresponding to the requirements below in italics*)

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D – GV 2016 PMP STH 169-Plymouth Ave – Golden Valley
Date: March 9, 2016
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Project: 23270051 2016 2072

1. There are special circumstances or conditions affecting the property such that the strict application of the provisions of these standards and criteria would deprive the applicant of the reasonable use of the applicant's land.
Because the project is a linear road project, there is limited right-of-way in which to install BMPs for water quality treatment. The project area has poor soils which are not conducive to volume reduction.
2. The variance is necessary for the preservation and enjoyment of a substantial property right of the applicant.
The property is public road right-of-way; therefore, the land use cannot be changed or further reduced from the current footprint.
3. The granting of the variance will not be detrimental to the public welfare or injurious to the other property in the territory in which the property is situated.
Granting of the variance will not be detrimental to the public welfare or injurious to the other property in the territory in which the property is situated.
4. In applications relating to a use in the 1% (base flood elevation, 100-year flood) floodplain set forth in Table 2-9 of the Plan, the variance shall not allow a lower degree of flood protection than the current flood protection.
The project is not located in the Bassett Creek floodplain.
5. The granting of the variance will not be contrary to the intent of taking all reasonable and practical steps to improve water quality within the watershed.
Because the project will reduce the impervious surface of the project area from existing conditions, the project will be improving water quality from existing conditions, but is not in compliance with the current Requirements document. The City will provide equivalent offsite treatment by the end of 2018.

Please see the attached letters from the City and its consultant for more information related to the variance request.

Erosion and Sediment Control

Since the area to be graded is greater than 10,000 square feet, the proposed project must meet the BCWMC erosion control requirements. Proposed temporary erosion control features include silt fence, and catch basin inlet protection.

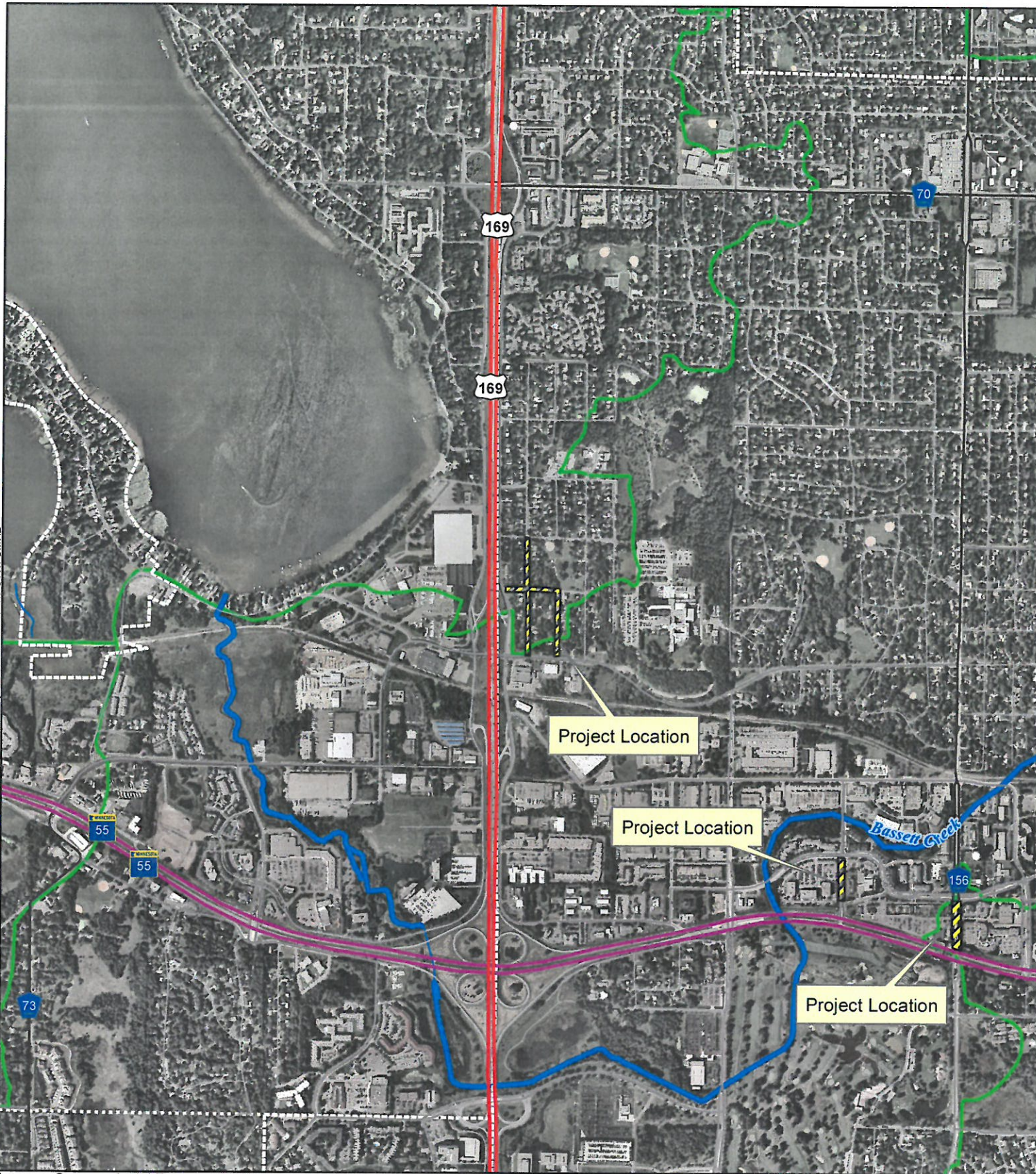
Recommendation

Conditional approval based on the following comments:

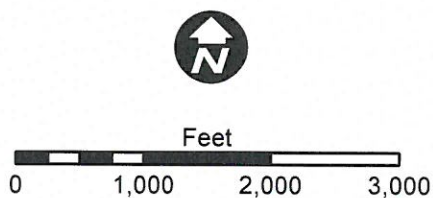
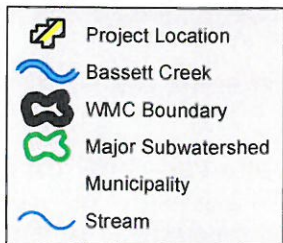
1. Commission approval of the City's variance request, including providing equivalent offsite treatment to meet the MIDS performance goals for the project by the end of 2018. Drawings for the future offsite treatment must be provided to the BCWMC Engineer for administrative review and approval.

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D – GV 2016 PMP STH 169-Plymouth Ave – Golden Valley
Date: March 9, 2016
Page: 4
Project: 23270051 2016 2072

2. Existing and proposed contours must be shown on the plans to verify silt fence placement in relation to project removals.
3. Erosion control should be shown for the Winnetka Avenue North sidewalk work and the Wisconsin Avenue retaining wall work.
4. A construction entrance should be shown for the western portion of the project.
5. Revised drawings (paper copy and final electronic files) must be provided to the BCWMC Engineer for final review and administrative approval.



