



## **Bassett Creek Watershed Management Commission**

### **A g e n d a**

**11:30 a.m., Thursday, December 16, 2010**

**Golden Valley City Hall – 7800 Golden Valley Road, Golden Valley 55427**

- 1. CALL TO ORDER**
- 2. APPROVAL OF AGENDA AND CONSENT AGENDA** - Items marked with an asterisk (\*) will be acted on by consent with one motion unless a commissioner requests the item be removed from the consent agenda.
- 3. CITIZEN INPUT ON NON-AGENDA ITEMS**
- 4. ADMINISTRATION**
  - A. Presentation of November 17, 2010, Meeting Minutes \***
  - B. Presentation of Financial Statements**
  - C. Presentation of Invoices for Payment Approval**
    - i. Kennedy & Graven – Legal Services thru November 19, 2010**
    - ii. Barr Engineering – Engineering Services thru November 26, 2010**
    - iii. Watershed Consulting, LLC– Geoff Nash Administrator Services thru November 30, 2010**
    - iv. Amy Herbert – November Administrative Services**
    - v. D'amico Catering – December BCWMC Meeting Catering**
    - vi. City of Golden Valley – Reimbursement for Creek Walk Expenses**
  - D. Resolution 10-09 to Authorize Deputy Treasurer to Transfer Funds from Administrative Account to the TMDL, Long-term Maintenance, and Channel Erosion Accounts**
- 5. NEW BUSINESS**
  - A. Discussion with Brooke Asleson, MPCA, on the Twin Cities Metropolitan Area Chloride Project** (*see MPCA handout "Twin Cities Metropolitan Area (TCMA) Chloride Project"*)
  - B. 2010 Flood Control Project Inspection** (*see December 8, 2010, Barr Engineering memo*)
- 6. OLD BUSINESS**
  - A. City of Plymouth Final Reimbursement Request for West Medicine Park Pond Project** (*see November 23, 2010, City of Plymouth Letter and December 3, 2010, Barr Engineering e-mail*)
  - B. TMDL Updates** (*verbal update*)
  - C. Update on BCWMC's Clean Water Legacy Grant Applications** (*verbal update*)
  - D. Next Generation Planning Process** (*see Barr Engineering memo*)
- 7. COMMUNICATIONS**
  - A. Chair**
  - B. Administrator**
  - C. Commissioners**
  - D. Committees**
  - E. Counsel**
  - F. Engineer**
- 8. INFORMATION ONLY**
- 9. ADJOURNMENT**

# Bassett Creek Watershed Management Commission

## Minutes of the Meeting of November 17, 2010

### 1. Call to Order

The Bassett Creek Watershed Management Commission (BCWMC) was called to order at 11:35 a.m., Wednesday, November 17, 2010, at Golden Valley City Hall by Chair Loomis. Ms. Herbert conducted roll call.

#### Roll Call

<i>Crystal</i>	Commissioner Pauline Langsdorf, Secretary	<i>Administrator</i>	Geoff Nash
<i>Golden Valley</i>	Commissioner Linda Loomis, Chair	<i>Counsel</i>	Charlie LeFevere
<i>Medicine Lake</i>	Commissioner Ted Hoshal	<i>Engineer</i>	Karen Chandler
<i>Minneapolis</i>	<i>Not represented</i>	<i>Recorder</i>	Amy Herbert
<i>Minnetonka</i>	Commissioner Bonnie Harper-Lore		
<i>New Hope</i>	Commissioner John Elder		
<i>Plymouth</i>	Commissioner Ginny Black, Vice Chair		
<i>Robbinsdale</i>	Commissioner Wayne Sicora		
<i>St. Louis Park</i>	Commissioner Jim deLambert		

Also present:

Laura Adler, BCWMC Technical Advisory Committee, City of St. Louis Park  
 Caroline Amplatz, Caroline's Kids Foundation  
 Derek Asche, BCWMC Technical Advisory Committee, City of Plymouth  
 Sean P. Bohan, Advanced Engineering  
 Rebecca Forman, Braun Intertec  
 Jack Frost, Metropolitan Council Environmental Services  
 Kari Geurts, Caroline's Kids Foundation  
 Christopher Gise, Golden Valley Resident  
 Dave Hanson, Alternate Commissioner, City of Golden Valley  
 Tom Mathisen, BCWMC Technical Advisory Committee, City of Crystal  
 Richard McCoy, BCWMC Technical Advisory Committee, City of Robbinsdale  
 Aaron Morrissey, Menard, Inc.  
 Joseph O'Brien, Citizen  
 Jeff Oliver, BCWMC Technical Advisory Committee, City of Golden Valley  
 Jason Quisberg, City of New Hope  
 Stu Stockhaus, Alternate Commissioner, City of Crystal  
 Bill Wilson, Sweeney Lake Shoreowners Association President

### 2. Approval of Agenda and Consent Agenda

Chair Loomis requested the removal of the minutes from the Consent Agenda. Commissioner Black moved to approve the Consent Agenda as amended and to approve the Agenda. Commissioner Elder seconded the motion. The motion carried unanimously with eight votes in favor [City of Minneapolis absent from vote].

### 3. Citizen Input on Non-Agenda Items

Ms. Rebecca Forman, Braun Intertec, made a request to the Commission to put on a future meeting agenda information about the aeration system on Sweeney Lake. Ms. Forman said that there were a couple of reports written for Hidden Lakes residents and that Braun would like the opportunity to present that information. The Commission directed staff to put the item on a future Commission meeting. Administrator Nash commented that the Commission would want to receive the reports that Ms. Forman mentioned and would want to be able to include the reports in the meeting packets distributed as part of the monthly meeting communications. Ms. Forman asked how much lead time the Commission would need for receiving the reports for them to be part of the meeting materials. Ms. Herbert said the first Thursday of the meeting month. Ms. Amplatz mentioned that one of the reports is filled with more technical data about the study and the other report provides more of a summary of the findings. She said that she is willing to share both reports but would like the opportunity for the information to be shared to the Commission by an expert. Ms. Herbert asked if they would provide both reports to the Commission and Ms. Amplatz agreed. Ms. Forman stated that they would provide the final reports once the item is on the Commission's agenda and they would try to give as much lead time as possible for people to review the reports and once the item is on the agenda the Commission has permission to share the reports as part of its meeting materials. She also said that Braun Intertec is scheduled at the DNR in the spring to provide a formal verbal presentation to contest the permit for the aeration to continue in the summer. Chair Loomis said that staff would be in touch regarding when the item is scheduled noting that the December, January, and February meetings get filled up with administrative items related to the end of the Commission's calendar and fiscal years and its annual organizational meeting and perhaps the item may not be scheduled until the March 2011 agenda.

### 4. Administration

- A. Presentation of the October 21, 2010, BCWMC meeting minutes. Chair Loomis requested the addition of the following sentence to the end of the paragraph for item 7Bvi, "There was no objection by the Commission." Commissioner Black moved to approve the minutes as amended. Commissioner Harper-Lore seconded the motion. The motion carried with seven votes in favor [City of New Hope abstained since he did not attend the October 21<sup>st</sup> BCWMC meeting and City of Minneapolis was absent from the vote].

- B. Presentation of the Financial Statement.

Commissioner Elder moved to receive and file the November financial report. Commissioner Black seconded the motion. The motion carried unanimously with eight votes in favor [City of Minneapolis absent from vote].

The general and construction account balances as reported in the November 2010 Financial Report:

Checking Account Balance	485,652.09
<b><i>TOTAL GENERAL FUND BALANCE</i></b>	<b><i>485,652.09</i></b>
Construction Account Cash Balance	2,693,038.15
Investment due 5/13/2015	508,918.39
<b><i>TOTAL CONSTRUCTION ACCOUNT BALANCE</i></b>	<b><i>3,201,956.54</i></b>
<b><i>-Less: Reserved for CIP projects</i></b>	<b><i>3,846,341.33</i></b>
<b><i>Construction cash/ investments available for projects</i></b>	<b><i>(644,384.79)</i></b>

### C. Presentation of Invoices for Payment Approval.

#### Invoices:

- i. Kennedy & Graven – Legal Services through August 31, 2010 - invoice for the amount of \$1,838.60.
- ii. Barr Engineering Company – Engineering Services through October 1, 2010 - invoice for the amount of \$23,056.13.
- iii. Watershed Consulting, LLC – Administrator Services through September 30, 2010 – invoice for the amount of \$3,458.73.
- iv. Amy Herbert – September Administrative Services - invoice for the amount of \$2,701.63.
- v. D'amico Catering – October BCWMC Meeting Catering – invoice for the amount of \$416.87.
- vi. D'amico Catering – November BCWMC Meeting Catering – invoice for the amount of \$443.15.

Commissioner Black moved to approve payment of the invoices. Commissioner Harper-Lore seconded the motion. By call of roll, the motion carried unanimously with eight votes in favor [City of Minneapolis absent from vote].

- D. Authorization for Publication of Request for Letters of Interest for Contracted Professional Services including Legal, Engineering and Technical, and Watershed Administrator Services. Direction for Commission Procedure for Review of Responses. Mr. LeFevere commented that the request is mandated by statute but that the Watershed Administrator does not fall under the professional services dictated by the statute. Commissioner Black moved to authorize the publication of the request for letters of interest for legal and engineering and technical services in the Minnesota State Register and to discuss at the December meeting other possible resources the Commission would use for the publication of the request. Commissioner Harper-Lore seconded the motion. The motion carried unanimously with eight votes in favor [City of Minneapolis absent from vote]. The Commission agreed that Administrator Nash should be the staff person to receive the letters. Chair Loomis said that at a future meeting the Commission will create a committee to review the letters.

## 5. New Business

- A. Permit Review – Menards Project: City of Golden Valley. Ms. Chandler said the project is located northeast of the intersection of Highways 394 and Louisiana Avenue and is in the Sweeney Lake subwatershed. She said the project is a total redevelopment of a twelve-acre site, which currently has no water quality treatment on the site. She said the Commission's requirements call for this type of project, redevelopment greater than five acres, to meet Level 1 water quality treatment standards. Ms. Chandler explained that the project is in front of the Commission because the plans call for treatment via underground sand filters. She said that the Commission considers the sand filter method an approved type of BMP but the Commission's policy is to review plans utilizing underground treatment devices. Ms. Chandler said that there has been a lot of communications going back and forth between the City of Golden Valley, the Commission Engineer, and the Menards staff to get the plans to the point they are at currently.

She explained that there are no flood plain issues and no wetland issues. Ms. Chandler said the

stormwater flows carry the water offsite and eventually to Sweeney Lake. She said two sets of BMPs are being proposed to treat water onsite. Ms. Chandler reported that one set of BMPs are the bioretention areas and the other set includes the stormwater chambers, also referred to as underground sand filters. She explained that approximately one-fourth of the site will drain to and be treated by the bioretention areas and the rest of the site will drain to and be treated by the underground chambers/ sand filters. Ms. Chandler said the chambers are designed to meet the Commission's requirement of treating one inch of runoff from the impervious areas. She passed around photos of chamber installation at another project and technical drawings of the chambers. Ms. Chandler reiterated that the project will meet Level I requirements with the designed systems in place. She said erosion and sediment control measures include silt fencing that would be installed all the way around the site and at the stormwater inlets, erosion control mat on slopes steeper than a three-to-one ratio, a construction entrance will be established, and the areas that will become the bioretention basins will be used during the construction phase as sediment basins.

**Ms. Chandler stated that the Commission Engineer recommends conditional approval based on the four comments listed in the November 10, 2010, Engineer's memo about the Menards project:**

1. The sequencing of construction must be updated to include the following construction notes for the bioretention basins.
  - a. To the extent possible, the bioretention basins must be constructed after the remaining site and tributary area has been graded and stabilized.
  - b. After final grading, the bioretention basin floor must be tilled to a depth of at least 6 inches to provide a well-aerated, porous surface texture. Six inches of compost must be tilled in at this time.
  - c. The bottom and side slopes of the basin must be stabilized with appropriate plants within seven days following construction.
2. The sequencing of construction must be updated to include the following construction notes for the storm chambers.
  - a. Sand must be placed uniformly to prevent formation of voids that could lead to short-circuiting and prevent damage to the underlying under-drain system. To the extent possible, voids between the trench walls and the geotextile fabric must be avoided.
  - b. Mechanical compaction of the sand filter should be avoided. The sand bed can be stabilized by wetting the sand periodically, allowing it to consolidate, and then adding extra sand. This process can be repeated until consolidation is complete.
3. A maintenance agreement for the bioretention basin and storm chambers must be established between the applicant and the City of Golden Valley. Discussions with the applicant indicate that the maintenance plan for the storm chambers will allow them to be serviced so that the functionality of the facilities extends to the life of the pavement. When the pavement would be replaced, the sand filters would be replaced. In the interim, the Isolator Rows of the storm chambers (which are used for pretreatment and remove a large portion of the sediment) will have sediments removed on a frequent basis.
4. The plan sheets that show the dimensions, number of chambers, lengths, and sizes of the Storm Chambers must be submitted for review.

**Ms. Chandler added that after the Engineer's memo had been sent to the Commission in the meeting packet, the Engineer received the Operation and Maintenance Manual for the underground storm chambers. She recommended changing the language of condition number**

three. Ms. Chandler said she recommends that the first sentence of condition number three remain as it is and the rest of it would be replaced with the following additional language: Include in the maintenance agreement with the City of Golden Valley the following items:

- the StormTech Operation and Maintenance Manual and the condition that there would be at the minimum an annual inspection;
- Replace the sand filter at the same time that the pavement is being replaced at the site; and,
- Incorporate the bioretention maintenance requirements in accordance to the BCWMC's *Requirements for Improvements and Development* document;

Ms. Chandler explained that the chambers have been designed to last as long as the pavement on the site.

Mr. Mathisen inquired about the process of removing deposited sediment out of the chambers. Mr. Bohan of Advanced Engineering described the process and the use of inspection ports to track the amount of sediment that has accumulated and the use of jetvac vacuums to remove the sediment. Commissioner Harper-Lore asked if the sand ever needs to be replaced. Mr. Bohan discussed the calculations he used to derive the amount of sediment that would accumulate in the chambers and that the accumulation would be approximately 5,000 pounds of sediment accumulated per year from the eight-acre site. He said the chambers were designed to last approximately 20 years and were designed so sediment wouldn't clog the chambers or render them ineffective. Mr. Mathisen asked if the roof drains runoff goes to the underground filtration. Mr. Bohan said yes. Commissioner Sicora spoke up in favor of the inspection ports, spoke of some of his professional experiences with such systems, and asked several technical questions about the drawdown time, the maintenance, and the soils of the site.

Commissioner Black asked if Menards had considered a green roof for the store. Mr. Morrissey of Menards, Inc. said Menards had tried one green roof and had some problems with it but for this site it came down to economics and Menards instead focused on meeting the Level I standards.

[Commissioner Elder departs meeting.]

Commissioner deLambert asked what happens in the case that the chambers don't work. Ms. Chandler responded that the water would go to overflows and would go downstream untreated. Commissioner deLambert asked if the Commission would know whether that overflow happens. Ms. Chandler said that issue would be part of the maintenance agreement with the City. Commissioner Black asked if the overflow is being designed to be able to handle all of the runoff from the site in the unlikely event that none of the chambers are working or if water would back up onto the site in that case. Mr. Bohan replied that in large storm events, such as larger than a 10-year storm event, water will back up onto the site.

Chair Loomis said the Commission Engineer informed the City of Golden Valley that these chambers are in use at the Menards store in Coon Rapids so the City of Golden Valley is requesting a copy of the Coon Rapids maintenance agreement with Menards to be incorporated into the City of Golden Valley's maintenance agreement with Menards on this project. Mr. Bohan stated that the chambers are also in use at the Menards store site in Eden Prairie.

Mr. LeFevere recommended the Commission revise its condition about replacing the chambers so that the language states that the chambers are replaced no less frequently than once every 20 years unless the City of Golden Valley approves a longer period.

Commissioner Black moved to approve the permit with the Engineer's conditions as stated in the

memo with the changes to condition number three as described by Mr. LeFevere about the chambers being replaced at least once every 20 years unless the City of Golden Valley authorizes a longer period and the changes described by Ms. Chandler regarding the maintenance agreement that must be established between the City of Golden Valley and Menards, which must incorporate the StormTech Operations and Maintenance Manual and incorporate the bioretention treatment maintenance agreement. Commissioner deLambert seconded the motion. Ms. Chandler emphasized that condition number three should also specifically say that beyond the first year there should be at least one annual inspection. Commissioner Black and deLambert considered Ms. Chandler's addition a friendly amendment to the motion. By call of roll the motion carried with seven votes in favor [Cities of Minneapolis and New Hope absent from vote].

