



Bassett Creek Watershed Management Commission

A g e n d a

11:30 a.m., Thursday, August 20, 2009

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 one motion. There will be no discussion of these items unless a BCWMC commissioner so requests in which event the item will be removed from the consent agenda and considered in its normal sequence on the agenda.
- 3. CITIZEN INPUT ON NON-AGENDA ITEMS**
- 4. ADMINISTRATION**
 - A. Presentation of July 16th meeting minutes ***
 - B. Presentation of Financial Statements ***
 - C. Presentation of Invoices for Payment Approval**
 - i. Kennedy & Graven – Legal Services through June 30, 2009**
 - ii. Barr Engineering – Engineering Services through July 31, 2009**
 - iii. Barr Engineering – Sweeney Lake TMDL Phase 2 Services – May 30 – July 31, 2009**
 - iv. Amy Herbert – July Administrative Services**
 - v. SEH – Sweeney Lake TMDL work through June 30, 2009**
 - vi. SEH – Sweeney Lake TMDL work through July 31, 2009**
 - D. Schedule BCWMC Liaisons for September, November, and January TAC Meetings**
- 5. NEW BUSINESS**

No New Business
- 6. OLD BUSINESS**
 - A. Feasibility Report for Plymouth Creek Restoration Project** (*see memo from Barr*)
 - B. Feasibility Report for Bassett Creek Main Stem Restoration Project** (*see memo from Barr*)
 - C. Sweeney Lake TMDL Update** (*see memo from Barr*)
 - D. Medicine Lake TMDL Update** (*see memo from Barr*)
 - E. Education and Public Outreach Committee**
 - i. Grant Proposal for Teacher Focus Group** (*see memo from Education Cmtee*)
 - F. CIP Closed Account Fund Balance**
- 7. COMMUNICATIONS**
 - A. Chair**
 - B. Commissioners**
 - C. Committees**
 - D. Counsel ***
 - E. Engineer**
- 8. INFORMATION ONLY**
 - A. Administrative Reviews** (*see memo from Barr*)
 - B. Inspection Memo** (*see memo from Barr*)
- 9. ADJOURNMENT**

Bassett Creek Watershed Management Commission Minutes of the Meeting of July 16, 2009

1. Call to Order

The Bassett Creek Watershed Management Commission (BCWMC) was called to order at 11:35 a.m., Thursday, July 16, 2009, at Golden Valley City Hall by Chair Welch. Ms. Herbert conducted roll call.

Roll Call

<i>Crystal</i>	Commissioner Pauline Langsdorf	<i>Counsel</i>	Charlie LeFevere
<i>Golden Valley</i>	Commissioner Linda Loomis, Treasurer	<i>Engineer</i>	Len Kremer
<i>Medicine Lake</i>	Commissioner Cheri Templeman	<i>Recorder</i>	Amy Herbert
<i>Minneapolis</i>	Commissioner Michael Welch, Chair		
<i>Minnetonka</i>	Commissioner Kris Sundberg		
<i>New Hope</i>	<i>Not represented</i>		
<i>Plymouth</i>	Commissioner Ginny Black, Vice Chair		
<i>Robbinsdale</i>	<i>Not represented</i>		
<i>St. Louis Park</i>	<i>Not represented</i>		

Also present: Laura Adler, BCWMC Technical Advisory Committee, City of St. Louis Park
Derek Asche, BCWMC Technical Advisory Committee, City of Plymouth
Jeannine Clancy, BCWMC Technical Advisory Committee, City of Golden Valley
Jack Frost, Metropolitan Council
Dave Hanson, Alternate Commissioner, City of Golden Valley
Ron Leaf, SEH, Inc.
Randy Lehr, Three Rivers Park District
Tom Mathisen, BCWMC Technical Advisory Committee, City of Crystal
Richard McCoy, BCWMC Technical Advisory Committee, City of Robbinsdale
Liz Stout, BCWMC Technical Advisory Committee, City of Minnetonka
Liz Thornton, Alternate Commissioner, City of Plymouth

2. Approval of Agenda and Consent Agenda

Ms. Loomis moved to approve the Agenda. Ms. Black seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote]. Ms. Black moved to approve the Consent Agenda. Ms. Langsdorf seconded the motion [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

3. Citizen Input on Non-Agenda Items

No citizen input on non-agenda items.

3. Administration

- A. Presentation of the June 18, 2009, BCWMC meeting minutes. The minutes were approved as part of the Consent Agenda.
- B. Presentation of the Financial Statement. The July financial report was received and approved as part of the Consent Agenda.

The general and construction account balances reported in the July 2009 Financial Report are as follows:

Checking Account Balance	600,637.37
<i>TOTAL GENERAL FUND BALANCE</i>	600,637.37
Construction Account Balance	3,190,601.56
<i>TOTAL CONSTRUCTION ACCOUNT BALANCE</i>	3,190,601.56
<i>-Less: Reserved for CIP projects</i>	3,505,503.27
<i>Construction cash/ investments available for projects</i>	(314,901.71)

C. Presentation of Invoices for Payment Approval.

Invoices:

- i. Kennedy & Graven – Legal Services through May 31, 2009 - invoice for the amount of \$1,403.85.
- ii. Barr Engineering Company – June Engineering Services - invoice for the amount of \$24,487.02.
- iii. Amy Herbert – June Recording Administrator Services - invoice for the amount of \$3,279.62.
- iv. Amy Herbert – Reimbursement for July Meeting Catering - invoice for the amount of \$297.21.
- v. Shingle Creek – Joint Watershed Sponsorship of Metro Blooms Rain Garden Workshops - invoice for the amount of \$2,000.00.
- vi. MMKR - Financial Audit – final billing - invoice for the amount of \$680.00.
- vii. SEH, Inc. – Sweeney Lake TMDL Phase 2 Work through May 31, 2009 - invoice for the amount of \$2,697.20.

Chair Welch removed invoice vii – SEH, Inc. Sweeney Lake TMDL Phase 2 Work from the roll call vote. Ms. Black moved to approve the payment of invoices i - vi. Ms. Loomis seconded the motion. By call of roll, the motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

Chair Welch stated he had pulled the SEH invoice for the Sweeney Lake TMDL Phase 2 Work because he wanted to add some comments from a discussion he had with Ron Leaf of SEH. Chair Welch said Mr. Leaf had forwarded to him a budget summary that detailed that the Three Rivers Park District did not use all the funds it was allocated for its work and \$4,200 remained from that portion of the project budget. He said those remaining dollars were redirected to the work completed by Barr Engineering and SEH, Inc. on the same task. He reported that Mr. Leaf stated that the TMDL should be completed within the project budget unless significant redrafting of the TMDL is requested. Chair Welch said any redrafting would be dependent on the comments on the TMDL by the MPCA. Mr. Kremer commented that he does not anticipate significant comments on the TMDL itself. Chair Welch moved to approve invoice vii – SEH, Inc. Ms. Black seconded the motion. By call of roll, the motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

- D. Resolution 09-04 to approve minor plan amendment. Chair Welch introduced Resolution 09-04 approving the Watershed Amendment that includes the additions to the BCWMC's *Watershed Management Plan's* (the Plan) Table 12-2 to include PC-1 and PC-2 to restore the channel of Plymouth Creek from Medicine Lake to 37th Avenue in the City of Plymouth with construction proposed to begin in 2010 and the addition of a project to restore the Main Stem of Bassett Creek from the City of Crystal boundary to Regent Avenue in the City of Golden Valley with construction proposed to begin in 2010. The amendment also includes revisions to the Plan's Tables 4-2 and 4-3 to change the Parker's Lake phosphorus goal from 30 ppb to 38 ppb, in accordance with the goal recently established in the City of Plymouth's Surface Water Management Plan. Additionally, the amendment includes revisions to Table 5-3, Bassett Creek Flood Profiles, to change the flood elevations of Crane Lake and Oak Knoll Pond, in accordance with flood elevations established in the City of Minnetonka's Water Resource Management Plan.

Ms. Loomis moved to approve Resolution 09-04. Ms. Sundberg seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote]. Chair Welch amended the motion to edit the resolution to include in the resolution item 2 for the Secretary also to transmit a copy of the Plan Amendment to Hennepin County and the Minnesota Board of Water and Soil Resources. Ms. Loomis and Ms. Sundberg approved the amendment of the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

4. New Business

- A. Laurel Hills East Condominium Improvements: City of Golden Valley. Mr. Kremer explained that the reason the project requires Commission review is because the project includes work in the floodplain. He said the project is located adjacent to the Sweeney Lake Branch of Bassett Creek on the south side. He said historically there was a small ponding area in the project location but that over the years because of erosion along this reach of the channel, sediments have been deposited there eliminating the pond. Mr. Kremer said the project proposes landscape improvements and the dredging of the small pond, which would include the excavation of 0.28 acres. He stated that the area would flood occasionally. Mr. Kremer said the Commission Engineer recommends approval of the project with the condition that the project includes the construction of an emergency overflow, such as a swale stabilized with rip rap, between the pond and the creek to minimize erosion during overtopping or flooding events. Chair Welch asked if there were any concerns about where the dredged material would be deposited. Mr. Kremer said that none of the material will be deposited into the floodplain and that a contractor would be hired to haul the fill offsite. Ms. Black moved to approve the project with the condition recommended by the Commission Engineer in its July 9, 2009, memo. Ms. Sundberg seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

6. Old Business

- A. Resource Management Plan Comments. Mr. Kremer reported that Barr has been in contact with the Army Corps of Engineers (the Corps) regarding its comments on the Resource Management Plan. He said the Corps has indicated it feels the plan is complete and ready to be public noticed. Mr. Kremer said he communicated to the RMP that after the Commission makes its comments on the plan the Commission will let the Corps know the RMP is ready to be public noticed for comments from other regulatory agencies and the public. He said that any comments received would need to be responded to and then the next step would be for the Corps to issue a permit conditioned on submittal of the final plans of each project for the Corps' review as the final step in the permitting process. Mr. Kremer added that the Corps communicated that it thinks the RMP will expedite the Corps issuance of permits.

Ms. Black commented that she wishes the information Mr. Kremer just reported to the Commission was contained in the RMP. She asked that the purpose of the RMP be stated earlier in the RMP document and should be on the first page. Mr. Black also stated that on page 2 the list of the report sections should be deleted and instead underline the section headings described in the paragraph currently following the list. Ms. Black commented that there is no mention of runoff reduction in the description of the projects in the RMP and she thought the goal of runoff reduction should be added to the RMP language. Mr. Kremer stated that the changes she described would be made to the RMP.

Chair Welch clarified that during the public notice period the RMP remains a draft and the Commission or the commissioners as individuals can continue to comment. Chair Welch stated that the RMP is no guarantee that the Corps won't come back with comments or something new on individual projects. Mr. Kremer said he thinks there is a history of working through a similar process with the Corps where the Corps issued its permits on the basis of preliminary plans and then the Commission went through its construction but he agreed that the Corps does go through changes in its policies.

Ms. Black moved to authorize the staff to update the RMP as described and to send it to the Corps with the communication that the RMP is ready to be public noticed. Ms. Loomis seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

- B. St. Louis Park Local Water Management Plan Review and Request for Comments on Draft Comprehensive Plan.** Chair Welch said that by statute the BCWMC is required to review local water management plans to ensure conformity with the BCWMC's *Watershed Management Plan*. He commented that this review is a critical function of the Commission. Mr. Leaf of SEH described his review of the City's local water management plan (LWMP) and said he utilized the August 2005 review checklist provided to SEH by the Commission. Mr. Leaf said the LWMP does a good job overall and that his July 7, 2009, memo to the Commission just details the items in the St. Louis Park LWMP that are not in conformance with the BCWMC's *Watershed Management Plan* or were missing. He said the review comments revolve mainly around one issue - the LWMP doesn't address Sweeney Lake as an impaired water. Mr. Leaf said his memo provides recommendations on how St. Louis Park should revise its LWMP to address the issues. He said he has discussed the recommendations both with Barr Engineering, the contractor that prepared the plan for the City, and with the City. Ms. Adler commented that the City will be able to make the revisions described by Mr. Leaf in his July 7th memo. Mr. Frost added that the St. Louis Park LWMP was one of the better plans that he has reviewed.

Ms. Black moved to approve the St. Louis Park LWMP with the revisions recommended by SEH in its July 7, 2009, memo. Ms. Loomis seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

- C. Sweeney Lake TMDL Update.** Chair Welch said the issue in front of the Commission today is whether to approve the draft Sweeney Lake TMDL Study to send to the Minnesota Pollution Control Agency (MPCA) for its review and comment. He mentioned that the implementation plan is included in the draft TMDL Study that goes to the MPCA but technically the implementation part of the Study does not need to be approved by the EPA. He said the MPCA will send the Study to the EPA for approval before the MPCA can approve it.

Mr. Kremer asked Mr. Leaf if the draft TMDL will list the wasteload allocation as individual or categorical. Mr. Kremer stated that the Minnesota Department of Transportation (Mn/DOT) wants an individual wasteload allocation. Mr. Leaf said a final decision on the allocation approach

has not been made by the Commission. He said currently the draft Sweeney Lake TMDL study and the draft that has been presented to the Commission lists the wasteload allocation approach as Mn/DOT having an individual wasteload allocation and Golden Valley and St. Louis Park combined with a categorical allocation. Mr. Leaf said SEH is waiting for the Commission's final decision on how it wants to approach the wasteload allocation in the draft Study to be sent to the MPCA. Chair Welch said another important consideration is that Hennepin County is an MS4 and although its load contribution is so small that it won't receive a load allocation it may be a partner in work that is undertaken.

Mr. Kremer said that at the July 13th TAC meeting, the TAC brought up the question of who would do the reporting under the categorical approach. He said under the individual approach the cities would do the reporting. Mr. Kremer said the TAC would like additional information from the MPCA regarding the reporting process under the categorical approach.

Ms. Clancy stated that the City of Golden Valley hasn't sent in its comments but it will within the next 10 days. She added that the Alternate Commissioner of Golden Valley will also be submitting comments. Mr. Kremer said that in light of the City of Golden Valley's incoming comments he recommends the Commission hold off submitting the draft TMDL Study to the MPCA and wait to make a decision on the wasteload allocation until the August BCWMC meeting. He said the TAC should be able to submit a recommendation to the Commission on the wasteload allocation by the August BCWMC meeting. Mr. Kremer said the wasteload allocation decision is important in the BCWMC's three ongoing TMDL studies and the TAC will hold a special meeting in order to discuss and develop a recommendation for the Commission if the information regarding the reporting requirements for the WLA (wasteload allocation) options can be obtained in time.

Chair Welch said individual commissioners should submit comments for the purpose of developing Commission comments and the Commission would appreciate if the MS4s would share their comments with the Commission. He said that the individual MS4s and any individual can also comment to the MPCA during its review process. Chair Welch directed that comments on the draft Sweeney Lake TMDL Study are due to Mr. Kremer and Mr. Leaf by August 7th for discussion and consideration by the Commission at its August 20th meeting. Chair Welch said he would like comments to include thoughts about the individual versus categorical wasteload allocation approaches especially with regard to Mn/DOT.

Chair Welch asked Mr. Leaf how difficult it would be to add to the BMP section a brief analysis of additional infiltration opportunities such as how increased infiltration could affect external load. Mr. Leaf said it could be done. Mr. Kremer said it would be similar to the exercise LimnoTech went through using a P8 model. Chair Welch said it would be good to have that information in order to look at opportunities for increased infiltration or filtration as a way to address external loading in a watershed that is very developed.

D. Medicine Lake TMDL Update and TAC Recommendation. Chair Welch said the MPCA requested comments from the Commission on the Medicine Lake TMDL and the LimnoTech memo tomorrow, Friday, July 17th. Mr. Kremer said the TAC has two recommendations:

- i. The Commission continues to work with the MPCA to resolve the issues with the data and model for the Medicine Lake TMDL.
- ii. The Commission authorize staff to contact the MPCA about reporting requirements under the individual versus the categorical wasteload allocation approaches and for staff to prepare a memo summarizing the advantages and disadvantages of each approach.

Mr. Kremer said the Commission could choose to go forward now with the TMDL as it is and work on refining the model and resolving the issues with the model in the future. He said an

advantage with going forward now is the opportunity to take advantage of Clean Water Legacy (CWL) funds. He said the other option is for the Commission to choose to resolve the issues with the model now, which would delay the completion of the TMDL. Mr. Kremer said the TAC's recommendation is to work to resolve the issues with the model now.

Ms. Loomis says she hears Barr saying it could sit down with LimnoTech and get a better understanding of why there are discrepancies among the models and the removal prediction of the West Medicine Lake Park pond. She said she thinks the Commission needs to reach an understanding of what the removal efficiency is of that project. Mr. Kremer said that Greg Wilson of Barr Engineering communicated to the Commission his analysis of why the model is not accurately predicting the load reductions of that pond. He said Mr. Wilson pointed out that there is a lot more particulate phosphorus tributary to the ponds than the model is showing and the model is calibrated to total phosphorus and not to particulate phosphorus. Mr. Kremer said that point is just one example of information that needs to be investigated further with regard to the model. He said that based on the first meeting with LimnoTech it seems that it is willing to get together and continue to review the model. Mr. Asche agreed that all groups involved seemed willing to get together and hammer out the differences. Chair Welch pointed out it is important to involve the Three Rivers Park District in the discussions. He also pointed out that the MPCA is ready to get this TMDL completed.

Chair Welch pointed out that the Commission was e-mailed this week for review and discussion a draft memo from Barr with Commission comments to the MPCA on the June 12, 2009, draft Medicine Lake TMDL P8 Modeling summary memo prepared by LimnoTech.

Chair Welch provided two comments he would like included in the Commission's response to the MPCA:

1. Continued reasonable additional efforts to refine the modeling to incorporate or reflect available data prior to finalization of the draft TMDL and implementation plan will result in a model that most effectively and reliably supports the efforts that will be undertaken to implement BMPs and stormwater management requirements to achieve TMDL goals.
2. The modeling and data suggest that watershed-wide efforts to reduce runoff could contribute to the improvement of water quality in Medicine Lake (and other waterbodies), and the BCWMC will invest resources and work with its member cities and others to determine the best ways to achieve such reductions.

Chair Welch also asked that the memo be revised so the detailed questions in the memo are turned into broader statements that state the specific areas of data and analysis that should be addressed in collaboration with the Three Rivers Park District and the Commission's Engineers and the MPCA's Engineers to achieve a better model. Mr. Kremer remarked that those changes and additions would be made.

Chair Welch moved for staff to add his two comments and to make the Commission's requested revisions to the July 14, 2009, response memo regarding the P8 modeling summary and to deliver the memo to the MPCA by the deadline tomorrow, July 17th. Ms. Loomis seconded the motion. The motion carried unanimously with five votes in favor [Cities of Crystal, Golden Valley, Medicine Lake, Minneapolis, and Minnetonka]. The City of Plymouth abstained [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

Mr. Kremer mentioned the TAC's second recommendation to the Commission was that the Commission authorize staff to contact the MPCA about reporting requirements under the individual versus the categorical wasteload allocation approaches and for staff to prepare a memo summarizing the advantages and disadvantages of each approach. Chair Welch said he

recommends that the Commission be direct with the MPCA and communicate that the Commission continues to consider a categorical wasteload allocation. Ms. Loomis commented that she thinks the Commission does need the information from the MPCA and does need a summary memo for review. Ms. Black also agreed.

Ms. Clancy commented that the cities will pay one way or another for the efforts to be undertaken to achieve the TMDL goals – either as individual cities or as members of the Commission. Ms. Clancy said what she has wanted the MPCA to help the Commission and the cities to figure out is whether it is more cost effective to undertake the work as individuals or as a group. She said that more information about the process may help the Commission and the cities to figure that out.

Mr. Lehr recommended that in the Commission's request to the MPCA for more information about the reporting requirements the Commission inquire about the MPCA's expectations from an accountability perspective in addition to the cost effectiveness of the categorical versus the individual wasteload allocation approach.

Chair Welch moved to direct staff to make the inquiry of the MPCA with a cover letter that briefly explains the Commission's discussion and to have him review the communication on the Commission's behalf prior to it being sent to the MPCA. Ms. Black seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park absent from the vote].

- E. **Wirth Lake TMDL Update.** Chair Welch reported that the meeting packet included summary results from the June 22nd Wirth Lake stakeholder meeting and recommendations regarding the implementation plan and wasteload allocation approach. He said the question in front of the Commission is whether to forward the Commission's recommendations to the MPCA regarding the completion of the wasteload allocations on a categorical or individual basis and a waste load allocation for Mn/DOT.

Mr. Kremer reminded the Commission of the data that shows the 38 micrograms per litre reduction goal could be met by eliminating the backflow from the creek. He said the backflow contributes approximately 55 pounds of phosphorous per year to Wirth Lake. He said the stakeholder group had considerable discussion on whether Mn/DOT should have to eliminate its 28 pounds of phosphorous contributed per year into the lake. Mr. Kremer said the group decided that it wouldn't be necessary if the elimination of the backflow could meet the reduction goal. Mr. Kremer said the stakeholder group suggests that if the TMDL goes with an individual allocation approach then Mn/DOT would have an allocation of 28 pounds of phosphorous, Hennepin County, Minneapolis, and Golden Valley would have allocations, and the other communities that contribute flow from Bassett Creek to the lake would have no allocations since the premise is that the backflow could be prevented. Mr. Kremer said this is the approach Mr. Chris Zadak, MPCA, suggests for the TMDL. Mr. Kremer said the Commission could still go with a categorical approach so that Golden Valley, Hennepin County, and the City of Minneapolis could receive a categorical wasteload allocation. He said the total allocation for those three if they are combined in the categorical approach would be 107 pounds of phosphorus reduction of the total allocation amount of 183 pounds.

Chair Welch brought up the idea that the implementation plan should incorporate the idea that Mn/DOT should take specific measures to address its allocation or to measure its contribution.

Mr. Kremer said the draft TMDL is targeted to be completed in August so it should be available for the Commission's September meeting. Chair Welch said he doesn't hear anyone saying there is a rush to make a decision on the Wirth Lake TMDL. Chair Welch directed staff to include

Mn/DOT monitoring in the TMDL implementation plan.

- F. Watershed-wide TMDL.** Chair Welch reported that the cost estimate from Barr Engineering to prepare a watershed-wide TMDL scope of work is \$8,000. Ms. Black wondered what the Commission would gain at this point from a watershed-wide TMDL since the Commission has TMDL studies underway. Chair Welch commented that the Commission still needs to undertake the TMDLs for Bassett Creek including fecal coliform, fish IBI and that perhaps at some point the creek would be listed for a chloride impairment.

Mr. Kremer stated that he has inquired of the MPCA what it would need from the Commission for the MPCA to consider modifying the fish IBI impairment listing to eliminate the creek upstream of Highway 100 due to the intermittent nature of the creek. He said he has also asked if the Mississippi River TMDL could include the Bassett Creek impairment. Mr. Kremer said those two items would be significant changes and would leave the Commission with the TMDLs for Northwood Lake and the fish IBI on Bassett Creek downstream of Highway 100.