Imagery Source: Aerial Express (2009)



LOCATION MAP
APPLICATION 2016-06
GV 2016 PMP
STH 169 - Plymouth Ave
Golden Valley, MN

Project Category: Water Quality

Project Title: Main Stem Water Quality Improvement Sites – Wirth Park (north of Plymouth Ave, east of Wirth Pkwy)

Total Estimated Cost: \$1,100,000

BCWMC Project Number: BC-3

Description:

This project will include construction of a water quality pond or similar storm water treatment facility benefitting the main stem of Bassett Creek.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County		\$300,000	\$800,000		

Justification:

This water quality improvement project will remove sediment and pollutants from storm water runoff in the residential and park areas generally located north of Plymouth Ave and east of Theodore Wirth Pkwy. Improving water quality in Bassett Creek is consistent with BCWMC goals.

Scheduling and Project Status:

A feasibility study will need to be prepared for this project.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan and is included in Table 5-3 of the Plan. This project would treat the storm water runoff from a 115-acre area and remove an estimated 131 pounds of phosphorus per year. The project is included in the BCWMC Resource Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality & Flood Control

Project Title: Sandburg & Louisiana
Water Quality Improvement
and Flood Reduction Project

Total Estimated Cost: \$501,000

BCWMC Project Number: BC-2 / BC-8

Description:

This project will include construction of improvements to improve water quality and reduce flooding in the DeCola Ponds area. The improvements will be made in the area south of the intersection of Sandburg Rd and Louisiana Ave.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County		\$201,000	\$300,000		

Justification:

This flood reduction and water quality improvement project in the area south of the intersection of Sandburg Rd and Louisiana Ave will help protect nearby residences from flooding and remove sediment and pollutants from storm water runoff generated by the surrounding industrial area. Reducing flooding impacts and improving water quality in Bassett Creek is consistent with BCWMC goals.

Scheduling and Project Status:

A feasibility study should be completed in 2018.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan and is included in the 10-year CIP list (Table 5-3) of the Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Bryn Mawr Meadows Water Quality Improvement Site, Minneapolis

Total Estimated Cost: \$500,000

Project Number: BC-5

Description:
This project was described as Option 7 in the Bassett Creek Main Stem Watershed Management Plan (June 2000). The project consists of the construction of a new stormwater Best Management Practice (BMP) in a park near the intersection of Morgan Ave and Laurel Ave, in the City of Minneapolis.

Source of Project Funding	2017	2018	2019	2020	2021
CIP account – BCWMC ad valorem levy through Hennepin County			\$500,000		

Justification:

As described in 2000, the BMP would treat runoff from 209 acres of land and would remove an estimated 22 lbs. of phosphorus per year, on average.

Scheduling and Project Status:

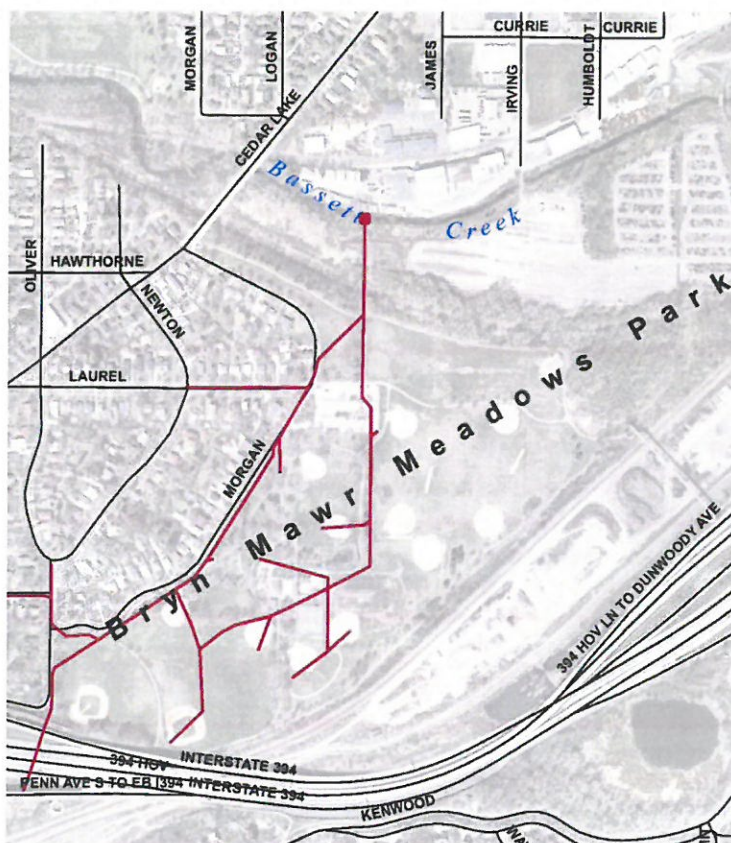
A feasibility study will need to be prepared for this project. As the project progresses, additional information will be provided.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan and is included in the BCWMC's Resource Management Plan.

Effect on Annual Operations Costs:

Not known at this time. This will be identified in the Feasibility Study.



Project Category: Water Quality

Project Title: Medley Park Stormwater Quality Treatment Facility – Medicine Lake Watershed

Total Estimated Cost: \$500,000

BCWMC Project Number: ML-12

Description:

This project in the City of Golden Valley will include construction of a storm water treatment pond or similar treatment facility. Built in the City's Medley Park, the facility will treat stormwater by removing phosphorous and sediment from runoff. The park currently has poor soils which are not conducive to recreational programming.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCWC ad valorem tax levy through Hennepin County			\$100,000	\$400,000	

Justification:

Stormwater runoff from the roughly 100 acre watershed in the northwest section of the City of Golden Valley currently flows into ponds on the western side of Medley Park. The proposed stormwater quality treatment facility would add storage and treatment capabilities to the existing ponds and would remove solids and phosphorous upstream of Medicine Lake. The proposed facility would help achieve the goals of the Medicine Lake TMDL.

Scheduling and Project Status:

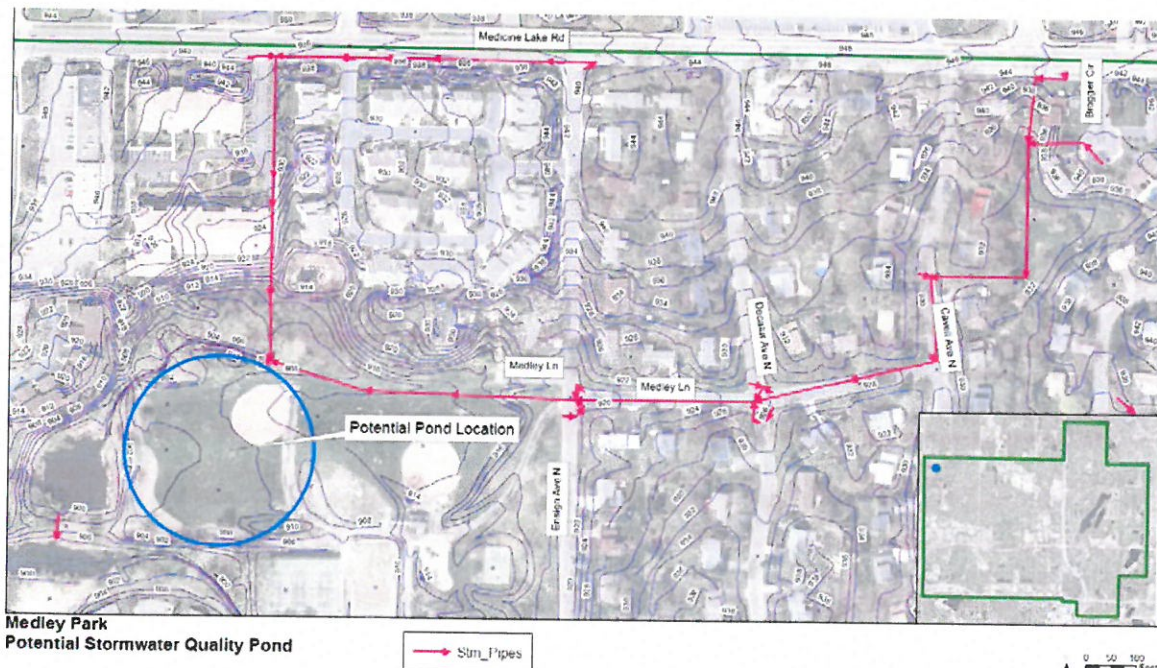
The project is currently in the very early stages. Design and construction has not yet been scheduled.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BWCWC Watershed Management Plan and will be included in the City of Golden Valley CIP.

Effect on Annual Operations Costs:

This project will have no effect on BCWMC Annual Operations Costs.



Project Category: Channel Restoration

Project Title: Restoration & Stabilization of Historic Bassett Creek Channel

Total Estimated Cost: \$500,000

BCWMC Project Number: BC-9

Description:

This project in the City of Minneapolis will include bank stabilization and erosion repair methods and will remove obstructions as necessary. The project aims to mitigate impacts from flooding. It's believed that work associated with the Bottineau Light Rail Line will make most of the necessary repairs, however this work proposed for 2020-2021 may also be needed.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$500,000

Justification:

This portion of the Main Stem of Bassett Creek was cut off from the current main channel in the 1940s-50s when Highway 55 was constructed but remains part of the BCWMC Trunk System. Flows from the current main stem channel sometimes overflow into this area causing localized flooding and extreme sedimentation, along with trash and debris. There is damage to retaining walls and storm outlet structures. The City of Minneapolis cleaned up the area in 2015. Changes for the LRT project are likely to address the structural damage. This project is a placeholder in anticipation of remaining remediation after the LRT project has been constructed.

Scheduling and Project Status:

A Feasibility Study should be completed in 2021. This project is anticipated for construction during the winter of 2022 - 2023.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Bassett Creek Main Stem Stream Restoration – Bassett Creek Drive to Golden Valley Road

Total Estimated Cost: \$500,000

BCWMC Project Number: 2021CR-M

Description:

This project in the city of Golden Valley will include bank stabilization and erosion repair methods and will remove obstructions as necessary. Consideration should be given to a variety of best management practices including coir logs, erosion control blanket, live staking, cross veins, riffles, rip-rap, and buffers. Per BCWMC policy, the Commission will strive to utilize soft armoring techniques as much as possible and wherever feasible.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$100,000	\$400,000

Justification:

The City of Golden Valley inventoried streambank conditions and areas of erosion along the main stem of Bassett Creek. This area is adjacent to Rice Lake Nature Area and Mary Hills Nature Area. The creek will be accessible for repairs and stabilization through public property. Rehabilitation and repair of Bassett Creek in this area is consistent with BCWMC goals regarding water quality.

Scheduling and Project Status:

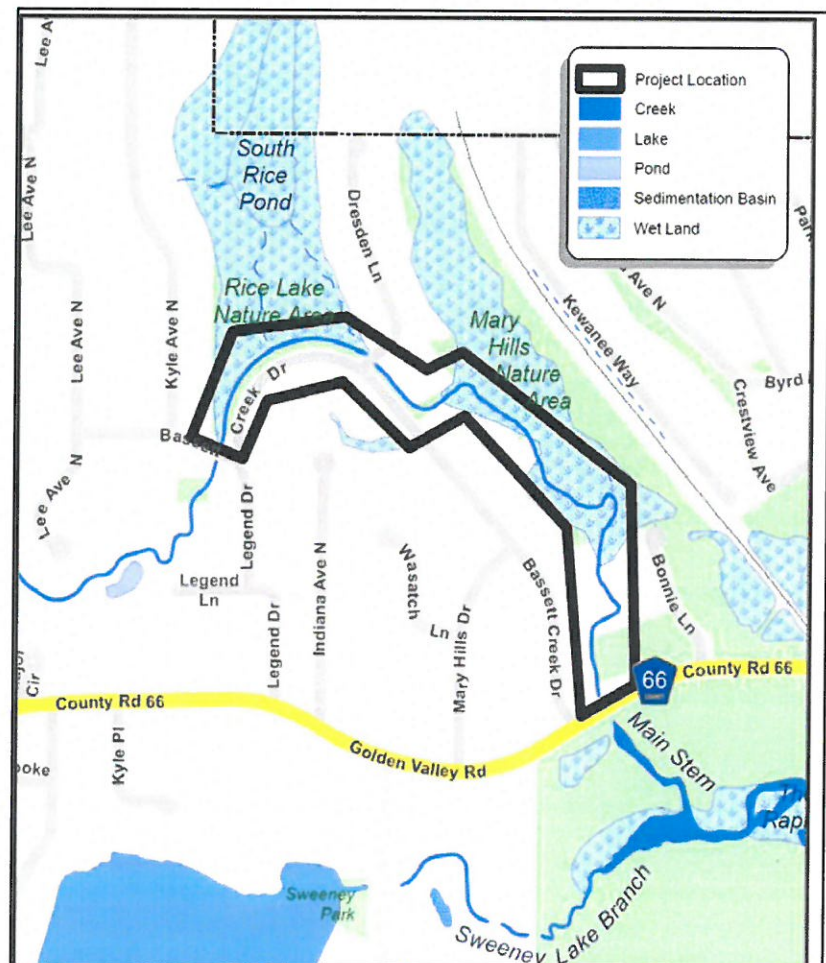
A Feasibility Study should be completed in 2020. This project is anticipated for construction during the winter of 2021 - 2022.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Stormwater Treatment for Dissolved Phosphorus Removal, Sweeney Lake Watershed

Total Estimated Cost: \$400,000

BCWMC Project Number: SL-11

Description:

This project in the city of Golden Valley will use an emerging technology to treat water in the Sweeney Lake Branch of Bassett Creek with spent lime or a similar product to reduce dissolved phosphorus concentrations. A portion of flow in the creek would be diverted for treatment; more than one treatment location may be used. The "cleaned" creek water would be returned to the natural channel to flow on through Schaper Pond and into Sweeney Lake.

Source of Project Funding	2017	2018	2019	2020	2021
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$400,000

Justification:

Sweeney Lake is on the State's Impaired Waters List for nutrients. While the Schaper Pond Project is projected to greatly improve water quality in Sweeney Lake, it's likely that dissolved phosphorus levels will still need to be reduced in the lake. This project was identified in the Sweeney Lake TMDL as a possible chemical treatment option.