- B. Discuss Obstructions in Bassett Creek as a Result of Soo Line Railroad Bridge Modifications.** Ms. Chandler said that the location being discussed is just east of Douglas Drive and is where the Soo Line crosses the Main Stem of Bassett Creek. Ms. Chandler reported that the railroad replaced the bridge and when doing so they left in old pile bents, which obstruct water flow and catch debris and even lead to conditions for erosion to the streambank due to turbulence. Ms. Chandler said the Commission Engineer recommends that the Commission Engineer and the Commission Attorney work together to write and send a letter to the railroad requesting that the debris and pile bents be removed and to also copy the Minnesota Department of Natural Resources on the letter. Commissioner Black suggested that the letter request that either the pilings be removed or decreased in height to such a level that they would not be an obstruction and would not trap debris. Commissioner Sicora recommended that the Commission direct the Engineer and Attorney to work together on the appropriate wording of the letter. The Commission agreed. Chair Loomis directed the Engineer and Attorney to write and send the letter as discussed.

## 6. Old Business

- A. TAC Update.**
- i. New Hope Channel Maintenance Fund Request.** Administrator Nash reported that New Hope had submitted a channel maintenance fund request for a project to remove sediment in a reach of the creek that is located west of Winnetka Avenue. He reported that the TAC recommended approval since the project would improve the flow of the creek and is located along the trunk system. Mr. Quisberg of New Hope added that the project is a maintenance project to remove accumulated sediment in the North Branch of Bassett Creek.
  - ii. Hydrologic and Water Quality Modeling.** Ms. Chandler said two memos were presented and discussed by the TAC on this issue. She stated that one of the memos provided information about all of the different kinds of hydrologic and hydraulic models that have been prepared on behalf of the Commission. She said the other memo was about the water quality models that have been prepared for TMDL purposes or lake watershed management plans.

Ms. Chandler said that the TAC was discussing the fact that there isn't a model, either hydrologic or water quality, that covers the watershed as a whole. She explained that the TAC agreed in general that it seemed like a good idea to have a model of the entire watershed but they wanted to know what the costs would be for creating such a model. Ms. Chandler said there were some concerns by the TAC regarding how detailed the model would be since TAC members did not think the model should be so detailed as to go down to the catch basin level.

She said one possibility is that the Commission could take ownership or responsibility of a

watershed model that is of the trunk system and is less detailed and the cities could take on the cost or responsibility if they wanted additional detail and then the information could be brought into a model that the cities and the Commission could use.

Ms. Chandler said that regarding the water quality model, Barr Engineering provided information regarding the status of the P8 modeling that has been done. She said that for both the water quality modeling and the hydrologic modeling the TAC recommends that at a future TAC meeting the Commission Engineer come back with information on possible upgrades on a future model. She said the TAC recommended that the Commission Engineer prepare a map showing the status of the modeling and the watersheds in the model, the options of the level of detail that could be incorporated into the model, a draft task list, costs for the different options, and information on what parts of the models are up-to-date and don't require revision. She said it would be up to the Commission to decide if it is interested in having the Commission Engineer proceed with the TAC's recommendations.

Mr. Sicora commented that the topic falls into place in relation to the Commission's work with TMDLs and its Next Generation Plan and said that he would like more detail. Ms. Black agreed with the TAC's recommendations.

Commissioner Black moved to approve the TAC's recommendations from the November 8, 2010, memo from the TAC to the Commission. Commissioner Harper Lore seconded the motion. The recommendations included:

1. The New Hope Channel Maintenance Project deals with improving the flow in the creek that is part of the trunk system and the TAC recommends approval of the fund request.
2. The Commission Engineer provide the following information regarding upgrades to the hydrologic and water quality models: Map showing the status of the existing modeling, including the watersheds in the models; Options for level of detail/ number of watersheds to model; Task list for each option; Cost estimates to complete the work for each option; Note the parts of the hydrologic models that are up-to-date and would not require revision; Check the performance of the hydrologic model using recent flow data; Discuss the information at the January 6, 2011, TAC meeting.

The motion carried unanimously with seven votes in favor [Cities of Minneapolis and New Hope absent from vote]. The Commission set the January 6, 2011, TAC agenda to include the annual CIP review, the Next Generation Plan issues discussion, and the modeling item just discussed. Commissioner Sicora volunteered to be the Commission liaison at the January 6, 2011, TAC meeting.

- iii. Next Generation Plan Update. Administrator Nash said that the report on this item can wait until agenda item 6D – Next Generation Plan Work Session.

## **B. TMDL Updates.**

- i. Sweeney Lake TMDL. Administrator Nash reported that Ms. Brooke Asleson, MPCA, has communicated to the Commission that the TMDL has been submitted to the United States Environmental Protection Agency (EPA) or is imminently going to be sent to the EPA.



- ii. **Wirth Lake TMDL.** Administrator Nash reported that the Wirth Lake TMDL has been approved by the EPA.
- iii. **Medicine Lake TMDL.** Administrator Nash stated that the Commission received comments about the TMDL from the Minnesota Department of Transportation (Mn/DOT) and the Minnesota Department of Natural Resources (DNR) along with Ms. Asleson's responses to the those comments.

Ms. Chandler mentioned that the Commission would want to keep in mind for 2012 budget consideration that the Commission agreed to take on the lead entity role for the Medicine Lake TMDL in terms of it being a categorical TMDL. She said that those responsibilities have not been detailed yet but it is something for the Commission to keep in mind.

- C. **Web Site Domain Name.** Administrator Nash explained that the Web site domain name [www.bassettcreekwmo.org](http://www.bassettcreekwmo.org) is currently owned by Barr Engineering. He also said that Barr Engineering hosts the site and he recommended that Barr continue hosting the site. The Commission agreed that Barr Engineering would continue to host the Web site. Administrator Nash stated that if the Commission would like to take ownership of the domain name it needs to do so through the Internet Registrar. Administrator Nash said there is no charge to transfer the name but there is a registration fee that can be paid annually or on a longer-term basis, which would provide slight cost savings on terms of five years or more. Ms. Black moved to approve the Commission transferring the domain name from Barr Engineering to the Bassett Creek Watershed Management Commission and to continue paying the registration fee on an annual basis. Commissioner Sicora seconded the motion. The motion carried unanimously with seven votes in favor [Cities of Minneapolis and New Hope absent from vote].

Ms. Herbert brought up the idea of working with the Education Committee to follow through with some of the Committee's previously discussed and requested updates to the Web site. The Commission agreed. Commissioner Langsdorf asked Ms. Herbert to provide the Committee a copy of the Education Committee's notes on the Web site.

- D. **Next Generation Plan Work Session.** Ms. Chandler explained the agenda item's handout, which was a flowchart that illustrated the process for the BCWMC's 2004 *Watershed Management Plan*. She described how the process was directed by the Commission and she explained the different committees involved in the last planning process. She stated that the committees included the Steering Group, the Citizens Advisory Group, the Technical Advisory Group, and the Policy Advisory Group. Ms. Chandler summarized the last planning process and its timeline.

Administrator Nash added that Brad Wozney of the Minnesota Board of Water and Soil Resources (BWSR) advised him that the BCWMC should go forward slowly in its revision process so that the BCWMC doesn't get ahead of the BWSR's rules revisions, which aren't expected to be finalized until sometime between August and December of 2012.

Ms. Chandler stated that the formal review process for the draft plan will take approximately ten months and that the Commission should allow two years for the entire planning process, concluding with the Commission's adoption of the final plan. Mr. Frost of the Metropolitan Council Environmental Services said that the draft of BWSR's revised rules should be out by early next year and will allow the Commission to see what changes are coming in the revised rules. Administrator Nash reported that Brad Wozney will be giving a presentation in January 2011 to the Shingle Creek Watershed Management Organization and is willing to come speak with the BCWMC in January or later as well. Administrator Nash recommended that the Commission have Mr. Wozney come give his presentation. Commissioner Black agreed. The Commission agreed. Ms. Chandler said that the only part of BWSR's revised rules that she has seen that would

be a process change is a rule that would have the Commission contact agencies early in the process to solicit comments about issues.

Commissioner Sicora added that Shingle Creek will be reviewing its Joint Powers Agreement (JPA) as part of its watershed management plan revision process and suggested that the BCWMC allow for time in the process to consider public questions about its JPA rules.

Mr. LeFevere said that he doesn't see any reason for the Commission to hold up its process on the next generation plan.

The Commission discussed the Hennepin County Board of Commissioners' interest in researching different funding options for watershed management organizations. Commissioner Sicora asked if the Commission could get an update on the memo put together by Joel Settles of Hennepin County on the topic of funding options and the "Lakes" report. He said the Commission saw a draft and wondered if there was a final draft. Administrator Nash said he will check on the status of that memo but that he thought the version he had distributed was the final draft. The Commission talked about a recent article in the Star Tribune that discussed the Hennepin County Board of Commissioners' interest in looking into different funding options. Commissioner Sicora announced that Channel 12 recently conducted an interview on the same topic and that he has a link to the interview. Commissioner Black asked for the link. Commissioner Sicora suggested that members of the Commission notify the Commission if they have been contacted by the media.

The Commission discussed in more detail the process from the 2004 Plan. Commissioner Black asked about the role of the steering committee and the Commission discussed its decision from a couple of months ago that for now, in lieu of a steering committee, the Commission would operate its planning committee as a committee of the whole. Commissioner Black noted that the Commission kicked off its planning process for the 2004 Plan with a public forum and commented that it didn't seem like the Commission needed the public forum in the beginning of the process this time and that the public meeting may be more effective down the line after the Commission had identified issues. Commissioner Black commented that the Commission should pull together the big issues and should gather information from the Commission's TMDLs, CIP, policy manual, and put it in draft form in order to provide something for the agencies to review.

Administrator Nash commented that he thinks the Commission should continue on the path it is on and should continue identifying issues. Chair Loomis recommended that Administrator Nash conduct an identical process for issue identification by the Commission that he has been conducting with the TAC. Administrator Nash said that he would send out the issue identification memos again to the Commission. He reminded the Commission that last time he sent them out as information only but this time the Commission can comment on the issues by typing directly into the Word documents and can send them back to him with their name on the forms.

Ms. Chandler mentioned that the Commission will start its 2012 budget discussions in April 2011 and suggested that the Commission have some decisions made by that time regarding its Plan revision process so that it knows how to budget for the process. Chair Loomis recommended that the Commission set aside time at each of the Commission meetings, for now, to discuss the Next Generation Plan. The Commission directed Ms. Chandler and Administrator Nash to put together for the December Commission meeting a draft planning process and timeline.

## **7. Communications**

- A. Chair: No Communications but she asked for the City of Plymouth and City of Golden Valley to provide CIP project updates.**

- i. Mr. Asche updated the Commission on the Plymouth Creek channel restoration project. He said that he will be providing the project's final plans and specs to the Commission. He reported that bid opening will be on December 7<sup>th</sup> and that the City hopes to award a contract by mid- to late-December. Mr. Asche explained that the City has held dozens of meetings with property owners to explain the project and to discuss tree removal. He said residents are very excited about the project and about improvements to the creek and the corridor. Mr. Asche commented that the schedule calls for the majority of the channel restoration work to be complete by the end of February 2011 and for the vegetation restoration to be in place by June 1<sup>st</sup>. Ms. Chandler asked about whether the Commission would receive a response to its comments on the project. Mr. Asche said the response is coming likely this week. Ms. Chandler said the Commission Engineer had some concerns that the project was moving forward without the City responding to the Commission's comments. Mr. Asche said that the project plans were just finalized last week and that he will check on the status of the City's response to the Commission's comments.
- ii. Mr. Oliver reported on the Main Stem restoration project in Golden Valley. He said the archeological review has been completed, the City will be awarding the contract soon, and work is anticipated to begin in the end of December.

**B. Administrator: Administrator Nash reviewed his Administrator's Report with the Commission.**

- i. Administrator Nash noted that he submitted on behalf of Metro Blooms an application to Conservation Corps Minnesota for labor to work on establishing approximately 30 rain gardens in the metro area. He added that Metro Blooms would be handling the process from here on out.
- ii. Administrator Nash reported that he met with Lee Gustafson of BCWMC's TAC from the City of Minnetonka regarding revisions to the BCWMC's financial report. Administrator Nash said that they would continue to work on a draft and then it would go to the Administrative Services Committee.
- iii. Administrator Nash said that he met with Commissioner Welch to discuss the policy manual and the draft will go to the Administrative Services Committee soon.
- iv. Administrator Nash brought up the Caroline's Kids Foundation report created by Braun Intertec. Mr. LeFevere said the report is a public document but he recommends that the Commission not make copies of the report until permission is given.
- v. Administrator Nash said that Brooke Asleson of the MPCA contacted him to request time at the December BCWMC meeting for a presentation on the work plan for the Twin Cities metro chloride project. The Commission directed Administrator Nash to arrange for Ms. Asleson to give the presentation to the Commission at the December meeting. Administrator Nash reported that Ms. Asleson also asked if a member of the Commission would want to participate in the project's TAC. Mr. Frost remarked that the project will be going through a long process so the Commission shouldn't feel rushed to hear or make decisions about the project. Commissioner Sicora mentioned that some members of the BCWMC are also members of the Shingle Creek WMO and he reminded the Commission that Shingle Creek conducted a chloride TMDL and so those members have quite a bit of experience with the topic of chlorides.

**C. Commissioners:**

- i. Commissioner Langsdorf stated that she received an e-mail from Commissioner Hoshal with some recommended changes to the salt brine recipe in the salt-use brochures that were

ii. **Commissioner Harper-Lore reported that she recently attended the Minnesota-Wisconsin conference on invasive species. She said she learned that one of the biggest problems in Minnesota and Wisconsin is reed canary grass and that the message from the conference was that the species should not be planted and is expensive to remove. Commissioner Harper-Lore commented that the Bassett Creek watershed should have an inventory of what is in the watershed now in order to keep track of its diversity. Chair Loomis commented that the cities do natural resource inventories.**

i. **Commissioner Langsdorf announced that the Education Committee will be setting its next meeting and that the next WMWA meeting will be on December 14, 2010, at 8:30 a.m. at Plymouth City Hall.**

### F. Engineer:

- ## 9. Adjournment

11

Amy Herbert · Virtual Administrator Services

[bcra@barr.com](mailto:bcra@barr.com) · 952-832-2652

December 2 2010

Bassett Creek Watershed Management Commission (BCWMC)

Attn: Sue Virnig, Deputy Treasurer

7800 Golden Valley Road

Golden Valley, MN 55427

*For contracted services November 1, 2010, through November 30, 2010*

**Administrative Services to BCWMC**

- Assisted in the creation of the November 18<sup>th</sup> BCWMC meeting; organized packet materials for copying, copied, and assembled meeting packets, delivered meeting packets to Barr Engineering mail room for Barr to weigh, add postage, and mail; e-mailed meeting materials to Commission; e-mailed agenda to agenda list and e-mailed approved meeting minutes to distribution list.

- Maintained BCWMC files; Communicated with BCWMC attorney, engineers, Administrator, Deputy Treasurer, Chair, commissioners, and committee members.

- Organized BCWMC monthly invoices; Distributed invoice payments.

- Sent reminder notices to city clerks of Plymouth, Robbinsdale, and St. Louis Park regarding term expirations of BCWMC representatives; Coordinated meeting room reservations for BCWMC 2011 Commission and TAC meetings; Forwarded to the Commission the MN DNR's October 2010 hydrologic conditions report; Forwarded BCWMC letter acknowledging Caroline's Kids Foundation donation (for partial CAMP sampling site costs) to Deputy Treasurer for fiscal year 2010 audit files; Contacted City of Plymouth regarding registration information for the 2011 Yard and Garden Expo; Coordinated Commission Engineer review of City of Plymouth West Medicine Lake Park Pond reimbursement request; Confirmed Commission-TAC liaison schedule for 1/6/11 TAC meeting; Located and forwarded to Chair and Administrator the participant list from the 2004 *Watershed Management Plan* revision process.

