

Bassett Creek Watershed Management Commission 2010 Annual Report



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



April 2011

**Bassett Creek Watershed Management Commission
2010 Annual Report**

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Cover photo: Sweeney Branch Streambank Restoration Project, Golden Valley, Minnesota
(Photo credit: Al Lundstrom, Golden Valley)

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Executive Summary: 2010 Annual Report

BCWMC's 2010 Activities & Achievements

The BCWMC's activities and projects are guided by its *Watershed Management Plan (Plan)*. The most recent version of the BCWMC's *Plan* was approved by the Minnesota Board of Water and Soil Resources and adopted by the BCWMC in 2004. This summary highlights the BCWMC's work and accomplishments during its fiscal year 2010 (February 1, 2010 — January 31, 2011) in the following areas: capital improvements program, water quality activities, and education activities. See the full 2010 Annual Report for more details.

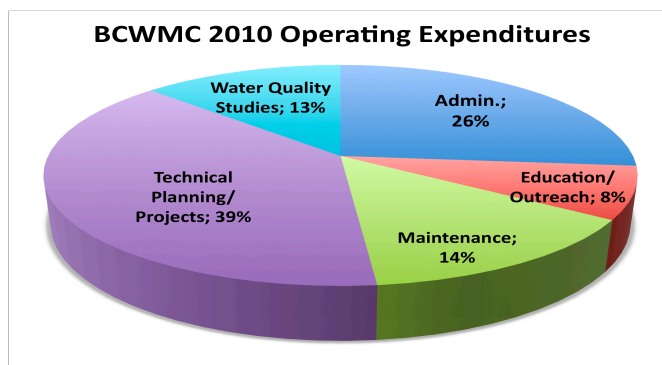
For the first time, BCWMC has hired an independent Administrator to work at the direction of the Board.

Capital Improvements Program (CIP)

The BCWMC continued to implement its capital improvements program. The 2010 achievements included:

- Completed construction of the West Medicine Lake Park Ponds water quality improvement project. The purpose of the project is to improve the quality of stormwater runoff to Medicine Lake by removing significant amounts of sediment and phosphorus. The pond system will treat stormwater runoff from the entire 6,400-acre Plymouth Creek watershed. More than 50% of the project was completed by the end of 2009; the project was completed in 2010. The total estimated cost of the project is \$1,100,000. The City of Plymouth constructed the project;
- Began two streambank restorations projects: Main Stem Channel, Crystal Border to Regent Ave.-Golden Valley/Crystal and Plymouth Creek, Medicine Lake to 26th Ave-Plymouth;
- Completed feasibility studies 1) Bassett Creek Main Stem – Reach 1 from Wisconsin Avenue to Crystal boundary – all within Golden Valley and 2) North Branch Bassett Creek – 32nd Avenue North to 200 feet upstream of Douglas Drive – all within Crystal;
- In September 2010, BWSR approved and the BCWMC adopted a major plan amendment to add the following projects to the BCWMC's 10-year CIP: the North Branch Bassett Creek Project, the Lakeview Park Pond, and the Bassett Creek Main Stem Reach 1 Project; and
- Applied for and obtained a \$75,000 BWSR Clean Water Fund Grant for the BCWMC's 2011 Wirth Lake Outlet Modifications.

The BCWMC's 2010 operating expenditures are illustrated in the adjacent chart. For an itemization of the operating expenditures and for more information on the BCWMC's 2010 capital projects expenditures and financial report, please see the Financial Information Appendix of the annual report.



The Bassett Creek Watershed Management Commission (BCWMC) is governed by a board composed of representatives from each of the nine member cities: Crystal, Golden Valley, Medicine Lake, Minneapolis, Minnetonka, New Hope, Plymouth, St. Louis Park and Robbinsdale. Representatives are appointed by their cities and serve three-year terms on the board.



Water Quality Activities

In 2010, the BCWMC implemented the following water quality activities:

- Completed three Total Maximum Daily Load (TMDL) studies to set pollutant reduction goals and develop implementation plans to restore the waters of Sweeney Lake and Wirth Lakes in Golden Valley and Medicine Lake in Plymouth. In 2010, TMDL reports were approved for Wirth and Medicine Lakes;
- Participated in the technical advisory committees of the Metrowide Chloride TMDL study;
- Participated in Metropolitan Council Environmental Services' Citizen-Assisted Monitoring Program (CAMP) for six lakes;
- Performed a second year of E. coli bacteria sampling on Bassett Creek;
- Completed E. coli monitoring and analysis of monitoring results of 2008-2010 study;
- Conducted water quality monitoring and analysis for Medicine Lake in Plymouth;
- Conducted a phosphorus internal loading investigation of Twin Lake in Golden Valley. The investigation included sediment and water quality monitoring and analysis;
- Participated in the Upper Mississippi River Bacterial TMDL with representatives on the stakeholder and TAC groups; and,
- Participated in Hennepin County's River Watch program by funding monitoring of Bassett Creek for benthic invertebrates, which are indicators of stream health.

Education Activities

In 2010, the BCWMC implemented the following education-related activities:

- Conducted a walking tour of part of Bassett Creek Main Stem;
- Participated in a watershed education alliance with four neighboring WMOs;
- Managed the BCWMC's education grant program and submitted program information to all of the schools in the watershed;
- Contracted for the writing and publication in local newspapers of articles on water quality best management practices;
- Staffed a booth at the following public events - Plymouth Yard/Garden Expo, Westwood Nature Center's Earth Day celebration, Golden Valley Days and the City of Crystal's 50th Anniversary. It was also on display but not staffed at New Hope City Hall, Crystal City Hall and at one of the Metro Blooms Raingarden Workshops;
- Gave away native plant seed packets;
- Partnered with Blue Thumb, a local program that encourages homeowners to use native plantings, rain gardens, and shoreline stabilization to reduce runoff from home yardscapes; Cosponsoring Metro Blooms rain garden workshops with member cities; and
- Participated in Metro WaterShed Partners, including the Minnesota Waters "Let's Keep Them Clean" campaign.