Scheduling and Project Status:

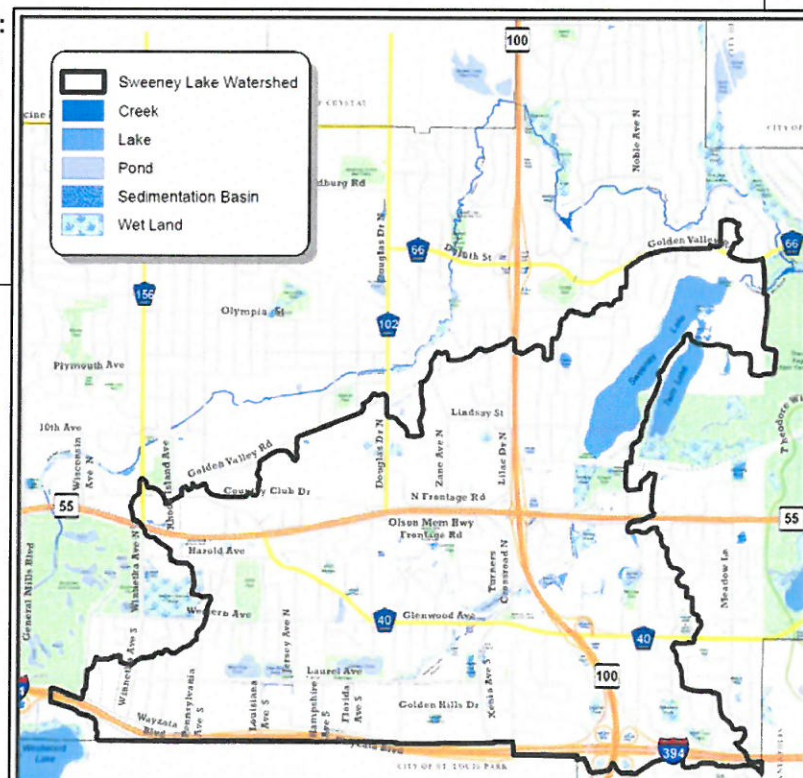
A Feasibility Study should begin on or about April 1, 2020. This project is anticipated for construction 2021.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Dredging Accumulated Sediment In Main Stem Bassett Creek, Wirth Park

Total Estimated Cost: \$400,000

BCWMC Project Number: BC-7

Description:

This project in Theodore Wirth Park in the city of Golden Valley consists of dredging sediment that has accumulated over decades within the Main Stem of Bassett Creek just north of Hwy 55. During the winter (on frozen ground), equipment such as backhoes will be used to remove sediment within the channel. The removal of sediment improves stream flow and habitat, will reduce in-stream erosion and will improve stream water quality.

Source of Project Funding	2017	2018	2019	2020	2021
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$400,000

Justification:

The removal of accumulated sediment will improve stream flow and reduce in-stream erosion, ultimately improving stream water quality. Additionally, habitat for fish and macroinvertebrates in the stream should improve as layers of sediment are removed, possibly exposing rock or cobble for spawning beds and interstitial micro-habitats.

Scheduling and Project Status:

A Feasibility Study should begin on or about April 1, 2020. Project implementation is anticipated during the winter 2021 - 2022.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.

Project Category: Flood Reduction

Project Title: Decola Pond Medicine Lake Road Sub Watershed Flood Reduction

Total Estimated Cost: \$1,300,000

BCWMC Project Number: BC-10

Description:

Implementation of the Medicine Lake Road and Winnetka Avenue Area Flood Reduction Study prepared for Crystal, Golden Valley and New Hope. Potential projects include rate control facilities with potential water quality features, structural flood proofing and other projects to be determined.

Source of Project Funding	2019	2020	2021	2022	2023
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$300,000	\$1,100,000

Justification:

Medicine Lake Road east of Winnetka Avenue is subject to repeat flooding that inundates the roadway and adjacent property, and there is repeat property damage from flooding around DeCola Ponds due to lack of runoff rate control in the approximately one square mile sub-watershed. Project may include construction of rate control features, with water quality benefits and/or structural flood proofing of homes. Flood damage reduction and improving water quality in Bassett Creek are consistent with BCWMC goals.

Scheduling and Project Status:

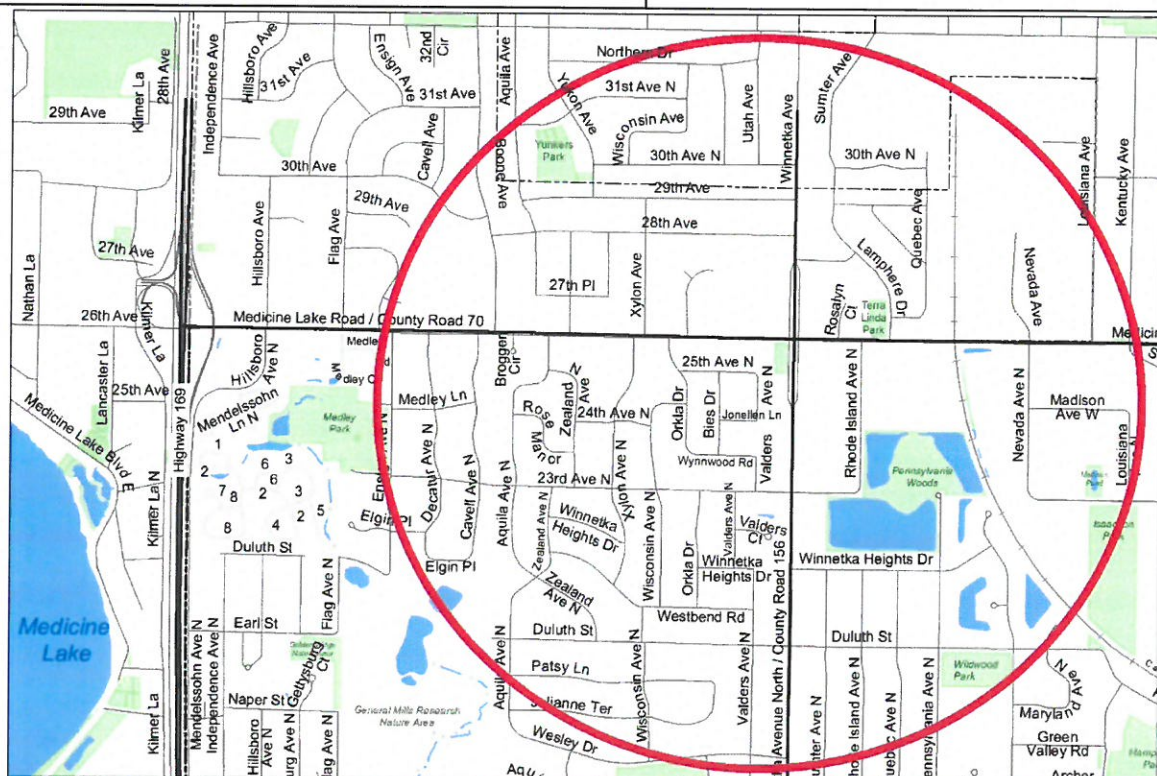
A feasibility study will need to be prepared for this project. A plan amendment will also be required. Construction of the project is anticipated for 2022.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BWCMC Watershed Management Plan. It would meet the “gatekeeper” criteria (policy 111) of addressing flooding concerns, and may also improve water quality in a priority waterbody (Bassett Creek). This project would also meet the following additional criteria (policy 111): addresses an intercommunity drainage issue, tributary subwatershed includes more than one community, and addresses significant infrastructure or property damage concerns. The project is one of many that are being considered to reduce flooding on Medicine Lake Rd. and DeCola Ponds.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality/Water Capacity