- Created meeting notice for the December 3rd Education and Public Outreach Committee and the December 9<sup>th</sup> Administrative Services Committee meetings

56.25 hours @ \$57.00 per hour ..... \$3,206.25

**BCWMC Meetings**

Coordinated and attended November 15<sup>th</sup> conference call with Chair Loomis, Karen Chandler, and Geoff Nash; Set up and attended November 18<sup>th</sup> BCWMC meeting and public hearing (coordinated room reservations and set up; ordered November and December catering and received November catering; coordinated agenda, prepared and provided handouts not provided in meeting packet; recorded meeting)

6.00 hours @ \$57.00 per hour ..... \$342.00

**Web Site Services to BCWMC**

Updated meeting minute archive, online calendar, and roster. Created new page for BCWMC's potential CIP project to restore the Bassett Creek channel in the City of Minneapolis. Created new page for links to educational brochures and posted the original and the revised Snow and Ice Care brochures.

2.50 hours @ \$57.00 per hour ..... \$142.50

**Expenses**

No November expenses ..... \$0.00

**Mileage**

Roundtrip mileage between Chanhassen and Golden Valley City Hall for November 17<sup>th</sup> BCWMC meeting (17.08 miles x 0.50 = \$8.54)

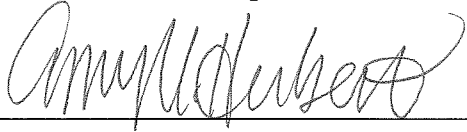
\$8.54

Subtotal Administrative Services \$3556.79

Subtotal Web Site Services \$142.50

**Total Current Billing: \$3,699.29**

I declare, under penalty of law, that this account, claim or demand is just and correct and that no part of it has been paid.



Signature of Claimant



Bassett Creek WMO  
7800 Golden Valley Road  
Golden Valley, MN 55427

Page # 1  
Invoice # 23270051-2010-10  
Project # 23/27-0051  
Client # 59  
December 3, 2010

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
October 30, 2010 through November 26, 2010

**ENGINEERING**

TECHNICAL SERVICES

Calls/emails to or from the Commissioners, administrator, watershed communities, developers in the watershed, Minneapolis Park and Recreation Board (MPRB), Three Rivers Park District (TRPD), Mississippi Watershed Management Organization, Minnesota Department of Transportation (Mn/DOT), Hennepin County, Minnesota Board of Water and Soil Resources (BWSR), Metropolitan Council Environmental Services (MCES), Minnesota Pollution Control Agency (MPCA), Corps of Engineers and interested citizens; coordination with Administrator regarding post-meeting tasks; telephone call from attorney regarding Dargi site in Golden Valley and provided information regarding creek maintenance; internal meeting and discussion with administrator and chair regarding Sweeney Lake aeration; coordinate with recording secretary regarding information from 2004 planning process; telephone conversation with Golden Valley city staff regarding grants; placed Bassett Creek Main Stem erosion photos in Minneapolis on ftp site; communications with administrator regarding Hennepin County.

Leonard J. Kremer, Principal Engineer/Scientist	
7.0 hours @ \$160.00 per hour .....	\$ 1,120.00
James P. Herbert, Principal Engineer/Scientist	
0.8 hours @ \$140.00 per hour .....	\$ 112.00
Karen L. Chandler, Senior Consultant	
3.1 hours @ \$140.00 per hour .....	\$ 434.00
Technicians/Administrative .....	\$ 618.50
Expenses (Permitting fee) .....	\$ 35.00
<i>Subtotal, Technical Services.....</i>	<i>\$ 2,319.50</i>

PRELIMINARY SITE REVIEW/CORRESPONDENCE

Telephone conversations regarding proposed developments; provided watershed hydraulic information, flood profiles and BCWMC development requirements to applicants; email to Wenzel Engineering regarding the Bassett Creek Tunnel; preliminary review of proposed baseball fields at Sandburg Road in Golden Valley and provided comments to AJA and Golden Valley; telephone conversation with Medium Consultants regarding proposed development.

James P. Herbert, Principal Engineer/Scientist		
4.0 hours @ \$140.00 per hour .....	\$	560.00
Expenses (Pitney Bowes Mgmt Services) .....	\$	25.43
<i>Subtotal, Preliminary Site Review/Correspondence .....</i>	<i>\$</i>	<i>585.43</i>

#### MONTHLY MEETING PREPARATION

Preparation of monthly memorandum for BCWMC meeting; reviewed draft BCWMC meeting minutes, agenda and packet materials and discussed comments with Bassett Creek Administrator and Recording Administrator; conference call with BCWMC Chair, Administrator, and Recording Administrator regarding meeting agenda; communications with Bassett Creek Administrator and Recording Administrator; internal meetings regarding agenda, to-do list and meeting packet and November 17, 2010 meeting; prepared permit figures; communications with recording secretary and administrator regarding November meeting agenda and BWSR rule revisions; coordination and communications regarding Soo Line RR obstruction in Bassett Creek.

Leonard J. Kremer, Principal Engineer/Scientist		
3.5 hours @ \$160.00 per hour .....	\$	560.00
James P. Herbert, Principal Engineer/Scientist		
6.5 hours @ \$140.00 per hour .....	\$	910.00
Karen L. Chandler, Senior Consultant		
16.6 hours @ \$140.00 per hour .....	\$	2,324.00
Expenses (Postage) .....	\$	1.56
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$</i>	<i>3,795.56</i>

#### CHANNEL MAINTENANCE FUND

Obtained photographs of stream bank erosion in vicinity of Fruen's Mill; provided cost estimate for MPRB reaches of channel; reviewed New Hope's channel maintenance fund request; reviewed status of channel maintenance fund and historical requests.

Karen L. Chandler, Senior Consultant		
2.0 hours @ \$140.00 per hour .....	\$	280.00
Jeffrey T. Lee, Senior Consultant		
1.5 hours @ \$130.00 per hour .....	\$	195.00
<i>Subtotal, Channel Maintenance Fund.....</i>	<i>\$</i>	<i>475.00</i>

#### TAC MEETING PREPARATION

Preparation for November 4, 2010 TAC meeting; reviewing background materials/meeting summaries; coordination with Administrator and internal staff regarding TAC meeting agenda and background materials; coordinate with Administrator regarding TAC recommendations; reviewed status of P8 modeling and hydrologic and hydraulic models.



Karen L. Chandler, Senior Consultant	
8.7 hours @ \$140.00 per hour .....	\$ 1,218.00
Gregory J. Wilson, Senior Consultant	
1.0 hours @ \$140.00 per hour .....	\$ 140.00
<i>Subtotal, TAC Meeting Preparation .....</i>	<i>\$ 1,358.00</i>

#### NEXT GENERATION PLAN

Reviewed 2004 planning process information; prepared memorandum and flowcharts regarding public involvement during planning process for 2004 plan; prepared final flowchart and memorandum for Commission meeting.

Karen L. Chandler, Senior Consultant	
8.0 hours @ \$140.00 per hour .....	\$ 1,120.00
<i>Subtotal, Next Generation Plan.....</i>	<i>\$ 1,120.00</i>
<b><i>Subtotal Technical Services .....</i></b>	<b><i>\$ 9,653.49</i></b>

#### PLAT REVIEW

Note: Projects in **Bold** have provided review fees to offset review costs. Projects not in Bold are either in a preliminary stage or were submitted prior to implementation of the fee schedule.

#### **GVCC Dredging and Stabilization**

Telephone call with applicant and city staff; reviewed drawings and prepared recommendation to city of Golden Valley; reviewed revised drawings and prepared letter of approval.

James P. Herbert, Principal Engineer/Scientist	
9.5 hours @ \$140.00 per hour .....	\$ 1,330.00
Karen L. Chandler, Senior Consultant	
0.2 hours @ \$140.00 per hour .....	\$ 28.00
<i>Subtotal, GVCC Dredging and Stabilization.....</i>	<i>\$ 1,358.00</i>

#### **Menards Golden Valley**

Communications with applicant and City staff; reviewed preliminary site plan and storm water plan; reviewed revised drawings and complex storm water management plan; detailed review of storm chamber systems and bioretention systems; reviewed proposed O&M requirements; prepared memorandum to the BCWMC; preparation for BCWMC meeting; prepared revised recommendations to the BCWMC following receipt of additional information from the applicant.

Leonard J. Kremer, Principal Engineer/Scientist	
0.6 hours @ \$160.00 per hour .....	\$ 96.00
James P. Herbert, Principal Engineer/Scientist	
8.0 hours @ \$140.00 per hour .....	\$ 1,120.00
Karen L. Chandler, Senior Consultant	
5.4 hours @ \$140.00 per hour .....	\$ 756.00

Rita A. Weaver, Senior Engineer/Scientist	
13.5 hours @ \$95.00 per hour .....	\$ 1,282.50
Technicians/Administrative.....	\$ 21.00
Subtotal, Menards Golden Valley .....	\$ 3,275.50
<b>Subtotal Plat Review .....</b>	<b>\$ 4,633.50</b>

#### COMMISSION MEETINGS

Attended November 4, 2010 TAC meeting and November 17, 2010 Commission meeting.

Leonard J. Kremer, Principal Engineer/Scientist	
2.2 hours @ \$160.00 per hour .....	\$ 352.00
Karen L. Chandler, Senior Consultant	
6.7 hours @ \$140.00 per hour .....	\$ 938.00
Subtotal, Commission Meetings.....	\$ 1,290.00

#### SURVEYS AND STUDIES

Preparation of the draft report for Sediment Phosphorus-Internal Loading Investigation of Twin Lake.

Margaret R. Rattei, Senior Consultant	
17.6 hours @ \$115.00 per hour .....	\$ 2,024.00
Subtotal, Water Quality Monitoring .....	\$ 2,024.00

#### WATER QUALITY MONITORING

Communications with Three Rivers Park District (TRPD) staff regarding Medicine Lake monitoring; prepared revised plant maps for August survey.

Technicians/Administrative.....	\$ 32.00
Subtotal, Water Quality Monitoring .....	\$ 32.00

#### WATERSHED INSPECTION

Coordination with the cities and preparation for annual inspection of flood control features; performed flood control project inspections.

James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$140.00 per hour .....	\$ 140.00
Jacob N. Burggraff, Senior Consultant	
9.7 hours @ \$115.00 per hour .....	\$ 1,115.50
Subtotal, Watershed Inspection .....	\$ 1,255.50

<b>TOTAL ENGINEERING .....</b>	<b>\$ 18,888.49</b>
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<b>SECRETARIAL SERVICES</b>
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SECRETARIAL SERVICES EXPENSES

Administrative expenses requested by Amy Herbert including: copies, color copies for meeting packet; postage, CD duplication, video digital capture/conversion and BCWMC meeting catering; packet assembly; report assembly.

Expenses (B&W/color copies/postage).....	\$	203.42
Catering (BCWMC) .....	\$	-0-
<b>TOTAL SECRETARIAL SERVICES EXPENSES .....</b>	<b>\$</b>	<b>203.42</b>

<b>WATERSHED OUTLET MONITORING PROGRAM (WOMP)</b>
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<b>TOTAL WOMP.....</b>	<b>\$</b>	<b>0.00</b>
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<b>CAPITAL IMPROVEMENT PROJECTS</b>
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PLYMOUTH CREEK RESTORATION PROJECT (2010 CR)

Communication with city staff and its consultant regarding project and status of revised drawings; call from counsel regarding amendment to agreement; internal communications regarding Plymouth Creek review.

James P. Herbert, Principal Engineer/Scientist		
0.3 hours @ \$140.00 per hour .....	\$	42.00
Karen L. Chandler, Senior Consultant		
0.8 hours @ \$140.00 per hour .....	\$	112.00
<i>Subtotal, Plymouth Crk Restoration Proj.....</i>	<i>\$</i>	<i>154.00</i>

BASSETT CREEK: CRYSTAL-REGENT AVENUE (2010 CR)

Communication with City of Golden Valley staff and its consultant; internal meeting regarding proposed stream restoration measures; reviewed revised drawings and prepared letter of comments to the City.

Leonard J. Kremer, Principal Engineer/Scientist		
5.7 hours @ \$160.00 per hour .....	\$	912.00
Jeffrey D. Weiss, Senior Engineer/Scientist		
4.0 hours @ \$95.00 per hour .....	\$	380.00
<i>Subtotal, Bassett Creek Crystal-Regent Avenue .....</i>	<i>\$</i>	<i>1,292.00</i>

BASSETT CREEK: WISCONSIN AVENUE – CRYSTAL (2011 CR)

Internal discussion regarding Corps of Engineers permit and preparation of application.

Karen L. Chandler, Senior Consultant	
0.3 hours @ \$140.00 per hour .....	\$ 42.00
Expenses (Postage) .....	\$ 4.90
<i>Subtotal, Bassett Creek: Wisconsin Ave– Crystal (2011 CR).....</i>	<i>\$ 46.90</i>

NORTH BRANCH (2011CR-NB)

Internal discussion regarding Corps of Engineers permit and provided to recording administrator.

Karen L. Chandler, Senior Consultant	
0.2 hours @ \$140.00 per hour .....	\$ 28.00
Expenses (Postage) .....	\$ 4.90
<i>Subtotal, North Branch (2011CR-NB) .....</i>	<i>\$ 32.90</i>
<b>TOTAL CAPITAL IMPROVEMENT PROJECTS .....</b>	<b>\$ 1,525.80</b>

<b>TMDL STUDIES</b>
---------------------

MEDICINE LAKE TMDL

Coordination regarding Medicine Lake TMDL

Leonard J. Kremer, Principal Engineer/Scientist	
1.0 hours @ \$160.00 per hour .....	\$ 160.00
<i>Subtotal, Medicine Lake TMDL.....</i>	<i>\$ 160.00</i>

SWEENEY LAKE TMDL

Follow up activities for Sweeney Lake TMDL; prepared topology on subwatershed divides and prepared Figure 2; added “MnDOT” and “muni” shaded areas to Figure 2; performed subwatershed GIS data extraction and area updates based on MNDOT ROW; GIS database updates and referencing of GIS data in ArcMap model for Sweeney Lake TMDL; calculated TSS load from the Sweeney Lake watershed.

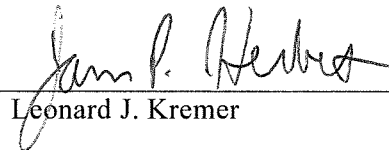
Leonard J. Kremer, Principal Engineer/Scientist	
1.6 hours @ \$160.00 per hour .....	\$ 256.00
Keith M. Pilgrim, Senior Consultant	
33.2 hours @ \$125.00 per hour .....	\$ 4,150.00
Brent A. Lindstrom, Senior Consultant	
2.1 hours @ \$105.00 per hour .....	\$ 220.50
James J. Lind, Engineer/Scientist	
1.8 hours @ \$65.00 per hour .....	\$ 117.00

Amy R. Meulebroeck, Engineer/Scientist		
1.6 hours @ \$70.00 per hour .....	\$	112.00
Michael B. Strong, Engineer/Scientist		
0.3 hours @ \$70.00 per hour .....	\$	21.00
Subtotal, Sweeney Lake TMDL .....	\$	4,876.50
<b>TOTAL TMDL STUDIES.....</b>	<b>\$</b>	<b>5,036.50</b>

<b>SUMMARY TOTALS</b>
-----------------------

<b>Total Engineering.....</b>	<b>\$</b>	<b>18,888.49</b>
<b>Total Secretarial Services Expenses .....</b>	<b>\$</b>	<b>203.42</b>
<b>Total WOMP .....</b>	<b>\$</b>	<b>0.00</b>
<b>Total Capital Improvement Projects .....</b>	<b>\$</b>	<b>1,525.80</b>
<b>Total TMDL Studies .....</b>	<b>\$</b>	<b>5,036.50</b>
<b>TOTAL PAYABLE .....</b>	<b>\$</b>	<b>25,654.21</b>

Barr declares under the penalties of law  
that this account, claim or demand is just  
and that no part of it has been paid.