I. Annual Activity Report

This annual report covers the Bassett Creek Watershed Management Commission's (BCWMC) activities for fiscal year 2010 (February 1, 2010—January 31, 2011). The BCWMC Annual Report was prepared to meet the Annual Reporting Requirements as set forth in Minnesota Rules Chapter 8410.0150, subparts 1, 2, and 3.

A. 2010 Commissioners

Municipality / Term Expiration	Commissioners	Alternates
Crystal February 1, 2012	Pauline Langsdorf, 8100 33 rd Avenue North Crystal, MN 55427 763-544-1317 langsdorfp@aol.com	Vacant
Golden Valley February 1, 2012	Mayor Linda Loomis, Chair City of Golden Valley 7800 Golden Valley Road Golden Valley, MN 55427 763-593-3990 Linda.loomis@ci.golden-valley.mn.us	David Hanson 1030 Angelo Drive Golden Valley, MN 55422 763-588-1478 davewhanson@gmail.com
Medicine Lake February 1, 2012	Ted Hoshal 6960 Madison Avenue West, Suite 2 Minneapolis, MN 55427-3627 763-541-1140 dthoshal@luma-gard.com	John O'Toole MGO4SE, General Mills, Inc. PO Box 1113 Minneapolis, MN 55440 763-764-2422 john.otoole@genmills.com
Minneapolis February 1, 2013	Michael Welch, Treasurer 212 Thomas Avenue S. Minneapolis, MN 55405 612-385-6885 mjewelch@gmail.com	Lisa Goddard 214 Logan Avenue North Minneapolis, MN 55405 763-475-0010 lgoddard@srfconsulting.com
Mnetonka February 1, 2013	Bonnie Harper-Lore 12505 Ridgemount Ave. W. Mnetonka, MN 55305 952-525-0667 bonnieLore@comcast.net	Tony Wagner 1804 Traymore Road Mnetonka, MN 55305 952-512-1817 twagner@eminnetonka.com
New Hope February 1, 2013	John Elder City of New Hope 4401 Xylon Ave. N. New Hope, MN 55428 763-531-5100 jelder@ci.new-hope.mn.us	Vacant
Plymouth February 1, 2014	Ginny Black, Vice Chair Plymouth City Hall 3400 Plymouth Blvd Plymouth 55447 763-509-5004 Black.ginny@att.net	Vacant

Municipality / Term Expiration	Commissioners	Alternates
Robbinsdale February 1, 2014	Wayne Sicora 3706 Abbott Ave. North Robbinsdale 55422 763-532-8165 Wayne.sicora@ryancompanies.com	Vacant
St. Louis Park February 1, 2014	Jim deLambert, Secretary 9257 West 22 nd Lane, St. Louis Park 55426 763-489-3150 jimd@liesch.com	Justin Riss 3732 Penn Ave S. St. Louis Park 55426 justinriss@yahoo.com

B. BCWMC Staff and Consultants

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C. BCWMC Goals and 2010 Work Activities

Description of Overall Goals

The BCWMC's general goals fall under the categories of water quality, flood control, erosion and sediment control, stream restoration, wetland management, groundwater, public ditches, and public involvement and information. The goals are to:

- Manage the water resources of the watershed, with input from the public, so that the beneficial uses of wetlands, lakes, and streams remain available to the community.
- Improve the quality of stormwater runoff reaching the Mississippi River by reducing the nonpoint source pollution (including sediment) carried as stormwater runoff.
- Protect and enhance fish and wildlife habitat and maintain shoreland integrity.
- Reduce flooding along the Bassett Creek trunk system which is defined as:
 - a. The main channel from Medicine Lake to the Mississippi River.
 - b. The North Branch from upstream of County Road 9 to its junctions with the Main Stem near T.H. 100.
 - c. The Sweeney Lake Branch, from its source in Section 5, T29N, R21W to its junction with the Main Stem downstream of Sweeney Lake.
 - d. Plymouth Creek, from the point where it intersects with Highway 55 in Section 17, T228N, R22W to Medicine Lake, including the lake.
 - e. The designated water quantity and water quality storage facilities.
 - f. All other drains designated as trunks by the BCWMC.
- Protect human life, property, and surface water systems that could be damaged by flood events.
- Regulate stormwater runoff discharges and volumes to minimize flood problems, flood damages, and the future costs of stormwater management systems.
- Provide leadership and assist member cities with coordination of intercommunity stormwater runoff planning and design.
- Prevent erosion and sedimentation to the greatest extent possible to protect the BCWMC's water resources from increased sediment loading and associated water quality problems.

- Implement soil protection and sedimentation controls whenever necessary to maintain health, safety, and welfare.
- Implement stream restoration measures whenever necessary to maintain health, safety, and welfare.
- Maintain or enhance the natural beauty and wildlife habitat value of Bassett Creek.
- Achieve no net loss of wetlands in the BCWMC, in conformance with the Minnesota Wetland Conservation Act (WCA) and associated rules.
- Protect the quantity and quality of groundwater resources.
- Manage public ditches in a manner that recognizes their current use as urban drainage systems.
- Raise awareness of the watershed's existence and the role that the BCWMC plays in protecting water quality and preserving the watershed's health and aesthetics.
- Enable the target audiences to have confidence in the BCWMC's expertise and participate in a meaningful way in the planning process and ongoing projects conducted by the BCWMC.
- Raise awareness of the impact that individuals, businesses, and organizations have upon water quality and motivate these audiences to change personal/corporate behavior that has a negative impact on water quality and the watershed.

2010 Work Activities Completed

In addition to the activities described in the Executive Summary, the BCWMC conducted the following activities in 2010. Work associated with review of development proposals is listed in Section E. Work related to water quality monitoring is addressed in Section F.