Project Title: Bassett Creek Park Pond Dredging

Total Estimated Cost: \$800,000

BCWMC Project Number: 2018 BCP-2

Description:

This project in the city of Crystal will removed sediment that has collected in the main channel of the North Branch of Bassett Creek within Bassett Creek Park Pond. The dredging of sediment will improve water quality of the creek downstream.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County	\$800,000				

Justification:

The City of Crystal has been monitoring the pond for a number of years and it is in need of dredging. The project will improve water quality downstream by trapping sediment in the pond, thus minimizing sediment passing downstream to Bassett Creek.

Scheduling and Project Status:

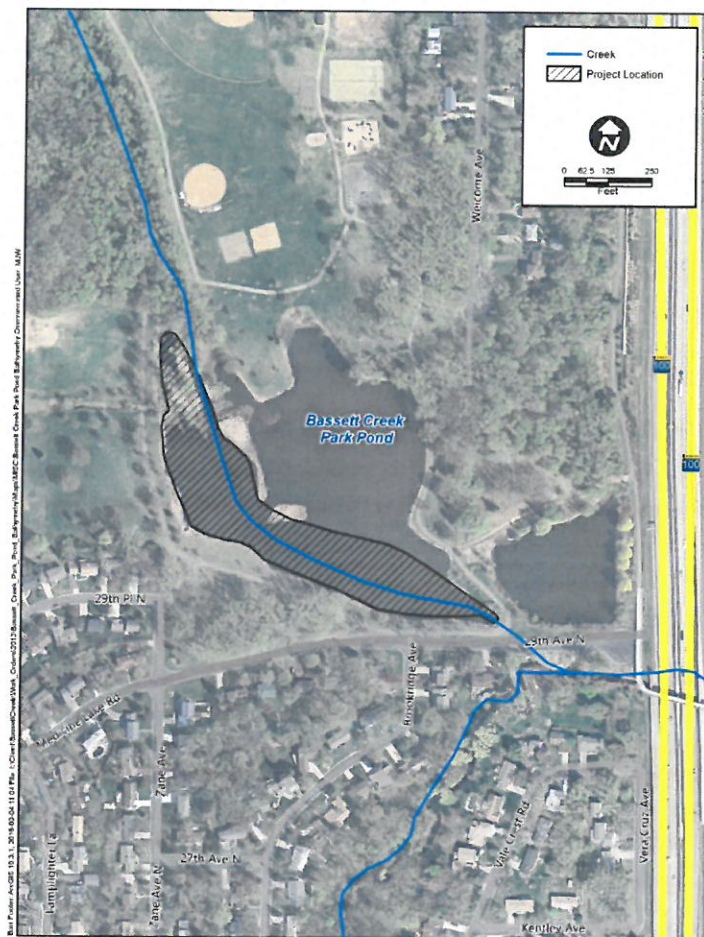
A Feasibility Study should begin in the fall of 2016. This project is anticipated for construction during 2018.

Relationship to General Plan and Other Projects:

Dredging was previously performed during 1995 by the Corps of Engineers as part of the Bassett Creek Flood Control Project. Although the dredging was constructed as a betterment, and is not part of the Federal Project, the BCWMC and City included the dredging to improve water quality of Bassett Creek Park Pond and Bassett Creek. This project is consistent with the goals and policies of the BCWMC 2015-2025 Watershed Management Plan and is included in the 10-year CIP (Table 5-3).

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Westwood Nature Center Water Quality Improvement Project

Total Estimated Cost: \$250,000

BCWMC Project Number: 2019-WST-2

Description:

The Westwood Hills Nature Center is in the planning phase of a complete reconstruction of its facilities in 2019. These improvements include a proposed LEED Certified building and other improvements. As part of this project, the city is proposing additional water quality improvement, which may include a pervious paver parking lot, which would eliminate runoff from the existing parking area, improvements to the existing stormwater pond, adjacent to the parking lot, or a vegetation management and stabilization project for the outlet channel. Further information will be available once the plans for the new building are developed and the budget and scope of the project are refined.

Source of Project Funding	2017	2018	2019	2020	2021
CIP Account – BWCMC ad valorem tax levy through Hennepin County			\$ 250,000		

Justification:

This project will improve the water quality and recreational suitability of Westwood Lake and Bassett Creek by removing sediment and pollutants from storm water runoff generated by the surrounding impervious road surfaces.

Scheduling and Project Status:

A Feasibility Study should be completed on or about April 1, 2018. This project is anticipated for construction during the summer of 2019.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan. However, this project is not included in the Plan's Capital Improvement Program and may require a Plan Amendment.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



2016 Community Events in the Bassett Creek Watershed

The Commission should consider participating in some of these events. See staff notes for recommendations.

Date	Event	City	Staff Notes
April 8 – 9 6-9 p.m. Fri 9 a.m. – 1 p.m. Sat	Plymouth Home Expo	Plymouth	Booth reserved – need volunteers!
Saturday April 16 9 a.m. – 3 p.m.	Organic Living Workshop	St. Louis Park	MCWD is participating. BCWMC participation would be great, if possible!
Saturday April 23 9:30 a.m. - Noon	Bassett Creek Clean Up	Minneapolis, Bassett Creek Park	BCWMC materials and volunteer should be on hand at staging area, if possible.
Wednesday May 4 6:00 p.m.	Arbor Day and Park Clean Up	Crystal, North Lions Park (Shingle Creek Watershed)	Possible event for BCWMC participation.
Early June	Eco Fun Fest and Native Plant Market	Minnetonka	Possible event for BCWMC participation.
July 15 – 17	Duk Duk Daze	New Hope, Northwood Park	BCWMC should participate if community organization area is available. Can coordinate with Friends of Northwood Lake.
September 17	Golden Valley Arts and Music Festival and Parade	Golden Valley	BCWMC typically participates and should plan for it this year.
??	Medicine Lake Walk About	Medicine Lake, Plymouth	BCWMC participation would be great, if possible!

Briarwood/Dawnview Water Quality Improvement Project

Briarwood/Dawnview BCWMC Project BC-7



FINAL REPORT
March 17, 2016

I. Project Timeline and Key Documents

A feasibility study for the Briarwood/Dawnview Water Quality Improvement Project was completed in April 2013 by the City's consultant, WSB & Associates. The project was ordered by the Bassett Creek Watershed Management Commission (Commission) in September 2013 through Resolution 13-05. Construction plans were developed by WSB. The 50% design plans and 90% design plans were approved by the Commission in April and September 2014, respectively.