  
\_\_\_\_\_  
Leonard J. Kremer

# ACE Drop-Off Catering

# Invoice

VB Box 132  
PO Box 9202  
Minneapolis, MN 55480-9202  
612/238-4016 ahoffer@damico.com

INVOICE #

47631

## SHIP TO

Golden Valley City Hall-2nd Fl-Council Rm  
7800 Golden Valley Road  
Site Contact: Judy N 763/593-3991  
PO#23270512008300  
952/832-2652 fax: 832-2601

## BILL TO

Barr Engineering  
Amy Herbert  
4700 W 77th Street  
Edina, MN 55435-4803

P.O. NUMBER	TERMS		DELIVERY DATE	DAY	PPL	DELIVERY TIME
see above	Credit Card		12/17/2009	Thursday	21	11 AM (10:45-11:15)

QUATY	DESCRIPTION	PRICE EA...	AMOUNT
21	Holiday Buffet with Holiday Desserts	13.95	292.95T
1	Jumbo Stuffed Pasta Shells with Ricotta and Spinach in a Red Sauce (Vegetarian)-In TOGO Box	3.00	3.00T
21	Grilled Chicken Breast with Champagne Dijon Sauce	0.00	0.00T
21	Potato Puree	0.00	0.00T
21	Fresh Vegetables & Homemade Ranch Dip	0.00	0.00T
21	Chopped House Salad with Romaine, Cucumber, Tomatoes and Balsamic Vinaigrette and Ranch Dressing on the Side	0.00	0.00T
1	Seasonal Fresh Fruit and Berry Platter - 12-15 PPL	37.75	37.75T
21	Artesian Breads, Rolls & Butter	0.00	0.00T
31	Miniature Holiday Desserts & Cookies	0.00	0.00T
1	Dozen-Assorted Bars & Cookies-MARK for Break!	18.00	18.00T
2	Full Disposable Chafer-PU Old ONES	4.00	8.00T
20	Spring Water	1.00	20.00T
8	Assorted Sodas-2 Coke, 2 Diet, 2 Sprite & 2 Mineral Waters	1.25	10.00T
2	Lemonade	1.75	3.50T
	Subtotal		393.20
	Delivery Charge	20.00	20.00T
	Metro Sales Tax	7.275%	30.06

We appreciate your prompt payment.

**Total** \$443.26

\*\*\*Please note NEW PO BOX as of July 2009\*\*\*

Please make checks payable to "D'Amico Catering".

Reference the invoice # and delivery date on your check, unless paid by credit card.

Thank you for your business.

Agreed to by (customer)\_\_\_\_\_



**Memorandum**  
**Public Works**  
763.593.8030 / 763.593.3988 (fax)

---

**Date:** November 2, 2010  
**To:** Sue Virnig, Finance Director  
**From:** Jeannine Clancy, Director of Public Works   
**Subject:** Bassett Creek Watershed Management Commission Creek Walk

---

Public Works coordinated a Bassett Creek walk for the BCWMC Commissioners, City council members, and City staff. Per the direction of the Mayor, in her capacity as BCWMC Chair, a passenger van was rented to transport people along the creek route. The invoice for the van rental from A-Z Rental Center is attached to submit to the BCWMC for reimbursement.

Attachment

**A - Z Rental Center**

12450 Plaza Drive  
Eden Prairie, MN 55344  
www.A-ZRental.com

952-944-8040 phone  
952-944-3479 fax

Invoice Date: 10/29/2010  
**Status: Closed**

123918  
Page 1 of 1

Invoice #: 37408  
Date Out: Thu 10/28/2010 3:32PM  
Operator: Kim Way

Terms: On Account

City of Golden Valley  
7800 Golden Valley Road  
Golden Valley, MN 55427

Customer # 62027  
763 593-8000

Contract Info: **Pat Schutrop - Public Works Dept.**  
PO #: 55089

Qty	Items Rented	Returned Date	Price
1	21015 15 Passenger Van Reading out: 5862 Reading in: 5899 Total units used: 37.00 1Day \$128.00 1Week \$800.00 4Wks \$2,400.00 CUSTOMER MUST HAVE GAS RECEIPT ON RETURN OF TRUCK, IF NO RECEIPT IS PRESENT WE WILL CHARGE FOR GAS BASED ON YOUR MILEAGE USED. \$6.00 PER GAL!!! CUSTOMER INITIAL _____ FUEL OUT _____ IN _____	10/29/2010 1:23PM	\$128.00
1	Miles, 21015 @ .29 / Mile Reading out: 5862 Reading in: 5899 Total units used: 37.00	10/29/2010 1:23PM	\$0.00

Qty	Key	Items Sold	Part#	Status	Each	Price
37	21015	Usage on 21015 15 Passenger Van		Units Used	\$0.00	\$0.00
		Usage Charge \$0.29 per unit with 37 units free.				
37	21015 .29ML	Usage on Miles, 21015 @ .29 / Mile		Units Used	\$0.00	\$0.00
		Usage Charge \$0.29 per unit with 37 units free.				

Picked Up By: Charles

**Please pay from this invoice.**

RECEIVED

NOV - 1 2010

CITY OF GOLDEN VALLEY

**RENTAL CONTRACT**

We charge an accidental damage waiver on rentals excluding trucks and trailers. Damage waiver does not cover loss, theft, and abuse.

If this Rental/Sale is to be charged on a credit card, your signature will be considered approval for all charges due.

When using your vehicle for hauling equipment, damage may occur (loading, unloading, etc.) We are sorry, but we cannot be responsible.

Rental:	\$128.00
Damage Waiver:	\$0.00
Sales:	\$0.00
Delivery Charge:	\$0.00
Misc. Charges:	\$0.00



Payable to: Pat Schutrop

Golden Valley

# 2010 Employee Expense Report

Expenses			
Date	Description	Coding	Amount
11/28/10	Cookies for BCWMC Creek walk		11.98
Golden Valley Gen. Manager Todd Moffitt 763-544-8846 Open 6am - midnight Cashier: Cathleen D			
10/28/10		11:30:11	
<b>BAKERY</b> ENGLISH TOFFEE C 1816902472 5.99 FS HALLOWEEN ICD 1816902481 5.99 FS <b>DELT</b> SOUP OF THE DAY 304 2.99 T1 SUBTOTAL 14.97 7.275% Salesax .22 <b>TOTAL 15.19</b> Cash TENDER 20.19 Cash CHANGE 5.00 NUMBER OF ITEMS 3 ----- FSA Total \$0.00 ----- Trx:194 Oper 118 Term: 1 Store: 1001 10/28/10 11:31:16 Thank You! For great recipes visit LundsandByerlys.com *****			
ileage			
	Coding	# Miles	@ \$.50
TOTAL			11.98
GRAND TOTAL			11.98
Employee <u>Pat Schutrop</u> Print			
Department <u>Public Works</u>		Signature <u>Pat Schutrop</u> Date <u>10/28/10</u>	
Department Authorization <u>[Signature]</u>			

RECEIVED  
NOV 24 2010

BA295  
ENGINEERING CO.

# Kennedy & Graven, Chartered

200 South Sixth Street  
Suite 470  
Minneapolis, MN 55402

(612) 337-9300

Tax ID No. 41-1225694

November 19, 2010

Statement No. 99266

Bassett Creek Water Management Commission  
Sue Virnig

7800 Golden Valley Road  
Golden Valley, MN 55427

Through October 31, 2010

BA295-00001 General	606.65
BA295-00027 2010 Plymouth Creek Restoration (PC-1, PC-2)	219.65
BA295-00028 2010 Bassett Creek Main Stem Restoration	191.00
BA295-00029 Main Stem Restoration (Wisconsin to Rhode Island)	420.20
BA295-00030 North Branch Restoration (36th to Bassett Creek Park)	420.20

---

**Total Current Billing: 1,857.70**

I declare, under penalty of law, that this  
account, claim or demand is just and correct  
and that no part of it has been paid.



Signature of Claimant

**Kennedy & Graven, Chartered**

200 South Sixth Street

Suite 470

Minneapolis, MN 55402

Bassett Creek Water  
Sue Virnig

October 31, 2010

BA295-00001 General

Through October 31, 2010

For All Legal Services As Follows:

			Hours	Amount
10/19/2010	CLL	Review agenda materials	0.15	28.65
10/20/2010	CLL	Exchange emails; meeting; email document to T. Mathisen	0.10	19.10
10/21/2010	CLL	Attend commission meeting and email to G. Nash regarding response to Amplatz	2.70	515.70
10/26/2010	CLL	Email to A. Herbert regarding RFPs	0.20	38.20
<b>Total Services:</b>			<b>\$</b>	<b>601.65</b>

For All Disbursements As Follows:

10/21/2010	Charles L. LeFevre; Mileage expense	5.00
<b>Total Disbursements:</b>		<b>\$ 5.00</b>

**Total Services and Disbursements: \$ 606.65**

**Kennedy & Graven, Chartered**

200 South Sixth Street  
Suite 470  
Minneapolis, MN 55402

Bassett Creek Water  
Sue Virnig

October 31, 2010

BA295-00027     2010 Plymouth Creek Restoration (PC-1, PC-2)

Through October 31, 2010

For All Legal Services As Follows:

			Hours	Amount
10/1/2010	CLL	Draft amendment to 2009 cooperative agreement for Plymouth Creek	1.15	219.65
<b>Total Services:</b>			<b>\$</b>	<b>219.65</b>

**Total Services and Disbursements:    \$            219.65**

**Kennedy & Graven, Chartered**

200 South Sixth Street  
Suite 470  
Minneapolis, MN 55402

Bassett Creek Water  
Sue Virnig

October 31, 2010

BA295-00028      2010 Bassett Creek Main Stem Restoration

Through October 31, 2010

For All Legal Services As Follows:

			Hours	Amount
10/1/2010	CLL	Work on amendment to 2009 cooperative agreement for Main Stem	1.00	191.00
<b>Total Services:</b>			<b>\$</b>	<b>191.00</b>

**Total Services and Disbursements:    \$            191.00**

**Kennedy & Graven, Chartered**

200 South Sixth Street

Suite 470

Minneapolis, MN 55402

Bassett Creek Water  
Sue Virnig

October 31, 2010

BA295-00029 Main Stem Restoration (Wisconsin to Rhode Island)

Through October 31, 2010

For All Legal Services As Follows:

			Hours	Amount
10/1/2010	CLL	Prepare draft cooperative agreement for Golden Valley	1.10	210.10
10/4/2010	CLL	Proof and email Main Stem contract	0.40	76.40
10/12/2010	CLL	Revise and email agreement with Golden Valley; phone call from K. Chandler and emails to K. Chandler regarding same	0.45	85.95
10/19/2010	CLL	Revise and email agreement with Golden Valley	0.25	47.75
<b>Total Services:</b>			<b>\$</b>	<b>420.20</b>

**Total Services and Disbursements: \$ 420.20**

**Kennedy & Graven, Chartered**

200 South Sixth Street

Suite 470

Minneapolis, MN 55402

Bassett Creek Water  
Sue Virnig

October 31, 2010

BA295-00030 North Branch Restoration (36th to Bassett Creek Park)

Through October 31, 2010

For All Legal Services As Follows:

			Hours	Amount
10/1/2010	CLL	Prepare draft cooperative agreement with Crystal	1.10	210.10
10/4/2010	CLL	Proof and email North Branch contract	0.40	76.40
10/12/2010	CLL	Revise and email agreement with Crystal; phone call from K. Chandler and emails to K. Chandler and city	0.45	85.95
10/19/2010	CLL	Revise and email agreement with Crystal	0.25	47.75
		<b>Total Services:</b>	<b>\$</b>	<b>420.20</b>

**Total Services and Disbursements: \$ 420.20**

INVOICE  
Geoff Nash, Watershed Consulting, LLC  
6920 Hillcrest Lane  
Edina, MN 5435  
952-925-5119

INVOICE DATE: 12/8/10

**Client:** Bassett Creek Watershed  
Management Commission

**Dates:** November 1-30, 2010

Task/Project	11/1/10	11/2/10	11/3/10	11/4/10	11/5/10	11/8/10	11/9/10	11/10/10	11/11/10	11/12/10	11/15/10	11/16/10	11/17/10	11/18/10	11/19/10	11/22/10	11/23/10	11/24/10	11/25/10	11/26/10	11/29/10	11/30/10	Month	
Administrative.	3.0	1.0	2.0	1.5	2.0	1.5	1.0	2.0	1.5	2.0	1.0	1.0	1.0	1.0	1.5	2.0	1.5	1.0		1.0	2.0	1.0		31.5
Commission Meeting/Prep.							1.0		1.0	1.0	3.0		5.0											11.0
Administrative Committee Meeting/Prep.																								0.0
Golden Valley BWSR Grant Reporting					1.0																			1.0
Plymouth BWSR Grant Reporting					1.0														1.0					
Education/Outreach Committee																			2.0	1.5	1.0			4.5
TAC Meeting/Prep.		3.0	2.0	3.0																				8.0
Medicine Lk. TMDL																								0.0
Sweeney Lk. TMDL																								0.0
Wirth Lk. TMDL																								0.0
Hennepin Co. Groundwater Planning																								0.0
Communication with Commission/Consultants																								0.0
Policy Manual		1.0							2.0		2.0				1.0	2.0	1.0					5.0		14.0
Major Amendment WMP																								0.0
Third-party meeting/prep.																								0.0
CIP																								
Daily Total:	3.0	5.0	4.0	4.5	4.0	1.5	2.0	2.0	4.5	3.0	6.0	1.0	6.0	1.0	2.5	4.0	2.5	1.0	0.0	4.0	3.5	7.0	0.0	0.0
Weekly Hours:					20.5				13.0				16.5						11.5				10.5	
Monthly Hours:																								72.0
Hourly Charges (at \$47/hr):																								\$3,384.00
Actual Hourly Charges:																								\$3,384.00
Unbilled Charges:																								\$0.00

		11/1/10	11/2/10	11/3/10	11/4/10	11/5/10	11/8/10	11/9/10	11/10/10	11/11/10	11/12/10	11/15/10	11/16/10	11/17/10	11/18/10	11/19/10	11/22/10	11/23/10	11/24/10	11/25/10	11/26/10	11/29/10	11/30/10	Month	
Expenses:	Telephone																							\$60.55	
	Printing-black&white (\$0.15/sheet)	38	8					11														5			\$9.30
	Printing-color (\$0.50/sheet)																					1			
	Postage (\$0.44 ea.)																					2.78			\$2.78
	Office products/ext. copying																								\$0.00
	Mileage (\$0.50/mile)													20											\$10.00
	Expenses:																								\$22.08
Total invoice amount:																							\$3,406.08		

Watershed Consulting, LLC  
6920 Hillcrest Lane  
Edina, MN 55435  
(952) 925-5119 office  
(952) 240-3025 cell.

See attached Verizon invoices.  
Note: July Verizon invoice - previous Verizon invoice = BCWMC monthly billed amount.





777 BIG TIMBER ROAD  
ELGIN, IL 60123

Manage Your Account & View Your Usage Details

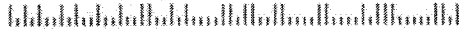
Account Number

Date Due

My Verizon at [www.verizonwireless.com](http://www.verizonwireless.com)

Invoice Number

10047239 02 AT 0.482 \*\*AUTO TR 0 4722 55435-160620 1 4 E GTPL2206



CAMILLE NASH  
6920 HILLCREST LN  
EDINA, MN 55435-1606

## Quick Bill Summary

Oct 23 - Nov 22

Previous Balance (see back for details)	\$194.78
Payment - Thank You	-\$194.78
<b>Balance Forward</b>	<b>\$0.00</b>
Monthly Access Charges	\$169.95
Usage Charges	
Voice	\$0.00
Messaging	\$0.00
Verizon Wireless' Surcharges and Other Charges & Credits	\$8.11
Taxes, Governmental Surcharges & Fees	\$16.72
<b>Total Current Charges</b>	<b>\$194.78</b>

### Do In The Green With Verizon Wireless

Trade in used phones and you could get  
a Verizon Wireless gift card, or donate  
your used phones to HopeLine to benefit  
domestic violence victims. Visit us at  
[www.trade-in.vzw.com](http://www.trade-in.vzw.com) for more  
information.

**Total Charges Due by December 17, 2010 \$194.78**

Previous Invoice                      \$134.23  
Current Month                      \$60.55

Pay from Wireless

Pay on the Web

Questions:

800-475-5555

My Verizon at [www.verizonwireless.com](http://www.verizonwireless.com)

1-800-333-3333 x 5555 from your wireless

VN



Bill Date

November 22, 2010

Account Number

Invoice Number

2492407634

CAMILLE NASH  
6920 HILLCREST LN  
EDINA, MN 55435-1606

**Total Amount Due by December 17, 2010**

Make check payable to Verizon Wireless  
Please return this remit slip with payment

**\$194.78**

\$    .

P.O. BOX 25505  
LEHIGH VALLEY, PA 18002-5505



Check here and fill out the back of this slip if your billing address  
has changed or you are adding or changing your email address.

2492407634010880670335000010000194780000194789

PRINTED: Thank you for using Verizon Wireless. We are committed to providing excellent service to you. For more information, call 1-800-333-3333.