- **Capital Improvements Program (CIP)**—The BCWMC continued to implement its capital improvements program. In 2010, these achievements included:
 1. Progress on CIP projects. The following CIP projects were completed or underway in 2010:
 - Bassett Creek Main Stem Streambank Restoration project
 - Plymouth Creek Streambank Restoration project
 - Major plan amendment in 2010 was submitted to BWSR. It included:
 - Restore the Main Stem of Bassett Creek in the City of Golden Valley from Wisconsin Avenue to Rhode Island Avenue and from Duluth Street to the Golden Valley – Crystal boundary.
 - Restore the channel of the North Branch of Bassett Creek in the City of Crystal from 32nd Avenue North to Douglas Drive North.
 - Lakeview Park Pond.

At their 2010 meeting, the BCWMC passed resolution 10-07, approving the major plan amendment.

2. Applying for and obtaining a \$75,000 BWSR Clean Water Fund Grant for the BCWMC's Wirth Lake Outlet Modification project in the City of Minneapolis.

The BCWMC's 10-year capital improvements plan and potential future water quality capital improvements plan are included in the BCWMC *Watershed Management Plan* (September 2004). The table listing the BCWMC's capital improvement projects, updated to include all of the plan amendments, is appended.

- **Impaired Waters and Total Maximum Daily Loads (TMDL) Studies**—The following water bodies in the Bassett Creek Watershed were listed in the Minnesota Pollution Control Agency's (MPCA) draft 2010 *"Inventory of Impaired Waters"*. The inventory includes listings of (1) impaired waters that require the development of a TMDL study, (2) impaired waters that have an

approved TMDL study, but are not yet meeting water quality standards, and (3) impaired waters from natural causes that do not require a TMDL study. The inventory is available at the MPCA's Impaired Waters web site: <http://www.pca.state.mn.us/water/tmdl/tmdl-303dlist.html>.

Water Body (Lake/River ID #)	Pollutant or Stressor (Year of Listing)
Bassett Creek from Medicine Lake to Mississippi River (07010206-538)	Fish bioassessments (2004) Fecal coliform (2008) Chloride (2010)
Sweeney Lake (27-0035-01)	Nutrient/Eutrophication Biological indicators (2004)
Wirth Lake (27-0037-00)	Nutrient/Eutrophication Biological indicators (2002) Mercury in fish tissue (1998) ¹
Medicine Lake (27-0104-00)	Nutrient/Eutrophication Biological indicators (2004) Mercury in fish tissue (2004) ¹
Parkers Lake (27-0107-00)	Mercury in fish tissue (1998)
Northwood Lake (27-0627-00)	Nutrient/Eutrophication Biological indicators (2004)

¹ The MPCA completed a statewide mercury TMDL that was approved 2007

Sweeney Lake TMDL Study—In the *Final EPA-Approved MPCA 2004 CWA 303(d) List of Impaired Waters*, Sweeney Lake was listed as impaired due to excess nutrients (phosphorus) and was listed as having a target TMDL study start date of 2009 and a target TMDL study completion date of 2012.

In 2010, a stakeholder's meeting was held on September 30. The Sweeney Lake TMDL is currently out for public comment. The Sweeney Lake TMDL estimated project timeline is posted on the MPCA's Web site at <http://www.pca.state.mn.us/publications/tmdl-sweeneylake-projecttimeline.pdf>.

For more information about the Sweeney Lake TMDL study, visit the following Web sites:

- The Sweeney Lake TMDL project Web site maintained by SEH, Inc. is at <http://www.sehinc.com/online/sweeney>. The Sweeney Lake TMDL project Web site maintained by the MPCA is at <http://www.pca.state.mn.us/water/tmdl/project-sweeneylake.html>.
- The TMDL page on the Bassett Creek Watershed Management Commission's Web site is at <http://www.bassettcreekwmo.org/TMDLStudyHomepage.htm>.

Medicine Lake TMDL Study—In the *Final EPA-Approved MPCA 2004 CWA 303(d) List of Impaired Waters*, Medicine Lake was listed as impaired due to excess nutrients (phosphorus) and was

listed as having a target TMDL study start date of 2009 and a target TMDL study completion date of 2012. In 2010, the TMDL went through the public comment review and was approved by the EPA and the MPCA.

The Medicine Lake TMDL project Web site maintained by the MPCA is at <http://www.pca.state.mn.us/water/tmdl/project-medicinelake-phosphorus.html>

The TMDL page on the Bassett Creek Watershed Management Commission's Web site is at <http://www.bassettcreekwmo.org/TMDLStudyHomepage.htm>.

Wirth Lake TMDL Study—In the *Final EPA-Approved MPCA 2004 CWA 303(d) List of Impaired Waters*, Wirth Lake was listed as impaired due to excess nutrients (phosphorus in amounts greater than the state's goal of 40 micrograms per liter) and was listed as having a target TMDL study start date of 2009 and a target TMDL study completion date of 2012.

In 2010, the work tasks completed included:

- Developing implementation and compliance monitoring plans;
- Coordinating and communicating with a stakeholder- technical advisory committee; and
- Completing the draft TMDL report.
- The final public meeting was held in 2010.

For more information about the Wirth Lake TMDL study, visit the following Web sites:

The Wirth Lake TMDL project Web site maintained by the MPCA is at <http://www.pca.state.mn.us/water/tmdl/project-wirthlake.html>

The TMDL page on the Bassett Creek Watershed Management Commission's Web site is at <http://www.bassettcreekwmo.org/TMDLStudyHomepage.htm>

Bassett Creek Fish Bioassessment Listing—In the *Final EPA-Approved MPCA 2004 CWA 303(d) List of Impaired Waters*, the Main Stem of Bassett Creek, from Medicine Lake to the Mississippi River, was listed as impaired for fish (biota). In response to this listing, the MPCA completed fish sampling of the creek in 2008. The MPCA is currently reviewing the existing biota standards/listing criteria; this process is expected to take more than two years. The TMDL will not be started until the process is completed.