The feasibility study, resolution ordering the project, and design plans can be found online at: <http://www.bassettcreekwmo.org/index.php?clD=274>.

An [agreement](#) between the City and the Commission for design and construction of the project was approved September 19, 2013.

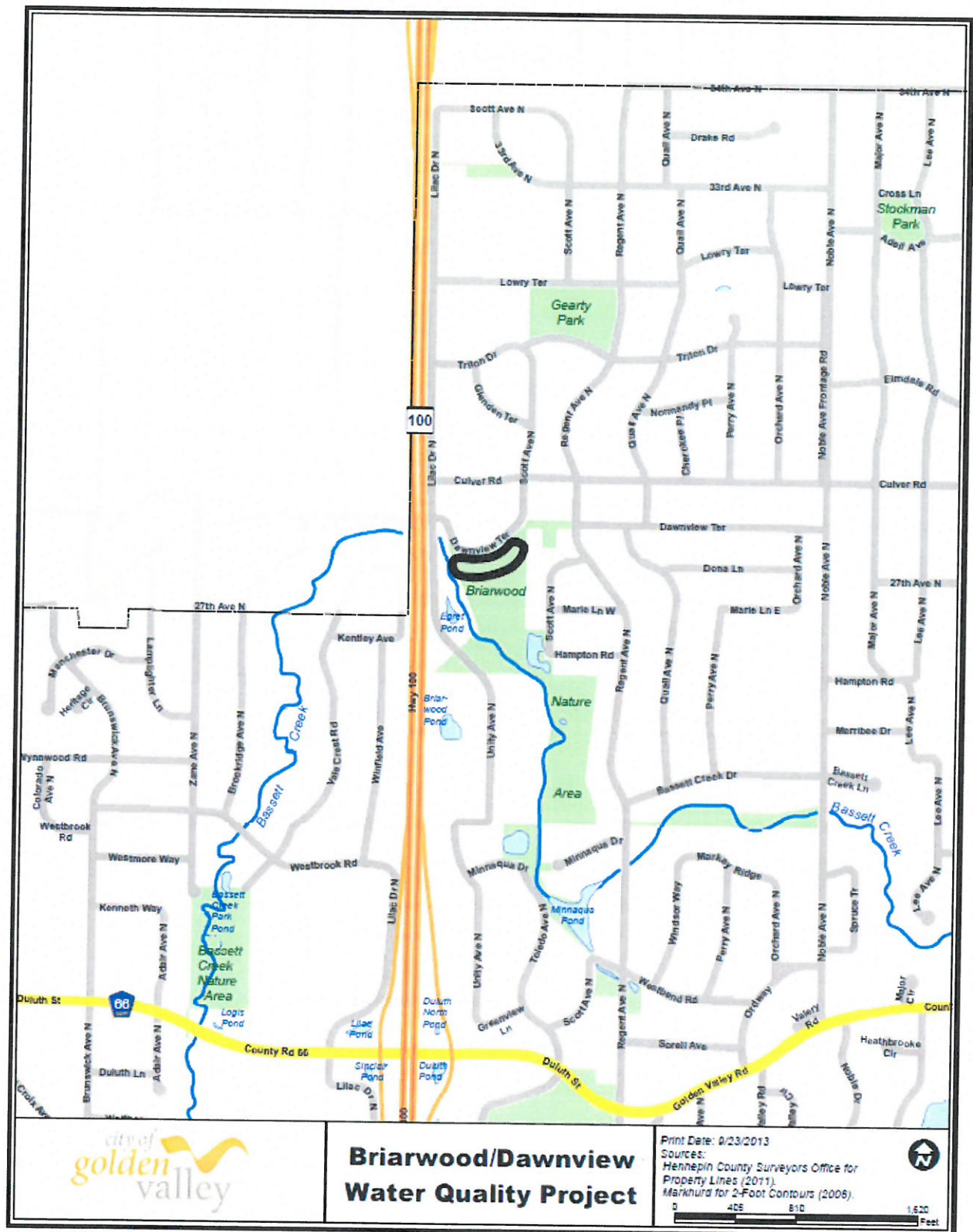
Project construction milestones include:

- December 2014 – award contract
- January 2015 – construction begins
- March 2015 – pond excavation substantially complete
- June 2015 – utility work and restoration substantially complete
- September 2015 – final walkthrough, some vegetation touch up remains
- October 2015 – project acceptance, final payment processed
- October 2017 – two-year warranty period ends

II. Project Area

The project area consists of an approximately one acre site located in Golden Valley, just east of Trunk Highway 100 and ½ mile north of CSAH 66, adjacent to Dawnview Terrace.

Project location map is on the following page:



III. Project Description and Outcomes

Previous conditions of the site had a 42 inch diameter storm water pipe discharging directly into Bassett Creek. The 182 acre sub watershed discharging into the creek through this pipe had no treatment for storm water runoff.

The proposed project was to create a storm water quality treatment pond upstream of the creek that would pretreat storm water before discharging into Bassett Creek. The 4.96 ac. ft. storm water retention pond was constructed just east of Bassett Creek in the Briarwood Nature Area. The storm sewer was diverted to direct storm water to enter the pond, allowing for settlement and pre-treatment before reaching the outlet and discharging into Bassett Creek.

Completion of this project reduced the overall pollutant load to the Main Stem of Bassett Creek. The feasibility report for the project estimated that the proposed project would reduce total phosphorus by 35 pounds per year and total suspended solids by 21 tons per year. After construction, the P-8 model shows that 40 pounds of total phosphorus and 23 tons of total suspended solids will be removed annually.

The completed project added pre-treatment to a 182 acre sub-watershed that previously had no treatment before discharging into Bassett Creek. As a result, the tax payers and community will receive increased water quality downstream of the project. The pond will treat and remove suspended solids and debris, and will increase phosphorus removal. After construction of the pond, a native vegetative buffer was installed to act as a buffer and filter sediment and pollutants from overland flow before reaching the pond. The native vegetative buffer has a mixture of native flowers that are beneficial to pollinators and will add color throughout the growing season.

IV. Budget and Funding

The Engineers estimate for the project was \$217,800.00. WSB & Associates was the consultant for the project and had a cost of \$32,099.25 for professional services during the project. The contract for construction was awarded for \$187,440.75. However, the final cost for the project construction was \$203,432.05. After tree and brush removal, a survey was conducted showing that more material would need to be excavated to build the pond to meet the design standards. The original contract amount was 6,500 Cubic Yards and the final amount removed was 8,200 Cubic Yards. This resulted in an increase of \$22,950.00 and was the only major change to the plans during construction. There were also several quantities that came in under budget for the project such as removal of side walk and curb and gutter that resulted in being under quantity by \$6,958.70 for these items.

The project was funded by Commission funds and implemented by the City of Golden Valley. The City incurred cost for in-kind staff hours for project management, construction observation, and reporting.

Break down of construction-related costs:

- Removals (clearing, bituminous, side walk)- 8%
- Erosion Control- 3%
- Restoration- 6%
- Pond construction- 61%
- Utility work (water main relocation, storm sewer work, etc.) - 22%

V. Lessons Learned

Obtaining an accurate topographic survey

Due to the dense tree cover it was difficult to obtain an accurate topographic survey. This caused the project to go over quantity on excavation because the original information used was found to be inaccurate once the trees were removed. For future projects removing trees prior to survey work would be beneficial.

