

2011 Annual Report



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Board of Managers

2011-2012

Manager	Position	Term Expires	City/County
Mr. Jack Lavold 6859 Ideal Avenue South Cottage Grove, MN 55016 651-459-8891	President	05/01/2014	Cottage Grove/Washington
Mr. Dennis Hanna, 9301 Grey Cloud Island Dr. St. Paul Park, MN 55071 651-459-2281	Vice-President	05/01/2013	Grey Cloud Island/Washington
Mr. Brian Johnson 4353 Dorchester Drive Woodbury, MN 55129 651-458-3739	Vice-President	05/01/2013	Woodbury/Washington
Mr. Don Pereira 8232 River Acres Road Cottage Grove, MN 55016 651-769-0429	Secretary	05/01/2015	Cottage Grove/Washington
Mr. Mike Madigan 2366 Hidden Lake Cove Woodbury, MN 55125 651-702-0488	Treasurer	05/01/2014	Woodbury/Washington

Introduction

The Cottage Grove Ravine Watershed Management Organization (WMO) was formed in 1984 to manage the resources of the watershed. This WMO was based on a joint powers agreement among the five cities in the watershed. A draft watershed management plan for the WMO was completed in April 1988; however, this plan was never approved or adopted by the WMO.

The WMO was later disbanded, and, in 1993, the Cottage Grove Ravine Watershed District was formed as the 42nd watershed district in Minnesota. The watershed district changed its name to the South Washington Watershed District (SWWD) in 1995. The SWWD was formed under, and operates in accordance with, Minnesota Statutes, Chapter 103B, "Metropolitan Surface Water Management Act", and Chapter 103D, "Watershed Districts."

The SWWD completed development of the watershed plan in 1996, approval of the plan was granted by the State Board of Water and Soil Resources in 1997, and later amended in 2002. Since that time the SWWD has focused its efforts on determining potential flood risk and developing a comprehensive flood relief system. The proposed system is designed in two phases; 1) reduce potential flood damages for existing developed areas of the watershed; 2) develop a comprehensive solution that provides stormwater management and flood control with capacity for the planned growth included in the 2000 comprehensive land use plans.

In April 2003, the SWWD petitioned the Minnesota Board of Water and Soil Resources to enlarge the boundary and include the East Mississippi Water Management Organization. The East Mississippi Water Management Organization included all or portions of Grey Cloud Island Township, Cottage Grove, Woodbury, St. Paul Park, and Newport. The enlargement was completed as a part of recommendations from the Washington County Water Governance Study (1999). The enlargement petition was approved on May 28, 2003 by the Board of Water and Soil Resources (BWSR). SWWD again petitioned BWSR in May 2010 to enlarge the SWWD boundary and include portions of the dissolved Lower St. Croix Watershed Management Organization (LSCWMO) which included all of Denmark Township and portions of Afton, Cottage Grove and Hastings. BWSR approved the enlargement in September 2010.

SWWD updated the Watershed Management Plan (WMP) through 2007, with BWSR approval in September of 2007, and SWWD Board adoption in November 2007. The updated plan lays out guidance on the management of water and natural resources through the year 2017. The WMP plan was amended in 2010 to include the new Coordinated Capital Improvement Program and three additional capital improvement projects. SWWD is currently working on another amendment to incorporate areas in its expanded boundary and the priorities and projects identified in the LSCWMO plan.

The WMP complies with Minnesota Rules Chapter 8410, "Metropolitan Area Local Water Management," (May 27, 1992), the Metropolitan Surface Water Management Act, and Minnesota Statute 103D.

This report has been prepared in accordance with Minnesota Rules Chapter 8410.0150, Annual Reporting Requirements. Content of this report pertain to the calendar year 2011.

2011 Financial Report

The 2011 audit report is in Appendix A. Revenue and program expenditure summaries 2010-2012 are presented below.

Revenue

Revenue Source	2010	2011	2012
Ad Valorem Levy	\$ 687,361.00	\$ 687,279.00	\$ 711,043.00
Stormwater Utility			
25% Area	\$ 1,274,200.00	\$ 1,292,700.00	\$ 1,331,825.00
75% Area	\$ 1,095,600.00	\$ 1,094,850.00	\$ 1,080,975.00
E. Mississippi	\$ 257,200.00	\$ 257,200.00	\$ 262,000.00
Lower St. Croix	\$ 0.00	\$ 0.00	\$ 90,105.00
Total Revenue	\$ 3,314,361.00	\$ 3,332,029.00	\$ 3,475,948.00