Chair Welch moved that staff again seek a response from the MPCA regarding the intermittent stream determination. Ms. Black seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote.]

Ms. Black moved that the Commission request that the Mississippi River TMDL study include the Bassett Creek fecal coliform impairment with staff communicating with the MPCA and Ms. Loomis to request at the next Mississippi River TMDL stakeholder meeting. Ms. Sundberg seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote.]

- G. Education and Public Outreach Committee.**

- i. **Grant Application from Meadowbrook School.** Ms. Black recommended approval of the education grant up to \$1,000 for the construction of an outdoor classroom at Meadowbrook School. Ms. Langsdorf seconded the motion. The motion carried with five votes in favor [Cities of Crystal, Medicine Lake, Minneapolis, Minnetonka, and Plymouth]. City of Golden Valley abstained from the vote [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote]. Ms. Herbert was directed to communicate the approval of the grant funding to the school contact and to send the contract out for signature.

- H. Meeting Packet Format; Deadline for Submission of Information to be Considered at Commission Meetings.** Ms. Black recommended that information is sent to Ms. Herbert by the date the packets are assembled otherwise there is no guarantee of action being taken on the item at the Commission meeting. Chair Welch moved Ms. Black's recommendation. Ms. Sundberg seconded the motion. The motion carried unanimously [Cities of New Hope, Robbinsdale, and St. Louis Park were absent from the vote].

7. Communications

- A. Chair:**

- i. Chair Welch reported that Hennepin County will be convening another conservation forum, which will be held on July 30th. He said Ms. Herbert would e-mail out the details to the Commission.
- ii. Chair Welch announced that the BCWMC 2008 annual report is posted on the BCWMC's Web site and hard copies are available through Ms. Herbert.

B. Commissioners:

- i. Ms. Langsdorf discussed an article in the Star Tribune that discussed a program in which the Shingle Creek Watershed Management Commission worked together with a school district to combine science and social studies learning in a three-week summer course where students did water and benthic invertebrate sampling and investigated ways to be politically active regarding water issues. Ms. Langsdorf said she would like to see schools in the Bassett Creek watershed offer a similar opportunity. She said the Shingle Creek WMO contributed \$1,000 to the development and running of the program.

The Commission directed the Education Committee to request information from Shingle Creek or the school district for Commission review.

- ii. Ms. Langsdorf discussed a national organization called Canines for Clean Water and showed a communication piece put out by the Minneapolis Park and Recreation Board in conjunction with the resources of the organization. Ms. Loomis said the Education Committee may be interested in looking into the resources made available by the organization.

C. Committees:

Education Committee

- i. Ms. Langsdorf announced that the education brochures will be mailed out to the Commission in the next couple of days. The Commission decided Ms. Herbert could mail a supply of the brochures to the commissioners and TAC members.
- ii. Ms. Thornton reported that two different watershed articles are in the works by the writer hired by the Commission and that a total of three articles are planned for 2009. Ms. Thornton requested that the Commission send her any contacts in the watershed of residents doing watershed-friendly practices.
- iii. Ms. Langsdorf announced that the next Education Committee meeting is on Tuesday, July 21, 2009, at 9:00 a.m. at Plymouth City Hall.

Administrative Services Committee

Chair Welch stated that the Administrative Services Committee would be scheduling a meeting.

D. Counsel: No Communications.

E. Engineer: No Communications.

8. Adjournment

Ms. Black moved to adjourn the meeting. Ms. Loomis seconded the motion. The meeting adjourned at 2:06 p.m.

Michael Welch, Chair **Date**

Amy Herbert, Recorder **Date**

Pauline Langsdorf, Secretary **Date**

Bassett Creek Watershed Management Commission General Account

General Fund (Administration) Financial Report

Fiscal Year: February 1, 2009 through January 31, 2010

MEETING DATE: August 20, 2009

Item 4B.
Financial
Report

CHECKING ACCOUNT 0100339

BEGINNING BALANCE	9-Jul-09			\$600,637.37
ADD:				
Other Revenue:				
Permit Fees		2,000.00		
		Total Other Revenue		2,000.00
Transfers In:				
From Construction Fund	Projects	25,434.22		25,434.22
	Total Revenue and Transfers In			27,434.22
DEDUCT:				
Checks:				
2176 Barr Engineering	July Services	43,206.78		
2177 Amy Herbert	July Services	2,409.15		
2178 Kennedy & Graven	June Services	1,801.76		
2179 S E H	June Services	1,654.90		
2180 S E H	July Services	497.45		
	Total Checks			49,570.04
ENDING BALANCE	12-Aug-09			\$578,501.55

	2009/10 BUDGET	CURRENT MONTH	YTD 2009/10	BALANCE
<u>OTHER GENERAL FUND REVENUE</u>				
ASSESSMENTS	449,875	0.00	449,874.00	1.00
PERMIT REVENUE	55,000	2,000.00	11,500.00	43,500.00
REVENUE TOTAL	504,875	2,000.00	461,374.00	43,501.00
<u>EXPENDITURES</u>				
ENGINEERING				
ADMINISTRATION	110,000	11,601.48	64,941.31	45,058.69
PLAT REVIEW	55,000	4,087.44	22,342.44	32,657.56
COMMISSION MEETINGS	13,000	1,981.90	6,441.15	6,558.85
SURVEYS & STUDIES	20,000	0.00	9,267.80	10,732.20
WATER QUALITY/MONITORING	49,000	0.00	13,151.94	35,848.06
WATER QUANTITY	11,000	1,005.80	3,577.65	7,422.35
WATERSHED INSPECTIONS	8,000	736.00	3,460.50	4,539.50
ANNUAL FLOOD CONTROL INSPECTIONS	10,000	0.00	0.00	10,000.00
REVIEW MUNICIPAL PLANS	6,000	0.00	0.00	6,000.00
ENGINEERING TOTAL	282,000	19,412.62	123,182.79	158,817.21
ADMINISTRATOR	35,000	0.00	0.00	35,000.00
LEGAL COSTS	18,500	1,247.86	7,696.78	10,803.22
AUDIT, INSURANCE & BONDING	13,000	0.00	13,745.00	(745.00)
FINANCIAL MANAGEMENT	3,000	0.00	0.00	3,000.00
MEETING EXPENSES	5,100	0.00	2,445.00	2,655.00
SECRETARIAL SERVICES	45,000	3,291.84	20,304.72	24,695.28
PUBLICATIONS/ANNUAL REPORT	4,000	0.00	1,696.50	2,303.50
WEBSITE	1,575	28.50	917.50	657.50
PUBLIC COMMUNICATIONS	3,000	155.00	1,359.22	1,640.78
WOMP	10,000	0.00	3,890.00	6,110.00
DEMONSTRATION/GRANTS/EDUC PARTNERSHIPS	18,200	0.00	6,888.58	11,311.42
EDUCATION / PUBLIC OUTREACH	8,200	0.00	3,454.81	4,745.19
EROSION/SEDIMENT (CHANNEL MAINT)	25,000	0.00	0.00	25,000.00
LONG TERM MAINTENANCE (moved to CF)	25,000	0.00	0.00	25,000.00
TMDL STUDIES (moved to CF)	10,000	0.00	0.00	10,000.00
GRAND TOTAL	506,575	24,135.82	185,580.90	320,994.10

BCWMC Construction Account (802-1119576)
Fiscal Year: February 1, 2009 through January 31, 2010
August 2009 Financial Report

Beginning Balance	9-Jul-09			3,190,601.56
ADD:	Interest			1,248.00
				3,191,849.56
DEDUCT:				
	Transfers Out:			
	To General Fund (Const Costs)	Construction Costs	25,434.22	
	Investment-Dain		533,957.50	
				559,391.72
Ending Balance:	12-Aug-09			2,632,457.84

Investments

Federal Home Loan Mtg Corp - Purchased 7/22/09 - Due 10/18/2010 - 0.55% 533,957.50

Total Investments 533,957.50

Construction Account - Cash Balance (detailed above) 2,632,457.84

Total: Construction Fund Cash/Investments 3,166,415.34

Less: Reserved for CIP Projects 3,680,069.05

Construction Cash/Investments Available for projects (513,653.71)

BCWMC Second Generation Projects	Budget	Current	YTD	Project Total	Balance
Approved CIP Projects:					
2003 Floodproofing-Engineering/Legal -expected completion 2006	700,000	0.00	0.00	698,225.40	1,774.60
2005 Medicine Lake In-Lake Treatment	105,000	0.00	0.00	77,127.39	27,872.61
2006 Medicine Lake In-Lake Treatment	110,000	0.00	0.00	54,676.12	55,323.88
2005 Northwood Lake Proj-expected complete 2005	182,700	0.00	0.00	152,853.29	29,846.71
2006 Parkers Lake Water Quality Project	42,000	0.00	0.00	1,133.75	40,866.25
Twin Lake-expected completion 2006	140,000	448.85	947.45	5,059.35	134,940.65
Westwood Lake	312,000	0.00	51,495.42	225,864.90	86,135.10
2005 Wirth Lake Project-expected completion 2006	254,000	0.00	0.00	84,090.72	169,909.28
Medicine Lake: Geese Reduction		0.00	0.00	500.00	(500.00)
Proposed CIP Projects:					
Lakeview Park Pond-expected completion 2007		0.00	0.00	637.50	(637.50)
West Medicine Lake Park Pond Budget increase Resolution 08-07 (200,000)	1,100,000	253.00	563.00	7,190.66	1,092,809.34
Northwood Lake East Pond	107,250	0.00	0.00	61,077.13	46,172.87
Twins Stadium	0	0.00	0.00	13,469.22	(13,469.22)
Sweeney Lake Branch Channel	500,000	0.00	0.00	385,756.57	114,243.43
2008 Medicine Lake Herbicide	0	0.00	0.00	15,389.40	(15,389.40)
Ramada Pond	90,000	0.00	0.00	39.00	89,961.00
Plymouth Creek Restoration	550,000	4,697.00	5,384.50	65,162.10	484,837.90
Bassett Creek Feasibility Study	0	4,938.00	4,938.00	4,938.00	(4,938.00)
Resource Management Plan	0	1,586.64	45,622.22	52,431.72	(52,431.72)

TMDL Projects

TMDL Studies	115,000	8,160.88	16,467.23	72,181.50	42,818.50
Sweeney Lake TMDL	119,000	5,349.85	39,192.80	175,889.15	(56,889.15)

Annual Flood Control Projects:

Flood Control Emergency Maintenance	500,000	0.00	0.00	0.00	500,000.00
Flood Control Long-Term Maintenance	748,373	0.00	0.00	13,566.33	734,806.67

Annual Water Quality

Channel Maintenance Fund	175,000	0.00	0.00	2,994.75	172,005.25
	5,850,323	25,434.22	164,610.62	2,170,253.95	

Project Reimbursements

Twins Stadium	0.00	0.00	20,261.74	
Sweeney Lake TMDL	0.00	29,534.85	149,965.79	

Tax Levy Revenues	Levy	Received YTD	Received ITD	Balance
2009 Balance: Tax Levy	1,000,000	376,879.99	376,879.99	623,120.01
2008 Balance: Tax Levy	882,350	5,195.95	874,021.95	8,328.05
2007 Balance: Tax Levy	185,818	15.27	185,135.27	682.73
2006 Balance: Tax Levy	511,868	(241.28)	510,457.72	1,410.28
2005 Balance: Tax Levy	433,417	23.06	433,105.06	311.94
2004 Balance: Tax Levy	945,412	20.19	946,132.19	(720.19)

Bassett Creek Project Analysis

	2006 Medicine Lake - In Lake Treatment	2006 Parkers Lake Water Quality Proj	Twin Lake	Westwood Lake	Medicine Lake - Goose Reduction	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	Channel Maintenance	West Medicine Lake Park Pond	Lakeview Park Pond	Northwood Lake East Pond	Crane Lake - Ramada Inn Pond	Plymouth Creek Channel Restoration	Bassett Creek Feasibility	Twins Stadium	Sweeney Lake Branch Channel	2008 Medicine Lake Herbicide	Resource Mgmt Plan	TMDL Studies	Sweeney Lake TMDL
Original Budget	110,000.00	42,000.00	140,000.00	312,000.00		500,000.00	748,373.00	175,000.00	1,100,000.00		107,250.00	90,000.00	550,000.00	0.00		500,000.00	0.00	0.00	115,000.00	119,000.00
Expenditures:																				
Feb 2004 - Jan 2005	0.00	0.00	1,983.50	0.00	0.00	0.00	0.00	0.00	0.00	637.50	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
Feb 2005 - Jan 2006	0.00	983.75	1,716.70	11,724.12	0.00	0.00	3,954.44	2,994.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
Feb 2006 - Jan 2007	54,676.12	150.00	375.70	162,645.36	500.00	0.00	9,611.89	0.00	1,789.25	0.00	0.00	0.00	0.00	0.00	156.75	0.00			637.20	0.00
Feb 2007 - Jan 2008	0.00	0.00	36.00	0.00	0.00	0.00	0.00	0.00	1,835.70	0.00	858.45	0.00	0.00	0.00	13,312.47	13,228.26			23,486.95	89,654.49
Feb 2008 - Jan 2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,002.71	0.00	60,218.68	39.00	59,777.60	0.00	0.00	372,528.31	15,389.40	6,809.50	31,590.12	47,041.86
Feb 2009 - Jan 2010	0.00	0.00	947.45	51,495.42	0.00	0.00	0.00	0.00	563.00	0.00	0.00	0.00	5,384.50	4,938.00	0.00	0.00	0.00	45,622.22	16,467.23	39,192.80
Total Expenditures:	54,676.12	1,133.75	5,059.35	225,864.90	500.00	0.00	13,566.33	2,994.75	7,190.66	637.50	61,077.13	39.00	65,162.10	4,938.00	13,469.22	385,756.57	15,389.40	52,431.72	72,181.50	175,889.15
Project Balance	55,323.88	40,866.25	134,940.65	86,135.10	(500.00)	500,000.00	734,806.67	172,005.25	1,092,809.34	(637.50)	46,172.87	89,961.00	484,837.90	(4,938.00)	(13,469.22)	114,243.43	(15,389.40)	(52,431.72)	42,818.50	(56,889.15)

	2006 Medicine Lake - In Lake Treatment	2006 Parkers Lake Water Quality Proj	Twin Lake	Westwood Lake	Medicine Lake - Goose Reduction	Flood Control Emergency Maintenance	Flood Control Long-Term Maintenance	Channel Maintenance	West Medicine Lake Park Pond	Lakeview Park Pond	Northwood Lake East Pond	Crane Lake - Ramada Inn Pond	Plymouth Creek Channel Restoration	Bassett Creek Feasibility	Twins Stadium	Sweeney Lake Branch Channel	2008 Medicine Lake Herbicide	Resource Mgmt Plan	TMDL Studies	Sweeney Lake TMDL
Project Totals By Vendor																				
Barr Engineering	355.00	911.00	3,093.10	11,320.87	500.00	0.00	9,549.32	0.00	6,152.91	592.50	0.00	39.00	26,338.75	4,938.00	12,064.49	6,791.28	0.00	52,431.72	69,438.75	59,875.16
Kennedy & Graven	0.00	222.75	1,966.25	503.25	0.00	0.00	24.75	354.75	1,037.75	45.00	858.45	0.00	0.00	0.00	1,404.73	938.10	389.40	0.00	1,030.60	2,864.39
City of Golden Valley	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,640.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	378,027.19	0.00	0.00	0.00	0.00
City of New Hope	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60,218.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City of Plymouth	54,321.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38,823.35	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00
City of St. Louis Park	0.00	0.00	0.00	214,040.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Com of Trans	0.00	0.00	0.00	0.00	0.00	0.00	3,992.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City of Minneapolis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S E H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100,375.60
Misc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,712.15	12,774.00
Total Expenditures	54,676.12	1,133.75	5,059.35	225,864.90	500.00	0.00	13,566.33	2,994.75	7,190.66	637.50	61,077.13	39.00	65,162.10	4,938.00	13,469.22	385,756.57	15,389.40	52,431.72	72,181.50	175,889.15

Amy Herbert · Recording Administrator Services

733 Preakness Lane, Chanhassen, MN 55317

bcra@barr.com · 952-832-2652

August 9, 2009

Bassett Creek Watershed Management Commission (BCWMC)

Attn: Sue Virnig, Deputy Treasurer

7800 Golden Valley Road

Golden Valley, MN 55427

For contracted services July 1, 2009 through July 30, 2009

Administrative Services to BCWMC

- Created July 16th BCWMC meeting agenda; organized packet materials for copying, copied and assembled meeting packets, stuffed and addressed meeting packet envelopes, delivered envelopes to Barr Engineering mail room for Barr to weigh, add postage, and mail; posted meeting packet on BCWMC's Web site and e-mailed link to Commission; mailed and e-mailed agenda to agenda list.
- Maintained BCWMC files; Communicated with BCWMC attorney, Chair, engineers, Deputy Treasurer and commissioners.
- Organized BCWMC monthly invoices through July 6th; E-mailed invoices to Deputy Treasurer; Distributed invoice payments;
- Obtained office signatures on Resolution 09-04; Obtained cost estimates from Barr Engineering technical services for Web updates for Education Committee's discussion; Posted revised RMP to Bassett Creek Web site; Sent out e-mail reminder about due date for Medicine Lake TMDL comments; Prepared public hearing notice for September 17, 2009, hearing, and sent notice to member-cities for 45-day advance notice; Forwarded BCWMC's comments on St. Louis Park LWMP to St. Louis Park for its response; Prepared meeting agenda and coordinated July 13th TAC meeting; Sent education grant contract to Meadowbrook School contact
- Prepared meeting notice for: July 13th TAC meeting; July 21st Education Committee meeting; August 11th Education Committee meeting; Prepared meeting notice and communicated cancellation notice for July 30th Medicine Lake Stakeholder Committee meeting

32.75 hours @ \$57.00 per hour	\$1,866.75
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Web Site Services to BCWMC

Updated calendar; Updated roster; Update Minor Plan Amendment section;

Updated Meeting Minute Archive

0.5 hours @ \$57.00 per hour	\$28.50
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Coordination with BARR Engineering

Coordinated with Barr on meeting packet materials;

0.75 hours @ \$57.00 per hour \$42.75

BCWMC MeetingsCoordinated and attended July 14th conference call with Chair Welch and Len Kremer; Set up and attended July 16th BCWMC meeting (coordinated room reservation; ordered and received catering; prepared and provided handouts not provided in meeting packet; recorded meeting); Attended July 21st Education Committee meeting

8.00 hours @ \$57.00 per hour \$456.00

Administrator Budget Charges

No Administrator Budget Charges for July

0.00 hours @ \$57.00 per hour..... \$0.00

Expenses

No expenses for July..... \$0.00

MileageMileage from Barr Engineering to Golden Valley City Hall for July 16th meeting (10.39 miles x 0.585 = \$6.08); Mileage from Chanhasen to Plymouth City Hall for July 21st Education Committee meeting ((15.5 miles x 0.585 = \$9.07).....

\$15.15

Subtotal Administrative Services \$2,380.65

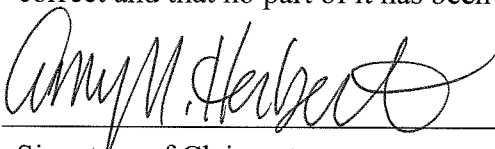
Subtotal Web Site Services \$28.50

Subtotal Meeting Catering Expenses \$0.00

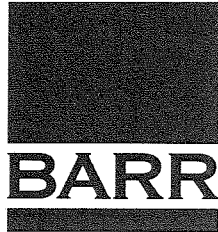
Subtotal Administrator Budget Charges \$0.00

Total Current Billing: \$2,409.15

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



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

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

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

Page # 1
Invoice # 2327051-LJKC-15
Project # 23/27-051
Client # 59
August 7, 2009

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
May 30, 2009 through July 31, 2009

SWEENEY LAKE TMDL STUDY – PHASE II

Objective 5 Monitoring Plan - (32005) Barr Task No. 501

Coordination and communication with SEH and internal Barr staff regarding draft implementation recommendations.

Keith M. Pilgrim, Senior Engineer/Scientist	
8.0 hours @ \$120.00	\$ 960.00
Technicians/Administrative	\$ 37.50
Subtotal, Draft Plan	\$ 997.50


Objective 7 Final TMDL Report - (32003) Barr Task No. 701

Coordination with SEH and preparation of final TMDL report.

Leonard J. Kremer, Principal Engineer/Scientist	
3.0 hours @ \$155.00	\$ 465.00
James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$140.00	\$ 70.00
Keith M. Pilgrim, Senior Engineer/Scientist	
7.8 hours @ \$120.00	\$ 936.00
Subtotal, Final TMDL Report	\$ 1,471.00

TOTAL PAYABLE \$ **2,468.50**

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



Barr Engineering Company
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Phone: 952-832-2600 • Fax: 952-832-2601 • www.barr.com

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

Page # 1
Invoice # 2327051-2009-6
Project # 23/27-051
Client # 59
August 10, 2009

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
June 27, 2009 through July 31, 2009

ENGINEERING

TECHNICAL SERVICES

Calls/emails to or from the Commissioners, watershed communities, developers in the watershed, Minneapolis Park and Recreation Board, Mississippi Watershed Management Organization, Minnesota Department of Transportation, Hennepin County, Minnesota Board of Water and Soil Resources, Metropolitan Council, Minnesota Pollution Control Agency, Corps of Engineers and interested citizens; Communication with Charlie LeFevere and Golden Valley staff regarding subpoena related to litigation between city of Golden Valley and resident adjacent to Bassett Creek Drive project; reviewed and prepared copies of all BCWMC correspondence regarding Bassett Creek Drive project and provided to Mr. LeFevere for review; email correspondence with Derek Asche regarding 319 funding; email correspondence with Chair Welch regarding BWSR clean water funding; emails correspondence with Chair Welch regarding watershed issues; communication with discussion City of Minneapolis regarding Wirth Lake beach.

James P. Herbert, Principal Engineer/Scientist	
3.0 hours @ \$140.00 per hour	\$ 420.00
Leonard J. Kremer, Principal Engineer/Scientist	
8.1 hours @ \$155.00 per hour	\$ 1,255.50
Karen L. Chandler, Senior Consultant	
9.4 hours @ \$140.00 per hour	\$ 1,316.00
Technicians/Administrative	\$ 435.00
Expenses (copies/postage)	\$ 96.40
Subtotal, Technical Services	\$ 3,522.90

PRELIMINARY SITE REVIEW/CORRESPONDENCE

Telephone conversations regarding proposed developments; provided watershed hydraulic information, flood profiles and BCWMC development requirements to applicants; preliminary review of utility project at Wirth Golf course; correspondence with city and consultant regarding BCWMC requirements.