SALE



BYERLY'S

Edina

Gen. Manager Mark Bartusch

952-831-3601

Open 6am - midnight

Cashier: Kathi J

11/29/10

17:27:34

POST OFFICE POSTAGE	130	1.39
POST OFFICE POSTAGE	130	1.39
SUBTOTAL		2.78
TOTAL TAX		.00

TOTAL 2.78

Cash	TENDER	10.00
Cash	CHANGE	7.22

NUMBER OF ITEMS 2

----- FSA Total \$0.00 -----

Trx: 79 Oper 828 Term: 12 Store: 1003  
11/29/10 17:28:34

RESOLUTION NO. 10-09

A RESOLUTION APPROVING THE TRANSFER OF BASSETT CREEK WATERSHED MANAGEMENT COMMISSION FUNDS FROM THE ADMINISTRATIVE ACCOUNT TO THE EROSION/SEDIMENT (CHANNEL MAINTENANCE) ACCOUNT, LONG-TERM MAINTENANCE ACCOUNT, AND TMDL STUDIES 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) fund.
2. \$25,000 will be transferred from the Bassett Creek Watershed Management Commission's Administrative Account to the Long-Term Maintenance fund.
3. \$10,000 will be transferred from the Bassett Creek Watershed Management Commission's Administrative Account to the TMDL Studies fund.

\_\_\_\_\_  
Chair

\_\_\_\_\_  
Date

Attest:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Date

# Twin Cities Metropolitan Area (TCMA) Chloride project

## Problem Statement

Metropolitan areas with cold climates are faced with the challenge of balancing winter safety and water quality. Achieving this balance requires an informed citizen base, properly trained road salt applicators and educated water resource managers. While progress in Minnesota has been made in these areas there is still much work to do in order to meet water quality standards and achieve a high level of road safety. In 2010 the MPCA more than doubled the number of waters that are listed as impaired for chloride. The current Minnesota chronic water quality standard (toxicity-based) for chloride is a four-day average of 230 mg/L and the maximum standard is a one hour average of 860 mg/L. A water body is considered impaired if it experiences two or more exceedences of either of those thresholds in a three-year period containing a minimum of five data points. A study conducted by the University of Minnesota determined a chloride mass balance for the TCMA and found that approximately 78% of all chloride generated in the TCMA is being retained in the TCMA (this number includes chloride from road salt, wastewater treatment plants, water softeners, etc.). Chloride is a conservative ion (meaning it moves with water without being broken down or lost). Once the chloride is introduced to water, the only known available technology for its removal is reverse osmosis. This means that chloride will continue to accumulate in the environment. A high chloride concentration in both the aquatic and terrestrial environment has some of the following implications for human consumption, aquatic life, and plant life:

- At high concentrations (acute) chloride is toxic to aquatic organisms (e.g. fish and macroinvertebrates);
- At lower levels (chronic), increased chloride concentrations in waters may affect aquatic community structure, diversity and productivity;
- There are numerous reports of increased terrestrial bird deaths due to road salt application;
- Studies suggest that amphibian species and their habitats are sensitive to road salt due to increased salinity;
- Road salt causes direct toxicity to terrestrial plants as well as the inhibition of water and nutrient absorption by plants, resulting in reduced shoot and root growth and drought-like symptoms;
- Some of the salt-induced effects on soils include reduced soil stability, decreased soil permeability, and increased potential for soil erosion.

While research exists identifying the negative environmental impacts that chloride (and sodium) from the application of road salt, there are still many unknowns. Continued research will help us to better understand how chloride interacts with the environment and therefore how to properly manage our water resources.

## **Phase 1: Feasibility Study Results (completed in Dec. 2009)**

The MPCA recently completed a Metro Chloride Feasibility study (Phase 1) to obtain a better understanding of the extent, magnitude, and causes of chloride contamination to surface waters in the seven county TCMA and to explore options and strategies for addressing chloride impairments and other impacts to water resources. This project included extensive data analysis, a literature review, a telephone survey, and analysis of potential strategies for further research, public education, and potential regulation.

The telephone survey of local municipalities which was conducted as part of this study provided a better understanding of the current chloride reduction practices undertaken by county and local road authorities. Survey results indicated that counties and many larger cities are beginning some chloride reduction activities. Cost restrictions of new technologies and alternative products are barriers to their wider implementation. A lack of data on cost effectiveness of the practices as well as insufficient data to quantify the potential resulting load reductions has also contributed to the reluctance to more widely adopt these practices.

A multi-agency team led by the MPCA was put together to provide guidance to the project team. This team consisted of partners from:

- MPCA
- Minnesota Department of Transportation (Mn/DOT)
- Metropolitan Council
- Board of Water and Soil Resources
- University of Minnesota,  
St. Anthony Falls Laboratory
- Wenck Associates, Inc.

The full report can be found at: <http://www.pca.state.mn.us/water/tmdl/project-chloride-metro>.

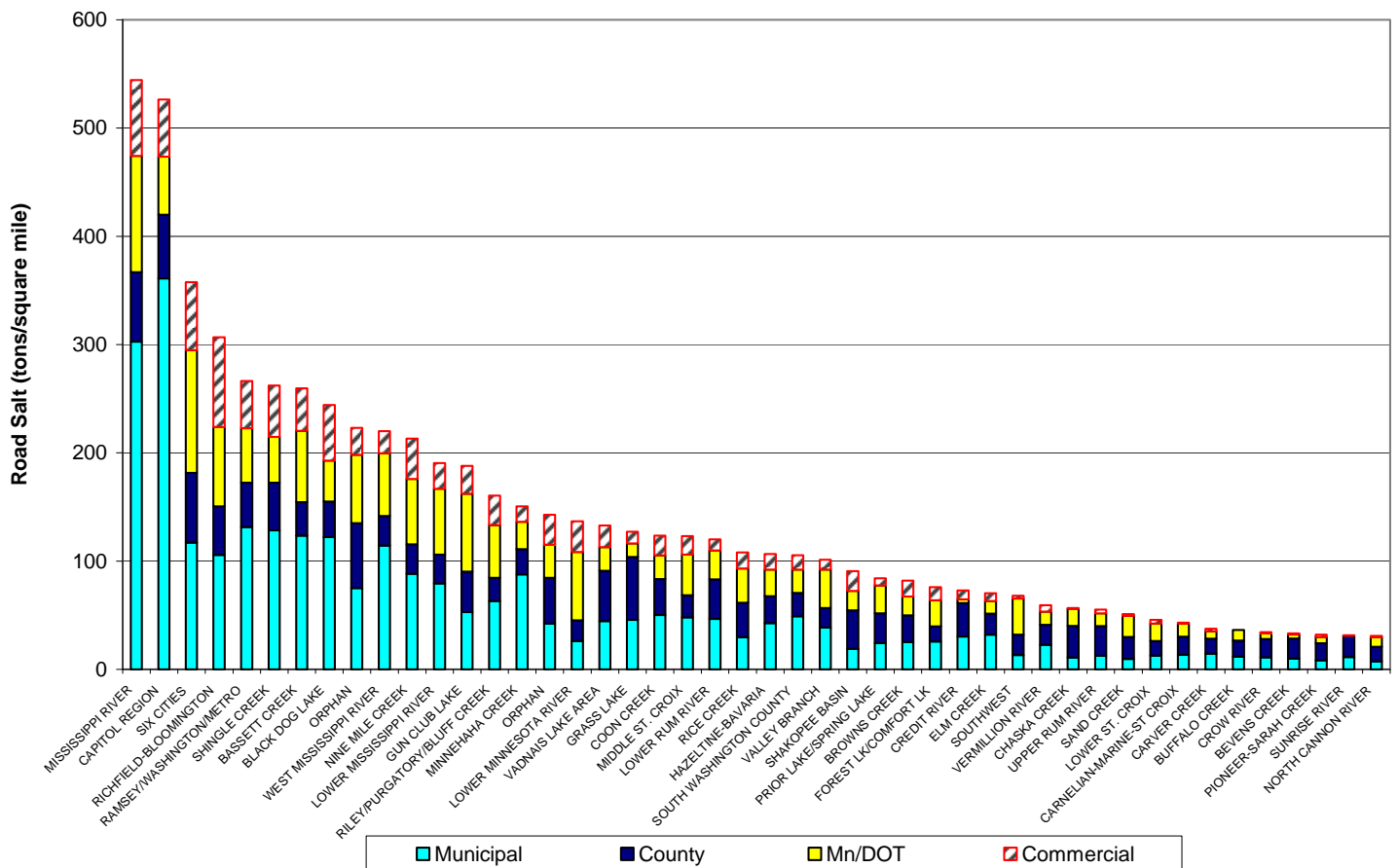
Listed below are the highlights from the results of the Metro Chloride Feasibility study:

- Chloride monitoring data was retrieved from STORET (MPCA data storage), the U.S. Geological Survey and Metropolitan Council for lakes, streams and groundwater resulting in roughly 35,700 chloride data points.
- The majority of data values greater than 230 mg/L (217/295) occur during the winter (November through March), however only 20% of the chloride data was collected during that period.
- Chloride levels are typically higher in deeper portions of the lake.
- Typically, higher chloride concentrations were found in lakes in the more developed core of the TCMA.
- A literature review on the impacts of chloride from road salt and the current topics of research in key areas indicated that:
  - Amphibians and anurans (frogs and toads) were found to be negatively impacted by exposure to road salt
  - Increased risk of mortality in finches and house sparrows due to road salt ingestion

- Increased chloride concentration may reduce or delay vertical mixing in lakes, or induce meromixis, or permanent stratification
- Anoxic conditions may form below the chemocline, impacting zooplankton and fish and increasing phosphorus release from the sediments
- Increased concentrations of chloride in groundwater were contributing chloride load to streamflow
- Primary source of chloride is road salt for winter maintenance applied by Mn/DOT, counties, municipalities, and private applicators.
- Proportions of road salt applied by major sources including municipal, Mn/DOT, county and commercial application for TCMA watersheds were estimated (see figure 1 below).

Figure 1 shows where the largest amount of road salt is being applied (based on purchasing records) on an annual basis in the TCMA. The watersheds with the highest application rates are the most likely to have chloride exceedances in their waters now or in the near future if current rates continue.

**Figure 1: Road salt application rates in the TCMA**



## **Phase 2: Chloride Management Plan development (2010-2014)**

### **Project Measures & Outcomes**

Chloride is a unique pollutant in that once it is in our waters there is no available technology to remove it and the primary source of chloride (road salt) is currently necessary for public safety; therefore preventing chloride from entering the environment and protecting waters from degradation while still providing public safety is critical to achieving the desired water quality. The tasks described in the project work plan will give the MPCA and all local partners in the TCMA the information and tools necessary to improve and/or maintain water quality with respects to chloride for the 7-county metropolitan area.

The measures that will be used within this work plan to achieve this are:

- Monitoring data will be utilized to determine existing levels of chloride in surface waters
- Modeling of the lakes will be conducted to determine their loading capacity and the necessary allocations in the Total Maximum Daily Load (TMDL) Report and protection plan
- A final TMDL report approved by the U.S. Environmental Protection Agency (EPA)
- A protection plan to be utilized by local partners that will set out chloride loading goals
- An Implementation Plan which will map out the necessary activities to achieve water quality goals
- Stakeholder meetings and other communication tools will be used to engage local partners and solicit their input on the project
- Broad outreach efforts to educate and inform the local citizens about chloride

The final outcomes of this project will be a chloride management plan which will lay out a strategy for addressing chloride impacts to our surface waters for the 7-county metropolitan area. This chloride management plan will satisfy EPA requirements for impaired waters, address waters not yet listed, and develop a strategy to protect waters that are currently meeting the water quality standards. This management plan will also include implementation activities for reducing chloride to TCMA waters as well as identify high priority areas to target implementation activities. The MPCA and hired consultants will work with the inter-agency team, a technical advisory committee, a monitoring advisory team and local stakeholders to develop this management plan to ensure that it is supported by our local partners and will result in ownership of the final plan.

### **Summary of Project Tasks**

#### **Task 1: Targeted Chloride Monitoring (Lakes, Streams & Stormsewers)**

MPCA, MCES & local partner staff will conduct this work. A separate detailed monitoring plan has been developed for this project. Sampling will begin in the Fall of 2010 and continue through 2013 as needed. This effort is being lead by the Monitoring Sub-Group and will consist of winter thaw event-based grab samples at existing flow stations for streams and stormsewers.

### Task 2: Update existing data compilation with recent data

This task includes reviewing data from the feasibility study, and incorporate 2009 - 2013 data collected under task 1, as well as any new data received. This analysis will include all available chloride and chloride-related data for surface and groundwater in the TCMA. Chloride, conductivity and flow data collected between 2009 and 2013 in the project area and submitted to EQulS will be added to the database that was developed for Phase 1 of this project. In some cases, relevant data collected before that time period may also be included (e.g. stormsewer data) in the database. All data will be analyzed for inclusion in the model development to ensure that sufficient data has been collected

### Task 3: Categorize & define waterbodies for protection and restoration

In an effort to prioritize all surface waters (to be defined through the project) in the TMCA the project area will need to be defined as one of the following categories:

1. Insufficient data – no existing data and limited data available
2. Non-Impaired – sufficient data available to clearly define as meeting water quality standards  
(sufficient data is defined as the same amount of data used in determining if the state's standard is being exceeded)
3. High Risk - not listed but will likely be impaired within next 10 years (the criteria that will be used to define waters in this category include: a negative trend in chloride and/or approaching the state's standard)
4. Impaired – exceeds water quality standards and TMDL will be done as part of this project

The first three categories are all non-impaired waters, just various levels. An assessment of chloride for all of the waters in the 7-county metro area is expected to be conducted by the MPCA in Jan. /Feb. of 2013. That process will then determine the final number of impairments that will be addresses through this project, any chloride listings that occur after 2013 will need to be addressed in the re-evaluation of this project in the next assessment cycle which will occur in 10 years as part of the [MPCA's Watershed Approach](#).

### Task 4: Develop target concentrations for non-impaired waters (Protection)

The goal of this task is to set protection goals (voluntary) for all of the waters defined as Non-Impaired and High Priority from task 3. Review available chloride concentrations and conductivity data for non-impaired waters in the project area to determine "existing" water quality conditions where the record is sufficient to do so. From this review, a set of target chloride concentrations will be developed for these waters.

### Task 5: Source Identification with Sub-Task 5a: Private Applicator rates

The Plan will include separate sections characterizing each subwatershed (WMO/WD scale) to help identify potential pollutant sources for both impaired and unimpaired reaches in the project area. Sources may include, among others, municipal and industrial wastewater, agricultural chemicals as well as road salt application. Road salt application rates or the next best available surrogate (e.g., purchasing records) will be obtained from public transportation authorities. The contribution from road salt



application will also include and analysis on the factors which will cause variation across seasons and types of road. For example how weather conditions and traffic speeds impact road salt application rates. First priority for this information is on subwatersheds with existing and expected impairments.

#### Task 6: Modeling and Analysis

Details to be worked out with consultant & MPCA.

#### Task 7: Develop Education/Outreach materials with Sub-Task 7a: Targeted road salt applicators materials

The MPCA will work with local education specialists to initiate a “toolbox” for a broad outreach campaign for road salt education that can be utilized by local partners. The materials pulled together and any new materials that may be developed will target private citizens, city officials, law enforcement and others.

#### Task 8: Write draft & final TCMA Chloride Management Plan

Deliverables from previous tasks will be used to develop the TMDL section of the report and draft pollutant (chloride) loads separated out into wasteload allocations, load allocations, and a margin of safety for impaired reaches in this project area. The TMDL allocations will be characterized for each impaired reach and subwatershed. The loadings will also be quantified for each source type when possible. Load and wasteload allocations may be developed for monthly or seasonal periods, but daily allocations will also be provided as required by the EPA. Pollutant source types and target loads will also be provided for non-impaired waters. This draft plan will include several review periods that will result in response to comments and any necessary revisions to the draft plan. A final Chloride Management Plan will fulfill TMDL requirements for impaired waters and identify those waters in need of protection be the final outcome of this task, and all or portions of this report will be submitted to EPA for final approval.

#### Task 9: Write draft & final Implementation Plan & long-term monitoring plan

This task includes taking the products that are developed as part of the stakeholder process, specifically task 10a, and incorporating them into an overall chloride implementation plan for the TCMA.