Bassett Creek Fecal Coliform Listing—In the *2008 Final TMDL List Inventory of all Impaired Waters*, Bassett Creek, from Medicine Lake to the Mississippi River, was listed as impaired for fecal coliform. In response to this listing, E. coli sampling of Bassett Creek began in July 2008 and is slated to continue through June 2010. The BCWMC and the MPCA are cooperating in this effort—the BCWMC is collecting the samples and the MPCA is conducting the laboratory analysis of the samples. During June, July, August, and September 2009, a contractor collected water samples along six locations along the creek to determine presence and quantity of bacteria in the creek. The samples were analyzed at the Minnesota Department of Health lab in St. Paul for E. coli bacteria. All samples tested contained E. coli bacteria. The BCWMC received the results of the analysis in January 2010. The Bassett Creek watershed will be included in the Upper Mississippi River Bacteria TMDL, which is currently underway. Additional data for the Upper Mississippi River E. coli TMDL will be collected in 2010 and 2011, a draft TMDL report is expected sometime in 2012, and final approval of the TMDL is expected in 2013. The Upper Mississippi River E. coli TMDL project Web site maintained by the MPCA is at <http://www.pca.state.mn.us/water/tmdl/project-uppermiss-bacteria.html>.

Watershed-wide TMDL—In 2010, the BCWMC considered the MPCA’s suggestion that the BCWMC prepare a watershed-wide TMDL for the remaining impaired waters in the BCWMC – Bassett Creek (impaired for fecal coliform, fish bioassessments, and chloride (draft 2010)), and Northwood Lake (impaired for nutrient/eutrophication biological indicators (total phosphorus)). However, with the inclusion of the Bassett Creek watershed in the Upper Mississippi River E. coli TMDL, and the MPCA’s review of its existing biota standards/listing criteria, the BCWMC decided not to pursue the watershed-wide TMDL at this time.

Capital Improvement Project (CIP) Reserve Account. In 2005 the BCWMC established a \$250,000 reserve fund to address shortages in available funding in any given year for construction of water quality CIP projects. The BCWMC agreed to revisit the reserve account policy each year. In 2010 the BCWMC made no changes to the policy.

Annual Report—The BCWMC prepared the 2010 Annual Report as set forth in the Minnesota Rules Chapter 8410.0150. The report was submitted to the Board of Water and Soil Resources and is available online at the Bassett Creek Watershed Management Commission Web site at <http://www.bassettcreekwmo.org>.

Citizen Involvement— The BCWMC encourages citizen participation including an opportunity at each monthly BCWMC meeting to hear citizen-input about agenda and non-agenda items. The BCWMC posts its meeting calendar, upcoming meeting agendas, meeting materials, and previous

meeting minutes on its Web site (www.bassettcreekwmo.org) to provide citizens an opportunity to attend BCWMC and BCWMC Committee meetings and to monitor BCWMC actions. The BCWMC notified the public of and held public hearings on August 19 and September 23, 2010 to receive Public Testimony and Comments of Member Cities Regarding the Proposed Major Plan Amendment to the BCWMC's Watershed Management Plan. Citizen involvement also is an important component on Total Maximum Daily Load (TMDL) studies; a number of stakeholder meetings were held and public meetings took place on June 24, 2010 regarding the Wirth Lake TMDL.

Water Quantity—The BCWMC continued its lake- and stream-gauging program. The lake-gauging program consisted of collecting lake-level readings at Medicine Lake, Sweeney Lake, Parkers Lake, Westwood Lake, Crane Lake (Ridgedale Pond), Northwood Lake and the Theodore Wirth Park storage area (upstream of the Highway 55 control structure). Lake levels were measured twice per month between April and September. Graphs of lake levels are available on the BCWMC website.

The stream-gauging program consisted of periodically surveying stages or inspecting the creek during periods of high flow. The BCWMC also participated with the Metropolitan Council and Minneapolis Park and Recreation Board on the watershed outlet monitoring program (WOMP) designed to continuously monitor flow and water quality.

Watershed Inspection—The BCWMC performed monthly erosion control inspections of construction sites within the watershed. Following each inspection, a letter was prepared and sent to the applicable municipality listing construction projects and the improvement needed for effective erosion control.

Flood Control Project Inspection—The BCWMC performed its annual inspections of the flood control project structures.

Development Proposals—The BCWMC reviewed 22 development proposals in the watershed for conformance to water quality and flooding policies. The BCWMC reviewed 13 development proposals the previous year. See Section F: Project Reviews.

Technical Advisory Committee—The BCWMC directed its Technical Advisory Committee (TAC) to review the following items:

1. Sweeney Lake TMDL proposed load reduction;
2. Sweeney Lake Implementation Plan;
3. Medicine Lake TMDL- comments on Draft Management Plan
4. Appointing a third TAC member for the CIP work group;

5. Develop recommendations about setting up a Request for Proposal (RFP) process for non-plan review work;
 6. Consider use of channel maintenance funds for maintenance of CIP channel restoration projects;
 7. Identify issue categories for the Next Generation Plan;
 8. Standardization of water quality data collection, stormwater modeling, and interpretation of results to facilitate collaboration between agencies;
 9. Gaps in BCWMCs non-degradation requirements;
 10. Sweeney Lake outlet structure and how it fits in the CIP process;
 11. New Hope noise wall and 66-inch culvert replacement project;
 12. New Hope Channel Maintenance Fund request; and
 13. Hydrologic and water quality modeling status.
- **Resolutions**—The BCWMC passed nine resolutions in fiscal year 2010. They are included in Appendix E.