James P. Herbert, Principal Engineer/Scientist	
2.3 hours @ \$140.00 per hour	\$ 322.00
Subtotal, Preliminary Site/Corr	\$ 322.00

MONTHLY MEETING PREPARATION

Preparation of monthly memorandums for BCWMC meeting; reviewed draft BCWMC meeting minutes, agenda and packet materials and discussed comments with Bassett Creek Recording Administrator; conference call with BCWMC Chair regarding meeting agenda; communications with Bassett Creek Recording Administrator; internal meetings regarding agenda, to-do list and meeting packet and July 16 meeting; prepared permit figures; discussion and development of scope/cost for watershed-wide TMDL; prepared status reports for Wirth and Medicine Lakes; reviewed MPCA 319 grant funding; prepare/revise memos for agenda items - RMP, Sweeney TMDL, Medicine TMDL, Wirth TMDL, watershed-wide TMDL, and Agenda cut-off policy; review load reductions for stream restoration projects and categories vs. individual WLAs; Bassett Creek model information for structure at Theodore Wirth Parkway; discussed hearing notice revisions with Amy.

James P. Herbert, Principal Engineer/Scientist	
16.50 hours @ \$140.00 per hour	\$ 2,310.00
Leonard J. Kremer, Principal Engineer/Scientist	
2.5 hours @ \$155.00 per hour	\$ 387.50
Karen L. Chandler, Senior Consultant	
23.2 hours @ \$140.00 per hour	\$ 3,248.00
Sarah Stratton, Senior Consultant	
1.7 hours @ \$115.00 per hour	\$ 195.50
Gregory J. Wilson, Senior Consultant	
3.1 hours @ \$135.00 per hour	\$ 418.50
Michael B. Strong, Engineer/Scientist	
0.4 hours @ \$65.00 per hour	\$ 26.00
Expenses (postage)	\$ 54.08
Subtotal, Monthly Memorandums	\$ 6,639.58

TAC MEETING PREPARATION

Preparation of TAC memorandum following July TAC meeting.

Leonard J. Kremer, Principal Engineer/Scientist	
1.5 hours @ \$155.00 per hour	\$ 232.50
Karen L. Chandler, Senior Consultant	
1.4 hours @ \$140.00 per hour	\$ 196.00
Gregory J. Wilson, Senior Consultant	
5.1 hours @ \$135.00 per hour	\$ 688.50
Subtotal, TAC Meeting	\$ 1,117.00

Subtotal Technical Services **\$ 11,601.48**

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.

Crest Ridge Corporate Center

Erosion control inspection.

Technicians/Administrative	\$	88.00
Subtotal, Crest Ridge Corporate Center	\$	88.00

Lowry Avenue Reconstruction

Erosion control inspection.

Technicians/Administrative	\$	96.00
Subtotal, Lowry Avenue Reconstruction	\$	96.00

Plymouth 2008 Street Reconstruction

Erosion control inspection.

Technicians/Administrative	\$	96.00
Subtotal, Plymouth 2008 Street Reconst	\$	96.00

Co. Rd. 9 & 61 Erosion Repair

Erosion control inspection.

Technicians/Administrative	\$	72.00
Subtotal, Co. Rd. 9 & 61 Erosion Repair	\$	72.00

Crown Packaging

Erosion control inspection.

Technicians/Administrative	\$	72.00
Subtotal, Crown Packaging	\$	72.00

Hen Co Plymouth Library

Erosion control inspection.

Technicians/Administrative	\$	80.00
Subtotal, Hen Co Plymouth Library	\$	80.00

TH 55 Culvert Crossing

Erosion control inspection.

Technicians/Administrative	\$	64.00
Subtotal, TH 55 Culvert Crossing	\$	64.00

Grainger Parking

Erosion control inspection.

Technicians/Administrative	\$	64.00
Subtotal, Grainger Parking	\$	64.00

Cedar Lake Trail

Erosion control inspection.

Technicians/Administrative	\$	64.00
Subtotal, Cedar Lake Trail	\$	64.00

Hidden Acres Addition

Erosion control inspection.

Technicians/Administrative	\$	64.00
Subtotal, Hidden Acres Addition	\$	64.00

Hennepin Co. Regional Trail – Phase 2

Erosion control inspection; correspondence with Golden Valley and TRPD staff; reviewed drawings; performed inspection of trail; prepared letter of recommendation to city of Golden Valley and TRPD.

James P. Herbert, Principal Engineer/Scientist 3.8 hours @ \$140.00 per hour	\$	532.00
Technicians/Administrative	\$	88.00
Expenses (mileage)	\$	11.00
Subtotal, Hen Co Regional Trail – Ph 2	\$	631.00

Jake's Grill

Erosion control inspection.

Technicians/Administrative \$ 72.00

Subtotal, Jake's Grill \$ 72.00

Shops of Plymouth Town Center

Erosion control inspection.

Technicians/Administrative \$ 88.00

Subtotal, Shops of Ply Town Center \$ 88.00

Mortenson Co. Headquarters

Erosion control inspection.

Technicians/Administrative \$ 64.00

Subtotal, Mortenson Co. Headquarters \$ 64.00

Beacon Academy

Erosion control inspection.

Technicians/Administrative \$ 64.00

Subtotal, Beacon Academy \$ 64.00

CSAH 73/Frontage Rd. Reconstruction

Erosion control inspection.

Technicians/Administrative \$ 96.00

Subtotal, CSAH 73/Frontage Rd. Reconstruction \$ 96.00

Toll Gas & Welding Imp.

Erosion control inspection.

Technicians/Administrative \$ 64.00

Subtotal, Toll Gas & Welding Imp \$ 64.00

West Lutheran School

Erosion control inspection.

Technicians/Administrative	\$	88.00
Subtotal, West Lutheran School	\$	88.00

Timber Creek

Erosion control inspection.

Technicians/Administrative	\$	72.00
Subtotal, Timber Creek	\$	72.00

9209 40-1/2 Avenue North

Correspondence with New Hope staff; reviewed status of variance request and proposed mitigation plan; prepared report to the BCWMC.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$140.00 per hour	\$	210.00
Subtotal, 9209 40 1/2 Avenue North	\$	210.00

Crystal Cub Foods Fueling Ctr

Erosion control inspection.

Technicians/Administrative	\$	72.00
Subtotal, Crystal Cub Foods Fueling Ctr	\$	72.00

2009 Mtka St Rehab-Sherwood Forest Neighborhood

Erosion control inspection.

Technicians/Administrative	\$	96.00
Subtotal, 2009 Mtka St Rehab-Sherwood Forest Neighborhood	\$	96.00

26th Ave/Plymouth Creek Culvert Replacement

Erosion control inspection.

Technicians/Administrative	\$	72.00
Subtotal, 26 th Ave/Plymouth Creek Culvert Replacement	\$	72.00

Laurel Hills Condo

Correspondence with applicant and Golden Valley staff; reviewed grading, drainage and erosion control plan; prepared memorandum to the BCWMC; prepared letter of recommendation to City of Golden Valley.

James P. Herbert, Principal Engineer/Scientist	
6.0 hours @ \$140.00 per hour	\$ 840.00
Expenses (postage)	\$ 0.44
Subtotal, Laurel Hills Condo	\$ 840.44

SP 2772-81 (TH 169 Medicine Lk Rd ramp)

Correspondence with Mn/DOT and Plymouth staff; reviewed street improvement plan; prepared letter of recommendation to Mn/DOT and City of Plymouth.

James P. Herbert, Principal Engineer/Scientist	
5.7 hours @ \$140.00 per hour	\$ 798.00
Subtotal, SP 2772-81 (TH 169 Medicine Lk Rd ramp)	\$ 798.00

Subtotal Plat Review \$ 4,087.44

COMMISSION MEETINGS

Attended July 13, 2009 TAC meeting to discuss Medicine Lake; attended July 16, 2000 Commission meeting.

Leonard J. Kremer, Principal Engineer/Scientist	
8.0 hours @ \$155.00 per hour	\$ 1,240.00
Gregory J. Wilson, Senior Consultant	
5.3 hours @ \$135.00 per hour	\$ 715.50
Expenses (mileage)	\$ 26.40
Subtotal, TAC Meeting	\$ 1,981.90

WATER QUANTITY

Measured and reviewed lake level elevations as part of the lake-gauging program.

Technicians/Administrative	\$ 880.00
Expenses (Mileage, 2WD field vehicle/mileage)	\$ 122.50
Subtotal, Water Quantity	\$ 1,005.80

WATERSHED INSPECTION

Performed erosion control inspections of construction sites; prepare letter regarding erosion control inspection and improvements required for effective erosion control.

James P. Herbert, Principal Engineer/Scientist	
1.4 hours @ \$140.00 per hour	\$ 196.00
Technicians/Administrative	\$ 384.00
Expenses (Equipment/Mileage)	\$ 156.00
Subtotal, Watershed Inspection	\$ 736.00

TOTAL ENGINEERING \$ 19,412.62

SECRETARIAL SERVICES

SECRETARIAL SERVICES EXPENSES

Administrative expenses requested by Amy Herbert including: copies, color copies for meeting packet; postage, video digital capture/conversion and BCWMC meeting catering; packet assembly; assistance with preparation of 2008 annual report.

Technicians/Administrative	\$ 726.50
Expenses (B&W/color copies/binding/postage/InterCall Raindance)	\$ 184.69
Catering (BCWMC meeting date)	\$ -0-

TOTAL SECRETARIAL SERVICES EXPENSES \$ 911.19

PUBLIC RELATIONS

PUBLIC RELATIONS/ANNUAL REPORT/WOMP

Coordination with MPRB regarding 2009 WOMP station.

Leonard J. Kremer, Principal Engineer/Scientist	
1.0 hours @ \$155.00 per hour	\$ 155.00
Subtotal, Public Relations/WOMP	\$ 155.00

TOTAL PUBLIC RELATIONS \$ 155.00

CAPITAL IMPROVEMENT PROJECTS

WEST MEDICINE LAKE PARK POND

Internal discussions regarding future monitoring requirements to show impact of Plymouth Creek and West Medicine Lake Ponds projects; reviewed West Medicine Lake Park ponds construction plans with respect to future monitoring requirements.

Leonard J. Kremer, Principal Engineer/Scientist	
1.0 hours @ \$155.00 per hour	\$ 155.00
Karen L. Chandler, Senior Consultant	
0.7 hours @ \$140.00 per hour	\$ 98.00
Subtotal, W Medicine Lake Pk Pond	\$ 253.00

RESOURCE MANAGEMENT PLAN (RMP)

Revised RMP for COE; prepared report on a CD; prepared Plymouth Creek realignment figure.

Leonard J. Kremer, Principal Engineer/Scientist	
5.0 hours @ \$155.00 per hour	\$ 775.00
Jeffrey T. Lee, Senior Consultant	
2.2 hours @ \$130.00 per hour	\$ 286.00
Michael B. Strong, Engineer/Scientist	
0.5 hours @ \$65.00 per hour	\$ 32.50
Technicians/Administrative	\$ 400.50
Expenses (B&W/color copies/binding)	\$ 92.64
Subtotal, Resource Management Plan	\$ 1,586.64

PLYMOUTH CREEK FEASIBILITY

Internal meetings regarding Plymouth Creek feasibility study; prepared and revised Plymouth Creek Feasibility Study; prepared report on a CD; coordination with City of Plymouth regarding study; internal discussions regarding EAW & 401 certification and map issue; provided copy of draft study revisions to City of Plymouth; reviewed Phosphorus & TSS loading and calculated load reductions; revised report to include load reduction information and Plymouth staff comments; prepared and distributed revised study.

Leonard J. Kremer, Principal Engineer/Scientist	
2.0 hours @ \$155.00 per hour	\$ 310.00
Karen L. Chandler, Senior Consultant	
18.2 hours @ \$140.00 per hour	\$ 2,548.00

Jeffrey T. Lee, Senior Consultant	
3.9 hours @ \$130.00 per hour	\$ 507.00
Jeffrey Weiss, Senior Engineer/Scientist	
12.0 hours @ \$95.00 per hour	\$ 1,140.00
Technicians/Administrative	\$ 192.00
Subtotal, Plymouth Creek Feasibility	\$ 4,697.00

BASSETT CREEK FEASIBILITY STUDY

Internal meetings regarding Bassett Creek feasibility study; prepared and revised Bassett Creek Feasibility Study; coordination with City of Golden Valley regarding study; internal discussions; provided copy of draft study revisions to City of Golden Valley.

Jeffrey T. Lee, Senior Consultant	
3.2 hours @ \$130.00 per hour	\$ 416.00
Jeffrey Weiss, Senior Engineer/Scientist	
47.6 hours @ \$95.00 per hour	\$ 4,522.00
Subtotal, Bassett Creek Feasibility Study	\$ 4,938.00

TOTAL CAPITAL IMPROVEMENT PROJECTS \$ 11,474.64

TMDL STUDIES

MEDICINE LAKE TMDL

Coordination regarding Medicine Lake TMDL; discussions with MPCA and MPCA contractors, review of P8 modeling and monitoring data prepared for Plymouth Creek watershed; prepared memorandum with proposed comments on TMDL P8 model; prepared letter from BCWMC to MPCA and sent letter to Chris Zadak; communications with Chair Welsh.

Leonard J. Kremer, Principal Engineer	
15.7 hours @ \$155.00 per hour	\$ 2,433.50
Karen L. Chandler, Senior Consultant	
5.8 hours @ \$140.00 per hour	\$ 812.00
Gregory J. Wilson, Senior Consultant	
22.7 hours @ \$135.00 per hour	\$ 3,064.50
Expenses (WebEx Communications)	\$ 25.83
Subtotal, Medicine Lake TMDL	\$ 6,335.83

SWEENEY LAKE TMDL

Coordination regarding Sweeney Lake TMDL with SEH; MPCA and BCWMC; performed analysis of BMPs per request of MPCA.

Leonard J. Kremer, Principal Engineer	
3.8 hours @ \$155.00 per hour	\$ 589.00
James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$140.00 per hour	<u>\$ 140.00</u>
Subtotal, Sweeney Lake TMDL	\$ 729.00

WIRTH LAKE TMDL

Coordination regarding Wirth Lake TMDL with MPCA, BCWMC, Golden Valley and Minneapolis Parks staff.

Leonard J. Kremer, Principal Engineer	
2.9 hours @ \$155.00 per hour	<u>\$ 449.50</u>
Subtotal, Medicine Lake TMDL	\$ 449.50

E-COLI SAMPLING

Communications with MPCA staff; coordination regarding E-Coli sampling; prepared labels and organized sampling bottles, collected e-coli samples and delivered samples to lab.

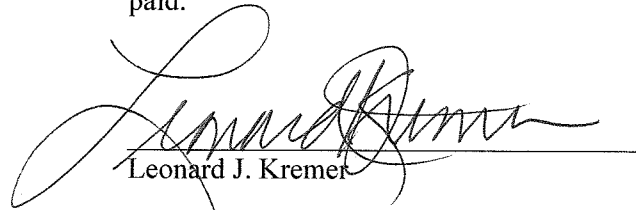
Margaret Rattei, Senior Consultant	
0.7 hours @ \$110.00 per hour	\$ 77.00
Matthew A. Hernick, Engineer/Scientist	
8.5 hours @ \$75.00 per hour	\$ 637.50
Technicians/Administrative	\$ 424.00
Expenses (Mileage/2WD vehicle/ice/surgical gloves)	<u>\$ 132.00</u>
Subtotal, E-coli Sampling	\$ 1,270.50

TOTAL TMDL STUDIES	\$ 8,784.83
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SUMMARY TOTALS

Total Engineering	\$ 19,412.62
Total Secretarial Services Expenses	\$ 911.19
Total Public Relations	\$ 155.00
Total Capital Improvement Projects	\$ 11,474.64
Total TMDL Studies	<u>\$ 8,784.83</u>
TOTAL PAYABLE	\$ 40,738.28

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

Kennedy & Graven, Chartered

200 South Sixth Street
Suite 470
Minneapolis, MN 55402

(612) 337-9300
Tax ID No. 41-1225694

July 24, 2009

Statement No. 90945

Bassett Creek Water Management Commission
Sue Virnig

7800 Golden Valley Road
Golden Valley, MN 55427

Through June 30, 2009

BA295-00001 General	1,247.86
BA295-00011 Twin Lake 2005 Project	448.85
BA295-00024 Medicine Lake Nutrients TMDL	105.05

Total Current Billing: 1,801.76

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

June 30, 2009

BA295-00001 General

Through June 30, 2009

For All Legal Services As Follows:			Hours	Amount
6/1/2009	CLL	Draft letter to T.C. Fields regarding insurance application	0.30	57.30
6/4/2009	CLL	Phone call from L. Kremer regarding WOMP contract	0.15	28.65
6/6/2009	CLL	Review email on Xcel anchor guy; review draft minutes	0.50	95.50
6/16/2009	CLL	Phone call from K. Chandler regarding resolution for minor plan amendment; retrieve and email samples	0.30	57.30
6/16/2009	CLL	Review agenda materials	0.35	66.85
6/17/2009	CLL	Review additional agenda materials	0.65	124.15
6/18/2009	CLL	Attend commission meeting	4.15	792.65
Total Services:			\$	1,222.40

For All Disbursements As Follows:

	Photocopies	11.00
	Postage	3.46
5/21/2009	Charles L. LeFevere; Mileage Expense	5.50
6/12/2009	Charles L. LeFevere; Mileage Expense	5.50
Total Disbursements:		\$ 25.46

Total Services and Disbursements:\$ 1,247.86

Kennedy & Graven, Chartered

200 South Sixth Street
Suite 470
Minneapolis, MN 55402

Bassett Creek Water
Sue Virnig

June 30, 2009

BA295-00011 Twin Lake 2005 Project

Through June 30, 2009

For All Legal Services As Follows:

			Hours	Amount
6/8/2009	CLL	Attend meeting at Golden Valley with Barr and city staff regarding status of property acquisition and environmental issues	2.35	448.85

Total Services: \$ 448.85

Total Services and Disbursements:\$ 448.85

Kennedy & Graven, Chartered

200 South Sixth Street
Suite 470
Minneapolis, MN 55402

Bassett Creek Water
Sue Virnig

June 30, 2009

BA295-00024 Medicine Lake Nutrients TMDL

Through June 30, 2009

For All Legal Services As Follows:

			Hours	Amount
6/2/2009	CLL	Email from and phone call from M. Welch regarding Golden Valley request to delay Medicine Lake TMDL meeting scheduled for June	0.20	38.20
6/4/2009	CLL	Phone call from L. Kremer regarding Medicine Lake TMDL	0.25	47.75
6/6/2009	CLL	Review email on adaptive management for medicine lake	0.10	19.10
Total Services:			\$	105.05

Total Services and Disbursements:\$ 105.05



Invoice

Invoice Number: **220626**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 1 of 3

BILL TO:

Susan Virnig
Bassett Creek Watershed Management
Commission
7800 Golden Valley Rd
Golden Valley MN 55427

REMIT TO:

3535 VADNAIS CENTER DR
ST PAUL MN 55110

Pay This Amount	\$497.45
Due Date	06-SEP-09
Invoice Date	07-AUG-09
Bill Through Date	31-JUL-09
Terms	30 NET
SEH Client #	1305
Client Project #	
Client PO #	ABCWMC070100

Project Manager / Email / Phone

Ron Leaf / rleaf@sehinc.com / 651-490-2000

Client Service Manager / Email / Phone

Ron Leaf / rleaf@sehinc.com / 651-490-2000

Accounting Representative / Email / Phone

Alizabeth McJames / amcjam@sehinc.com /
651-490-2000

Project #	Project Name	Project Description
ABCWMC070100	BASSETT CREEK WMC-SWEENEY LAKE	SWEENEY LAKE TMDL STUDY

Notes:



Invoice

Invoice Number: **220626**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 2 of 3

Task: 8 - Project Coordination / Meetings

Direct

Personnel	Hours	Rate	Amount
Principal/Project Manager			
Leaf, Ronald B (Ron)	3.00	150.00	\$450.00
Administrative/Word Processor			
McJames, Alizabeth W	0.25	60.00	\$15.00
	3.25		\$465.00

Reimbursed - Expenses

Expenditure Type	Amount
Mileage	\$32.45
	\$32.45

Billing Summary

	Current	Prior	To Date
Direct	\$465.00	\$10,243.50	\$10,708.50
Reimbursed - Expenses	\$32.45	\$88.58	\$121.03
Totals	\$497.45	\$10,332.08	\$10,829.53

Task # 8 Total: \$497.45

Invoice total **\$497.45**



Invoice

Invoice Number: **220626**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 3 of 3

Billing Backup

Task: 8 - Project Coordination / Meetings

Direct

Personnel	Date	Hours	Rate	Amount
Principal/Project Manager				
Leaf, Ronald B (Ron)	08-JUL-09	1.00	150.00	\$150.00
Leaf, Ronald B (Ron)	09-JUL-09	0.50	150.00	\$75.00
Leaf, Ronald B (Ron)	16-JUL-09	1.00	150.00	\$150.00
Leaf, Ronald B (Ron)	21-JUL-09	0.50	150.00	\$75.00
Administrative/Word Processor				
McJames, Alizabeth W	14-JUL-09	0.25	60.00	\$15.00
		<u>3.25</u>		\$465.00

Reimbursed - Expenses

Date	Name	Comment	Amount
Mileage			
16-JUL-09	Leaf, Ronald B (Ron)	Meeting at Golden Valley	\$32.45
			\$32.45

Task # 8 Total: \$497.45



Invoice

Invoice Number: **219799**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 1 of 5

BILL TO:

Susan Virnig
Bassett Creek Watershed Management
Commission
7800 Golden Valley Rd
Golden Valley MN 55427

REMIT TO:

3535 VADNAIS CENTER DR
ST PAUL MN 55110

Pay This Amount **\$1,654.90**

Due Date 13-AUG-09

Invoice Date 14-JUL-09

Bill Through Date 30-JUN-09

Terms 30 NET

SEH Client # 1305

Client Project #

Client PO # ABCWMC070100

Project Manager / Email / Phone

Ron Leaf / rleaf@sehinc.com / 651-490-2000

Client Service Manager / Email / Phone

Ron Leaf / rleaf@sehinc.com / 651-490-2000

Accounting Representative / Email / Phone

Alizabeth McJames / amcjam@sehinc.com /
651-490-2000

Project #	Project Name	Project Description
ABCWMC070100	BASSETT CREEK WMC-SWEENEY LAKE	SWEENEY LAKE TMDL STUDY

Notes:



Invoice

Invoice Number: **219799**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 2 of 5

Task: 3 - Public Input and Involvement Process

Direct

Personnel	Hours	Rate	Amount
Principal/Project Manager			
Leaf, Ronald B (Ron)	3.50	150.00	\$525.00
	3.50		\$525.00

Reimbursed - Expenses

Expenditure Type	Amount
Mileage	\$31.90
	\$31.90

Billing Summary

	Current	Prior	To Date
Direct	\$525.00	\$2,735.00	\$3,260.00
Reimbursed - Expenses	\$31.90	\$54.95	\$86.85
Totals	\$556.90	\$2,789.95	\$3,346.85

Task # 3 Total: \$556.90

Task: 4 - Develop Implementation Plan

Direct

Personnel	Hours	Rate	Amount
Principal/Project Manager			
Leaf, Ronald B (Ron)	1.00	150.00	\$150.00
Administrative/Word Processor			
McJames, Alizabeth W	0.25	60.00	\$15.00
	1.25		\$165.00