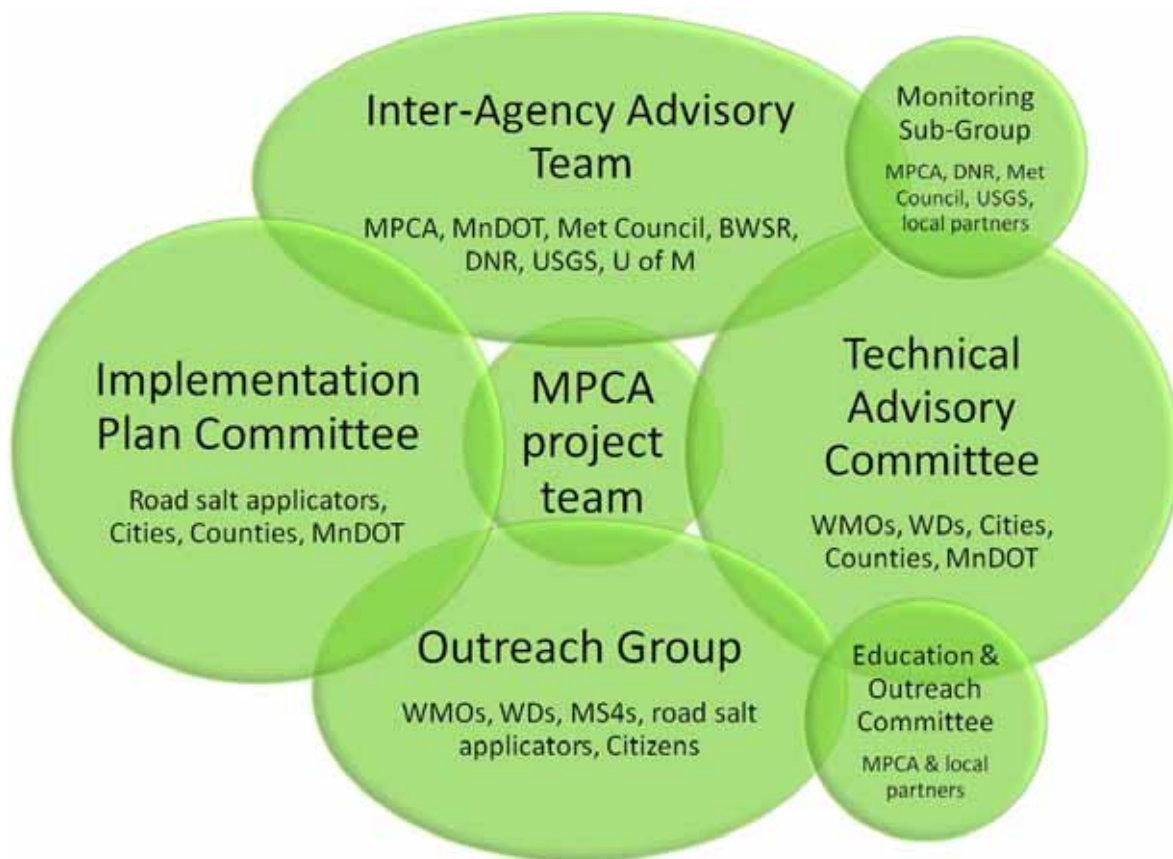
Write an implementation plan that local partners can use for reducing chloride to waters in the TCMA. The stakeholders will provide feedback on the draft implementation plan and it will be updated as needed based on the feedback received. The second part of this task is to develop and write a monitoring plan that will assist the MPCA and local partners monitor long term chloride trends for the TCMA. This monitoring plan will also provide the information necessary to determine BMP implementation in the future.

#### Task 10: Stakeholder Process with Sub-Task 10a: Facilitate IPC (Fortin Consulting)

The MPCA project manager will have primary responsibility to develop and execute a stakeholder process that facilitates positive interactions and ownership of the final restoration and protection plan recommendations and implementation efforts. The primary method of engaging stakeholders is

through facilitated discussion in meetings. The meetings will include identification of risks and opportunities, education on modeling and scientific data, and decision-making on preferred strategies and allocations. There will be six separate groups of stakeholders that will be engaged at various stages in this project; the Inter-Agency Team (IAT), Technical Advisory Committee (TAC), Monitoring Sub-Group (MSG), Implementation Plan Committee (IPM), Education & Outreach Committee (EOC) and an Outreach group. The entire process is shown in Figure 2. The MPCA project manager will coordinate meetings, communicate through email and conduct other forms of communications with all five groups with assistance from the project consultants. A project website has been created and will be updated and maintained throughout the project that will also serve as a communication tool. Other forms of social media will also be explored to communicate with the general public.

**Figure 2:** Stakeholder Process Diagram





## Memorandum

**To:** Bassett Creek Watershed Management Commission  
**From:** Barr Engineering Co.  
**Subject:** Item 5B, 2010 Flood Control Project Inspection  
BCWMC December 16, 2010 Meeting Agenda  
**Date:** December 8, 2010  
**Project:** 23270051.2010

### 5B. 2010 Flood Control Project Inspection

#### **Recommended/requested Commission actions:**

Provide copies of inspection report to communities, DNR and Corps of Engineers regarding results of inspection and recommended action.

#### **Background**

In accordance to the Operation and Maintenance Manual for the Bassett Creek Flood Control Project, an annual inspection is required to review the condition of the flood control features. The inspection program covers the flood control project features completed by the BCWMC between 1974 and 1996. The objective of the inspection program is to identify and address erosion, settlement, sedimentation, and structural issues. Barr Engineering (Jake Burggraff) performed the annual flood control project inspection on November 23 and December 1, 2010. Attached is the December 6, 2010 inspection report.



Barr Engineering Company  
4700 West 77th Street • Minneapolis, MN 55435-4803  
Phone: 952-832-2600 • Fax: 952-832-2601 • www.barr.com *An EEO Employer*

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Minneapolis, MN • Hibbing, MN • Duluth, MN • Ann Arbor, MI • Jefferson City, MO

## Memorandum

**To:** Bassett Creek Watershed Management Commission  
**From:** Barr Engineering Company  
**Subject:** Bassett Creek 2010 Flood Control Project Inspection  
**Date:** December 6, 2010  
**Project:** 23/27 0051 2010 065

In accordance to the Operation and Maintenance Manual for the Bassett Creek Flood Control Project, an annual inspection is required to review the condition of the flood control features. The flood control project was turned over to the local sponsor during 2002. Therefore, inspection of the flood control features was initialized during the fall of 2002, which was the first formal inspection by the BCWMC. Annual inspections were performed during 2004-2010. Some of the municipalities have performed independent inspections of several of the structures. The BCWMC is responsible for maintaining the structures and the municipalities are responsible for general debris removal. Inspections of the structures in 2010 were limited because ice and snow prevented safe access to some structures. Following are the comments and recommendations regarding the 2010 inspection:

### Plymouth Features

**Inspection Date: November 23, 2010**

**Personnel: Jake Burggraff (Barr)**

#### **1. Plymouth Creek Fish Barrier (Constructed 1987)**

- a. The water flow was a couple inches over the structure.
- b. The overall condition of the structure was satisfactory and appeared similar to the previous inspection (the concrete appeared to be in good condition).
- c. There are a few small cracks in the downstream portion of the left wing wall. No change from previous inspection notes.
- d. The expansion joint in the middle of the right abutment wall appears to be consistent to last few years and the gap was measured at approximately 7/8".
- e. Both sides of downstream banks were stabilized with new granite rip rap. Accumulated sediment downstream has been removed.
- f. Sediment has accumulated upstream of the structure. The upstream pool is filling with sediment and has formed a delta/island with grass growing on it. The island is forcing the creek current to the west bank.
- g. Trees are growing on left side of the embankment.
- h. Rust was noted on railings.

Note: references to "right" and "left" are with respect to facing downstream.

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Company  
Subject: 2010 Flood Control Project Inspection  
Date: December 6, 2010  
Project: 23/27 0051 2010 065  
Page: 2

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Recommended Action:

- Monitor width of joint opening during future inspection.
- Remove accumulation of upstream sediment.

**2. Medicine Lake Outlet Structure (Constructed 1996)**

- a. The overall condition of the structure appeared satisfactory. The concrete appeared to be in good condition with no major cracks.
- b. A couple inches of water was flowing over the weir.
- c. The channel between the lake and the weir was not walked because it was covered with ice.
- d. The new South Shore Drive bridge was built over the creek during 2010. Area around construction was covered with snow, but appeared stable.
- e. Geotextile fabric flap referenced and submerged during previous inspections was observed as a lapped joint in 2008. In 2009 more of the filter fabric was exposed than in the previous year. (Not checked this year 2010 because of ice.)

Recommended Action:

- None

**Golden Valley Features**

**Inspection Date: November 23, 2010**

**Personnel: Jake Burggraaf (Barr), Eric Eckman (City of Golden Valley)**

**1. Wisconsin Avenue Control Structure (Constructed 1987)**

- a. The overall condition of the structure appeared to be satisfactory.
- b. The culverts have settled approximately 3-4 inches directly under Wisconsin Avenue (water is deeper in the middle). This comment was noted in previous inspections and no noticeable change has occurred since 2005 inspection. (Culvert was not walked in 2010 because of ice.)
- c. The portion of the gabion baskets that were below water have deteriorated and baskets are not intact; riprap has fallen out of the baskets at some locations (the deterioration has increased over the years and since the 2002 inspection).
- d. A small sediment delta has been forming on the upstream end of the structure as noted in previous inspections.
- e. The flood gate was in the up-position at the time of the inspection; the gate, metal structures, and railings have all been painted recently.
- f. Two trees are growing against the box culvert end sections on the downstream side and are starting to look like they could collect debris and impede flow.

Recommended Action:

- Monitor gabion baskets and potential erosion during future inspections.
- The two trees on the downstream side of the box culverts should be removed and the stumps should be treated with herbicide. The DNR recommends Garlon 3A for treatment of vegetation removed near streams or wetlands. Care should be taken to apply the herbicide to the cut sump surface area only right after cutting the vegetation.

Note: references to "right" and "left" are with respect to facing downstream.

- Default position for the flood gate must be confirmed and adjusted as necessary.

**2. Golden Valley Country Club – Includes Box Culvert, Overflow Weir, D/S Channel (Constructed 1994)**

- The channel appeared to be in satisfactory condition with no change as stated in previous inspections. The riprap is in place along the channel and there was no erosion noted on either bank. Some riprap had collected in the channel bottom. Weeds and grass have grown in the riprap in the lower part of the channel. No debris, trees or brush have accumulated in the channel. (Channel was not walked in 2010 because of ice on the creek.)
- The box culvert structure appears to be satisfactory. No debris was found around the structure to obstruct the flow.
- The handrails along the box culvert have been painted recently and looked good.
- There still is a delta forming downstream of the box culvert, as noted in previous inspections. Vegetation has started to grow on the delta. Consideration should be given to remove the delta so the channel does not change course or erode slopes.
- The overflow weir appeared in good condition. The turf grass was not observed because it was covered with snow at the time of inspection.

Recommended Action:

- Remove downstream delta

**3. Westbrook Road Crossing (Constructed 1993)**

- The overall condition of the structure appeared satisfactory.
- As noted in previous inspections a small hairline crack was observed along the top of most sections of the Bebo arch culvert. The crack had extended across the entire section (pre-cast section) width. The cracks appeared to be about 2' off center of the structure (no change since 2002). (Bebo section was not inspected in 2010 because of ice.)
- Spalled concrete (approx. 4' x 4') noted at top of wing wall section at downstream right (east) side; there has been no change to the top of the wing wall since the 2007 inspection.
- Storm sewer pipe entering Bebo from left (west) side has exposed rebar and could use some mortar around the top of the pipe to form a better seal to the Bebo.

Recommended Action:

- Monitor cracks during future inspections.
- Place mortar at exposed rebar around storm sewer inlet.

**4. Regent Avenue Crossing (Constructed 1981-1984)**

Note: references to "right" and "left" are with respect to facing downstream.

- a. The overall condition of the structure is satisfactory.
- b. The channel bottom was soft and approximately one foot of soft silt coated the base of the structure. Inspectors were unable to walk through the culvert due to ice.
- c. The depth from the Bebo arch culvert crown to the creek bottom was not measured in 2010. The measurements of 9.65 feet upstream side and 9.2 feet downstream side were slightly less than the same measurements in previous years. (2008 – 10.0' upstream and 9.4' downstream, 2007 - 10.4' upstream and 9.6' downstream)
- d. Some scour/erosion was again observed around the end of the left downstream wing wall as was noted in the last five years and some erosion has now been discovered at the upstream right side wing wall, as noted last year. Additionally, erosion was noted on the left upstream bank and the right downstream bank due to the high flows.
- e. Top of upstream left/north wing wall has minor spalling with a long end section joint.
- f. Diagonal hairline crack near top of upstream left wing wall.
- g. Large maple tree undercut at upstream left bank, as noted in 2008 inspection.

Recommended Action:

- Monitor channel depth during future inspections
- Monitor erosion of bank at downstream of left wing wall and upstream right wing wall and consider repair of bank with rip rap.

**5. Noble Avenue Crossing (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.
- b. Hairline cracks were noted along the top of the Bebo arch culvert. Most Bebo pre-cast sections had 2-4 hairline cracks across each section. Most cracks were either down the center or spaced 2 ft. off from center. (Same comment noted in past inspections since 2002). Inside of culvert was not inspected in 2010 due to ice.
- c. Downstream right wing wall tilted in (toward creek) 1-1/8-inch. Measurement increased by 1/8 inch since 2008 inspection. (No change measured in 2010.)
- d. The depth from the Bebo arch culvert crown to the creek bottom was measured this year at each end of the culvert. The measurements were 10.15 feet upstream side and 7.96 feet downstream side. The measurements in 2009 were 9.96 feet upstream side and 8.67 feet downstream side.
- e. Spalled concrete noted at top of the left downstream wing wall and cracks nearby as noted in previous inspections. Some of the cracking appears to be expanding.
- f. Erosion noted along outside edge of the upstream right wing wall. Filter fabric is exposed. Creek is entering the Bebo arch culvert at an angle. Additional riprap may minimize erosion.
- g. Storm sewer pipe on the north side entering the Bebo under the road has exposed rebar and should be patched with mortar. This has been noted in previous inspections since 2002.
- h. The hand rails were painted in 2007 and are in good condition, except for a small amount of peeling on the bottom of the rails.
- i. 4 to 5 hairline cracks were noted on downstream right wing wall section nearest roadway; no change since previous inspection.
- j. Some dead trees have fallen into the creek bed on the downstream side.

Note: references to “right” and “left” are with respect to facing downstream.

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Company  
Subject: 2010 Flood Control Project Inspection  
Date: December 6, 2010  
Project: 23/27 0051 2010 065  
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Recommended Action:

- Monitor cracks, spalling and scour during future inspections especially the downstream left wing wall.
- Exposed rebar at the end of RCP storm sewer should be patched with mortar (this work would have to be done during a dry drought condition when the water level would be lower).
- Remove dead trees from downstream side of Bebo culvert.
- Repair erosion at upstream wing wall.

**Golden Valley/Minneapolis Features**

**Inspection Date: November 23, 2010**

**Personnel: Jake Burggraff (Barr), Eric Eckman (City of Golden Valley)**

**1. Highway 55 Control Structure (Constructed 1987)**

- a. The overall condition of the structure appeared satisfactory.
- b. There is some erosion around both the east and west sides of the structure from water flowing along the bituminous path from above the structure as noted in 2007 inspection. The east side is more noticeable than the west side. Riprap and filter fabric could be placed on both sides.
- c. There is a small hairline crack in the left wall of the inlet structure. The crack is positioned in the middle of the wall extending full height, this crack has been noted in previous inspections and there is no apparent change.

Recommended Action:

- Monitor cracks and erosion during future inspections
- Consider adding riprap and filter to each side of the structure, same comment since 2007. (not urgent)

**Crystal Features**

**Inspection Date: December 1, 2010**

**Personnel: Jake Burggraff (Barr)**

**1. 36th Ave. & Hampshire Ave. Crossing/Markwood 8'x 6' Box Culverts (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.
- b. Riprap was in the box culverts as noted in previous inspections; most of the riprap was located in the upstream end of the left (north) box culvert. (Box culvert sections were not walked in 2010 because of ice conditions.)
- c. The crack located in the right/top of the south culvert noted in previous inspections has not changed.
- d. On both culverts, the fifth joint from the downstream end had a 2 ½" gap.

Note: references to "right" and "left" are with respect to facing downstream.



- e. The RCP drainage pipe that was noted first in the 2004 inspection ties directly into the left (north) box. No mortar exists on the inside of the connection and exposed wire is visible (no change since 2004).
- f. On the downstream end of the box culverts trees are growing between the culverts.
- g. Catch basins on north side of 36<sup>th</sup> Ave. at Jersey have loose bolts on curb boxes. (Were not checked in 2010, covered with snow.)