D. 2011 Projected Work Plan

Following is a list of tasks to be completed during 2011:

- **Capital Improvements Program (CIP)**—The BCWMC will continue to implement its capital improvements program. In 2011, this work will include:
 1. Capital Improvement Program and Prioritization—The BCWMC will review and update its capital improvement program and its water resource prioritization. The Capital Improvements Program is included in the report appendices.
 2. Progress on CIP projects:
 - Restore Main Stem Channel, Duluth St. to Crystal Border-Golden Valley—the estimated project cost is \$600,000.
 - Restore North Branch, 36th Ave to Bassett Creek Park-Crystal—the estimated project cost is \$834,900.
 - Wirth Lake Outlet Modification —the estimated project cost is \$250,000.
 - Schaper Park Pond feasibility study as part of Sweeney Lake TMDL Implementation Plan.
 3. Completing and gaining approval of a major plan amendment to the BCWMC's *Watershed Management Plan* to add the following projects to Table 12-2 of the Plan (Water Quality Management and Flood Control 10-Year Capital Improvements Program (CIP)):
 - Restoration of the North Branch of Bassett Creek, from 36th Avenue to Bassett Creek Park, in the City of Crystal—the estimated project cost is \$834,900.
 - Restoration of the Main Stem of Bassett Creek from Highway 169 to the City of Crystal boundary (upstream of Highway 100), in the City of Golden Valley—the estimated project cost is \$600,000.
 - Lakeview Park pond—the estimated project cost is \$196,000.
 4. Signing a grant agreement, preparing and gaining approval of a work plan, and submitting project updates for the BWSR Clean Water Fund Grant for the BCWMC's two 2011 stream restorations the Wirth Lake outlet backflow preventer CIP project.
 5. Completing feasibility studies for the following channel restoration projects:
 6. Bassett Creek Main Stem – Reach 1 from Wisconsin Avenue to Crystal boundary – all within Golden Valley.

7. North Branch Bassett Creek – 32nd Avenue North to 200 feet upstream of Douglas Drive – all within Crystal.

- **Second Generation Watershed Management Plan**—The BCWMC will implement its Capital Improvements Program and its annual water quality and flood control programs, as described in the BCWMC *Watershed Management Plan*.
- **Next Generation Watershed Management Plan**—Work has begun on issue identification for the Next Generation Watershed Management Plan.
- **Water Quantity**—The BCWMC will perform its lake- and stream-gauging program. The lake-gauging program will encompass Medicine Lake, Sweeney Lake, Parkers Lake, Westwood Lake, Crane Lake (Ridgedale Pond), Northwood Lake, Bassett Creek Park Pond and Theodore Wirth Park Storage area upstream of TH 55 control structure. The stream-gauging program will consist of periodically surveying stages or inspecting the creek during periods of high flow.
- **Watershed Inspection**—The BCWMC will perform its watershed construction-site inspection program. The inspections have proved valuable in correcting erosion- and sediment-control practices that are not in conformance with BCWMC policies.
- **Flood Control Project Inspection**—The BCWMC will perform its flood control project inspection program as set forth in the Bassett Creek Flood Control Project Operations and Maintenance Manual.
- **Water Quality**—Proposed water quality tasks for 2010 include performance of the following:
 1. ***Water Quality Monitoring***: The BCWMC will perform routine lake monitoring of Westwood Lake and Crane Lake in the cities of St. Louis Park and Minnetonka, respectively. This work is done on a 4-year revolving cycle and consists of collecting five samples throughout the summer and fall.
 2. ***Citizens Assisted Monitoring Program (CAMP)***: The program will be managed by Metropolitan Council Environmental Services (MCES). The lake-gauging program will include lake monitoring through CAMP. Volunteer citizens will monitor the following lakes: Sweeney Lake and Twin Lake in Golden Valley, Medicine Lake in the cities of

Medicine Lake and Plymouth, Northwood Lake in New Hope, Westwood Lake in St. Louis Park, and Parkers Lake in Plymouth.

3. ***Watershed Outlet Monitoring Program (WOMP)***: The program will be managed by Metropolitan Council Environmental Services (MCES) and the Minneapolis Park and Recreation Board (MPRB). The BCWMC will provide \$5,000 financial support to MPRB for operating the station and will provide technical assistance to MCES for maintenance of the rating curve.
 4. ***Wirth Lake*** will be monitored by MPRB.
 5. ***River Watch Program***: The BCWMC will participate in the River Watch program managed by Hennepin County Environmental Services (HCES); two sites on Bassett Creek will be sampled. HCES will provide a final report of the 2011 sampling results to the BCWMC.
 6. ***Stormwater flow monitoring and in-stream water quality monitoring*** in the Medicine Lake watershed will be performed by Three Rivers Park District and the City of Plymouth.
- **Development**—The BCWMC will review development proposals in the watershed for conformance to water quality and flooding policies.
 - **Citizen Involvement**—The BCWMC will continue to encourage citizen participation at its monthly BCWMC and at its Committee meetings. The meetings are noticed to the public and a meeting calendar is posted on the BCWMC's Web site.
 - **Channel Maintenance Fund**—The BCWMC will continue its creek and streambank maintenance fund. The member cities will be assessed \$25,000 annually for the fund.
 - **Flood Control Long-Term Maintenance Fund**—The BCWMC established a long-term maintenance fund to be used to repair structures associated with the Flood Control Project. The member cities will be assessed \$25,000 annually to a not-to-exceed fund amount of \$1 million.
 - **Annual Report**—The BCWMC will prepare an annual report, submit the report to BWSR and member cities, and post it on the BCWMC Web site.

- **Sweeney Lake TMDL Study**—The final TMDL report was completed and is currently out for public comment. The Implementation Plan will be prepared in 2011.
- **Medicine Lake TMDL Study**—The final TMDL report was completed and approved by the EPA in 2010.
- **Wirth Lake TMDL Study**—The final TMDL report was completed and approved by the EPA in 2010.
- **Bassett Creek Main Stem Biota Listing**—The next steps regarding the fish bioassessment (e.g., TMDL) will not be known until the MPCA revises the biota standards/listing criteria, which is expected sometime during 2012-2013.
- **Bassett Creek Main Stem Fecal Coliform Listing**—BCWMC has completed the E. coli sampling of Bassett Creek that began in July 2008. Water samples were collected at six locations along the creek to determine presence and quantity of bacteria in the creek. The BCWMC will continue to participate in the upper Mississippi River E. coli TMDL process.