Billing Summary

	Current	Prior	To Date
Direct	\$165.00	\$7,230.00	\$7,395.00
Reimbursed - Expenses	\$0.00	\$61.60	\$61.60
Totals	\$165.00	\$7,291.60	\$7,456.60

Task # 4 Total: \$165.00



Invoice

Invoice Number: 219799

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 3 of 5

Task: 5 - Prepare Monitoring Plan

Direct

Personnel	Hours	Rate	Amount
Principal/Project Manager			
Leaf, Ronald B (Ron)	4.00	150.00	\$600.00
	<u>4.00</u>		\$600.00

Billing Summary

	Current	Prior	To Date
Direct	\$600.00	\$2,625.00	\$3,225.00
Totals	\$600.00	\$2,625.00	\$3,225.00

Task # 5 Total: \$600.00

Task: 8 - Project Coordination / Meetings

Direct

Personnel	Hours	Rate	Amount
Principal/Project Manager			
Leaf, Ronald B (Ron)	2.00	150.00	\$300.00
	<u>2.00</u>		\$300.00

Reimbursed - Expenses

Expenditure Type	Amount
Mileage	\$33.00
	\$33.00

Billing Summary

	Current	Prior	To Date
Direct	\$300.00	\$9,943.50	\$10,243.50
Reimbursed - Expenses	\$33.00	\$55.58	\$88.58
Totals	\$333.00	\$9,999.08	\$10,332.08

Task # 8 Total: \$333.00

Invoice total **\$1,654.90**



Invoice

Invoice Number: **219799**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 4 of 5

Billing Backup

Task: 3 - Public Input and Involvement Process

Direct

Personnel	Date	Hours	Rate	Amount
Principal/Project Manager				
Leaf, Ronald B (Ron)	03-JUN-09	3.00	150.00	\$450.00
Open House #2 prep and attendance.				
Leaf, Ronald B (Ron)	09-JUN-09	0.50	150.00	\$75.00
		<u>3.50</u>		\$525.00

Reimbursed - Expenses

Date	Name	Comment	Amount
Mileage			
03-JUN-09	Leaf, Ronald B (Ron)	Public Meeting #2	\$31.90
			\$31.90

Task # 3 Total: \$556.90

Task: 4 - Develop Implementation Plan

Direct

Personnel	Date	Hours	Rate	Amount
Principal/Project Manager				
Leaf, Ronald B (Ron)	09-JUN-09	1.00	150.00	\$150.00
Administrative/Word Processor				
McJames, Alizabeth W	08-JUN-09	0.25	60.00	\$15.00
		<u>1.25</u>		\$165.00

Task # 4 Total: \$165.00

Task: 5 - Prepare Monitoring Plan

Direct

Personnel	Date	Hours	Rate	Amount
Principal/Project Manager				
Leaf, Ronald B (Ron)	01-JUN-09	1.00	150.00	\$150.00



Invoice

Invoice Number: **219799**

FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Page 5 of 5

Billing Backup

Task: 5 - Prepare Monitoring Plan

Personnel	Date	Hours	Rate	Amount
Draft report and monitoring approach.				
Leaf, Ronald B (Ron)	10-JUN-09	1.00	150.00	\$150.00
Leaf, Ronald B (Ron)	15-JUN-09	0.50	150.00	\$75.00
Leaf, Ronald B (Ron)	18-JUN-09	1.50	150.00	\$225.00
		4.00		\$600.00

Task # 5 Total: \$600.00

Task: 8 - Project Coordination / Meetings

Direct

Personnel	Date	Hours	Rate	Amount
Principal/Project Manager				
Leaf, Ronald B (Ron)	02-JUN-09	1.00	150.00	\$150.00
Leaf, Ronald B (Ron)	11-JUN-09	0.50	150.00	\$75.00
Leaf, Ronald B (Ron)	12-JUN-09	0.50	150.00	\$75.00
		2.00		\$300.00

Reimbursed - Expenses

Date	Name	Comment	Amount
Mileage			
18-JUN-09	Leaf, Ronald B (Ron)	BCWMC Meeting - TMDL Report Update	\$33.00
			\$33.00

Task # 8 Total: \$333.00



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*

Item 6A and
6B

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

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Agenda Items 6A & 6B – Feasibility Reports for Plymouth Creek and Bassett Creek Restoration Projects
Date: August 14, 2009
Project: 23/27 051 2009

Recommended/requested Commission action:

1. Information only – no action needed

Feasibility Reports for Plymouth Creek and Bassett Creek Restoration Projects

The feasibility reports for the Plymouth Creek and Bassett Creek restoration projects were completed and CD versions of the reports were sent to the Commissioners, Alternate Commissioners, and TAC in two separate mailings. At the Commission's September meeting, the Commission will hold the public hearings for both restoration projects and determine whether to order the projects. The Commission requested that the feasibility reports be presented to the Commission prior to the public hearings. Jeff Lee, of Barr Engineering, will give a presentation to the Commission at the August meeting regarding the feasibility reports.



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Phone: 952-832-2600 • Fax: 952-832-2601 • www.barr.com *An EEO Employer*

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

6C.
Update Memo

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Agenda Item 6C – Sweeney Lake TMDL Update
Date: August 14, 2009
Project: 23/27 051 2009

Recommended/requested Commission action:

1. Direct SEH to 1) submit revised Sweeney Lake TMDL Report to the MPCA for review, and 2) finalize letters responding to comments.

Sweeney Lake TMDL Update

After the July Commission meeting, three comment letters were received regarding the Sweeney Lake TMDL report that was prepared by SEH:

1. July 29, 2009 letter from Dave Hanson, Alternate Commissioner from the City of Golden Valley
2. July 30, 2009 letter from Jeff Oliver, City Engineer, City of Golden Valley,
3. August 12, 2009 email from Dave Hanson, Alternate Commissioner from the City of Golden Valley, which contains the August 11, 2009 email comments from Robert Laing, supplier of the Sweeney Lake aeration equipment.

The three comment letters are attached.

Also attached are:

1. A draft letter of response to Dave Hanson, dated August 13, 2009
2. A draft letter of response to the City of Golden Valley, dated August 12, 2009
3. A memorandum sent to the City of Golden Valley, from Barr Engineering, dated August 12, 2009 responding to two of the comments from the City of Golden Valley.



6 C.

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

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

Memorandum

To: Jeff Oliver and Jeanine Clancy
From: Keith Pilgrim and Len Kremer
Subject: Sweeney Lake TMDL
Date: August 12, 2009
Project: 23/27 051
c: Ron Leaf

This memorandum is being provided to you to fulfill your request for additional information (letter dated July 30, 2009) regarding the draft Sweeney Lake TMDL report.

Table 6.5 TP Removal of Existing Watershed BMPs: 1) "The City would like to review the list of Existing Treatment Device Removal Used for Table 6.5 to confirm the number and locations of existing BMPs."

Provided below is a table (Table 1) listing all of the treatment devices used to model storm water treatment for the Sweeney Lake TMDL. Each device name corresponds to a pond or rainwater garden in the attached map. The ponds are designated as "SP" for Sweeney Ponds while watersheds are designated "SL" for Sweeney Lake Watershed. All of the treatment devices modeled were storm water treatment ponds with the exception of one rainwater garden (SP33).

Section 8.2.2 Internal Loading-Subheading 'Chemical Treatment' The City would like additional information on the Ramsey-Washington alum dosing plant. Specific information desired includes the effectiveness of the BMP and on-going operational and maintenance costs.

The Ramsey-Washington alum dosing plant, located just upstream of Tanners Lake has been operating since 1998. The construction and engineering and design cost for the facility was \$676,000, adjusted to current construction costs it is estimated that a similar facility would cost \$1,020,000. Approximately 30,000 gallons of alum is used each year, costing approximately \$30,000 to \$40,000 depending upon the cost of alum. General maintenance costs have been estimated to range from \$5,000 to \$10,000 per year

To: Jeff Oliver and Jeanine Clancy
From: Keith Pilgrim and Len Kremer
Subject: Sweeney Lake TMDL
Date: August 12, 2009
Project: 23/27 051
c: Ron Leaf

and includes staff costs to operate the facility, equipment repair (e.g., new dosing pumps, control panel repairs), and cleaning of the mixing chamber sump. Spent alum floc removal is the primary maintenance cost and has ranged from \$25,000 a year when direct discharge to the sanitary sewer is conducted to as high as \$100,000 a year when the alum floc is disposed in a landfill.

The alum dosing system has achieved an average of 68 percent total phosphorus removal since it began operating in 1998 (performance ranges from 53 to 83 percent). Annually the system removes approximately 97 kg of phosphorus from storm water (assumes an average flow rate of 1.5 cfs, inflow total phosphorus concentrations of 309 ug/L, and 120 days of operation).

To: Jeff Oliver and Jeanine Clancy
From: Keith Pilgrim and Len Kremer
Subject: Sweeney Lake TMDL
Date: August 12, 2009
Project: 23/27 051
c: Ron Leaf

Table 1. Treatment devices used in stormwater treatment modeling for the Sweeney Lake TMDL.
Phosphorus removal (lbs) and efficiency (%) are for June 1 through September 30, 2004.

Model Device (pond and rainwater gardens)	TP Removed (lbs)	TP load removal efficiency (%)
SP1	0.8	55.1
SP2	8.3	49.2
SP6	1.7	29.6
SP7	5.0	54.8
SP9	1.3	53.7
SP15	8.4	44.8
SP16	7.0	22.0
SP17	13.4	37.7
SP18	9.6	27.7
SP19	20.6	25.9
SP20	4.3	42.6
SP21	2.8	40.5
SP22	2.6	35.1
SP24	0.8	17.4
SP25	5.8	24.6
SP26	3.9	41.5
SP27	1.1	63.8
SP28	1.3	50.6
SP29	6.6	45.5
SP30	6.7	48.0
SP31	2.2	55.3
SP34	4.3	39.8
SP36	1.4	45.9
SP12	1.3	27.6
SP37	3.4	54.3
SP38	1.6	30.4
SP41	1.2	52.5
SP14	8.2	42.2
SP42	12.0	45.5
SP43	1.1	21.3
SP44	1.1	23.5
SP3	33.9	43.3
SP4	6.6	19.2
SP5	9.0	28.5
SP8	37.3	19.3
SP10	9.2	6.6
SP11	13.1	7.9
SP13	28.7	15.8
SP23	69.2	10.6
SP32	2.3	56.7
SP33	0.2	47.4
SP39	0.8	52.1
SP40	1.3	47.7
SP35	80.2	9.0

GC. 1.

David W. Hanson

1030 Angelo Drive
Minneapolis, MN 55422 4706
Home Phone: 763 588 1478
Cell Phone: 763 257 3680
Email: davewhanson@gmail.com
July 30, 2009

Mr. Ron Leaf. Project Manager
Short Elliott Hendrickson, Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110

Mr. Len Kremer
Barr Engineering Co.
4700 W. 77th Street
Minneapolis, MN 55435

Re: The Sweeney Lake Total Phosphorus TMDL Report of June 11, 2009

Dear Ron and Len:

This letter is prompted by the subject TMDL report. More important is the current condition of Sweeney Lake as a result of the two years, 2007 and 2008 when the aeration system was shut off for the water testing. As either the Commissioner or the Alternate Commissioner for Golden Valley to the Bassett Creek Water Management Commission since 1997, I have closely followed the condition of Sweeney Lake and the TMDL testing.

For background, I built my home on Sweeney Lake in 1965. In the next few years we noticed a nasty summer development on the lake surface of blue green algae. After an investigation, the lakeowners elected to try a new idea to solve this algae problem ourselves, with full lake aeration. In the summer of 1973, I purchased the first aeration system and installed three systems among my neighbors. Some of those air hoses are still operating in the lake. After success against the algae we gradually added more equipment from a local manufacturer, Clean-Flo, Inc. Now, 36 years later, we have 10 compressors supplying air to 18 Clean-Flo diffusers on the lake bottom. In each expansion of the system, individual homeowners purchased the original equipment and provided electricity. Later the Sweeney Lakeowners Association set up a volunteer annual dues assessment, which has paid for replacement equipment and electricity. Volunteers have serviced the equipment. During the last full year of operation in 2006, we reimbursed about \$5000 in individual electric costs to those lakeowners who had compressors. The lakeowners are convinced aeration has been helpful to the water quality. In 2000, I became the lake testing person on Sweeney Lake for the Metropolitan Council's "Camp" lake testing program. I have included results from the years 2005, 06, 07, and 08 to show my background in following Sweeney Lake's water quality.

When requested by the TMDL Study in 2007 to stop aeration, the lakeowners agreed for the two year test period, and agreed to install our 2 winter aerator hoods and run them in each winter from October to April, so there would not be a winter fish kill. In the 33 years we have aerated Sweeney Lake, weeds have not been a large problem. Weed growth first became apparent in 2008 and more so in 2009. Now the lakeowners are asking what can be done about the worst weed and particularly algae growth they have ever seen. To show the problem, I am including 4 photos taken from my home in 2006, 07, 08, and 09. At the lakeowners request I drafted a one page summary of my opinion on the weed and algae problem, dated 6-27-09. Never with aeration have we had such a mess.

During early meetings with Ron Leaf and Bernie Lenz, who was the original Environmental Engineer for SEH on the project, I was particularly interested in the testing of the Phosphorus release from lake bottom mud tested by ERDC. These specialists found that the release rate of Phosphorus from Sweeney Lake bottom mud was about 10 times higher when the bottom water was in an Anoxic condition (free of Oxygen). On page 15 of the TMDL report in the last paragraph, they talk of this issue and then go on to indicate there would be no effect from all the oxygen we have been pumping into the bottom water of the lake with aeration. They set the entire lake as anoxic below 15 feet. I would contend that there is actually a considerable limiting effect on the phosphorus release from the bottom mud from aeration. Figure 12, Page 25 seems to support this. My regular testing indicates a higher oxygen level in the bottom water. It is granted that the high phosphorus level in water coming into Sweeney Lake from Schaper Park after a large rain event may lower the oxygen for a short period. After the inflow, the aeration shortly clears up the lack of oxygen and arrests the release of Phosphorus.

Summer aeration ended in April, 2007. We found weeds did not appear until the next year. The Phosphorus needed to feed them had been reduced by the 2006 aeration providing oxygen to the lake bottom. No aeration in 2007 gave the first mass of 2008 weeds, when the oxygen was missing from the lake bottom, allowing the Phosphorus from the bottom mud to go into solution. This painful pattern continued in 2009 when the stimulated plants and the algae put on a real show in June of 2009. I hope we can now rectify this problem with ongoing and expanded aeration in the future. This experience has convinced me and the Sweeney Lake Board that the TMDL testing has harmed our lake seriously with weeds and a huge growth of sheets of yellow algae over the tops of the coon tail weeds.

During 2007 and 2008, without aeration, the water was not mixed in Sweeney Lake. Levels of Phosphorus were slightly lower at the surface, or about 30 ug/L. The lake water stratified and there was practically no oxygen at the bottom. The TMDL testing indicated the bottom water had a phosphorus content up to 1200 ug/L (ug/L is Micrograms/liter). With the very high levels of Phosphorus in the water at the lake bottom without aeration, I believe it caused a spike in Phosphorus in the water tests at each end of the season when the lake water turns over naturally with the water temperature. Thus it is my opinion that the huge increase in Phosphorus in the bottom water without aeration, during 2007 and 2008, was the cause of unbelievable weed and algae growth that is the most major damage to the use of the lake I have seen.

It is my hope that the continuation of aeration in the years ahead will help limit the release of Phosphorus, from the bottom mud, an effect which I think is ignored in the report. My recollection of conversations with Bernie Lenz before he left for another job indicates that it was very likely the aeration was helping keep the phosphorus precipitated in the mud and possibly a bit more aeration would be useful. Since April 5, 2009, the 18 aerators have been turned on. The Oxygen level clear to the bottom is often 100% of saturation with Oxygen and the lowest reading I found was 36% of saturation. I have already tested the lake 5 times since ice out in April and watched the development of weeds and algae.

The Schaper Park Pond issue is next. During the TMDL study, I have urged Ron Leaf and others to consider a major increase in size of the Schaper Park Pond. When the city planned the ball fields in Schaper Park in 1997, they developed a pond in the

undeveloped wetland area to catch the storm sewer sediment coming from the West along the railroad track near the Golf Course. The storm sewer was built in 1970 with the largest pipe, 84 inches in diameter. At the behest of the Sweeney Lake Association, over the years, the city extended that storm sewer line under the railroad track so it finally emptied into the new Ball Park Schaper Pond. This pond is about 200 by 300 feet and is mostly 10 feet deep at low water level, and is very effective in collecting Suspended Solids before they enter Sweeney Lake.

Recently, Ron Leaf sent me a sheet showing the Annual Loading dated 6-28-09, from tests run for the TMDL study showing the discharge from Schaper Park Pond to Sweeney Lake. These numbers were included:

Full Year	Total Phosphorus	Total Suspended Solids .
2007	2983 Pounds	948,813 Pounds
2008	3727 Pounds	923,290 Pounds

While I understand that Phosphorus is the mineral that feeds the weeds and algae, the comparison of 3500 pounds of Phosphorus to 940,000 pounds of Suspended Solids is amazing. This is the suspended material I have been trying to have removed, before it enters Sweeney Lake. This material must be coming from the inlet under Highway 55, which also includes storm water from Highway 55 and 100 and Interstate 394. The passage through Schaper Park is in a channel about 18 inches deep. It has no 10 foot deep sections like the storm sewer outlet under the railroad track to catch Suspended Solids.

I would recommend another 100 by 600 foot pond be excavated along that low water path in Schaper Park Pond running from the South Inlet near Highway 55 toward the railroad track, and this Pond be excavated to a depth of at least 10 feet. At the inlet end near Highway 55 the inlet areas of the Pond would be deeper so the Golden Valley vacuum storm sewer truck could drive to the side of the channel and vacuum out the collected larger sized Suspended Solids. Also close to the railroad the creek on both sides of the small access bridge should be deepened to 10 feet for final removal of any solids near the Skimmer and before the water enters Sweeney Lake.

As the City already owns the land, I believe the lowest cost alternative to lower the Phosphorus coming into Sweeney Lake would be to consider digging the settling pond in Schaper Park. The City of Golden Valley would contract for funding through the Bassett Creek Water Management Commission and ask the lake owners to fund a bit more aeration to keep the phosphorus locked in the lake bottom mud of Sweeney Lake and keep 470 tons of suspended solids out of Sweeney Lake each year.

In conclusion, the TMDL report seems incomplete. It should recognize the positive effects of aeration on Phosphorus release by expanding on Figure 12, which shows that the release was lower during the years tested with the aeration running. We believe the resulting sheets of yellow algae on the top of coon tail, demonstrate the effects of the lack of oxygen on the bottom. My two teen age grandchildren who learned to water ski and swim on the lake refused to swim in the yellow mess this week. With all of the complaints about the algae, no one from SEH or Barr has looked at the problems. I am the only one testing the water in 2009. Ron has furnished to me reports that are not in the TMDL

report on the high levels of Phosphorus coming into Sweeney from Schaper Park in the high runoff periods, and also Annual Loading data I have noted above. I would expect details on the very high load of TSS (Total Suspended Solids) and its chemistry coming into Sweeney from Schaper Park. Is it likely that much of the TSS is coming into Schaper Park from the Highways 55,100 and 394? Should that be determined? There should be something like a Phosphorus Cumulative Balance of the water entering and leaving Sweeney Lake.. I don't know if the water leaving the lake was ever tested at the outlet. As a small point Figure 10A and 10B are plotted with different vertical scales which mislead. There must be other areas not covered in the TMDL report that I have missed, but I am surprised at what has not been covered. .

Before this report goes to other agencies, there should be further consideration of the original TMDL plan, did we do all that was in the plan, what have we learned, and what we are trying to accomplish.

We believe the lake will not be improved until there is better understanding and control of the inflows of Phosphorus and TSS from Schaper Park and serious study is given to the success we have had with total lake aeration since 1973. The yellow algae only came after the aeration was shut off.

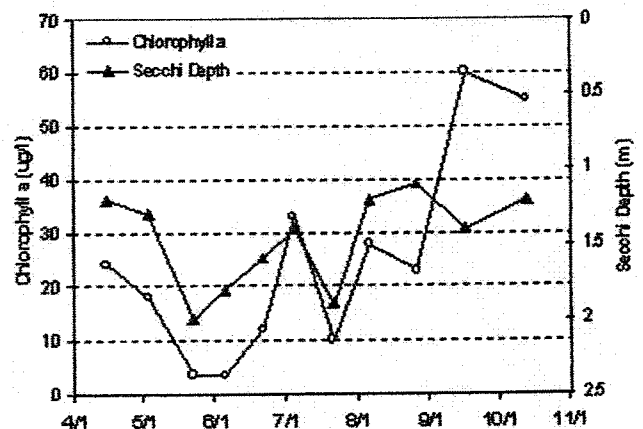
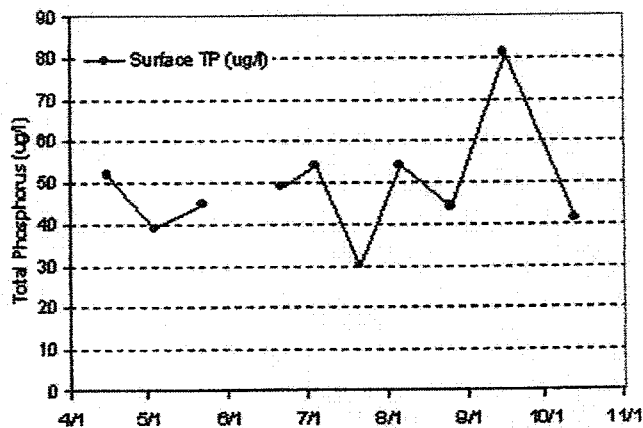
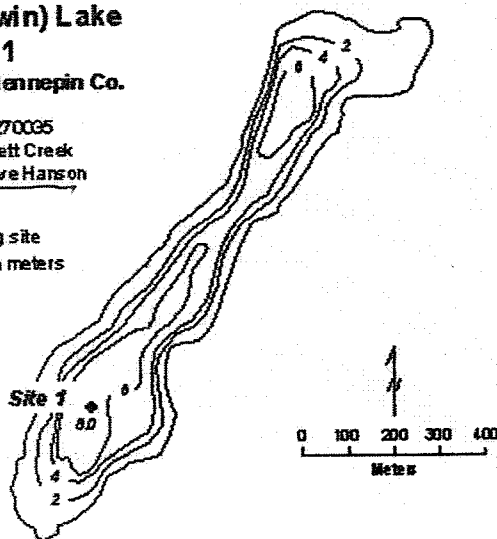
David Hanson

2005

Sweeney (Twin) Lake Site 1 Golden Valley, Hennepin Co.