Creating a long term maintenance plan for the native vegetation

The contractor was responsible for establishing native vegetation surrounding the pond. Ensuring that the vegetation is properly managed and maintained after the project is completed is important. In order to establish a healthy buffer, the native species will need to be managed and invasive species removed to ensure long term results. The City was able to add the long term vegetation maintenance to our existing native restoration program.

Communicating expectations with stake holders

Early in the process, City staff met with stake holders to get an understanding of what the neighborhood was expecting from this project. As the project went forward, staff communicated with the neighborhood defining the expectations and goals of the project. Stake holders were made aware of the type of activity, equipment, and work that was going to take place. The success of this project was strongly based on ensuring the stakeholders understood the construction plan and the contractor implemented the plan.

VI. Maintenance

The City of Golden Valley will be responsible for the maintenance of the pond. Anticipated maintenance will include pond dredging upon sedimentation reaching 50% of the storage volume, which is estimated to be once every twenty years.

Other maintenance includes native vegetation establishment and preservation. It is the responsibility of the contractor to establish the native vegetation for the first two years after final project completion. After that, the City will add this pond to their list of wetlands and ponds that Prairie Restoration is contracted to maintain.

VII. Photos

Nature area before construction



Wood chips from clearing and grubbing



Nature area after clearing and grubbing



Starting excavation of the basin



Continuing excavation of the basin



Completed pond basin



Installation of outlet pipe to Bassett Creek



Basin with temporary stabilization



Pond basin with cover vegetation emerging



Emergency pond overflow



Item 5H.
BCWMC 3-17-16
Full document online



7800 Golden Valley Road
Golden Valley, MN 55427

March 8, 2016

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

Subject: Briarwood-Dawnview Water Quality Improvement Project (City Project NO. 12-26) Final Request for Reimbursement

Dear Ms. Jester,

Enclosed you will find documentation for all engineering and construction expenses incurred to date for the Briarwood-Dawnview Water Quality Improvement Project. This is the first and final request to the Bassett Creek Watershed Management Commission (BCWMC) for reimbursement of City expenses incurred for this project.

The City incurred a total cost of \$239,040.90 and after commission expenses is requesting final reimbursement amount of \$230,401.91 for funds incurred to date, as part of the Briarwood-Dawnview Water Quality Improvement Project. The attached Golden Valley General Ledger Activity Report shows the total cost categorized by labor (salaries, insurance, retirement), operating supplies, professional services, and construction expenses. A copy of each expense listed on the report is also attached to this letter for your information and documentation.

The City of Golden Valley is requesting final reimbursement for funds incurred to date, as outlined in the Feasibility Report for Water Quality Improvement Project BC-7 Cooperative Agreement dated October 18th, 2012 and Briarwood-Dawnview Water Quality Improvement Project Cooperative Agreement dated September 19th, 2013.

The City is requesting to be reimbursed \$11,102.25 for the Feasibility Report and \$219,299.66 for cost incurred during construction of the project and as outlined in the Cooperative Agreements

Reimbursement to the City should be sent to: City of Golden Valley, Attn: Finance Dept, 7800 Golden Valley Rd, 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 763-593-8044.

Sincerely

A handwritten signature in black ink, appearing to be 'JO', written over the word 'Sincerely'.

Jeff Oliver P.E., City Engineer

Enclosures

C: Marc Nevinski, Physical Development Director
 Tom Hoffman, Water Resources Technician
 Sue Virnig, Finance Director



7800 Golden Valley Road
Golden Valley, MN 55427

Remit To:
CITY OF GOLDEN VALLEY
7800 GOLDEN VALLEY RD
GOLDEN VALLEY MN 55427

Billing Address: 116776
BASSETT CREEK WATERSHED MGMT COMMISSION
7800 GOLDEN VALLEY RD
GOLDEN VALLEY MN 55427

INVOICE

8054

Invoice Date 3/7/2016

Due Date 3/7/2016

Page: 1

Item	Remark	Amount
001	BRIARWOOD PROJECT REIMB	230,401.91
Total Amount Invoiced		230,401.91
Tax Amount		
Balance Due		230,401.91

Please return one copy with your payment.



Comparison of Public Notice Publication Options

Background: At its February 2016 meeting, the BCWMC did not designate an official publication. It was noted that although Finance & Commerce's circulation reaches all nine member cities, it is not a publication read by a typical resident. Staff was asked to research options including the Star Tribune. Below is a comparison of public notice publication options for a typical-length BCWMC notice. The BCWMC's latest practice is to post public notices in Finance & Commerce (its official publication) + Lakeshore Weekly News + Sun Sailor/Sun Post for a total cost (for two weeks of printing a typical-length notice) of \$1,084.79.

Staff Recommendation: Staff believes that the BCWMC notices "stand out" better in smaller, local papers rather than the Star Tribune. Unfortunately, the local papers currently used by the BCWMC do not reach residents in Minneapolis. Therefore, staff recommends that the Commission designate Finance & Commerce as its official publication and use it and the Sun publications to publish its legal notices for a total two-printing cost of \$875.78. Staff recommends eliminating BCWMC notices in the Lakeshore Weekly News and instead, working with the Bryn Mawr and Harrison Neighborhood Associations to publish BCWMC notices (or provide links to online notices) in their neighborhood newsletters.

Newspaper	Rate of cost	Cost of typical length notice/ 1 printing	Circulation (# of papers)	Estimated readers	BCWMC Communities Reached
Finance & Commerce	\$0.66 per line at 7 pt. font; \$0.61 per line at 8 pt. font	\$60.15			Hennepin County
Lakeshore Weekly News	\$9.50 per inch	\$104.50	15,000	30,240	Minnetonka & Plymouth
Star Tribune	\$5.60 per line	\$571.20	172,130	989,494	All nine
Sun Sailor/Sun Post	\$11.50 per inch	\$377.74	55,990	140,000	Sun Post: Crystal, Golden Valley, New Hope, and Robbinsdale; Sun Sailor: Minnetonka, Plymouth, St. Louis Park

Information provided by the BMNA website: The *Bryn Mawr Bugle* is published monthly, except in January, by the Bryn Mawr Neighborhood Association (BMNA). It is the official newsletter of the BMNA. Distribution is free to Bryn Mawr residents. Copies are also available at the Bryn Mawr Market, Bryn Mawr Mobil and Cuppa Java.



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

Item 5K.
BCWMC 3-17-16

February 9, 2016

Mr. Jim de Lambert
Chair
Basset Creek Watershed Management Commission
7800 Golden Valley Rd
Golden Valley, MN 55427

RE: Response to comments on the Twin Cities Metropolitan Area Chloride Management Plan and Draft
Twin Cities Metropolitan Area Total Maximum Daily Load Report

Dear Mr. de Lambert:

Thank you for your comments on the Draft Twin Cities Metropolitan Area (TCMA) Chloride Management Plan (CMP) and Draft TCMA Chloride Total Maximum Daily Load (TMDL) report. Please see attached spreadsheet with your comments and our responses.