E. Project Reviews

Two tables have been prepared that list development proposals and other plans that were reviewed by the BCWMC and/or its engineering consultant. The following table, *Plans Presented for BCWMC Review and Comment* includes development proposals and other plans that were reviewed and discussed during the BCWMC meeting. The second table, *Plans Presented for Administrative Review and Comment*, is a list of projects that were reviewed by the BCWMC's engineer in accordance with policies of the BCWMC.

Plans Presented for BCWMC Review and Comment (Board)

Appl. Form #	Project Name	Date Submitted	City	Comments	Date of BCWMC Meeting
2010-1	South Shore Drive Bridge Replacement at Bassett Cr. & DNR Permit App.	1/28/10	Plymouth	Conditional approval, Public bridge Conditional approval	2/18/10 5/20/10
2010-2	Golden Valley 2010 Pavement Management Project	2/3/10	Golden Valley	Conditional approval, Public road	2/18/10
2010-3	Theodore Wirth Park Bridge Replacement	2/10	Golden Valley	Conditional approval, Creek crossing	2/18/10
2010-6	Plymouth 2010 Street Reconstruction—East Parkers Lake Area	5/5/10	Plymouth	Conditional approval, Public road	5/20/10
2010-7	Plymouth Interceptor (South Shore Drive) Emergency Utility Repair	5/28/10	Plymouth	Conditional approval, Utility across Bassett Cr.	5/20/10
2010-8	General Mills Pedestrian Bridge	5/28/10	Golden Valley	Approval, Creek crossing	6/17/10
2010-17	Menards Redevelopment	10/27/10	Golden Valley	Conditional approval, Commercial development	11/17/10

Appl. Form #	Project Name	Date Submitted	City	Comments	Date of BCWMC Meeting
2010-18	Wirth Lake Improvements Phase II	12/30/10	Golden Valley	Conditional approval, Public park improvements	1/20/11

Plans Presented for BCWMC Administrative Review and Comment

Appl. Form #	Project Name	Date Submitted	City	Type
2009-5	26 th Avenue Culvert Dewatering Plan	Mar-27 2009 April 2010	Ply	Public - Street
2009-10	GVCC Pond Dredging/Creek Stabilization	Jan-12 2010	GV	Public
2010-1	South Shore Drive Bridge Replacement	Jan-28 2010	Ply	Public - Bridge
2010-1A	South Shore Drive Mill & Overlay	May-10 2010	Ply	Public - Street
2010-2	Golden Valley 2010 Pavement Management Project	Feb-3 2010	GV	Public - Street
2010-3	Theodore Wirth Park Bridge	Feb 2010	GV	Public - Pedestrian Bridge
2010-4	Hilde Performance Center	Apr-23 2010	Ply	Public – Park
2010-5	Qwest Fiber Optic line @ Glenwood Pond	Apr-20 2010	GV	Utility
2010-6	Plymouth 2010 Street Reconstruction— East Parkers Lake Area	May-5 2010	Ply	Public – Street
2010-7	Plymouth Interceptor (South Shore Drive) Emergency Utility Repair	May-28 2010	Ply	Utility
2010-8	General Mills Pedestrian Bridge	May-28 2010	GV	Commercial - Bridge
2010-9	Birchview Elementary School Site Improvements	Jul-9 2010	Ply	Institutional
2010-10	Auer Steel Site Improvements	Jul-2 2010	Ply	Commercial
2010-11	Plymouth Creek Restoration (CIP PC-1)	Jul-15 2010	Ply	Public – Creek Restoration
2010-12	Struthers Parkinson's Center Parking Lot Repaving	Aug-3 2010	GV	Commercial
2010-13	Plymouth Covenant Church Parking Lot Expansion	Aug-6 2010	Ply	Institutional
2010-14	Walgreens Construction	Aug-25 2010	GV	Commercial
2010-15	Plymouth Creek Park Hockey Rink Project	Sept-24 2010	Ply	Public – Park

Appl. Form #	Project Name	Date Submitted	City	Type
2010-16	Bassett Creek Restoration (CIP Crystal Boundary to Regent Avenue)	Sept-28-2010	GV	Public – Stream Restoration
2010-17	Menards Improvements	Oct-27 2010	GV	Commercial
2010-18	Wirth Lake Improvements: Phase II	Dec-30 2010	GV	Public – Park
2010-19	I-494 EAW	Jan 2011	Ply	Public - Street

F. Water Quality Monitoring Data and Studies

The following water quality monitoring and water quality studies were performed:

- **Medicine Lake Water Quality Study** - The BCWMC and Three Rivers Park District performed a detailed lake monitoring of Medicine Lake. Samples were collected on 13 occasions from two basins (Main and Southwest). Dissolved oxygen, temperature, specific conductance, pH, and Secchi disc transparency (Secchi depth) were measured in the field and water samples were analyzed in the laboratory for total phosphorus, soluble reactive phosphorus, total nitrogen, and chlorophyll *a*. Three Rivers Park District performed the sampling and analysis of water quality parameters. Three Rivers Park District also collected phytoplankton and zooplankton samples. BCWMC staff analyzed these samples. The report *2010 Lake Water Quality Study – Medicine Lake* (March 2011) was prepared by BCWMC. The report is also available on the Bassett Creek Watershed Management Commission Web site (<http://www.bassettcreekwmo.org>).
- **Twin Lake Phosphorus Internal Loading Investigation** - The BCWMC performed an investigation of Twin Lake phosphorus internal loading. Water quality samples were collected from the deepest location of the lake on two occasions during winter, February and March 2009 and 2010. Dissolved oxygen, temperature, specific conductance, pH, and oxidation reduction potential (ORP) were measured in the field and water samples were analyzed in the laboratory for total phosphorus and soluble reactive phosphorus. BCWMC staff performed the sampling and a contract laboratory analyzed the samples. Sediment core samples were collected from three locations during May. The sediment cores were approximately 1 foot in depth and were sliced into five or six sections. Each section was analyzed for mobile and organic bound phosphorus. BCWMC staff collected and analyzed the samples. BCWMC staff collected and analyzed the samples. The report *Twin Lake Phosphorus Internal Loading Investigation* (March 2011) was prepared by BCWMC. The report is also available on the Bassett Creek Watershed Management Commission Web site (<http://www.bassettcreekwmo.org>).
- **BCWMC E. Coli Bacteria Monitoring** – The BCWMC collected water samples at six locations along Bassett Creek during June of 2010 to determine the presence and quantity of bacteria in the stream. The June sample event concluded a two-year study which began in July of 2008. The BCWMC collected the samples, while the MPCA completed the laboratory

analysis of the samples. The technical memorandum from Barr Engineering Co. presenting the results of samples collected during June of 2010 as well as the results of the 2008 through 2010 study is available on the Bassett Creek Watershed Management Commission Web site (<http://www.bassettcreekwmo.org>).