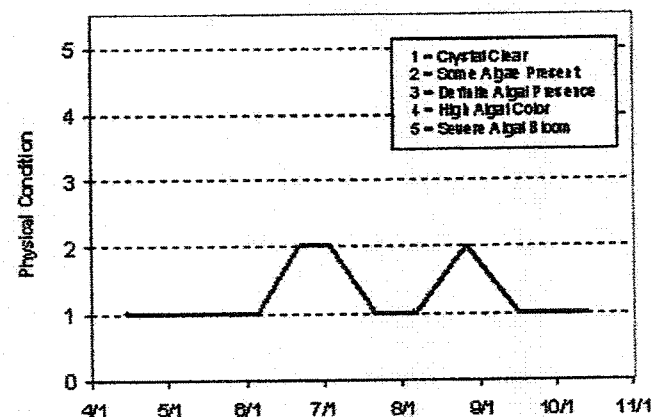
Lake ID: Z70035
WMO: Bassett Creek
Volunteer: Dave Hanson

* Sampling site
Contours in meters



2005 Data

Date	Surf. Temp	Bot. Temp	Surf. DO	Bot. DO	Chl. a	Surf. TP	Bot. TP	Secchi	PC	RS
	C	C	mg/L	mg/L	ug/L	ug/L	ug/L	m	1-5	1-5
4/15/05	11.9		11.9		21	52		1.2	1	1
5/3/05	11.5		12.9		18	39		1.3	1	1
5/22/05	15.6		9.9		3.1	45		2	1	1
6/5/05	20		9.1		3.3			1.8	1	1
6/21/05	23.7		5.6		12	49		1.6	2	1
7/4/05	21.2		7.8		33	54		1.4	2	1
7/21/05	29.5		8.1		10	30		1.9	1	1
8/5/05	26.7		6.1		28	54		1.2	1	1
8/26/05	24.3		6.7		23	44		1.1	2	1
9/16/05	22.4		6.4		60	81		1.4	1	1
10/13/05	15.2		8.15		56	41		1.2	1	1

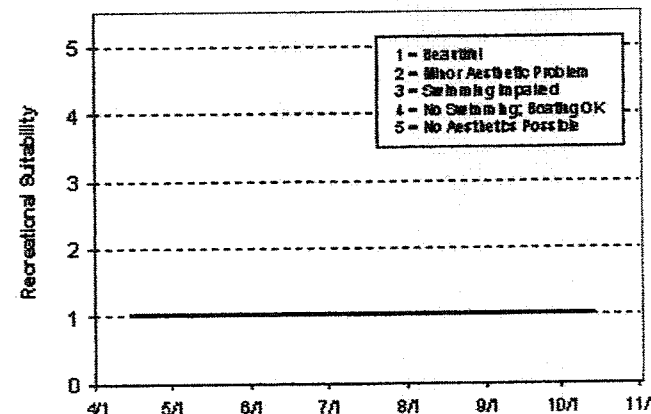


Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total Phosphorus													
Chlorophyll a													
Secchi Depth													
Overall													

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Phosphorus								C	C	C	C	C	C
Chlorophyll a								C	C	B	C	B	B
Secchi Depth								D	D	C	C	C	C
Overall								C	C	C	C	C	C

Year	2003	2004	2005	2006	2007
Total Phosphorus	C	C	C	C	C
Chlorophyll a	B	B	C	C	C
Secchi Depth	C	C	C	C	C
Overall	C	C	C	C	C

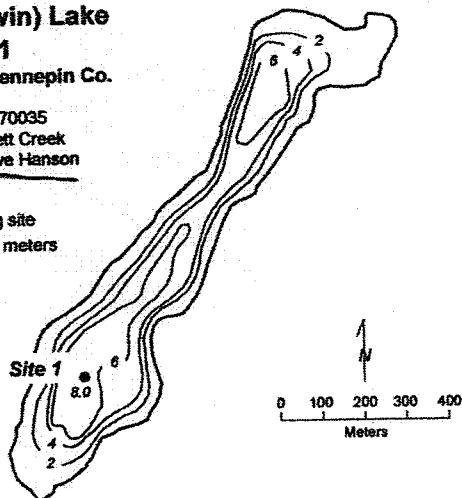


2006

Sweeney (Twin) Lake Site 1 Golden Valley, Hennepin Co.

Lake ID: 270035
WMO: Bassett Creek
Volunteer: Dave Hanson

- Sampling site
- Contours in meters



2006 Data

Date	Surf. Temp C	Bot. Temp C	Surf. DO mg/L	Bot. DO mg/L	CLA ug/L	Surf. TP ug/L	Bot. TP ug/L	Secchi M	PC 1 thru 5	RS 1 thru 5
5/10/06	15.9		10.8	7.7	11	39		1		
6/4/06	24.2		9.5	3.4	27	188		1.2	2	1
6/27/06	25.2		8.4	3.3	16	133		1.1	1	1
7/3/06	25.6		6.8	3.3	25	54		1	1	1
7/22/06	27.3		7.9	3.6	15	109		1	1	1
8/6/06	27		8.3	3.7	34	65		0.9	1	1
8/23/06	25.5		9.1	3.3	37	110		0.9	1	1
9/1/06	20		8.1	7.7	24	84		1	1	1
9/30/06	15.8		10.2	10.3	24	81		1.1	1	1
10/15/06	11.1		10.3	9.7	11	78		1.1	1	1

From Data Records

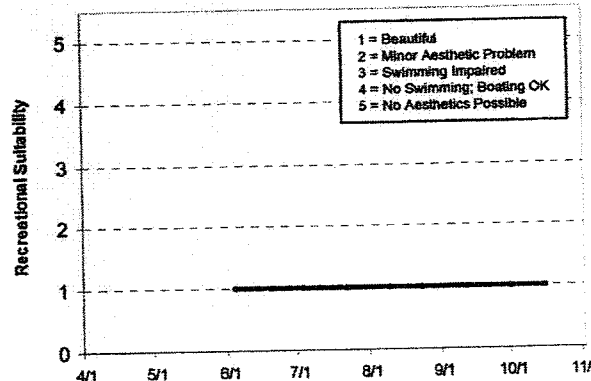
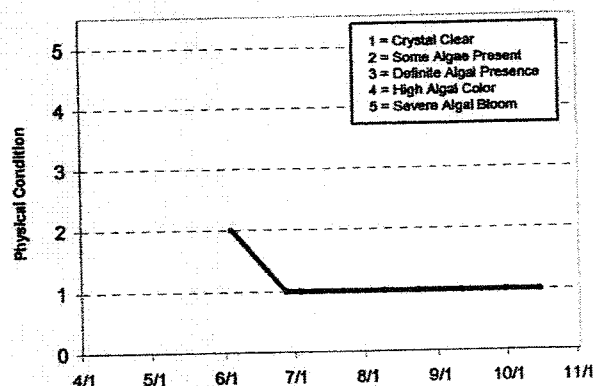
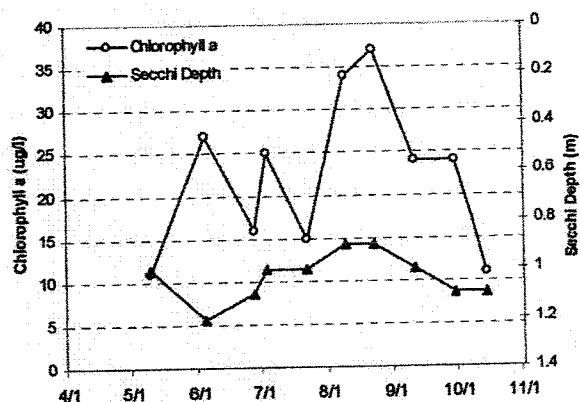
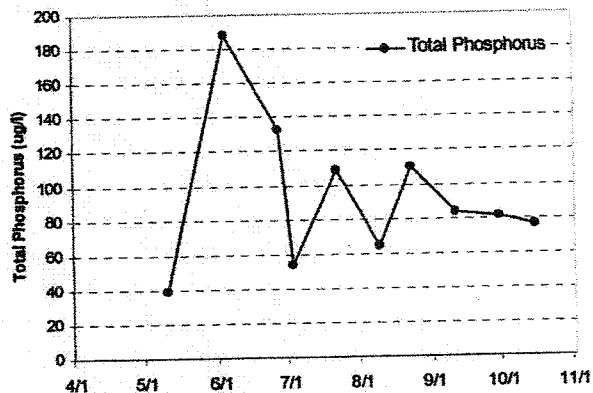
Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total Phosphorus													
Chlorophyll a													
Secchi Depth													
Overall													

Year	1993	1994	1995	1996	1997	1998	1999	2000 Site 1	2000 Site 2	2001 Site 1	2001 Site 2	2002 Site 1	2002 Site 2
Total Phosphorus								C	C	C	C	C	C
Chlorophyll a								C	C	B	C	B	B
Secchi Depth								D	D	C	C	C	C
Overall								C	C	C	C	C	C

Year	2003 Site 1	2003 Site 2	2004 Site 1	2004 Site 2	2005 Site 1	2005 Site 2	2006 Site 1	2006 Site 2
Total Phosphorus	C	C			C		D	
Chlorophyll a	B	B			C		C	
Secchi Depth	C	C			C		D	
Overall	C	C			C		D	

Source: Metropolitan Council and STORET data

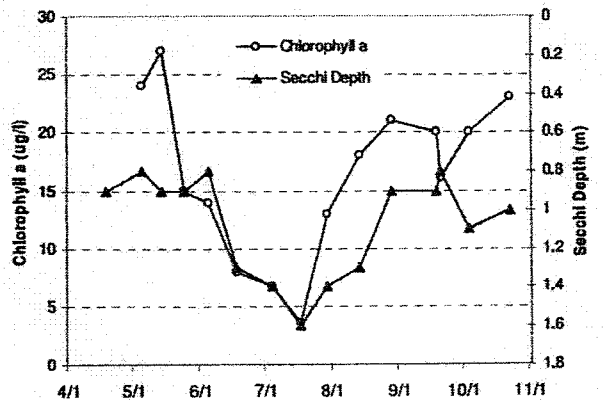
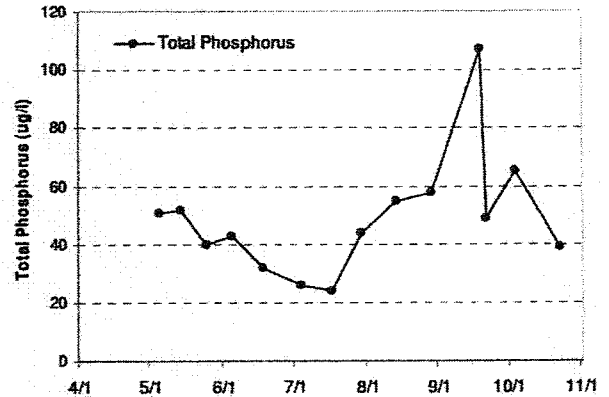
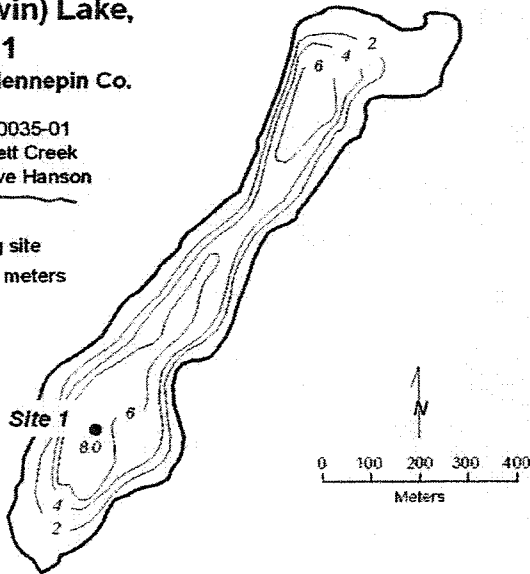


2007

Sweeney (Twin) Lake, Site 1 Golden Valley, Hennepin Co.

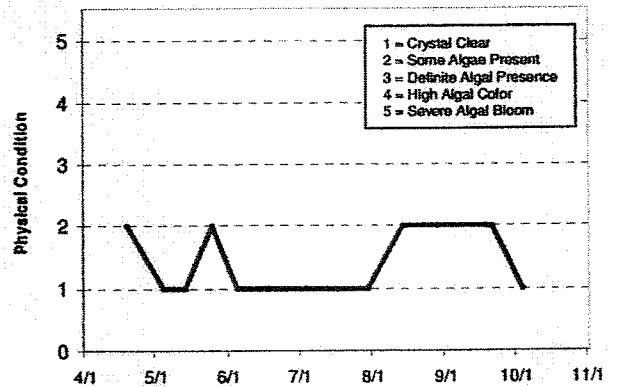
Lake ID: 270035-01
WMO: Bassett Creek
Volunteer: Dave Hanson

● Sampling site
Contours in meters



2007 Data

Date	Surf. Temp C	Bot. Temp C	Surf. DO (mg/L)	Bot. DO (mg/L)	CLA (ug/L)	Surf. TP (ug/L)	Bot. TP (ug/L)	Secchi (m)	PC 1 thru 5	RS 1 thru 5
04/19/07	13.9	6.2	14.3	8.7				0.9	2	2
05/05/07	16.4	6.8	10.5	1.9	24	51		0.8	1	1
05/14/07	19	7.7	10.2	0.21	27	52		0.9	1	1
05/25/07	20.6	8	8.9	0.18	15	40		0.9	2	2
06/05/07	21	8	7.3	0.17	14	43		0.8	1	1
06/18/07	25.8	9.5	6.7	0.25	8	32		1.3	1	1
07/04/07	25	13	6.5	0.23	6.7	26		1.4	1	1
07/17/07	27.6	12.4	8.6	0.16	3.6	24		1.6	1	1
07/30/07	28.2	16	8.3	0.15	13	44		1.4	1	1
08/14/07	27.1	18.5	7.9	0.11	18	55		1.3	2	1
08/29/07	24	17.5	10.6	0.16	21	58		0.9	2	2
09/19/07	18.7	18.3	6.27	3	20	107		0.9	2	2
09/21/07	18.8	17.4	5.8	1.75	16	49		0.8	2	2
10/04/07	17.1	16.6	6.14	5.9	20	65		1.1	1	1
10/23/07	12.8	12.6	7.9	7.1	23	39		1		



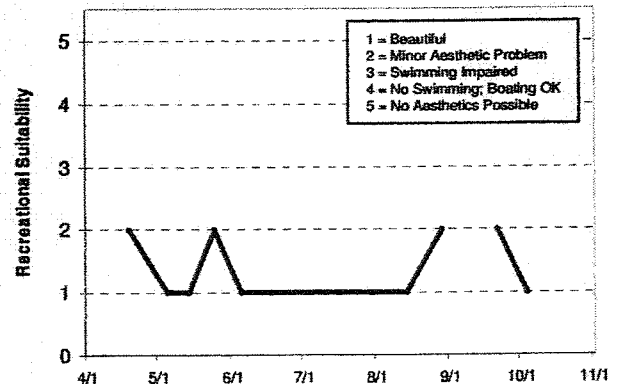
Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total Phosphorus													
Chlorophyll a													
Secchi Depth													
Overall													

Year	1993	1994	1995	1996	1997	1998	1999	2000	2000	2001	2001	2002	2002
Total Phosphorus									Site 1	Site 2	Site 1	Site 2	Site 2
Chlorophyll a									C	C	C	C	C
Secchi Depth									C	C	B	C	B
Overall									D	D	C	C	C
Overall									C	C	C	C	C

Year	2003	2003	2004	2004	2005	2005	2006	2006	2007	2007
Total Phosphorus		Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 2
Chlorophyll a		C	C		C	C	D		C	B
Secchi Depth		B	B		C	C	C		C	B
Overall		C	C		C	C	D		C	D
Overall		C	C		C	C	D		C	C

Source: Metropolitan Council and STORET data

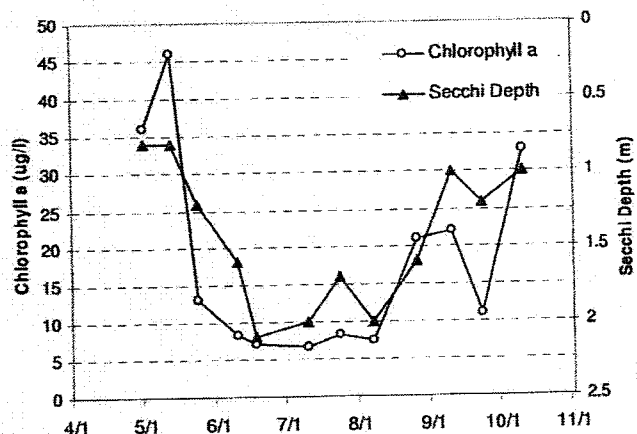
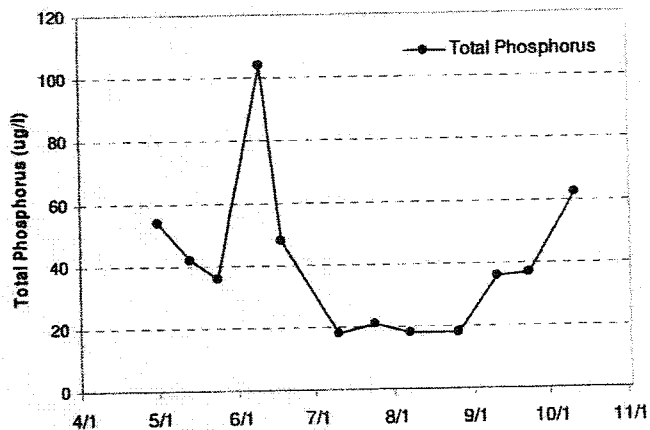
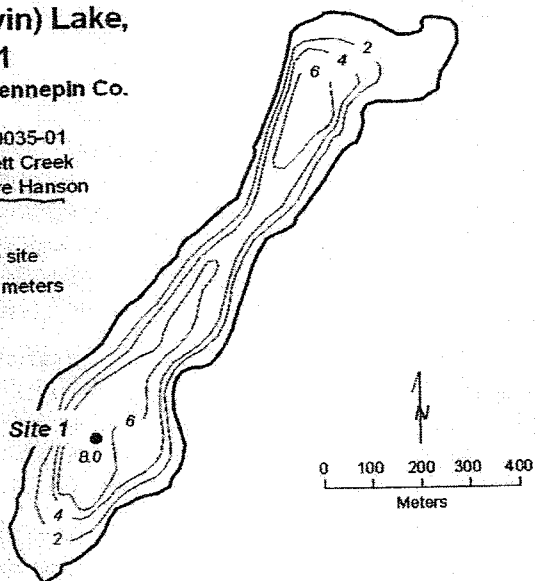


2008

Sweeney (Twin) Lake, Site 1 Golden Valley, Hennepin Co.

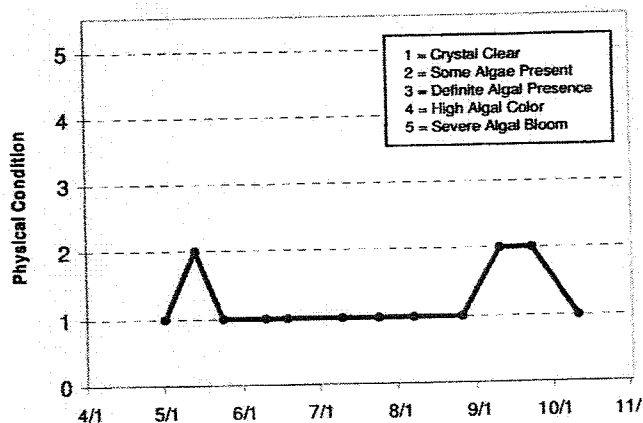
Lake ID: 270035-01
WMO: Bassett Creek
Volunteer: Dave Hanson

● Sampling site
Contours in meters



2008 Data

DATE	Surf Temp (°C)	Bot Temp (°C)	Surf DO (mg/L)	Bot DO (mg/L)	CLA (µg/L)	Surf TP (µg/L)	Bot TP (µg/L)	Secchi (m)	PC	RS
5/1	16.5	5.3	16	2.7	36	54		0.8	1	1
5/13	14.8	6.2	16.1	0.48	46	42		0.8	2	1
5/24	18.9	7.2	11.9	0.23	13	36		1.2	1	1
6/10	20.2	7.7	8.18	0.16	8.3	104		1.6	1	1
6/18	21.5	8.3	8.9	0.15	7	48		2.1	1	1
7/10	25.9	11.2	8.7	0.17	6.6	18		2	1	1
7/24	26.6	13.5	8.57	0.17	8.3	21		1.7	1	1
8/7	27.1	14.1	9.5	0.11	7.4	18		2	1	1
8/26	24.2	12.4	8.7	0.16	21	18		1.6	1	1
9/10	19.5	12.8	7.6	0.17	22	36		1	2	1
9/23	20.7	13.8	9.91	0.21	11	37		1.2	2	2
10/11	15.2	14.8	6.6	4.32	33	62		1	1	1

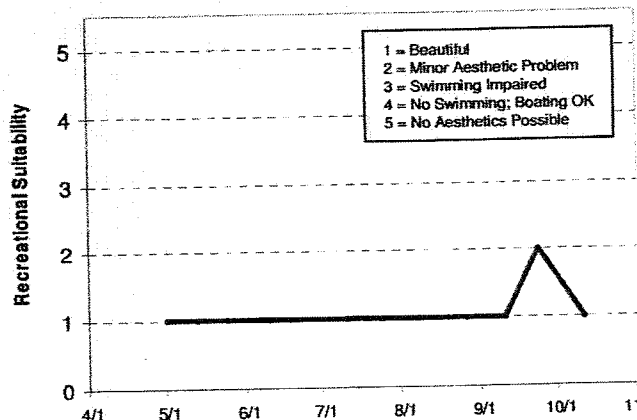


Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total Phosphorus													
Chlorophyll a													
Secchi Depth													
Lake Grade													