Thank you for taking the time to review and provide comments on the Draft TCMA Chloride Management Plan (CMP) and Draft TCMA Chloride Total Maximum Daily Load (TMDL) report. Your feedback has helped to improve the reports. Please feel free to contact me if you have further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brooke C. Asleson".

Brooke C. Asleson
Watershed Project Manager
Metro Watershed Section
Watershed Division

BA:cp

Enclosure



Bassett Creek Watershed Management Commission

MEMO

Date: March 7, 2016
From: Laura Jester, Administrator
To: BCWMC Commissioners
RE: Administrator's Report

Aside from this month's agenda items, the Commission Engineers, city staff, committee members, and I continue to work on the following Commission projects and issues.

CIP Projects (more resources at <http://www.bassettcreekwmo.org/projects.>)

2017 Plymouth Creek Restoration Project, Annapolis Lane to 2,500 feet Upstream (2017CR-P) (See agenda item 5J): The draft feasibility study for this project was presented at the February meeting. The study was approved pending some minor edits. The final feasibility study is not available online at <http://www.bassettcreekwmo.org/index.php?cID=284> and will be used to request 2017 levy funds from Hennepin County later this year. In September, the Commission is expected to hold a public hearing on the project, order the project, and enter an agreement with the City of Plymouth to design and construct the project.

2017 Main Stem Bassett Creek Streambank Erosion Repair Project (2017CR-M): The feasibility study for this project is underway by the Commission. (Feasibility study proposal was approved at the October meeting.) The Commission Engineer is beginning the technical portions of the study. Resident input is being sought in a variety of ways. A postcard was mailed to all households in both Bryn Mawr and Harrison neighborhoods in November. Also in November, Commissioner Black and I talked with residents at the Harrison Art Festival. I presented information about the project at both the Bryn Mawr and Harrison Neighborhood Association Board meetings in December and I'm scheduled to present the project to the Redevelopment Oversight Committee on February 16th. The Phase II Environmental Investigation work plan was approved by the MPCA and field work for that investigation is complete.

2013 Four Season Area Water Quality Project (NL-2): No change since November 2015 report. The City of Plymouth has been looking at different options for this area including the original stream restoration, using only rock to stabilize the channel, and a flocculation facility. The City received comments on these options at a public meeting in January. Currently, the City is waiting for the Four Seasons Mall property to redevelop with hopes of building treatment into a redevelopment project.

2014 Schaper Pond Diversion Project, Golden Valley (SL-3): No change since last month's report. The Commission approved 90% plans at their February 2015 meeting. The City's consultant (Barr Engineering) completed contract documents for the project May 21st, the bid advertisement publication date. The city council awarded the contract on July 7th to Sunram Construction. The pre-construction meeting was held July 30th. Mobilization began on November 11 and construction began on November 24. On December 10, the baffle was installed and fully deployed, and the contractor demobilized from the site for the season. In spring 2016, the contractor will perform final clean-up and any needed site restoration to ensure turf establishment.

2014 Twin Lake In-lake Alum Treatment, Golden Valley (TW-2): No change since July 2015 report. At their March 2015 meeting, the Commission approved the project specifications and directed the city to finalize specifications and solicit bids for the project. The contract was awarded to HAB Aquatic Solutions. The alum

treatment spanned two days: May 18- 19, 2015 with 15,070 gallons being applied. Water temperatures and water pH stayed within the desired ranges for the treatment. Early transparency data from before and after the treatment indicates a change in Secchi depth from 1.2 meters before the treatment to 4.8 meters on May 20th. City staff reports no complaints or comments from residents since the treatment and also reports consistently clear water since the last actual reading on May 20th.

2014 Briarwood/Dawnview Water Quality Improvement Project, Golden Valley (BC-7) (See agenda items 5G and 5H): At this meeting the Commission will receive a final report for this project along with the final reimbursement request. NewLook Contracting, the contractor for this project, completed the final punch list and other work including temporary stabilization of the disturbed areas and the utility work. The native vegetation is coming in nicely and will remain the responsibility of the contractor for two years following the final completion date.

2015 Main Stem Restoration Project 10th Avenue to Duluth Street, Golden Valley (2015CR): The 90% design plans were approved by the Commission at their June 2015 meeting. The project is being constructed in two phases, each under separate contract. Phase one includes stream bank shaping, placement of field stone rock and 12-inch bio-logs, and repair of storm sewer outlets. The first phase of the project began November 23, 2015. The initial stabilization work in Areas A, B, C, D and E wrapped up February 26, with the exception of relocating the trail away from the stream in Area E. The contractor will return in the spring to complete the work in Area E, and perform final grading and restoration in all areas of the project.

Phase two includes the establishment of native vegetation along the stream which will commence this spring and continue over two additional growing seasons to ensure proper establishment. The bid opening for phase two, native vegetation establishment is March 16, 2016. It is anticipated that the total contract amount for both phase one and phase two will be within the Watershed's overall project budget.

2016 Northwood Lake Improvement Project, New Hope (NL-1): At the August meeting, the Commission entered an agreement with the City of New Hope to design and construct the project and a sub-grantee agreement to carry out the majority of tasks in the Clean Water Partnership (CWP) grant work plan. 50% and 90% design plans were approved by the Commission at the September and November 2015 meetings, respectively. The project received two State grants totaling \$700,000. At the February 2016 meeting, the Commission agreed to amend the agreement with the City of New Hope to increase the overall project budget due to high construction bids and to allocate a percentage of grant funding to offset city costs. The project is expected to be constructed later this year.

2016 Honeywell Pond Expansion Project, Golden Valley (BC-4): No change in this item since January 2016 report. At the August meeting, the Commission entered an agreement with the City of Golden Valley to design and construct the project. At the September meeting, the Commission granted conditional approval of the 50% design plans for the project and authorized the City to proceed with final plans and contract documents. 90% design plans were presented and approved at the November Commission meeting. The final plans and specs are being prepared currently. The project will be let with the Douglas Drive project, expected in early March. Construction of the pond will likely occur in 2017.

Other Projects

Chloride Trainings/Education: I have been working to learn more about how the Commission can help reduce the amount of chloride in waterbodies. I have met with other watersheds, MPCA staff and Fortin Consulting about training opportunities for road authorities and commercial deicer applicators and ways to improve the State's

database of certified professionals. I will also participate on a technical stakeholder committee for a permeable paver research project being conducted by the University of Minnesota. Their first meeting is March 14th.

Hennepin County Natural Resources Partnership: This group met on February 23rd and received presentation from several Met Council staff on their various monitoring programs (including WOMP, CAMP, etc.) and monitoring results.

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

Non-Point Education for Municipal Officials (NEMO) Workshops: Two of the three workshops were held in 2015 (Lake Minnetonka on July 23rd and a winter maintenance workshop on October 7th.) In order to fulfill the 2015 contract, the U of M Extension's NEMO Program will hold individual programs for select cities in the west metro. Currently, staff is working to bring a NEMO workshop to the St. Louis Park City Council.

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

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

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