Recommended Action:

- Monitor cracks and joint gaps during future inspections.
- Remove riprap and debris from inside culvert and replace at upstream inlet.
- Patch exposed end of RCP drain with mortar.
- Cut trees growing between the box culverts on downstream end and the stumps should be treated with herbicide. The DNR recommends Garlon 3A for treatment of vegetation removed near streams or wetlands. Care should be taken to apply the herbicide to the cut sump surface area only right after cutting the vegetation.
- Tighten bolts on curb boxes if not completed in 2009.

**2. Markwood Open Channel (Constructed 1981-1984)**

- a. The channel banks have become vegetated with trees and brush as noted in previous inspections. The trees are becoming large now and the brush thick. The bottom of the channel is mostly free of vegetation except for one larger twin trunk maple tree that has slid into the middle of the channel (behind 7001 Markwood Dr.) (Channel was not walked in 2010 because of ice.)
- b. Behind 7002 36<sup>th</sup> Ave N. and 6926 36<sup>th</sup> Ave. N there is erosion on the south bank of the channel.
- c. Erosion on the south bank behind 6917 36<sup>th</sup> Ave is causing a lattice fence to become unstable and lean towards the channel.

Recommended Action:

- All trees, limbs, and brush that may impede high flows should be removed from the channel and banks.
- The twin trunk maple tree should be removed. (Not checked in 2010.)
- Erosion should continue to be monitored.

**3. Markwood Channel Gabion Section (Constructed 1981-1984)**

- a. Some small trees and brush continue to grow through the gabions as noted in previous inspections. They have previously been cut and removed, but have resprouted; however the gabions appear to be intact. The small trees and brush in the gabions on the south side have all been removed from the gabions.
- b. The east edge of the gabions is located next to a retaining wall, behind 7010 36<sup>th</sup> Ave. The retaining wall has blocks on the top that are separated from the others and leaning towards the channel. (Not checked in 2010 because of ice in channel.)

Recommended Action:

Note: references to “right” and “left” are with respect to facing downstream.

- All trees and brush should be cut and removed from the gabions; the stumps should be treated with herbicide to prevent re-sprouting. Gabions will be damaged if the trees continue to grow. The DNR recommends Garlon 3A for treatment of vegetation removed near streams or wetlands. Care should be taken to apply the herbicide to the cut sump surface area only right after cutting the vegetation.

#### **4. Markwood D/S Overflow (Constructed 1981-1984)**

- a. Sediment has accumulated in front of the overflow inlet as noted since the 2006 inspection; some small trees and brush have established.

##### **Recommended Action:**

- The sediment should be removed to bring the channel and overflow back to the designed elevation.
- All trees or brush that may impede flows should be removed and stumps treated with herbicide.

#### **5. Markwood 8'x4' Box Culvert (Constructed 1981-1984)**

- a. The downstream side of the box culvert is undermined approximately 4 feet in the middle of the box. This section should continue to be monitored, and repaired when other features along this reach are maintained or if undermining extends further.

##### **Recommended Action:**

- Continue to monitor the erosion under the box culvert outlet during future inspections. Repair when other features along reach are maintained or if undermining increases.

#### **6. Georgia Ave. Crossing (Constructed 1981-1984)**

- a. The overall condition of the structures is satisfactory; however some maintenance may be required to preserve structural integrity.
- b. Sediment has accumulated on the south side of the creek bank directly in front of the south culvert thus directing the majority of the base flows into the northern culvert. This was first noted in the 2008 inspection.
- c. The casting assembly on the manhole over the north culvert on the east side of Georgia is off-set on the concrete opening of the manhole top exposing soil when observed from below. The manhole is in the boulevard area and the soil around it seems to be firm and should be checked in the future. This was first noted in the 2007 inspection.
- d. Two large trees are growing on the upstream side between the culvert inlets. First noted in 2009 inspection.
- e. As noted in previous inspections, the upstream culvert flares have settled slightly and there is some under cutting of the flared sections. No soil remains between the culverts from the upstream side to approximately 4 feet downstream of the upstream edge.

Note: references to “right” and “left” are with respect to facing downstream.

- f. The downstream culvert flares are undercut nearly 4 feet and the first sections are supported only by the tie rods. The under cutting of the outlets were not measured this year. The banks on the down stream end on each side of the culvert flares have also eroded as noted since the 2005 inspection. The south bank continues to show the most erosion. The north bank has an old concrete sewer exposed and failing.

**Recommended Action**

- Repair undermined flared end sections on downstream end and eroded banks by backfilling and protecting with riprap and filter fabric.
- Remove old concrete pipe in downstream north bank of creek.
- Remove the two trees from upstream end of culverts and treat the stumps with herbicide to prevent re-sprouting. The DNR recommends Garlon 3A for treatment of vegetation removed near streams or wetlands. Care should be taken to apply the herbicide to the cut sump surface area only right after cutting the vegetation.

**7. Edgewood Embankment (Constructed 1981-1984)**

- a. The overall condition of the feature appeared satisfactory.
- b. There is no visible settlement along the embankment
- c. The trees on the west side of the berm that have been referenced in previous inspections are now 6 to 8 inches in diameter.
- d. The creek banks approximately 200 feet downstream of the outlet structure are eroded on each side of the creek and are about 6 feet vertical as were noted during previous inspections.

**Recommended Action**

- Monitor erosion of down stream banks during future inspections.
- Remove trees along embankment, as necessary

**8. Douglas Drive (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.
- b. Erosion noted on upstream right bank south side, continues to grow.
- c. Erosion on left side of private drive CMP culvert just downstream of the downstream end of the box culvert.
- d. Private CMP culvert is sagging on private driveway.
- e. Settlement of pavement over box culvert section east side of Douglas Drive. (Douglas Drive repaved in 2010, no settlement visible.)

**Recommended Action**

- Monitor upstream end of culvert, right/south side erosion.

**9. 34th Ave. Crossing (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.

Note: references to “right” and “left” are with respect to facing downstream.

- b. Some erosion on the upstream east side bank as noted in previous inspections.
- c. Tree roots are exposed along the bank on either side for approximately 200 feet upstream from the crossing culvert. A sanitary sewer manhole is exposed in the middle of the creek as noted in previous inspections.
- d. Some sediment was noted on the bottom of the pipe, at similar levels to the 2008 inspection. (Culvert not walked in 2010 because of ice.)
- e. The tie rods are rusty and flaking near the center section of the culvert, as noted in previous inspections.
- f. Handrails need paint.
- g. Road guardrail cables are broken and hanging loose on the south side of the road.
- h. Large diameter tree (24" or larger) has fallen over and bridged the creek about four feet above the creek bed.

#### Recommended Action

- Monitor erosion during future inspections.
- Remove rip rap and debris from in front of the outlet end of the culvert.
- Paint handrails.
- Fix broken guardrail cables.
- Large diameter tree that has fallen across the creek about 75 feet down stream from the end of culvert should be removed.

### **10. Brunswick Crossing (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.
- b. There are still rocks missing from the bottom gabion on the north side adjacent the home as noted in previous inspections. The gabion appears to be settling as indicated by the repairs added to the top of the gabions. Noted sloughing of gabion baskets and potential issues with neighbor's fence. Comparing photos from year to year shows some additional settlement from 2008 to 2009. There appears to be no foundation for the gabion wall with a majority of rocks missing from the bottom row of the gabions. (Bottom of gabions could not be inspected in 2010 because of ice.)
- c. Drive and fence settling towards creek at 3224 Brunswick. Still noticeable in 2010.
- d. Sediment has accumulated over the years along the south bank of the creek on the up-stream end of the culverts thus directing most of the base flows to the northern culvert.
- e. On the south culvert, the fourth pipe joint from the downstream side has two broken ties and had been re-grouted by the City. The joint appears to be moving and is now about a 3 inch opening, with a gap between the pipe joint and the new grout. There is little change with the several other broken culvert tie-rods along each culvert as noted in previous inspections, with joint offsets up to 3/4 inch. None of the pipe joints were checked during the 2010 inspection because of ice conditions.
- f. The wide gap in the pavement noted during the previous inspection was repaired and seal coated prior to the 2008 inspection. The 2008 inspection noted some settlement, at about a half an inch at the crack. A similar measurement was taken during the 2009 inspection. (Covered with snow during the 2010 inspection.)

Note: references to "right" and "left" are with respect to facing downstream.

- g. A sediment delta is forming on the downstream end of the culverts (difficult to assess under snow and ice, but appears to be still there). The water level was higher than normal because of debris blocking the creek downstream near 32<sup>nd</sup> Ave.
- h. The downstream banks on each side of the creek between Brunswick and 32<sup>nd</sup> Avenue are eroded vertically 4 to 6 feet high exposing soil and tree roots.
- i. Small debris pile between two culverts on the upstream end.

**Recommended Action**

- Monitor concrete pipe condition and pipe ties during future inspections.
- Continue to monitor crack in pavement.
- Consider replacement of gabions before they fail or cause damage to resident's drive and fence.
- Remove accumulated sediment at upstream and down stream ends of culverts to keep creek aligned with culverts.

**11. 32nd Ave. Crossing (Constructed 1981-1984)**

- a. The overall condition of the structure appeared satisfactory.
- b. There is debris across the creek just upstream from the culverts damming the flow and creating backwater 12 to 18 inches higher than normal.
- c. Extensive erosion observed along the creek banks between Brunswick and 32<sup>nd</sup> Avenue with exposed vertical banks 4 – 6 feet high. Thus exposing root masses and allowing trees to fall into the creek that get lodged in-front of the culverts.
- d. Approximately 6-inches of sediment have accumulated in the lower downstream ends of the two culverts.
- e. Handrails are rusty and need painting as noted in previous inspections.
- f. Some erosion observed at upstream right bank as notes in previous inspections.
- g. 36" R.C.P. entering manhole over easterly culvert is missing grout where it is connected to the manhole. Soil around the pipe is exposed. In the 2007 inspection, ground water was observed flowing into the manhole from under the pipe. (Not checked in 2010 because of ice conditions.)

**Recommended Action**

- Remove trees, sediment and debris that created a small dam across creek just upstream from the end of culverts.
- Repair connection of 36-inch pipe into manhole.
- Monitor and consider removing trees along creek bank, rebuilding and stabilizing the stream banks between Brunswick and 32<sup>nd</sup> Ave. to prevent possible problems with woody debris in the future.
- Sand, prime and paint box culvert hand rails, as necessary (not urgent).

**12. Bassett Creek Park Pond and Outlet (Constructed 1995)**

- a. The overall condition of the outlet pipes appears satisfactory. There are some small boulders in the pipes as indicated in previous inspections.

Note: references to "right" and "left" are with respect to facing downstream.

- b. There is a large amount of sediment that has accumulated in the northwest corner of the pond where the creek enters. This has been noted in previous inspections; brush and vegetation is now growing in these areas on the sediment deltas.
- c. The western half of the pond appears shallow, as last year. (Pond was iced over during inspection could not see condition of pond bottom.)
- d. Flared end section outlet has a small amount of woody debris in front of it.
- e. A depression was noted on top of the eastern culvert, behind the curb. (Not detected under snow bank.)

Recommended Action

- Survey existing pond bottom so it can be compared to the original design to determine the amount of accumulated sediment and consider future maintenance dredging project.
- In future inspections monitor size of depression on top of the eastern culvert.

**13. Detention Pond and Outlet**

- a. The overall condition of the outlet structure appears satisfactory.
- b. Brush is located around the outlet.

Recommended Action

- Brush and small trees should be removed from around the outlet structure and treat the stumps with herbicide to prevent re-sprouting. The DNR recommends Garlon 3A for treatment of vegetation removed near streams or wetlands. Care should be taken to apply the herbicide to the cut sump surface area only right after cutting the vegetation.

**Crystal/Golden Valley Features**

**Inspection Date: December 1, 2010**

**Personnel: Jake Burggraff (Barr)**

**1. HWY 100 Double Box Culverts.**

- a. The control inlet structure condition appeared satisfactory.
- b. The large cracks and transition joint damage as noted in previous inspections were repaired by Mn/DOT in 2007. The repairs still remain in good shape with just a few hairline cracks observed and should continue to be monitored (not inspected in 2010 because of ice conditions).
- c. As in previous inspections, accumulated sediment (approximately 12 to 18 inches deep) was noted at the downstream end of the north easterly culvert and has remained about the same since last year's inspection (not inspected in 2010 because of ice conditions).
- d. The outlet portion of the structure appeared in satisfactory condition some of the pea rock in between the box culvert sections has washed away.
- e. Sediment delta forming in creek about 60 feet downstream of culverts changing creek alignment and backing up low base flows.
- f. Erosion was noted between the two culverts at the downstream end.

Note: references to "right" and "left" are with respect to facing downstream.

To: Bassett Creek Watershed Management Commission  
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Recommended Action:

- Remove silt from downstream end of northeasterly culvert.
- Continue to monitor sediment downstream of culverts.
- Replace fill and riprap between box culvert end sections.

**Minneapolis Features**

**Inspection Date: December 1, 2010**

**Personnel: Jake Burggraft (Barr)**

**1. Inlet Structure**

- a. The overall condition of the inlet structure appeared satisfactory (high water conditions and ice prevented inspection of the lower area 2010).
- b. The overall condition of the fence and railing appeared satisfactory.
- c. Minor cracks were noted in the concrete, especially where handrail posts were embedded. Some spalling was noted on the back of the south wing wall.
- d. City cleared debris from the front of about 2/3 of the trash rack and the water level had dropped about 2 feet prior to the inspection.
- e. The creek channel was not walked in 2010 inspection because of ice conditions and the relatively high flow.
- f. There was accumulated debris near the inlet structure half way up the north bank.

Recommended Action:

- Remove accumulated debris from the trash rack and from the north bank.

**2. Debris Barrier**

- a. The debris barrier had been cleaned by the city and was free of debris.

Recommended Action:

- None.

Note: references to “right” and “left” are with respect to facing downstream.

## Bassett Creek Recording Administrator

Item 6A

**From:** Jim Herbert  
**Sent:** Friday, December 03, 2010 4:07 PM  
**To:** Bassett Creek Recording Administrator; Geoff Nash; Karen Chandler  
**Cc:** Len Kremer; Derek Asche  
**Subject:** RE: Final reimbursement request "West Medicine Lake Park Ponds"

Karen/Amy/Geoff:

The BCWMC received the 11/23/10 letter and supporting documentation from the City of Plymouth requesting reimbursement of **\$20,643.37** from the BCWMC for the referenced project.

- Budget Summary
  - BCWMC Project Budget (per 9/18/08 addendum to cooperative agreement):  
\$1,100,000.00
  - Project balance (per 11/14/10 financial report excluding current request):  
\$376,219.79
- Project Summary
  - Total completed as of September 7, 2010:  
\$871,201.52
  - Reimbursement from BCWMC (September 7, 2010):  
(\$700,558.15)
  - Reimbursement from other project partners( Met Council, TRPD):  
(\$150,000.00)
  - **Current BCWMC Reimbursement Request**  
**\$20,643.37**
- Construction is complete as of November 23, 2010.
- Current reimbursement includes final retainage for construction.
- **We have reviewed the supporting documents provided by the City of Plymouth and recommend payment of \$20,643.37.**

Jim Herbert, PE

Vice President  
Senior Civil Engineer  
Minneapolis office: 952.832.2784  
cell: 612.834.1060  
[jherbert@barr.com](mailto:jherbert@barr.com)  
[www.barr.com](http://www.barr.com)

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Adding Quality to Life

6A

November 23, 2010

Ms. Amy Herbert, Recording Administrator  
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION  
c/o Barr Engineering Company  
4700 West 77<sup>th</sup> Street  
Minneapolis, MN 55435-4803

SUBJECT: WEST MEDICINE LAKE PARK POND IMPROVEMENTS aka  
PLYMOUTH CREEK WATER QUALITY PONDS PROJECT  
CITY PROJECT NO. 3105

Dear Ms. Herbert,

Enclosed you will find documentation of completed design, wetland mitigation, and construction expenses for the "West Medicine Lake Park Pond Improvements " aka the "Plymouth Creek Water Quality Ponds Project" totaling \$871,201.52. The City has received reimbursement from:

Bassett Creek Watershed:	\$700,558.15
Three Rivers Park District:	\$100,000.00
<u>Metropolitan Council:</u>	<u>\$50,000.00</u>
Total:	\$850,558.15

Total project costs as of November 23, 2010 are \$871,201.52. The attached Table 1 indicates all invoices received to date. Items noted with an "\*" are included in the current request for reimbursement of **\$20,643.37** from the Bassett Creek Watershed Management Commission (BCWMC) per the terms of the Cooperative Agreement for the West Medicine Lake Park Pond Improvements dated April 19, 2007 and Addendum to Cooperative Agreement for the West Medicine Lake Park Pond dated September 18, 2008.