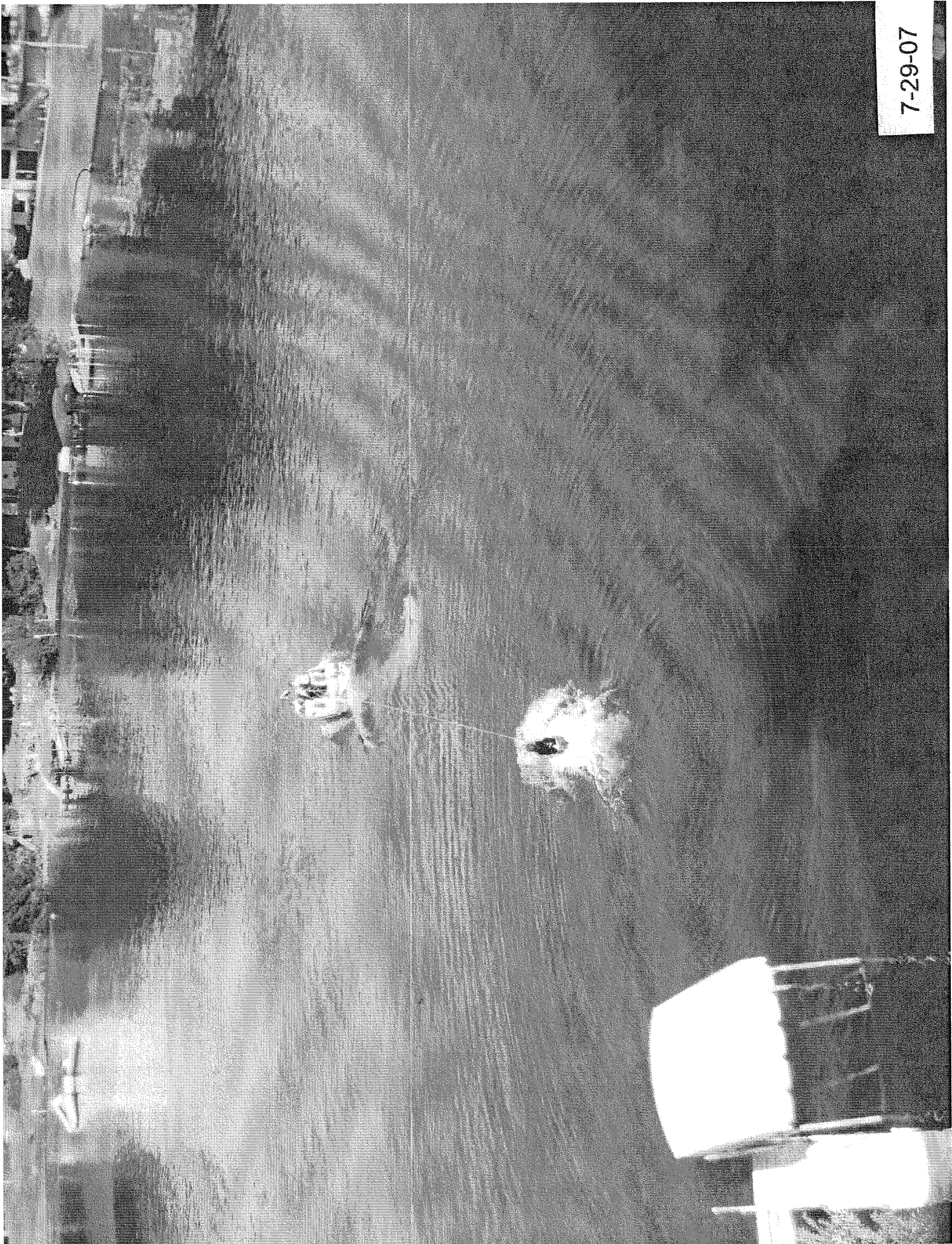
Year	1993	1994	1995	1996	1997	1998	1999	2000 Site 1	2000 Site 2	2001 Site 1	2001 Site 2	2002 Site 1	2002 Site 2
Total Phosphorus								C	C	C	C	C	NA
Chlorophyll a								C	C	B	C	B	NA
Secchi Depth								D	D	C	C	C	NA
Lake Grade								C	C	C	C	C	NA

Year	2003 Site 1	2004 Site 1	2005 Site 1	2006 Site 1	2007 Site 1	2008 Site 1
Total Phosphorus	C	C	C	D	C	C
Chlorophyll a	B	B	C	C	B	B
Secchi Depth	C	C	C	D	D	C
Lake Grade	C	C	C	D	C	C

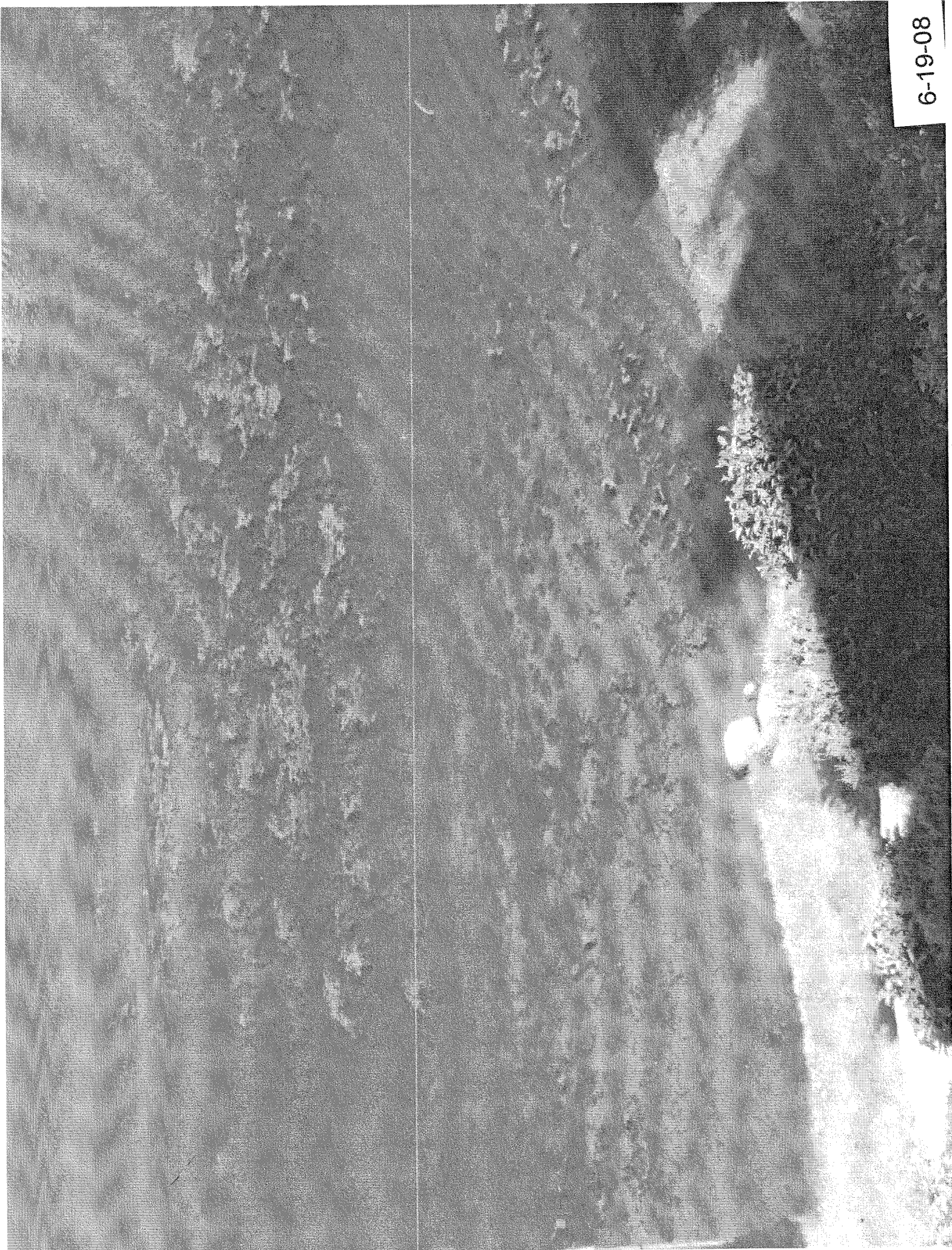




7-29-07



6-19-08



7-8-09



Memo to the Sweeney Lake Owners 6-27-2009

Sweeney Lake WEEDS

Here are some of my thoughts about the growth of weeds this year. We had a similar growth about the same week in 2008 as recorded in my lake testing records. Weed growth in both 2008 and 2009 were larger than any of us remember.

I believe this has to do with the TMDL lake study being run by the Bassett Creek Water Management Commission. It asked us, and we agreed, to shut down the aeration system in Sweeney for the ice free portion of the year 2007 and 2008. The Commission did ask us to run the two winter aerators so we would not have any winter fish kills.

For comparison they took the data for the lake for 2005 when the aerators were running. Chemical tests showed Phosphorus levels of about 40 mg/L in the top and bottom of the lake, caused by the mixing of the water by the aerators. (mg/L is micrograms per Liter)

In 2007, without aerators the top water dropped slightly to 35 mg/L on top and increased to as much as 1200 mg/L of Phosphorus on the bottom where there was no Oxygen in the water. That is 30 times the Phosphorus on the bottom in 2005. The lack of Oxygen caused a large release of Phosphorus from the lake bottom mud. The carryover from 2006 bottom Oxygen kept the weeds from showing up in June of 2007, but I think it set up the explosion of weeds in 2008.

The tests in 2008 showed similar levels of Oxygen and Phosphorus, with no oxygen below about 10 feet of depth, and very large levels of Phosphorus on the bottom. The effects of the winter turnover of all of the lake water prompted weed growth, leading to a mass of Coon Tail weeds with algae on them in June of 2008.

In June of 2009 I again found a huge increase in the level of weeds, particularly noticeable on June 23, caused by the carryover from the high phosphorus levels in 2008. This year the aerators were restarted in April as agreed with the consultants from SEH Engineers. My testing on the lake water continued and I found a high level of Oxygen in the lake water even near the bottom, but also the weeds and sheets of yellow algae. I believe they were set off by the huge release of Phosphorus from the bottom during 2008 caused by the lack of Oxygen there.

Fortunately the weeds are only Coon Tail, the one that looks like spruce trees just under the water and also some Curly Leaf Pondweed that will die out by early July. We do not seem to have any Eurasian Milfoil. If you want to see a real invasion of Eurasian Milfoil, go to Wirth Lake and walk out on the fishing dock. It is so close to Sweeney, and is such a mess. It is the belief of the people from whom I have purchased aeration equipment for 36 years that Eurasian Milfoil does not like aerated water, as it drives carbon dioxide off the bottom water and out of the lake into the atmosphere.

Dave Hanson



2.

July 30, 2009

City Hall
7800 Golden Valley Road
Golden Valley, MN 55427-4588
763-593-8000
763-593-8109 (fax)
763-593-3968 (TTY)

Mayor and Council
763-593-8006

City Manager
763-593-8002

Public Safety
Police: 763-593-8079
Fire: 763-593-8079
763-593-8098 (fax)

Public Works
763-593-8030
763-593-3988 (fax)

Inspections
763-593-8090
763-593-3997 (fax)

Motor Vehicle Licensing
763-593-8101

Planning and Zoning
763-593-8095

Finance
763-593-8013

Assessing
763-593-8020

Park and Recreation
200 Brookview Parkway
Golden Valley, MN 55426-1364
763-512-2345
763-512-2344 (fax)
763-593-3968 (TTY)

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

Mr. Len Kremer
Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435

Subject: Sweeney Lake TMDL Study
City of Golden Valley Comments

Dear Ron and Len:

Staff from the Golden Valley Department of Public Works has reviewed the draft Sweeney Lake Total Phosphorus TMDL, dated June 11, 2009. A list of comments based upon this review is attached to this letter for your use.

The City of Golden Valley is in favor of adopting a categorical waste load allocation for this TMDL study, with the Bassett Creek Watershed Management Commission (BCWMC) taking the lead role in the implementation plan. The BCWMC has a long and successful history of implementing improvement projects to address flooding and water quality issues within the watershed, and will be best suited to facilitate the implementation plan. However, it is our opinion that the Minnesota Department of Transportation should not be included in the categorical allocation, but should be subject to an individual waste load allocation.

Please consider the City's comments and feel free to contact the Public Works Department at 763.593.8030 if you have any questions.

Sincerely,

Jeff Oliver, P.E.
City Engineer

Enclosure

C: Bassett Creek Watershed Management Commission
Linda Loomis, Mayor, City of Golden Valley
Jeannine Clancy, Director of Public Works, City of Golden Valley

City of Golden Valley

Sweeney Lake TMDL Correction Chart

Reference	Comment(s)
TMDL Summary Table- Page S-5 final paragraph	1) Spelling error - word 'Schaper'. This is misspelled throughout the document.
Section 2.1- Watershed Characteristics	1) The City would like the location of "91 acres of land-locked area within the watershed" clearly defined, including in Table 2.1.
Section 2.2.1 Recreational Uses	1) The text of this section should be modified to indicate that the "private" boat launch, located in Sweeney Park (on Hidden Lakes Parkway south of Golden Valley Road), is open to members of the public that use cartop boats and canoes.
2.2.2. Aquatic Life	1) Spelling error in second to last sentence of second to last paragraph of section: "There are no know historical records of fish kills..."- Change 'know' to 'known.'
Section 2.3 Historical Water Quality Data- (last paragraph of section)	1) Spelling error- replace word 'date' with 'data'. 2) Spelling error- replace word 'collect' with 'collected'.
Section 4.1.1 Wastewater	1) Strike word 'are' in second sentence
Section 5.3.3 Chlorophyll-a and Secchi Depth (end of section)	1) Spelling error 'wa sin' should be 'was in'
Table 6.5 TP Removal of Existing Watershed BMPs	1) The City would like to review the list of 'Existing Treatment Device Removal' used for Table 6.5 to confirm the number and location of existing BMP's. 2) Spelling error 'and' should be 'any'
Section 8.0 Implementation	"What will the BCWMC categorical allocation look like for housekeeping BMPs?"
Section 8.1 Implementation Strategy	The City would like to have additional discussions with the BCWMC on the roles in the implementation plan for this study, as well as the other ongoing TMDL studies. In specific, a procedure for performance and reporting of housekeeping and non-structural BMP's needs to be defined.
Section 8.2 Load Reduction Alternatives	Spelling error- 'so fro' should be 'for' ?
Section 8.2.2 Internal Loading- Sub-heading 'Chemical Treatment'	The City would like additional information on the Ramsey-Washington alum dosing plant. Specific information desired includes the effectiveness of the BMP and on-going operational and maintenance costs.

City of Golden Valley

Sweeney Lake TMDL Correction Chart

Reference	Comment(s)
Section 8.2.2 Internal Loading- Sub-heading 'Vegetation Management'	AS noted, the presence of curly-leaf pond weed has been confirmed in Sweeney Lake but has not been identified as a significant source of internal phosphorus loading at this time. Additional discussion should be included about the potential for this invasive plant species to have further impact on the internal phosphorus loading, as well as the potential future costs for control.
Section 8.2.2 Internal Loading- Sub-heading 'Aeration System Management'	End of section- Please provide clarification as to the "group" referred to. ("Which group? Tech vs. Residents")
8.2.3 External Loading Sub-heading 'Maximize load reduction through redevelopment'	The text in this portion should be modified to be consistent with BCWMC standards. In specific, water quality standards require that pond volume be based upon the <i>runoff</i> from a 2.5 inch rainfall from the contributing watershed, and not a per acre volume.
8.2.3 External Loading Sub-heading 'Increase infiltration and filtration'	1) Strike 'not a single' and replace with 'no' 2) Change 'resident' to 'residents'
8.2.3 External Loading Sub-heading 'Target street sweeping'	Please add a comment to this section indicating that the City has the purchase of a vacuum or regenerative air sweeper in its Capital Improvement Plan for 2011.
Section 9.0 Reasonable Assurance- end of section	1) Spelling error 'approach tot eh' should be 'approach to the'

3.

Karen Chandler

From: Len Kremer
Sent: Thursday, August 13, 2009 1:55 PM
To: Karen Chandler
Subject: FW: Sweeney Lake TMDL Report (Rev. 3)
Importance: High
Attachments: Sweeney Lake Data.xls

From: Dave Hanson [mailto:davewhanson@gmail.com]
Sent: Wednesday, August 12, 2009 5:58 AM
To: Loomis, Linda; Leaf, Ron SEH; Len Kremer; Welch, Michael
Subject: Fw: Sweeney Lake TMDL Report (Rev. 3)
Importance: High

----- Original Message -----

From: Dave Hanson
To: Herbert, Amy
Cc: Clancy, Jeannine
Sent: Tuesday, August 11, 2009 11:41 AM
Subject: Fw: Sweeney Lake TMDL Report (Rev. 3)

Amy Herbert: Robert Laing became the sole source of aerator diffusers and equipment for Sweeney Lake in 1974. After 35 years of this relationship, I asked him to review my Response to the Sweeney Lake TMDL report and so include his opinions here for the consideration of the Bassett Creek Watershed Management Commission. I would appreciate your making Laing's message available to the Commission members.

David Hanson

----- Original Message -----

From: Robert L. Laing
To: Dave Hanson
Sent: Tuesday, August 11, 2009 11:33 AM
Subject: Fw: Sweeney Lake TMDL Report (Rev. 3)

To David Hanson, Alternate Commissioner Representing Golden Valley on the Bassett Creek Watershed Management Commission

From Robert Laing
Senior Consultant
CLEAN-FLO International
Branch Office: 15612 Highway 7 Ste. 305
Minnetonka, MN 55345-3553

August 11, 2009

Dear David,

Thank you for the 2008 Lake Water Quality Study Sweeney Lake and Twin Lake Prepared by Bassett Creek Watershed Management Commission, February 2009. I have studied the data for the seasons from both the MN DOT tests and the TMDL tests for the years 1998 through 2008. In doing so, I discovered that Sweeney Lake passed the state requirements for TMDL twenty-seven test dates for total Phosphorus in the years 1998 through 2005. It passed the requirements for Chlorophyll-a twelve times during that period and passed the requirement for Secchi disk thirty times during that same period. As I have told you in the past, with just a small addition of CLEAN-FLO Continuous Laminar Flow Inversion and Oxygenation equipment, Sweeney Lake would pass the state requirements all the time, except immediately after heavy rain events, and would immediately recover. This would amount to a tiny fraction of the cost of watershed management or alum treatment, and would result in much better fish growth and health and muck removal than any of the other treatments can possibly accomplish. It is well known that alum lowers the pH to the acidic range and can be toxic to fish, invertebrates, plants and trees at pH levels less than 6.0 and especially at pH 5.5 or less. Alum coats the gills of fish during alum application to cause suffocation.

The Water Quality Study Report does not list the enormous worsening of bottom water quality during the stratified 2007-2008 TMDL tests as shown in the TMDL report, compared to the MN DOT data in previous years, but I will discuss it briefly below. As we all know, and your photographs show, weed and filamentous algae growth were greatly increased during the two stratified years, and the year following stratification.

In the attachment, I list both sets of surface data with MN DOT data in blue and TMDL tests in red. I summarized the average values for the entire measured seasons. The test results that Sweeney Lake passed are shown in **bold** in the attachment.

As we discussed, the weir at Shaper Park is open at the bottom so it scours the bottom sediment and high phosphorus bottom water into Sweeney Lake. As Ron Leaf, Project Manager for the TMDL report calculated, 430,375 kgs of TSS came into Sweeney Lake from Shaper Pond in 2007 and 418,798 kgs in 2008. 1,353 kgs of phosphorus came into the lake from Shaper Pond in 2007 and 1,690 kgs in 2008. 14,672 kgs nitrogen came into the lake in 2007 and 19,226 kgs in 2008. This is an enormous load that the aeration systems removed after it entered the lake. Because the weir at Shaper Pond is open at the bottom, it scours the bottom muck and high bottom nutrients into Sweeney Lake. You have suggested eliminating this scouring of the bottom sediment by deepening the pond to 10-12 feet instead of its present depth of 2.5 feet. If they did this, the surface water of the pond would go into Sweeney Lake except during heavy flushing periods.

To help alleviate this problem, you suggested that a second settling pond should be constructed, and most of the contaminants would remain in the ponds for dredging. Both of these stormwater collection ponds should be aerated. The inversion and oxygenation, as you can see by all the data on Sweeney Lake, does not resuspend bottom sediment. Any settleable suspended solids passing near the diffusers will be moved to about twenty feet away from the diffusers where they settle. In addition the CLEAN-FLO system biodegrades organic matter both in the water column, as you can see by the Sweeney Lake data, and in the bottom sediment. Biodegrading the organic sediment will firm up the bottom of the ponds so the sediment in the ponds is more solid and less apt to go into Sweeney Lake during storm events. Also, as the data on Sweeney Lake shows, the CLEAN-FLO system binds phosphorus (and nitrogen) to the bottom sediment, so the amount of phosphorus going into Sweeney Lake will be greatly reduced by pre-aerating the water before it enters Sweeney Lake. The 474.4 tons of Total Suspended Solids that entered Sweeney Lake from Shaper Park in 2007 and about 461.6 tons in 2008 will be greatly biodegraded and reduced. Ron Leaf's calculations were based on the amount that came in during a particular sampling period, and different TSS could be in the pond at different dates.

It was difficult to find good references on typical percentage of organic matter versus inorganic matter in TSS of stormwater, because it varies greatly with each watershed, type of watershed, construction projects and time

of season. Organic nitrogen content of TSS in stormwater may be about 95 percent. In sewage, organic matter consists of about 50 percent of the TSS. This load has a tremendous oxygen demand that the CLEAN-FLO system satisfies. The CLEAN-FLO Continuous Laminar Flow Inversion and Oxygenation system biodegrades organic matter due to aerobic bacteria biodegrading it to carbon dioxide and water, both in the sediment and in the water column. Incoming ammonia is also an important consideration, as it takes 4.6 lbs of oxygen to oxidize 1 pound of ammonia. The CLEAN-FLO system has a track record of eliminating ammonia in wastewater treatment lagoons, lakes and reservoirs. This is why I strongly recommend aerating the Shaper Pond and the second Shaper Pond if the consultants incorporate your worthy suggestions.

In calculating the amount of watershed TMDL, the engineers forgot to include the amount of phosphorus that calcium, magnesium, iron and manganese remove from the water column of Sweeney Lake under oxygenated conditions. How else can one explain the disappearance of the huge amount of phosphorus and nitrogen entering the lake each year? I am sure the consultants have many published papers showing that bottom oxygen causes phosphorus and nitrogen from the water column to bind to bottom sediment. If not, I can supply several references going back many years. When this is factored into their calculations, it will show that much less reduction of the incoming phosphorus from the watershed will be required, and simply deepening the existing pond and adding a second pond and aerating them should enable Sweeney Lake to pass the TP, chlorophyll-a and Secchi disk requirements at all times except for short heavy rain periods. No other expense is required, except for the addition of a few more aeration diffusers in Sweeney Lake. This will be a considerable savings over all the other methods required to meet TMDL requirements. I can supply the consultants with the amount of additional aeration and the cost, if they are interested.

If you look at the SUMMARY OF ANNUAL DATA at the bottom of the attachment, you will see that surface total phosphorus was actually worse during the two years that system was turned off, even though the TSS and phosphorus influent from Shaper Pond was very low in 2008 compared to all the other years. Note that 2008 was a very dry year. You will also see that the aerated lake passed the state Secchi disk requirement 63% of the yearly test periods compared to the 50% that the stratified lake passed the state requirement, although only two years were tested with the system off. What is significant about this is that the only year that stratification passed the Secchi disk test with the lake stratified was when the rain fall was far below the annual average. And remember, something like 474 tons of TSS are being dumped into Sweeney Lake each year, and most of it is organic rather than inorganic minerals, with about 400 tons of oxygen demand. And because of the 35:1 ratio of watershed to lake surface area, the TMDL is exceeded by an approximate factor of 350 percent. Also, the TP and Chlorophyll-a were less in 2008 than they would have been during normal rainfall.