Program Expenditures

Program Area	2010 Budget	2010 Actual	2011 Budget	2011 Actual/Unaudited	2012 Budget
1.0 Floodplain Management	\$ 85,000	\$ 8,776.00	\$ 37,500	\$ 55,605.30	\$43,650.00
2.0 Stormwater Management	\$1,273,000	\$426,020.00	\$ 1,260,000	\$ 1,519,726.16	\$1,110,650
3.0 Water Quality	\$268,352	\$ 163,459.00	\$ 314,621	\$ 212,292.66	\$359,200
4.0 Wetlands	\$ 85,000	\$ 0.00	\$ 16,250	\$ 0.00	\$3,200
5.0 Natural Resources	\$ 20,400	\$ 3,147.00	\$ 20,400	\$ 22,266.00	\$42,800
6.0 Groundwater	\$ 105,000	\$ 500.00	\$ 102,500	\$ 5,500.00	\$87,400
7.0 Erosion and Sediment Control	\$ 13,575	\$ 3,529.00	\$ 13,169	\$ 2,176.97	\$3,200
8.0 Education	\$ 55,182	\$ 32,923.00	\$ 54,749	\$ 38,378.97	\$40,300
9.0 Long Range Work Plan/Finance	\$ 393,014	\$ 85,378.00	\$ 484,632	\$ 479,993.71	\$560,505
10.0 Data Management	\$ 247,836	\$ 194,830.00	\$ 251,352	\$ 205,732.60	\$194,686
11.0 General	\$ 233,004	\$ 229,259.00	\$ 239,855	\$ 210,541.00	\$253,357
12.0 Debt Service	\$ 535,000	\$3,405,019.00	\$ 537,000	\$ 525,875.00	\$777,000
Total Budget	\$3,314,361.00	\$4,552,840.00	\$3,332,028.00	\$3,278,088.37	\$3,475,948.00

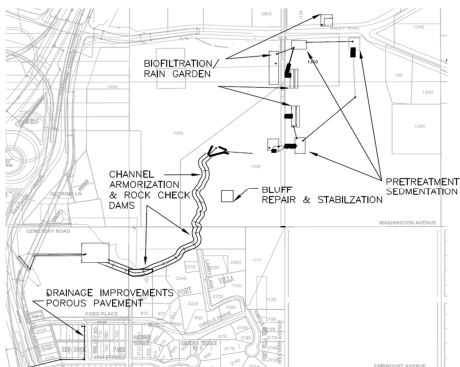
2011 Activity Report

Floodplain Management

- SWWD monitored potential floodplain impacts from projects as part of its development review process. Multiple projects within the floodplain were reviewed, none of which decreased floodplain storage.
- SWWD provided the District's modeling data for the FEMA FIRM map update and worked with Municipalities to review and comment on updates. Staff worked with the City of Woodbury to review and amend several areas identified as floodplain in the completed FIRM maps.

Stormwater Runoff Rate and Volume

- SWWD ensures compliance with rate and volume requirements by coordinating development reviews with Municipalities that have adopted a local surface water management plan and updated official controls. Staff conducts full development reviews of projects in Municipalities that have yet to adopt their plan and update controls. Staff reviewed 16 projects in 2011.
- SWWD continued to operate an extensive stormwater monitoring network. Data collected as part of the program is used to identify trends in stormwater runoff. Monitoring reports are made available on the SWWD website at www.swwdmn.org. The 2011 report provides summaries of data collected. Additional trend analyses are performed for odd monitoring years.
- In March 2011, the SWWD Board of Managers approved the purchase of 2011 General Obligation bonds to finance three Stormwater projects in the East Mississippi Sub-Watershed; The City of Newport Ravine Stabilization, Clear Channel Pond, and Grey Cloud Island Slough Crossing project. Land acquisitions for the Newport Ravine and Clear Channel projects were complete in 2011. Construction will begin in 2012.



Newport Ravine Concept Plan



Clear Channel Pond



Grey Cloud Island Slough

- The SWWD continued the planning process for the Central Ravine Overflow project in 2011. In March, the SWWD Board of Managers approved the design and permitting activities, which include the 70th Street overflow connection in Cottage Grove, and the voluntary Environmental Assessment Worksheet. Construction scheduled to begin in the spring of 2012.
- The SWWD in partnership with the City of Woodbury began flood control management work on the Wilmes Lake. The Wilmes Lake Ravine Stabilization Project construction was completed in spring of 2011. The purpose of this project is to provide active flood control to help mitigate potential flooding at Wilmes Lake. Two gate outlets were added after the Ravine Stabilization was complete. The gates were installed at Evergreen Wetland and Markgrafs Lake.