- **Citizens Assisted Lake Monitoring Program (CAMP)**—The BCWMC participated with the Metropolitan Council Environmental Services (MCES) in its citizen-assisted lake-monitoring program (CAMP). In 2010, citizen volunteers monitored the following lakes: Sweeney Lake in Golden Valley, Northwood Lake in New Hope, Parkers Lake in Plymouth, South Rice Pond in the cities of Golden Valley and Robbinsdale, and Westwood Lake in St. Louis Park. For results of the 2009 CAMP, see *2009 Study of the Water Quality Of 194 Metropolitan Area Lakes* (Met Council, October 2009) (the report on the 2010 CAMP is not yet available). The report is also available on the Metropolitan Council Web site: <http://www.metrocouncil.org/environment/RiversLakes/Lakes/index.htm>.
- **Detailed stream monitoring at Bassett Creek WOMP station**—Stream monitoring was performed in cooperation with the Metropolitan Council Environmental Services (MCES) and the Minneapolis Park and Recreation Board (MPRB) as part of the stream monitoring and watershed outlet monitoring program (WOMP). See the MCES Web site for additional information: <http://www.metrocouncil.org/environment/RiversLakes/index.htm>.
- **Wirth Lake, Spring Lake, Birch Pond and Bassett Creek WOMP Data**—The Minneapolis Park & Recreation Board (MPRB) monitored the water quality of Wirth Lake and Spring Lake in 2010. The MPRB managed the Bassett Creek WOMP station. The MPRB's *2010 Water Resources Report* is not yet available. It will be available at the Minneapolis Park & Recreation Board Web site at: <http://www.minneapolisparcs.org/default.asp?PageID=791>.
- **Medicine Lake**—The City of Plymouth and Three Rivers Park District (TRPD) monitored Medicine Lake. The 2010 results can be obtained from Plymouth or TRPD staff.
- **Parkers Lake**—The City of Plymouth monitored Parkers Lake. The 2010 results can be obtained from Plymouth staff.
- **Stormwater flow monitoring and in-stream water quality monitoring** in the Medicine Lake watershed was performed by Three Rivers Park District and the City of Plymouth.

- **River Watch Program**—The BCWMC has supported the Hennepin County Environmental Services’ River Watch Program. The program began in 1995 and uses volunteers to conduct biological monitoring as a means of monitoring water quality. The grading scale used in River Watch takes into account three major biotic indices used routinely in biological monitoring programs:
 - The Family Biotic Index, which measures the overall community of invertebrates and their tolerance to pollution levels. The scale ranges from 0 to 10 with the lower values indicating high sensitivity and good water quality if present.
 - EPT, which stands for Ephemeroptera, Plecoptera, and Trichoptera, or mayflies, stoneflies, and caddisflies. These three families include the most sensitive individuals and are looked at for indications of presence or absence. Higher scores indicate better water quality.
 - The number of families, which measures the overall abundance of families or total diversity of family units. Again, with this index, the higher the number the better.

Students have been monitoring Bassett Creek since 1999. There were two River Watch sites in the Bassett Creek Watershed in 2010 including site GM, which is located on Betty Crocker Drive in the City of Golden Valley, and site #13, which is located east of Highway 100 and south of Bassett Creek Drive. The report *Hennepin County River Watch 2010* is available online at:

<http://www.hennepin.us/portal/site/HennepinUS/menuitem.b1ab75471750e40fa01dfb47ccf06498/?vgnextoid=04eafcb677d33210VgnVCM10000049114689RCRD>

G. Local Plan Adoption

The following table shows the status of the surface water management plan preparation for each municipality.

Municipality	Local Plan Status	Comments
Crystal	Completed	Local plan was approved by the BCWMC in January 2010. Resolution 10-02.
Golden Valley	Completed	Revised plan was approved by the BCWMC in September 2008. Resolution 08-06.
Medicine Lake	Completed	Local plan was approved by the BCWMC in January 2010. Resolution 10-05.
Minneapolis	Completed	Local plan was approved by the BCWMC in September 2006. Resolution 2006-04.
Minnetonka	Completed	Revised local plan was approved by the BCWMC in September 2008. Resolution 08-05.
New Hope	Completed	Revised plan was approved by the BCWMC in October 2008. Resolution 08-08.
Plymouth	Completed	Local plan conditionally approved by the BCWMC in February 1999. Resolution 99-3. Revised plan was approved by the BCWMC in November 2008. Resolution 08-09.
Robbinsdale	Completed	Local plan was approved by the BCWMC in October 1996; reconfirmed in April 1997. Resolution 97-5. Local plan was reviewed as part of the city's comprehensive plan review in 2008. Revised plan was submitted to the BCWMC for review in December 2009.
St. Louis Park	Completed	Revised plan was approved by the BCWMC in September 2009. Resolution 09-06.