My attachment only looks at Surface data and ignores Bottom water quality. As the TMDL study data show, bottom water quality is terrible without destratification. From 1998 to 2005, the bottom water quality was almost the same as the surface water quality. This means that during stratification fish cannot spawn or feed on insects on the bottom. I have heard many reports from fishers on Sweeney Lake over the years about trophy bass, northern and crappie. Residents have some mounted. Beneficial aerobic bacteria and insects cannot live and feed on organic sediment in a stratified lake. Phosphorus and nitrogen cannot be removed from the water column and bound to the sediment when the bottom is anoxic.

All data by both MN DOT and the TMDL study were taken during the day when aquatic plants photosynthesize. At night, photosynthesis reverses and aquatic plants take up oxygen and exhaust carbon dioxide. We have no data, but nighttime oxygen levels should be higher at night under aerated conditions than with a stratified lake.

To contact CLEAN-FLO International Main Headquarters:
827 Lincoln Avenue, Suite 1

ANNUAL SURFACE WATER MEASUREMENTS FOR TOTAL PHOSPHORUS, CHLOROPHYLL-A AND SECCHI DISK FOR SWEENEY LAKE

TESTS BY MN DOT ARE IN BLUE AND TESTS BY THE TMDL STUDY ARE IN RED.
All measurements are in ug/l and meters.

DATE 1998	TP	CHL-A	SECCHI	
23-Jun		41	14.7	
14-Jul		39	15.3	1.2
4-Aug		44	21.7	
28-Aug		57	36	1.1
16-Sep		63	40.4	0.7
7-Oct		48	33.9	1.0
16-Nov			30.9	1.0
10-Dec		54	23.1	1.2
28-Dec		30	22.3	1.2
AVERAGE:		47	26.5	0.9
				Annual Precipitation: 33.39 inches
				1972 - 2008 average: 29.55

DATE 1999	TP	CHL-A	SECCHI	
5-Feb		24	3.33	
25-Feb		69	71.1	
15-Mar		89	67.6	
7-Apr		40	21.2	0.9
3-May		42	46.3	
28-May		34	9.52	1.1
15-Jun		59	38.8	
9-Jul		62	29.1	1.2
12-Aug		46	32.2	1.1
17-Sep		40	34.6	1.1
11-Oct		42	54.1	1.1
2-Nov		38	27.8	1.2
AVERAGE:		49	36.3	1.0
				Annual precipitation: 30.54

DATE 2000	TP	CHL-A	SECCHI	
11-Jan		41	3.27	1.3
3-Feb		26	1.31	3.8
23-Mar		37	15.6	1.4
21-Apr		32	23.6	1.1
16-May		30	19.5	1.5
6-Jun		41	18.7	1.2
27-Jun		44	23.7	1.4
21-Jul		85	66.2	1.1 (System shut off due to flooding?)
23-Aug		94	83.9	0.7 "
13-Sep		38	27.8	0.9
3-Oct		44	29.4	1.0
27-Oct		46	25.6	
19-Dec		72	57.2	
AVERAGE:		48	30.4	1.4
				Annual precipitation: 30.48

DATE 2001	TP	CHL-A	SECCHI	
8-Jan	31	6.47	1.6	
14-Feb	31	2.92		
25-Apr	76	27.2	0.7	
30-May	23	10.4	1.5	
20-Jun	26	6.22	2.4	
31-Jul	66	32.6	1.0	
21-Aug	68	74.3		
11-Sep	48	31.1	0.9	
17-Oct	45	30.6	0.9	
15-Nov	41	3.2	2.7	
11-Dec	26	7.27	2.1	
AVERAGE:	44	21.1	1.5	Annual precipitation: 34.23

DATE 2002	TP	CHL-A	SECCHI	
8-Jan	39	36.9	1.5	
14-Feb	22	5.9	2.6	
21-Mar	29	21.6	1.1	
23-Apr	29	13.4	1.8	
22-May	29	34.9		
20-Jun	42	11.7	0.9	
18-Jul	47	43.4	1.1	
14-Aug	53	37.4	0.5	
13-Sep	43	23.4	1.1	
22-Oct	29	18.1	1.5	
AVERAGE:	36	24.7	1.3	Annual precipitation: 38.45

DATE 2003	TP	CHL-A	SECCHI	
29-Jan	34	65.5	0.4	
6-Mar	104	35.9	0.6	
28-Apr	38	30.8	1.1	
10-Jun	57	33.8	2.6	
15-Jul	60	28.7	3.0	
12-Aug	62	15.4	0.9	
9-Sep	41	25.7	1.0	
8-Oct	30	19.3	1.4	
18-Nov	24	23	1.2	
22-Dec	44	67.7	0.8	
AVERAGE:	49	34.6	1.4	Annual precipitation: 22.69

DATE 2004	TP	CHL-A	SECCHI	
21-Jan	38	48.3	0.9	
18-Feb	41	15.3	1.1	
12-Apr	27	11.1	1.0	
20-May	32	9.97	1.5	
16-Jun	31	128	1.8	(Error in Chl-a reading?)
22-Jul	74	37.1	0.9	
19-Aug	48	30.5	0.9	
23-Sep	42	36.6	3.4	
20-Oct	44	14.4	0.9	
18-Nov	33	21.1	1.7	
AVERAGE:	41	35.2	1.6	Annual precipitation: 27.39

DATE 2005	TP	CHL-A	SECCHI	
11-Jan	34	21.1	1.8	
23-Feb	139	152	0.5	???
19-Apr	62	46	1.4	(North Basin)
28-Apr	48		0.9	
7-Jun	68	13	2.9	(North Basin)
7-Jun	70	12	2.7	(South Basin)
7-Jun	41	9.92	1.7	
19-Jul	63	28	1.7	(North Basin)
19-Jul	64	29	1.7	(South Basin)
2-Aug	41	22	1.7	(North Basin)
2-Aug	49	18	1.4	(South Basin)
3-Aug	41	16.7	1.0	
16-Aug	43	22	1.7	(North Basin)
16-Aug	61	16	1.3	(South Basin)
30-Aug	44	18	1.2	
2-Sep	49	19	1.5	(North Basin)
2-Sep	40	15	1.5	(South Basin)
27-Sep	49	24.1	0.9	
3-Nov	39	25	1.2	
AVERAGE:	55	28.2	1.5	Annual precipitation: 33.41

DATE 2007	TP	CHL-A	SECCHI	South Basin
27-Apr	65		0.82	
9-May	63.3	24.5	0.98	
22-May	50	20.9	1.08	
6-Jun	45.2	12	1.3	
19-Jun	41.7	10.2	1.45	
3-Jul	48.9	8.9	1.45	
17-Jul	34.4	9.8	1.35	
31-Jul	43.3	4.7	1.8	
15-Aug	35.5	14	1.4	
29-Aug	73.8	65.9	0.9	
13-Sep	49.2	17.8	1.39	
26-Sep	78.7	31.9	1.15	
16-Oct	56.8	29.8	1.25	
AVERAGE:	53	20.9	1.3	Annual precipitation: 34.32

DATE 2007	TP	CHL-A	SECCHI	North Basin
27-Apr	54.3	56.6	0.9	
9-May	56.2	22.6	1.1	
22-May	48.3	16	1.14	
6-Jun	68.6	10.8	1.32	
19-Jun	54.3	6.3	1.7	
3-Jul	42.5	8.2	1.5	
17-Jul	36.4	15	1.4	
31-Jul	50.6	4.6	2	
15-Aug	46.2	13.2	1.5	
29-Aug	49.1	18.6	1.39	
13-Sep	46	20.4	1.47	
26-Sep	82.6	35.4	1.42	
16-Oct	46.9	18.9	1.2	
AVERAGE:	52	19.0	1.4	Annual precipitation: 34.32

DATE 2008	TP	CHL-A	SECCHI	South Basin
30-Apr	75.9	39.6	0.8	
13-May	72.6	61.2	0.69	
28-May	110.5	22.5	1.55	
9-Jun	36.4	5.8	2.89	
23-Jun	37.5	6.3	3.8	
8-Jul	24.5	7.4	2.5	
22-Jul	27	6.7	2.78	
5-Aug	34.2	1.8	2.6	
19-Aug	34.5		1.4	
3-Sep	39.9	17	1.58	
17-Sep	48	32.1	1.32	
30-Sep	50.9	14.1	1.12	
22-Oct	95.7	20.9	1	
AVERAGE:	53	19.6	1.8	Annual precipitation: 22.38

DATE 2008	TP	CHL-A	SECCHI	North Basin
30-Apr	85.5	32.4	1.05	
13-May	71.3	54.7	0.83	
28-May	106.1	8.9	1.4	
9-Jun	45.1	7.7	3.18	
23-Jun	27.1	5.7	4.2	
8-Jul	28.8	7.2	2.74	
22-Jul	28.7	8.1	2.67	
5-Aug	35.5	1.8	2.43	
19-Aug	27.1		1.5	
3-Sep	48	7.7	1.61	
17-Sep	49.4	36.7	1.2	
30-Sep	68	17	1.16	
22-Oct	100.3	20.4	1	
AVERAGE:	55	17.4	1.9	Annual precipitation: 22.38

SUMMARY OF ANNUAL DATA

YEAR	TP	CHL-A	SECCHI	ANNUAL PRECIPITATION
1998	47	26.6	0.9	33.39 inches 1972 - 2008 average: 29.55
1999	49	36.3	1.0	30.54
2000	48	30.4	1.4	30.48
2001	44	21.1	1.5	34.23
2002	36	24.7	1.3	38.45
2003	49	34.6	1.4	22.69
2004	41	35.2	1.6	27.39
2005	55	28.2	1.5	33.41
2007	53	20.0	1.35	34.32
2008	54	18.5	1.85	22.38

DRAFT

August 13, 2009

RE: Bassett Creek Watershed Management
Commission
Sweeney Lake TMDL – Draft Report
SEH No. ABCWMC070100

Dave Hanson
1030 Angelo Drive
Golden Valley, MN 55422

Dear Dave:

Thank you for submitting your comment letter of July 29, 2009, on the Draft Sweeney Lake Total Phosphorus TMDL Report (Draft Report). We have also reviewed the email you forwarded to us from Robert Laing of CLEAN-FLO International.

We know you have invested a lot of time and effort towards improving the Lake over the years and appreciate the time and effort you and other members of the Lake Association have taken to be a critical part the process. We especially appreciate the historical perspective you have provided over the past two-plus years. Based on our review of the information you have provided, we see two main areas of concern and comment: the effects of aeration on weed growth and water quality; and the benefits of improvements at Schaper Pond. Each of these is discussed below, with the project team's response in bold text.

1. Weed Growth, Water Quality and Aeration. **First, as suggested in the second paragraph on page 2 of your letter, the two years of monitoring without the operation of the aeration system has not harmed the lake. As we discussed when we visited in person, the most significant factor causing the increase in weed and algae growth you are seeing is the improved water clarity in the surface waters of Sweeney Lake over the last few years. In fact, the data Mr. Laing provided to you in his email helps illustrate this point. Published literature has demonstrated that there is a one to one relationship between lake clarity and the depth of weed growth. For example, if Secchi disk depth is 1.0 meters, weeds (aquatic plants) will grow in areas of the lake that are 1.0 meters deep or less.**

In years prior to 2007, there were generally one to three monitored days per year with a secchi reading greater than 2.0 meters. In 2007 there were no days with readings greater than 2.0 meters and you did not see a significant change in weed growth in 2007. Then in 2008, there were five days with readings greater than 2.0, a significant improvement in water clarity in the year you first observed the change in weed and algae growth. Also note that TP levels in the surface waters were generally lower (better) in 2008 than in 2007. So the lower TP conditions did not reduce weed growth in 2008 as the clarity of the water was the limiting factor for weed growth.

When we spoke in person earlier this summer, we discussed the longer-term changes that you may see in Sweeney Lake as the implementation program proceeds. It is worth reiterating here that as the clarity of the water continues to improve with reduced TP loads, you will likely continue to see additional weed growth.

Regarding the impacts of aeration on the release of phosphorus for the sediments, you are correct that early in the study the project team suggested that additional aeration may help to reduce the release of phosphorus from the sediments into the water column. We also suggested that less, or no, aeration in the critical summer period could also be a better situation that would reduce the mixing of phosphorus within the water column. The conclusions presented in the Draft Report indicate that the aeration system may or may be increasing or decreasing the overall internal loading to the lake, relative to non-aerated conditions. The Draft Report further states that winter aeration is likely a good long-term strategy for the lake and likely has real fisheries benefits.

Regarding the comment in Mr. Laing's email on the Effect of Alum on Fish. The suggestion that "Alum coats the gills of fish during alum application to cause suffocation" is inappropriate. The Minnesota Pollution Control Agency has decided to grant permits for alum treatment of lakes after a rigorous scientific review of available literature on the potential effects of alum and the chemistry of alum. Alum treatment applied with care and consideration of the conditions upon which treatment is conducted will not cause fish kills.

2. Schaper Pond Modifications. We agree that modifications at Schaper pond will help to reduce the loading of both TSS and TP to Sweeney Lake. The Management Plan (Table 8.4) includes this activity as one of the possible implementation items to reduce the external loading. The estimated reduction is on the order of 40 pounds per year of total phosphorus. When looking at the total external load to Sweeney Lake needed to meet the state standard, the 40 pound annual reduction is less than 10 percent of the 460 pound annual reduction needed looking at only external sources. Again, we agree that improvements at Schaper Pond will help, but they are only a portion of the total solution.

The data provided to you on TSS loading for 2007 and 2008 was the preliminary data from Three Rivers Park District and was not the final data used in the analysis. The preliminary data you refer to in your letter showed TSS loading of 948,813 and 923,290 pounds of TSS per year, for 2007 and 2008, respectively. These data were in error due to an error in the inflow rating curve. The actual data show TSS loadings for 2007 and 2008 of 470,014 and 427,450 pounds per year, respectively. I have since sent this final spreadsheet to you via email.

Finally, you asked if the water leaving Sweeney had ever been tested. As part of the TMDL workplan, the water leaving the lake was assumed to be at the same concentration as the water at the surface of the lake at the two locations sampled.

Again, we appreciate your time and effort throughout this process. We expect to collect additional comments at the August 20, 2009, Commission Meeting and get direction from the Commission on when they would like to send the Draft Report to MPCA for their review. We will make the revised Draft Report available on the project webpages.

Sincerely,

August 13, 2009
Page 3

Ron Leaf, PE
Project Manager

c: Michael Welch, Chair, BCWMC
Len Kremer, PE, BCWMC Watershed Engineer

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DRAFT

August 12, 2009

RE: Bassett Creek Watershed Management
Commission
Sweeney Lake TMDL – Draft Report
SEH No. ABCWMC070100

Jeff Oliver, PE
City Engineer
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427-4588

Dear Jeff:

Thank you for submitting comments on the Draft Sweeney Lake Total Phosphorus TMDL Report (Draft Report). We appreciate the time you and other members of the City of Golden Valley have taken to participate in the process to date and to review the Draft Report. This letter is intended to summarize how your comments have been, or will be, addressed.

First, in your cover letter you indicate that you agree with the approach taken in the Draft Report to allocate waste loads based on a categorical basis, except for MnDOT, which should be allocated an individual load.

Regarding the specific comments provide in your attached two-page table, we have addressed all of your requested changes. Relating to the four specific items below, you were not requesting changes to the Draft Report, but instead were requesting additional information and/or additional discussions with the Bassett Creek Watershed Management Commission (Commission). The project team's response is noted in bold text.

1. Table 6.5 - TP Removal of Existing BMPs. The City would like to review the list of BMPs to confirm the number and location of BMPs. **These data are available and will be sent to you under separate cover.**
2. Section 8.1 – Implementation Strategy. The City would like to have additional discussions with the Commission on the roles of the MS4s and Commission during implementation of this and other TMDLs. Specifically, a procedure for reporting needs to be defined. **We agree that defining these roles will improve the effectiveness of the implementation program. However, defining the roles is not a required element of the TMDL Report and was not identified in**

the project workplan. We suggest that these discussions take place concurrent with the MPCA review process. Based on our correspondence on August 11, 2009, we understand that the City agrees that the revised Draft Report should be submitted to MPCA and that these discussions can take place concurrent with the MPCA review.

3. Section 8.2.2 – Internal Loading Subheading “Chemical Treatment.” The City requests additional information on an existing alum dosing plant including effectiveness and ongoing operation and maintenance costs. **These data are being compiled and will be sent to you under separate cover.**
4. Section 8.2.2 – Internal Loading Subheading “Vegetation Management. Additional discussion should be included about the potential for this invasive plant species to have further impact on the internal loading as well as the cost for control. **A detailed assessment of curly leaf pond weed on the internal phosphorus loading was not part of the workplan for this study. However, the Commission’s has been conducting macrophyte surveys on Sweeney Lake and these surveys indicate a relative small portion of Sweeney Lake has curly leaf pond weed. Further, the internal loading from the sediment, as determined from the sediment cores taken from the Lake, indicate a very high internal load from the bottom sediments. While there may be some small internal load related to curly leaf pond weed, it has been determined to be insignificant relative to the internal loading from Lake sediments.**

Again, we appreciate the time City staff has taken throughout the process. We expect to collect additional comments at the August 20, 2009, Commission Meeting and get direction from the Commission on when they would like to send the Draft Report to MPCA for their review. We will make the revised Draft Report available on the project webpages.

Sincerely,

Ron Leaf, PE
Project Manager

c: Michael Welch, Chair, BCWMC
Len Kremer, PE, BCWMC Watershed Engineer



6D.

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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Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Agenda Item 6D – Medicine Lake TMDL Update
Date: August 14, 2009
Project: 23/27 051 2009

Recommended/requested Commission action:

1. Information only – no action needed

Medicine Lake TMDL Update

Following the July 16 Commission meeting, two letters regarding the Medicine Lake TMDL were prepared and sent to the MPCA as directed by the Commission and recommended by the Technical Advisory Committee (TAC):

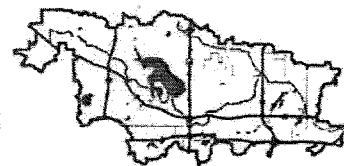
1. July 17, 2009 letter to Chris Zadak, MPCA (attached) – this letter contained the Commission's and TAC's comments regarding the June 12, 2009, Technical Memorandum summarizing the Medicine Lake watershed P8 modeling for the TMDL. No response to the letter has been received.
2. August 3, 2009 letter to Dale Thompson, MPCA (attached) – this letter requested additional details from the MPCA regarding the coordination and management that would be required for a TMDL with categorical waste load allocation versus a TMDL with individual waste load allocations. No response to the letter has been received.

The MPCA modeling consultant has been in contact with Greg Wilson (of Barr Engineering) since their June 25, 2009 meeting and they have been working to resolve the differences in the P8 model which was used to develop the concept plan for the City of Plymouth, West Medicine Lake Park Pond project and the Medicine Lake TMDL P8 model. A meeting is scheduled for Friday, August 14, 2009 at the MPCA to discuss recent modifications to the model and the results of those modifications. The conclusions of Friday's meeting will be reported to the Commission at the regular meeting, Thursday August 20, 2009. The resolution to the differences between the models and the modifications to the TMDL model has been delayed due to vacations of both the MPCA consultant and Greg Wilson.

The scheduled July stakeholders meeting was canceled by the MPCA and rescheduled for August 27, 2009.

Bassett Creek Watershed Management Commission

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July 17, 2009

Mr. Chris Zadak

MN Pollution Control Agency
Regional Division – Watershed Section
520 Lafayette Road N.
St. Paul, MN 55155

Re: Comments on June 12, 2009 LimnoTech Draft Memo Regarding Medicine Lake TMDL P8 Modeling Summary

Dear Mr. Zadak:

The Bassett Creek Watershed Management Commission (BCWMC) offers for consideration by the MPCA the following comments on the June 12, 2009 draft memo from LimnoTech summarizing the Medicine Lake TMDL P8 modeling.

1. The modeling and data suggest that watershed-wide efforts to reduce runoff could contribute to the improvement of water quality in Medicine Lake (and other water bodies), and the BCWMC will continue to invest resources and work with its member cities and others to determine the best way to achieve such reductions.
2. Continued reasonable efforts to refine the modeling to incorporate or reflect available data prior to finalization of the draft TMDL and implementation plan will result in a model that most effectively and reliably supports the efforts that will be undertaken to implement BMPs and stormwater management requirements to achieve TMDL goals.
3. The BCWMC requests the following information be provided, because it will be needed to continue the refinement of the model for its subsequent use for evaluating the proposed ponding at the mouth of Plymouth Creek and for tracking future BMP implementation:
 - a. Statistical analysis for the goodness-of-fit for the calibration and validation, if this analysis was completed;
 - b. A discussion of the approach that was used to calibrate the model, such as changes to the model inputs to optimize the match at all of the monitored sites, the weight given to specific sites, and whether the calibration was based on total phosphorus (TP) loading or flow-weighted mean concentration at each site;
 - c. Adjustments and parameters that were changed as a result of the validation runs;
 - d. A summary of the calibration results for total suspended solids (TSS), flow and dissolved phosphorus, if one was prepared;
 - e. The raw flow data and rating curves collected and developed by Three Rivers Park District;

Michael Welch, BCWMC Chair
c/o Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
612-385-6885

Charlie LeFevre, Attorney
Kennedy & Graven
470 US Bank Plaza, 200 South Sixth Street
Minneapolis, MN 55402
612-337-9215
612-337-9310 (fax)

Leonard Kremer, Engineer
Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
952-832-2600
952-832-2601 (fax)

- f. A description of any review of the flow rating curves or other quality assurance measures that were completed for the small watersheds;
 - g. A discussion of any adjustments that were made in the evaluation of the proposed Plymouth Creek ponds to account for the additional sources and quantities of phosphorus (such as stream bank erosion and bed load) that are contributing to the increasing TP and TSS concentrations between the Industrial Park-2 and the Plymouth Creek sites, and the implications of these additional sources for in-lake water quality under existing conditions and for each of the improvement scenarios.
4. The memo also indicates that the TMDL model does deviate from data more consistently at the locations monitoring small watersheds, such as Medicine Lake-5 and Industrial Park-1, generally predicting higher phosphorus concentrations and loads. The disparity between the results from the calibrated model and the observed data when the spatial scale is smaller and subject to less uncertainty associated with multiple BMPs or conveyances is significant.
5. The results of the FLUX modeling from 2006 show that there was a TP load of 2,235 lbs observed at the Plymouth Creek site. If there were a perfect match between the modeled and monitored TP and dissolved phosphorus fraction, it appears that there could be between 450 and 670 lbs of additional particulate phosphorus that would be subject to additional treatment by the proposed ponds. In addition, the calibrated model currently under-predicts the observed TP load at the Plymouth Creek site by approximately 400 lbs during the 2006 sampling period. This would have another additive effect on the disparity between the two modeling efforts. Based on these additive effects, a revised estimate for the load reduction provided by the proposed West Medicine Lake Park Pond would be significantly higher than the TMDL model estimates.
6. As discussed in the memo, the assessment of phosphorus reduction scenarios was completed to identify the limitations of various BMPs if they were implemented watershed-wide. In addition to the limitations of the various BMPs to reduce nutrient loads, there are also limitations to implementing the BMPs due to conditions such as the developed condition of the watershed, high groundwater levels and tight soils. The implementation plan will need to consider these limitations and provide for a flexible approach to achieving the needed load reductions. The existing water quality improvement policies of the cities in the watershed have required new development and redevelopment to implement BMPs to improve the water quality of surface water runoff since the early 1990's. As a result, several hundred BMPs have been constructed at development sites in the watershed. This will continue into the future and more stringent water quality requirements will likely be adopted, however the policy changes and the implementation of additional BMPs will take years to implement. This needs to be acknowledged in the TMDL.