Construction is complete as of November 23, 2010. This is anticipated to be last request for reimbursement for this project. Reimbursement to the City should be sent to my attention at:

**Derek Asche**  
**Engineering Department**  
**Plymouth City Hall**  
**3400 Plymouth Blvd.**  
**Plymouth, MN 55447**

Thank you again for your support on this project. If you have any questions regarding the submission, please contact me at 763-509-5526.

Sincerely,

Derek Asche  
Water Resources Manager

enc: Invoices

3400 Plymouth Blvd • Plymouth, Minnesota 55447-1482 • Tel: 763-509-5000 • [www.ci.plymouth.mn.us](http://www.ci.plymouth.mn.us)





## REQUEST FOR PAYMENT

DATE: November 18, 2010 FOR PERIOD  
 PLACE: Plymouth, MN FROM: 7-31-10 TO 11-18-10  
 PROJECT: Plymouth Creek Water Quality Ponds  
 PROJECT NO.: 3105 FILE NO.: \_\_\_\_\_ SPECIFIED CONTRACT  
 COMPLETION  
 DATE: June 25, 2010  
 CONTRACTOR: MN Dirtworks  
 ADDRESS: 321 9<sup>th</sup> Ave. NE  
Lonsdale, MN 55046  
 REQUEST FOR PAYMENT NO.: 4 & FINAL

## SUMMARY:

1. Original Contract Amount	\$	<u>396,860.00</u>
2. Change Order - ADDITION	\$	<u>0.00</u>
3. Change Order - DEDUCTION	\$	<u>0.00</u>
4. Revised Contract Amount	\$	<u>396,860.00</u>
5. Value Completed to Date	\$	<u>412,867.30</u>
6. Material on Hand	\$	<u>0.00</u>
7. Amount Earned	\$	<u>412,867.30</u>
8. Less Retainage <u>0</u> %	\$	<u>0.00</u>
9. Less Liquidated Damages	\$	<u>0.00</u>
10. Sub-Total	\$	<u>412,867.30</u>
11. Less Amount Paid Previously	\$	<u>392,223.93</u>
12. AMOUNT DUE THIS REQUEST FOR PAYMENT NO.: <u>4 &amp; FINAL</u>	\$	<u><u>20,643.37</u></u>

## OWNER APPROVAL:

By: Dan ChaleBy: Robert L. Moberg

Approved By: (CONTRACTOR)

By: [Signature]

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



**Table 1. Design, Wetland Mitigation, and Construction Costs through November 23, 2010.****Design Costs**

<u>Date</u>	<u>Vendor</u>	<u>Description</u>	<u>Amount</u>
12/22/2005	Barr Engineering Co.	P8 Model	\$261.37
12/23/2005	Schoell and Madson	Topographic Survey	\$8,929.99
1/20/2006	Schoell and Madson	Topographic Survey	\$6,020.01
1/30/2006	Barr Engineering Co.	P8 Model	\$2,307.87
2/27/2006	Barr Engineering Co.	P8 Model	\$1,150.00
2/27/2006	STS Consultants	Geotechnical Services	\$3,904.47
3/23/2006	Barr Engineering Co.	P8 Model	\$5,709.80
3/31/2006	Barr Engineering Co.	P8 Model	\$170.96
4/7/2006	STS Consultants	Geotechnical Services	\$3,651.53
5/12/2006	Schoell and Madson	Topographic Survey	\$2,298.75
5/19/2006	Barr Engineering Co.	P8 Model	\$5,580.27
6/16/2006	Barr Engineering Co.	P8 Model	\$3,418.00
7/1/2006	Kjolhaug Env. Serv.	Wetland Delineation	\$1,774.73
7/14/2006	Barr Engineering Co.	P8 Model	\$801.73
10/13/2006	Kjolhaug Env. Serv.	Wetland Delineation	\$957.54
10/31/2007	Wenck Associates	Engineering Services	\$2,167.50
11/30/2007	Wenck Associates	Engineering Services	\$4,083.28
12/31/2007	Wenck Associates	Engineering Services	\$16,930.41
1/31/2008	Wenck Associates	Engineering Services	\$8,133.30
2/8/2008	Kjolhaug Env. Serv.	MN RAM	\$1,318.80
2/29/2008	Wenck Associates	Engineering Services	\$8,599.00
3/31/2008	Wenck Associates	Engineering Services	\$10,841.21
4/4/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$1,909.00
4/30/2008	Wenck Associates	Engineering Services	\$1,165.00
5/1/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$1,983.00
6/5/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$448.00
6/30/2008	Wenck Associates	Engineering Services	\$492.00
7/8/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$407.00
7/31/2008	Wenck Associates	Engineering Services	\$1,139.50
8/8/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$4,426.49
10/2/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$2,464.74
11/26/2008	Westwood Prof. Serv.	Wetland Replacement Plan	\$2,633.50
11/30/2008	Wenck Associates	Engineering Services	\$1,098.14
12/4/2008	MnDNR	Permit Application Fee	\$1,000.00
12/31/2008	Wenck Associates	Engineering Services	\$391.30
1/6/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$46.00
1/30/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$540.50
1/31/2009	Wenck Associates	Engineering Services	\$305.80
2/28/2009	Wenck Associates	Engineering Services	\$2,202.70
3/3/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$264.50
3/31/2009	Wenck Associates	Engineering Services	\$918.40
4/30/2009	Wenck Associates	Engineering Services	\$1,262.80
5/31/2009	Wenck Associates	Engineering Services	\$375.00
6/30/2009	Wenck Associates	Engineering Services	\$5,626.95
7/10/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$805.00
7/15/2009	Reed Business Information	Advertisement for Bids	\$159.90
7/22/2009	Reed Business Information	Advertisement for Bids	\$159.90
7/31/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$1,237.16
7/31/2009	Wenck Associates	Engineering Services	\$342.06
9/9/2009	Westwood Prof. Serv.	Wetland Replacement Plan	\$230.00
11/30/2009	Wenck Associates	Engineering Services	\$183.44
8/31/2010	Arrowhead Environmental	Wetland Monitoring	\$1,000.00
<b>Total Design Costs:</b>			<b>\$134,228.30</b>

**Wetland Mitigation Costs**

<u>Date</u>	<u>Vendor</u>	<u>Description</u>	<u>Amount</u>
7/8/2009	Don Bursch	Wetland Mitigation Credits	\$30,000.05
8/21/2009	BWSR	Wetland Mitigation Fees	\$20,189.68
9/4/2009	Don Bursch	Wetland Mitigation Credits	\$272,916.19
6/30/2009	BWSR	Wetland Mitigation Fees	<u>\$1,000.00</u>
<b>Total Wetland Mitigation:</b>			<b>\$324,105.92</b>

**Construction Costs**

<u>Date</u>	<u>Vendor</u>	<u>Description</u>	<u>Amount</u>
2/1/2010	MN Dirt Works	Pond Construction	\$194,141.52
3/9/2010	MN Dirt Works	Pond Construction	\$188,167.45
7/30/2010	MN Dirt Works	Pond Construction	\$9,914.96
11.23.10	MN Dirt Works	Pond Construction	<u>\$20,643.37 *</u>
<b>Total Construction Costs:</b>			<b>\$412,867.30</b>

<b>Grand Total:</b>	<b>\$871,201.52</b>
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\*These items are included in the current request for reimbursement



## Memorandum

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 6D—Next Generation Plan Work Session—Planning Process  
BCWMC December 16, 2010 Meeting Agenda  
Date: December 8, 2010  
Project: 23270051.31 2010

### 6D. Next Generation Plan Work Session—Planning Process

#### **Recommended/requested Commission actions:**

1. Discuss and provide suggested revisions to the draft planning process.

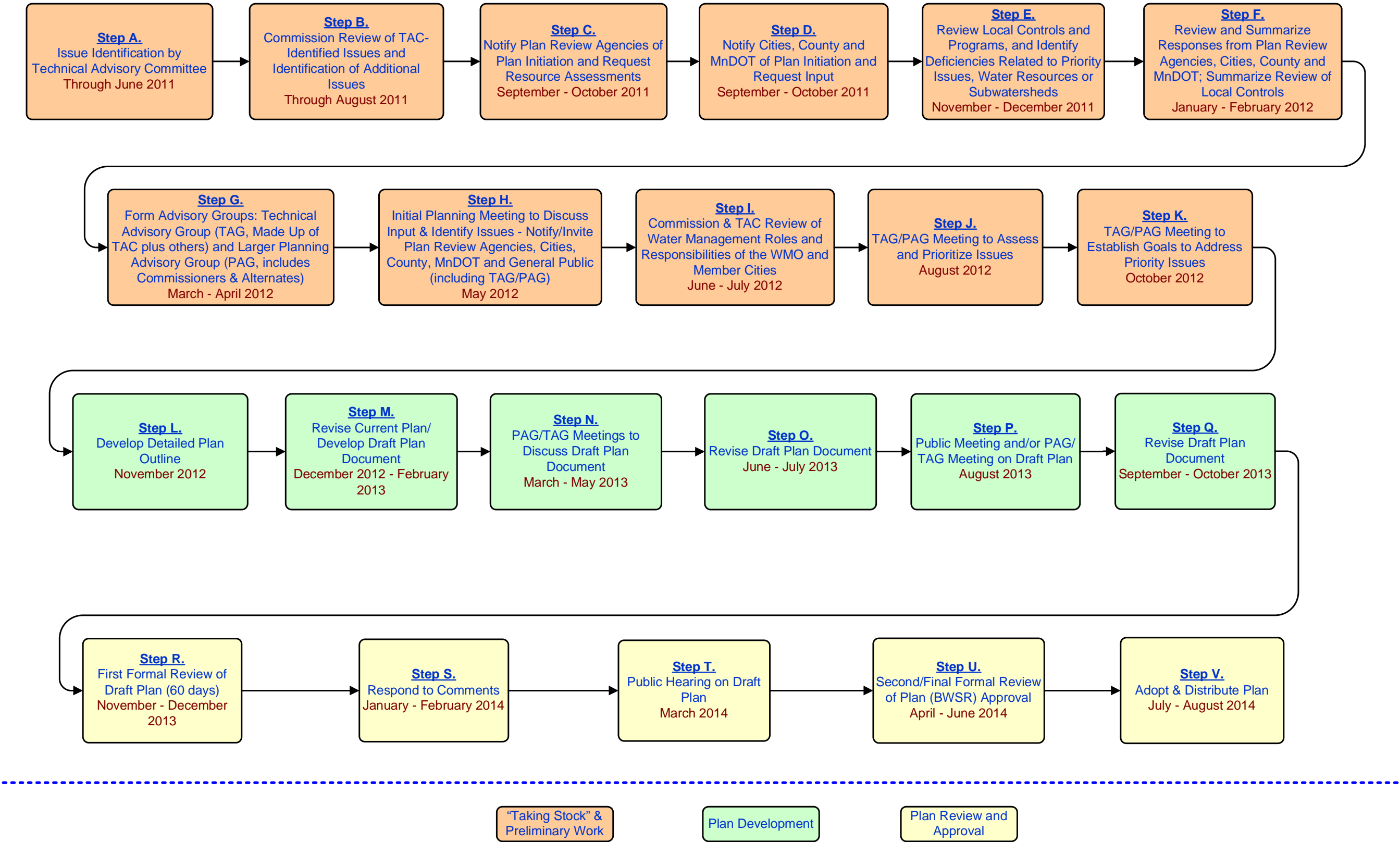
#### **Background**

At their November 17, 2010 meeting, the Commission directed the engineer and Administrator to prepare a draft planning process and timeline for the preparation of the next generation plan. Staff prepared the attached flow chart, which shows the possible work tasks and timeline, and includes advisory group and public involvement activities.

The draft planning process takes into consideration the proposed changes to the MN Board of Water and Soil Resources' 8410 Rules, which dictate the watershed plan content and the process to be followed for developing the watershed plan (the rules also more broadly cover watershed management in the Twin Cities metropolitan area). The proposed changes to the 8410 Rules are not yet out for public review, but BWSR staff has indicated that they expect the formal rule revision process to start shortly. A number of the proposed rule changes could significantly affect the planning process and schedule, so the draft planning process presented here incorporates the anticipated changes. For example, Steps C, D, E, and H are explicitly required in the proposed new rule for the planning process, while Steps J and K are closely tied to the new rule requirements.

This information is provided as background material for the Commission to use in its continued discussions about the planning process for the next generation watershed management plan. The Technical Advisory Committee is proceeding with the issue identification stage of the process.

Bassett Creek Watershed Management Commission Next Generation Plan DRAFT Process





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Geoff Nash, P.G.  
Watershed Consulting, LLC

Administrator's Report  
Bassett Creek Watershed Management Commission  
December 16, 2010

1. Sent out third and questionnaire to TAC to get feedback on what issues of related to groundwater, the planning process, and public ditches that need to be considered in the Next Generation Plan.
2. There was no TAC meeting for December.
3. Finished draft of Policy Manual and met with Administrative Services Committee on Thursday, December 9.
4. Worked with Barr Engineering on letter to Sioux Line Railroad regarding obstructions in creek channel under Sioux Line railroad trestle. Old pilings are blocking flow and causing debris to accumulate.
5. Reregistered BCWMC website domain name under Commission's name with Barr Engineering hosting the site.
6. Received a call and correspondence from Shep Harris, a Golden Valley resident and volunteer for the MPCA's Citizen Stream Monitoring Program on Bassett Creek, who is interested in following the streambank restoration work in Golden Valley.
7. Scheduled Brooke Asleson, MPCA, for time before the Commission to discuss the Twin Cities Metro (TMDL) Chloride Project.
8. Worked with Commissioner Langsdorf on distribution of the Snow and Ice brochure to interested cities in BCWMC.
9. The MPCA notified me that the Medicine Lake TMDL has been sent to EPA for their final approval.
10. Attended Minnesota Association of Watershed Districts (MAWD) annual meeting in Alexandria to learn about current issues and water quality improvement techniques from across the state.

## **BCWMC Education & Public Outreach Committee Meeting**

**December 3, 2010 – 8:30 a.m. – Plymouth City Hall**

**Members Present:** Liz Thornton, Margie Vigoren, Stu Stockhaus, Pauline Langsdorf, Bonnie Harper-Lore and Ted Hoshal    **Staff:** Amy Herbert joined us a 10:00 to review the website

### **Update on Snow/Ice Brochure and Channel 12**

The brochures developed by WMWA were distributed to the cities which requested them. Geoff Nash sent new labels with the reduced salt solution to the cities that requested the labels.

Northwest Cable Channel 12 contacted Margie Vigoren requesting an interview with her on ways to deal with slippery sidewalks and driveways. In particular they were interested in having a demonstration on how to make and apply the salt brine to sidewalks using a spray bottle. The interview/demo began running on Channel 12 around December 2. We decided it is time to review and resubmit the snow and ice article written last year but not run by the local press. If the BCWMC chooses it could come out in the form of a press release from the BCWMC.

### **Draft 2011-2012 Education and Outreach Plan (EOP)**

We completed Strategy 1 of the 2011-2012 draft EOP. We are currently working on revising Strategy 2 and Strategy 3. We wanted to have this completed to pass on to the TAC for their meeting on January 6<sup>th</sup> but it will have to be sent to them in rough draft form for Strategy 2 and 3. The committee expressed frustration over difficulty in completing the EOP due to meeting time constraints.

### **Website Review**

Margie Vigoren arranged for the website to be projected on a large screen to assist with our website review. Amy Herbert provided us with the notes she had made from a previous meeting on this topic. We reviewed several websites in addition to our own. We made several requests for changes to the website some of which are:

- new photo on home page
- a toggle on the home page leading to a map or maps of the watershed
- change the formula for salt solution in the newsletter article
- update the website addresses for links on the Education Outreach page and drop some of the links that don't lead to active websites
- write a website introduction for the Education Outreach page
- compile existing photos of Bassett Creek

We feel a separate website committee needs to be established to make recommendations on a website overhaul. This change could be extensive and we need to have sufficient funds built into the 2012 budget to accomplish this. We would like to have this on the BCWMC agenda in January for discussion.

Notes by Pauline Langsdorf