H. Watershed Communication/Public Education

In accordance with Minnesota Rules, Chapter 8410.0100, Subpart 4, the BCWMC utilized the following information sources for providing information to the general public:

- **Improvements and Development Requirements**—The report *Requirements for Improvements and Development Proposals*, prepared by the BCWMC (2008), is posted for use and reference on the BCWMC's Web site at http://www.bassettcreekwmo.org/require/2008_Requirements/2008RequirementsTOC.htm.
- **Web Site**—The BCWMC updated information on its Web site throughout 2010. In 2010, there were approximately 87,538 visits, or 239 per day, and up from 73,239 visits in 2009. A copy of the Web site Usage Report from January 1, 2010, through December 31, 2010, is included in the appendices. The address for the Bassett Creek Watershed Management Commission web site is <http://www.bassettcreekwmo.org>.
- **BCWMC Meeting Packet**— Each month in 2010 the BCWMC posted online meeting packets on its Web site and mailed a hard copy of the monthly meeting packets to approximately 20 interested parties. The packets included the BCWMC meeting agenda, meeting minutes, and meeting materials such as various correspondence items and other documents pertaining to the meeting agenda.
- **Communications Coordination**—The BCWMC will continue to implement a public information plan as recommended by the Policy and Citizens Advisory Groups at its November 13, 2001, special meeting.
- **Technical Advisory Committees (TAC) Meetings**—The TAC met the first Thursday of every other month and on additional days as needed to discuss issues directed to it by the BCWMC. The TAC meetings were noticed and were open to the public.
- **Metro Watershed Partners**—The BCWMC participated as a member of the Metro Watershed Partners as a general supporter of the program and also as a supporter of the Metro Clean Water Minnesota Media Campaign. Metro Watershed Partners maintains a listserv and a Web site as forums for information sharing, holds monthly meetings for members to collaborate, and displays an exhibit at the State Fair to educate the public about watersheds. The Clean Water Minnesota Media Campaign is a stormwater education

collaboration that develops and delivers stormwater educational materials to a broad audience through television, radio, and billboard campaigns as well as through its Web site www.cleanwatermn.org.

- **Demonstration and Public Communications**—The BCWMC’s small-grant program is designed to promote water-quality improvement projects and communications and education programs that reduce pollution. The grant program provides up to \$1,000 to grantees to support the following activities:
 1. Water-quality improvement projects;
 2. Communication and education programs on reducing pollution from household activities; and
 3. Projects that raise citizen awareness of their role/ responsibility in improving and maintaining water quality in the watershed.

In 2010 the BCWMC awarded the following grants:

- Meadowbrook Elementary-The BCWMC granted matching funds to assist students, staff, and volunteers to construct an outdoor classroom on the school grounds.

The BCWMC has information about grant eligibility and application procedures in its grant program section of the Bassett Creek Watershed Management Organization Web site at <http://www.bassettcreekwmo.org/index.html>.

- **BCWMC Education and Public Outreach Committee:** In addition to the activities described in the Executive Summary, the Committee conducted the following activities in 2010:
 1. The Education and Public Outreach Committee participated in quarterly joint meetings of the Education and Public Outreach Committees (EPOC) of the Bassett Creek Watershed Management Organization (WMO), Elm Creek WMO, Shingle Creek/ West Mississippi WMO, and Pioneer-Sarah Creek WMO. The group has formalized its partnership as the West Metro Watershed Alliance (WMWA). The purpose of the joint meetings is to promote consistent and cooperative messages in the participating

watersheds. The WMWA created a draft joint education plan it has been adopted by the member WMOs.

2. The Education and Public Outreach Committee contracted with writer Judy Arginteanu, to write articles that would highlight steps that residents could take to improve water quality in the Bassett Creek Watershed.

I. Professional Services Proposal

In accordance with Minnesota Statutes, Section 103B.227, Subdivision 5, the BCWMC solicited letters of interest in 2010 for legal and engineering technical consulting services.

J. Assessment of Changes in Fund Balance

A discussion of the fund balance is included in the BCWMC's annual financial audit report. A copy of the annual audit report will be made available on the Bassett Creek Watershed Management Commission's Web site at <http://www.bassettcreekwmo.org>.

K. Wetland Conservation Act/Wetland Banking Program

1991 Wetland Conservation Act—The interim program of the 1991 Wetland Conservation Act was effective through December 31, 1993. On January 1, 1994, the permanent program of the 1991 Wetland Conservation Act became effective. Each municipality was required to designate the local government unit (LGU) responsible for administering the interim program and the permanent program of the 1991 Wetland Conservation Act. The following table indicates the local governmental unit for each municipality.

Municipality	Permanent Program (Effective 1/1/94)
Crystal	Crystal
Golden Valley	Golden Valley
Medicine Lake	BCWMC
Minneapolis	Minneapolis
Minnetonka	Minnetonka
New Hope	New Hope
Plymouth	Plymouth
Robbinsdale	BCWMC
St. Louis Park	BCWMC

BCWMC = Bassett Creek Watershed Management Commission

Wetland Mitigation Policy—The BCWMC's wetland mitigation policy specifies that filling or developing existing lakes and wetlands require an evaluation of the benefits of the wetland for stormwater storage, water quality enhancement, and wildlife habitat, as well as the development of a plan to mitigate the loss of those benefits somewhere in the affected municipality.

Wetland Banking Program—The BCWMC has not adopted a wetland banking program.

II. Annual Financial Report

The 2010 fiscal year for the Bassett Creek Watershed Management Commission (BCWMC) commenced on February 1, 2010 and ended January 31, 2011.

A. Approved Budget

The approved operating budget for fiscal year 2010 was \$463,000. Each member's contribution toward the annual budget is based 50 percent on the total area of the municipality within the watershed and 50 percent on the tax capacity of the area within the watershed. A copy of the 2009 budget description, member-city assessment table, and operating budget table are appended.

B. Report of Revenues

See the Financial Audit Report in the appendices.

C. Report of Expenditures

See the Financial Audit Report in the appendices.

D. Financial Audit Report

The annual audit report for the year ending January 31, 2011, was performed by Malloy Montague Karnowski Radosevich & Co., P.A. A copy of the annual audit report is included in the appendices and also is available on the Bassett Creek Watershed Management Commission's Web site at <http://www.bassettcreekwmo.org>.

Executive Summary

I. Annual Activity Report

II. Annual Financial Report

Appendix A
Financial Information

***Appendix B
Resolutions***

Appendix C
Capital Improvements Program

Appendix D
Web Site Usage Report