Please call Len Kremer, P.E., the BCWMC's engineer, at (952) 832-2781 if you have any questions.

Very truly yours,

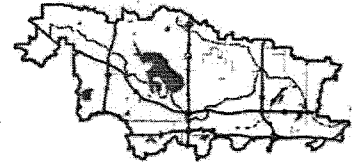


Chairman, Bassett Creek Watershed Management Commission

c: Bassett Creek Watershed Management Commission
Bassett Creek Watershed Management Commission Technical Advisory Committee

Bassett Creek Watershed Management Commission

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August 3, 2009

Mr. Dale Thompson
Pollution Control Specialist
Minnesota Pollution Control Agency
520 Lafayette Road North
St Paul, MN 55155

Re: TMDL Implementation and Reporting

Dear Mr. Thompson;

The Bassett Creek Watershed Management Commission is working with the Minnesota Pollution Control Agency (MPCA) on TMDL studies for Medicine Lake in Plymouth, and Sweeney Lake and Wirth Lake in Golden Valley. All three projects are at the stage where waste load allocations (WLAs) are being discussed. The stakeholders in each case (the Commission and the Municipal Separate Storm Sewer System permit holders, among others) have been asked to recommend assignment of individual WLAs or a categorical WLA, managed by a Commission. The MPCA staff working with the Commission on these TMDLs have indicated that either method is acceptable to the MPCA.

The members of the Commission—which is not an MS4—wish to better understand the details of coordinating and managing a categorical WLA (or three) before agreeing to do so. Primary among the Commission members' concerns is the accounting for waste load reductions achieved and how credit will be allocated to MS4s:

- Will the MPCA rely exclusively or principally on the Commission's accounting and reporting of waste load reductions in its oversight of the relevant MS4 permits?
- The Department of Transportation has indicated that it prefers an individual waste load, even if a categorical approach is taken for a particular TMDL (when MnDOT is a contributing MS4). How will the reductions credited to MnDOT be determined, and will the Commission and the other MS4s have input on that accounting?
- If, after a period of time, the water body in question is still not achieving its TMDL targets, how will the burden of achieving the further necessary reductions be allocated? Will the MPCA defer to the Commission?

*Michael Welch, BCWMC Chair
c/o Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
612-385-6885*

*Charlie LeFevre, Attorney
Kennedy & Graven
470 US Bank Plaza, 200 South Sixth Street
Minneapolis, MN 55402
612-337-9215
612-337-9310 (fax)*

*Leonard Kremer, Engineer
Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
952-832-2600
952-832-2601 (fax)*

Whether a categorical or individual approach is taken in each case, the Commission fully anticipates that it will work with the MS4s involved to develop, implement and monitor the effectiveness of best management practices and other efforts (such as ordinance changes) to achieve TMDL goals. Will MPCA permitting enforcement staff recognize and defer to the specific agreements the Commission and MS4s may enter to develop, fund, construct, and maintain BMPs? How will the MPCA contribute to and/or support the effort of the Commission and the MS4s to properly and equitably allocate credit for waste load reductions achieved?

In addition, the reporting requirements for the two approaches are not well understood. When existing MS4 permits are renewed in 2011, it is expected that the annual reporting requirements for MS4s with individual WLAs will differ from the reporting requirements for MS4s with categorical WLAs. Would the MPCA outline for the Commission and the MS4s what reporting requirements may be included in the renewed MS4 permits with these two options for the three TMDLs? Would the MPCA expect any annual reporting from the Commission? Could a single report from one of the MS4s in the watershed of the impaired water body or from the Commission meet the reporting requirements of the group that was assigned the categorical WLA?

The Commission would appreciate any other information that the MPCA can provide regarding the advantages and disadvantages of the two approaches for the MS4s and the Commission.

Sincerely,



Michael Welch
Chair, Bassett Creek Watershed Management Commission

Enclosure

c: Jim Herbert, Barr Engineering Co.



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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Item 6D

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Item 6D – Medicine Lake TMDL Meeting with Minnesota Pollution Control Agency, Medicine Lake TMDL P8 Modeling
Date: August 18, 2009

6D. Medicine Lake TMDL Modeling Update

Recommended/requested Commission action:

Information only, No action needed

Medicine Lake TMDL Modeling Update

On Friday, August 14, a meeting was held with the Minnesota Pollution Control Agency (MPCA) and the consultants working with them on the Medicine Lake watershed and lake models to review revisions to the watershed model. The first presentation reviewed the sampling data that was used to calibrate the watershed model including flows, total suspended solids and phosphorus at the Industrial Park 2 and Plymouth Creek stations. It was indicated that the analysis of the data shows that there is a high level of accuracy in the flow, phosphorus and nitrogen measurements and a lesser level of accuracy in the suspended solids measurements. MPCA and/or Three Rivers Park District will follow up with more detailed results from the FLUX modeling that was used to estimate the monitored pollutant loadings.

The results of the revised modeling of the watershed, comparing the flows and loads calculated from the data and the flows and loads calculated by the watershed model were reviewed. For the 2006 calibration year the comparison between the calculated and predicted flows, total phosphorus load and phosphorus concentrations were acceptable but the differences between the calculated and predicted suspended solids loads at the Industrial Park 2 and Plymouth Creek stations were significant. There was discussion about the need to complete a flow duration analysis to compare the 2006 data with the data for 2004 through 2008 to determine if 2006 was an unusual year due to climate, stream bank erosion, and/or if the data from another year should be used to calibrate the model. There was also discussion about reviewing the 2006 suspended solids data to determine if it could be adjusted to remove the sediment/phosphorus contributed by channel erosion so that the calculated loads and predicted loads could be more readily compared.

It was noted that, with the latest changes to the modeling, the revised version of the watershed model predicts that 1000 pounds of phosphorus would be removed from the Plymouth Creek flows by the

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Item 6D – Medicine Lake TMDL Modeling Update
Date: August 17, 2009
Page: 2

proposed West Medicine Lake Park ponds, project while a run of the model previously prepared for the City of Plymouth (in 2004) predicts that 400 pounds of phosphorus would be removed by the proposed West Medicine Park ponds project for the 2006 water year conditions.

6E1.

Bassett Creek Recording Administrator

Subject: BCWMC Agenda Item - Grant Proposal For Teacher Focus Group

From: LangsdorfP@aol.com [mailto:LangsdorfP@aol.com]
Sent: Tuesday, August 11, 2009 12:34 PM
To: mjewelch@gmail.com; Bassett Creek Recording Administrator
Subject: BCWMC Agenda Item - Grant Proposal For Teacher Focus Group

The Education and Public Outreach Committee requests that a Grant Proposal for a Teacher Focus Group be put on the agenda for action at the August BCWMC meeting.

July 30th HCD sponsored a meeting with speakers from the MPCA and BWSR to update us on what types of projects will be eligible for Legacy Funds. We learned that there is the potential of grant funds being available for water education. We anticipate the RFP will come out early fall.

The Education and Public Outreach Committee expects to receive a grant request from Hennepin County Environmental Services to put together a Teacher Focus Group in order to learn from them 1) what their resource needs are, 2) what is already available (previously developed), 3) what they will use and 4) what obstacles they often encounter to doing water education.

We have scheduled a meeting of the Education and Public Outreach Committee for Thursday, August 20, at 10:00 a.m. in the GV Council Conference Room to review the anticipated grant proposal prior to the BCWMC meeting at 11:30 a.m.

BCWMC Education & Public Outreach Committee**August 11, 2009 – 9:00 a.m. - Golden Valley City Manager's Conference Room**

Committee Members present: Mary Karius, Liz Thornton, Margie Vigoren, Ginny Black, Mary Gwen-Lenth and Pauline Langsdorf

Article – Capture the Rain, Help the Earth

Judy Arginteanu has completed the article on rain barrels and has contacted the Sun newspapers to determine their interest in publishing it. They are *considering* using it later this month – but no guarantees. The Education Committee is very pleased with the quality of the article. It is both interesting and informative. Once it has been printed we want to post it on the BCWMC website. Hennepin County Environmental Services has expressed interest in posting it on their website. Chris Sundberg asked about making it available to her lake association. We think this is an excellent idea but feel we need to let the newspaper run it first.

Hennepin Conservation District – Meeting on Legacy Funds

A number of BCWMC commissioners, TAC members and Len Kramer attended the conservation forum focusing on an overview of the legislative session, specifically related to clean water funding which was sponsored by the Hennepin Conservation District. Speakers were from the MPCA and BWSR. We were told that water education projects could be considered for funding. We expect that an RFP will come out in the early fall.

With the potential of funds available for water education the Education/Public Outreach Committee discussed what types of projects we would like to see proposed. In our estimation it is important to bring teachers and schools into the discussion early so that when the funding RFP goes out there has been some prior discussion as to what type of program will benefit them and their students. The committee suggested a focus group of environmental educators be brought together to discuss: 1) what are their resource needs; 2) what is already available (previously developed); 3) what they would actually use; and 4) what obstacles do they often encounter in doing water education? We anticipate Hennepin County Environmental Services will develop a grant proposal for BCWMC grant funds to form a teacher focus group to explore the questions listed above.

The Education/Public Outreach Committee has scheduled a committee meeting on August 20, at 10:00 a.m. in the Council Conference Room at Golden Valley City Hall, to consider a grant application for pulling together a teacher focus group.

Summer School Program at Patrick Henry H.S.

At the July BCWMC meeting we made mention of the summer school program held at Patrick Henry High School – *A Political and Environmental Study of Shingle Creek* - which was a collaborative program between the Minneapolis Schools and Shingle Creek Watershed Management Commission. In this program students who completed the class received a credit in science and a credit in social studies. Chair Welch asked the Education Committee to look into the project. We have a copy of their 2009 Final Report and will include it with additional information we continue to collect related to this project. We

want to make sure teachers and school districts in our watershed are aware of this project between the Shingle Creek WMO and the Minneapolis Schools.

Resident's Concern

It was brought to our attention that a resident with property on Northwood Lake would like to have a meeting to discuss the condition of the lake. In our judgment the commissioner from New Hope should be the one to decide how he would like to address this.

Brochure - 10 Things You Can Do - Update

Brochures have been received. Each BCWMC TAC member will receive 500 copies and more copies will be available upon request.

Pauline handed out the brochures at her National Night Out Event and at the New Hope/Crystal/East Plymouth League of Women Voters board meeting. In September, the LWV board will make them available to the public at their booth at the New Hope Farmer's Market. They thought that the inside page would make an excellent poster and that many teachers would want to display this type of poster in their class room. If such a poster is made available, it could be used in a variety of public places. This recommendation will be passed on to Hennepin County Environmental Services as they coordinated the development and production of this brochure.

Website

The committee decided to continue website review at our September meeting. We will explore the idea of having the website hosted in another way. We will discuss issues or complications which may be related to changing the host for our website and the costs related to a different host site. We will continue to discuss website modifications in order to be ready with recommendations when more website funds become available in our 2010 budget. Very little money remains in this line item in our 2009 budget.

Upcoming Education/Public Outreach Meetings

August 20 – 10:00 a.m. – Golden Valley Council Conference Room – to consider a potential grant proposal

September 10 – 9:00 a.m. – Golden Valley Council Conference Room

Joint EPOC meeting in the fall – I believe it is scheduled in October.

Notes by Pauline Langsdorf

BCWMC Education & Public Outreach Committee Meeting Notes

July 21, 2009 – 9:00 a.m. Plymouth City Hall, Medicine Lake Room

Members present: Liz Thornton, Margie Vigoren, Mary Gwen-Lenth and Pauline Langsdorf – Amy Herbert was also there to give input into the website discussion

Website Review

We reviewed the title page and discussed whether the organization should be titled Bassett Creek Watershed Management Commission (BCWMC) or Bassett Creek Watershed Management Organization (BCWMO). Current printed material on the website and our logo refers to us as the Bassett Creek Watershed Management Commission (BCWMC). Amy will ask Len Kramer and Mike Welch if they recall any previous discussion on our name. If we are making revisions to our website we think this is the time to make a determination which is the name we want to use.

We plan to continue website discussion and bring our recommendations to the BCWMC when we have done a more thorough review. What is included below is a list of things we discussed and will continue to work on these plus other ideas.

- We would like to see the picture on our home page changed from the lake photo with a Canadian goose to the picture on our current annual report. This report has a picture of a lake with the Minneapolis skyline in the background and we'd also like to include the winter creek picture from our 2007 annual report.
- We would like to have the sidebar on the home page have a link that would bring us directly to a map of our watershed and another link to a regional map that shows the metro region watersheds. These maps are currently on the site but you need to search for them. We don't feel that a lot of site visitors would search the site that thoroughly.
- We discussed having a link on the sidebar titled "Things You Can Do" which would bring up the new brochure "Ten Things You Can Do to Improve Minnesota's Lakes and Streams". This link could provide an additional link to Hennepin County's new water website which will contain additional more in depth articles on the points mentioned in the brochure.
- We want to create a section for the general public and also a section for educators.
- We also want to restructure the way our watershed partnerships and other organizations are presented on the website.

Budget Review

We reviewed the line item budget for the website. The website budget was very small for this year and most of it has been spent. The BCWMC budgeted more in 2010 for website revisions. We will keep this in mind as we consider our recommendations.

We also reviewed the 2009 Education/Public Outreach budget and are comfortable with where we are at this time. We will do further review our 2009 line item for the Partnerships/Grants.

Brochures

We expect that the brochures we ordered from Hennepin County will arrive later this week. At the last BCWMC meeting we decided to send 500 to each of our cities. We will check with Medicine Lake to see if they want that many. We will check with our other cities to see if they want more and also check with Shingle Creek to see how they plan to distribute their brochures as several of our cities are in both watersheds.

Update on Writer and Articles

**2nd Annual BWSR
Academy
November 2-4, 2009
Cragun's Desert and
Hotel on Gull Lake
Brainerd MN
Rooms starting at
\$59/night**



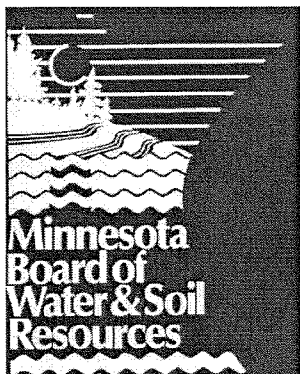
*"Great training opportunity!"
2008 Academy Participant Comment*



*"Good speakers/presenters, nice
to have moderators, very profes-
sionally done-Great Job!"
2008 Academy Participant Comment*

Highlights

- Delineator credit
- Website information
- Clean Water Fund info
- Keynote Speaker John Jaschke
- Fireside Chats



Registration information coming soon!

Stay up-to-date! Check out the Academy website:
www.bwsr.state.mn.us/academy

Come see the fall colors at Cragun's!

Multi-Track Format (draft)
Tracks and topics are subject to change

Program/Administration Track	Technical Track	Organization Capacity Track	Additional Topics
<p align="center">Topics</p> <ul style="list-style-type: none"> • Planning requirements • WCA 101 • Easements • The State Cost-Share Program • An Orientation to Minnesota's Natural Resources 	<p align="center">Topics</p> <ul style="list-style-type: none"> • Pollution reduction calculators • WCA Drainage • Technical Approval Authority requirements • Establishing Native vegetation 	<p align="center">Topics</p> <ul style="list-style-type: none"> • Financial management • Human Resource management • The Importance of Internal controls • Sharing Resources between government boundaries 	<p align="center">Topics</p> <ul style="list-style-type: none"> • Bio-retention Basins (8 hour session) • E-link • Green Acres/Rural Preserves • Integrated Watershed Management • WCA Law Enforcement
<p>These are just a sampling of the many topics that will be presented at the 2009 BWSR Academy. A full curriculum will be coming SOON!</p>			

Guest Speakers

- State Auditors Office
- Minnesota Counties Insurance Trust
- Headwaters Regional Development Commission

Informal Opportunities

- Network with LGUs from across the state
- Meet and chat with BWSR staff from the State Office

In order to assist us in preparing for this event, if you are interested in joining us in November, please contact: Brigitte Grundmeier at 218-333-8024 or send an e-mail to brigitte.grundmeier@state.mn.us

Contact Information:

For General Academy Questions, please contact:
Jason Weinerman: 218-828-6045 or jason.weinerman@state.mn.us



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*

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

Item 8A.

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Item 8 – Information Only
BCWMC August 20, 2009 Meeting Agenda
Date: August 13, 2009
Project: 23/27 051 2009 003

A. Administrative Reviews

a. Laurel Hills Condominium Improvements: Golden Valley

A revised grading, drainage and erosion control plan for landscape improvements was reviewed. The project was initially reviewed at the July 16, 2009 BCWMC meeting. The plan includes landscape improvements and maintenance excavation of an existing pond. A letter of approval was provided to the City of Golden Valley.

b. 36th Avenue Reconstruction: Plymouth

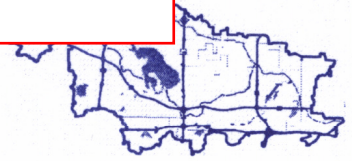
A street improvement plan was reviewed. The proposed project includes reconstructing 36th Avenue between Vicksburg Lane and Plymouth Boulevard. Grading is proposed on 2.0 acres. The proposed project results in an increase in impervious surface from 1.72 to 1.86 acres to accommodate a new sidewalk on the south side of 36th Avenue that provides access to City Center developments. Modifications were requested from the City of Plymouth. Revised drawings were provided for review. A letter of approval was provided to the City of Plymouth.

B. Erosion Control Inspection Report

Attached is a copy of the August 2009 erosion control inspection report.

Bassett Creek Watershed Management Commission

www.bassettcreekwmo.org



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

August 7, 2009

Mr. Tom Mathisen, City Engineer
City of Crystal
4141 North Douglas Drive
Crystal, MN 55422

Mr. Guy Johnson, Director of Public Works
City of New Hope
4401 Xylon Avenue North
New Hope, MN 55428

Ms. Jeannine Clancy
Director of Public Works
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427-4588

Mr. Kevin Springob
Water Resource Technician
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

Ms. Lois Eberhart, Water Resource Administer
City of Minneapolis
Engineering Design
309 Second Avenue South, Rm. 300
Minneapolis, MN 55401-2268

Mr. Richard McCoy, City Engineer
City of Robbinsdale
4100 Lakeview Avenue North
Robbinsdale, MN 55422

Ms. Liz Stout, Water Resources Engineer
City of Minnetonka
14600 Minnetonka Boulevard
Minnetonka, MN 55345

Ms. Laura Adler, Engineering Program
Coordinator
City of St. Louis Park
5005 Minnetonka Boulevard
St. Louis Park, MN 55416

Ms. Cheri Templeman
PO Box 47091
Plymouth MN 55447

**Re: Bassett Creek Watershed Erosion Control Inspections
August 3-5, 2009**

We have inspected construction sites in the Bassett Creek Watershed for conformance to erosion and sediment control policies. Listed below are construction projects and the improvements needed for effective erosion control. The sites were inspected August 3-5, 2009. Please review the following for your respective city.

City of Crystal

None to report

Michael Welch, BCWMC Chair
c/o Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
612-385-6885

Charlie LeFevre, Attorney
Kennedy & Graven
470 US Bank Plaza, 200 South Sixth Street
Minneapolis, MN 55402
612-337-9215
612-337-9310 (fax)

Leonard Kremer, Engineer
Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435
952-832-2600
952-832-2601 (fax)

City of Golden Valley

None to report

City of Medicine Lake

None to report

City of Minneapolis

Lowry Street Reconstruction: inlet protection must be maintained; sediment must be removed from streets.

City of Minnetonka

None to report

City of New Hope

Hennepin County Library: silt fence must be maintained.

West Lutheran School: erosion protection must be maintained until vegetation is established.

City of Plymouth

None to report

City of Robbinsdale

None to report

City of St. Louis Park

None to report

The following developments were found to be in compliance with erosion and sediment control policies:

City of Crystal

Crystal Street Reconstruction
Cub Foods Refueling Center

City of Golden Valley

Crown Packaging (inactive)
Golden Meadows (inactive)
Golden Ridge (inactive)
Miner Site (construction not started)
North Hennepin Regional Trail / Golden Valley Trail Phase 2
North Wirth Business Center (inactive)
1240 Angelo Drive

City of Medicine Lake

None to report

City of Minneapolis

Lowell Curve (inactive)
Penn/Lowry Crossing (inactive)
Van White Memorial Boulevard (inactive)

City of Minnetonka

Archwood
Austrian Pines (inactive)
Cantera Woods (inactive)
City View Heights (inactive)
Crest Ridge Corporate Center
Sherwood Forest Neighborhood Street Reconstruction
Trader Joe's (construction not started)

City of New Hope

Hillside Terrace (inactive)
Rome Co. (construction not started)

City of Plymouth

ATK (4700 Nathan Lane)
Banner Engineering (construction not started)
Bassett Creek Crossing
Beacon Academy (inactive)
Bassett Creek Office Center
County Rd 9 & 61 Erosion Repair
Executive Woodlands (inactive)
Four Points (inactive)
Hidden Acres (construction not started)
Larkin Pond (inactive)
1900 E Medicine Lake Dr
Plymouth Crossing Station (construction not started)
Plymouth Office Plaza
Quest Development
South Shore Drive Town Home
Timber Creek Improvements
26th Ave Culvert Replacement
Wood Creek
Woods at Medicine Lake
Zero Max

City of Robbinsdale

None to report

City of St. Louis Park

Metropointe Theater
Parkside Lofts (inactive)

The following development has been completed and removed from the inspection list:

City of Crystal

Brunswick Village

City of Golden Valley

Bassett Creek Drive / Dresden Lane Culvert Replacement
Mortenson Co. Headquarters

City of Minnetonka

Station 73 Park & Ride

City of New Hope

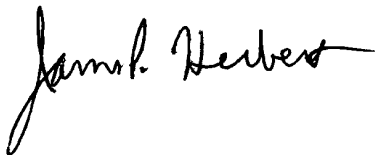
St Joseph Channel Restoration

City of Plymouth

Grainger Parking Expansion
Jakes Bar & Grill
Mc Quay
Plymouth Covenant Church
South Shore Condominiums

Contact me at 952-832-2784 (jherbert@barr.com) or Kim Johannessen at 952-832-2686 (kjohannessen@barr.com) if you have questions regarding these comments.

Sincerely,



James P. Herbert, P.E.
Barr Engineering Co.
Engineer's for the Commission

JPH/ymh

c: Mr. Jeff Oliver, City of Golden Valley
Mr. Dennis Daly, City of Minneapolis
Mr. Robert Moberg, City of Plymouth