Water Quality

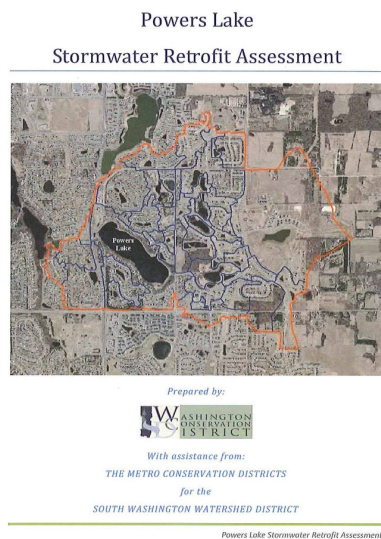
- 2011 was SWWD's first year of what has become known as "performance based cost share". Instead of reimbursing land owners for a specific percentage of total project cost, SWWD now reimburses land owners based on the amount of phosphorus that their project is expected to retain. SWWD's 2011 reimbursement rate was \$5,000.00 per pound of phosphorus retained. SWWD allocated \$131,989.38 to 30 projects in 2011. Together, the projects funded by SWWD in 2011 are expected to capture 28.6 lbs of phosphorus. Ten projects have been completed. The remaining are pending. SWWD's cost share grants covered an average of 52% (range = 0.4 - 100%, median = 47%) of the total project cost. Projects with higher funding levels typically treated runoff from several properties. Included in the 2011 cost share grants, was SWWD's largest grant to date. SWWD reimbursed a large retailer in Cottage Grove for \$42,000.00 of a \$120,000.00 project which captured nearly 9 pounds of phosphorus that otherwise would have entered the City of Cottage Grove storm sewer system.



- The SWWD Board of Managers awarded \$420,000.00 through its Coordinated Capital Improvement Program (CCIP). \$18,655.00 was awarded to the City of Oakdale for a large bioretention facility and multiple raingardens to treat run off from the Oakdale Library parking lot and roof. All of the BMP's will reduce the magnitude of runoff volume and frequency of erosive, concentrated flows into Armstrong and Wilmes Lake. \$305,095.00 was awarded to the City of Cottage Grove for pond improvements and stabilization with the installation of BMP's. \$96,250.00 was awarded to the City

of Woodbury for the Wilmes ravine and corridor pond maintenance. Together, the projects were estimated to reduce phosphorus in stormwater runoff by 94.3 lbs/yr.

- SWWD worked with the Washington Conservation District to complete two subwatershed retrofit assessments—TH61 and Powers Lake. The retrofit assessments follow a protocol developed by the Metro Association of SWCDs to systematically identify the most cost effective projects for reducing the target pollutant. Both SWWD assessments focused on reducing total phosphorus. Implementation has begun on both assessments. One commercial project identified for the TH61 corridor was completed in 2010 through SWWD’s traditional cost share program and staff expects construction on a second project to begin in 2011. The Washington Conservation District was awarded a Clean Water grant to implement projects identified in the Powers Lake assessment.



Wetlands

- SWWD staff conducted development reviews to ensure compliance with SWWD wetland standards and participated as part of the Washington County Technical Evaluation Panel (TEP) to evaluate wetland impacts of proposed projects.

Natural Resources

- SWWD continued prairie restoration at the CD-P85/86 regional infiltration facilities. Partnering with Great River Greening, who secured LCCMR funding, SWWD was able to carry out controlled burning on approximately 20 acres of old field habitat clear invasive woody vegetation, and seed approximately 20 acres of previously farmed land. Maintenance included mowing and selective spraying for invasive weeds and over seeding of sparse areas. An additional 20-40 acres of currently farm land was restored back to prairie in 2011.



Groundwater

- SWWD staff worked with Washington County and the Minnesota Department of Health to begin a groundwater quality regional assessment program. The program consists of collecting seasonal water quality samples from wells existing around the CD-P85 and CD-P86 regional infiltration basins and Bailey Lake. Collected data are included in the SWWD monitoring report and will be used to monitor groundwater quality and serve as an indicator of potential impacts resulting from use of regional infiltration facilities.

Erosion and Sediment Control

- SWWD standards require projects to meet NPDES requirements for erosion and sediment control. SWWD standards also require Municipalities to identify an inspector and conduct regular inspections. In addition to City inspections, SWWD staff conducts four inspections annually to ensure that the City inspection programs are promoting compliance as intended. SWWD works with City staff to enforce compliance on issues identified in inspections.

Education

- In 2011, SWWD worked with students from Woodbury High School to create a new logo for the District. The new logo was chosen in May 2011.



- Again in 2011, SWWD participated in the East Metro Water Resource Education Program (EMWREP). The EMWREP annual report is in Appendix B.

Long Range Work Planning and Finance

- SWWD continued collecting stormwater utility fees in the East Mississippi management unit. Revenue will be used to fund water quality projects only within the East Mississippi, including

stabilization of the Newport Ravine, construction of a stormwater pond to relieve capacity problems at the clear channel pond, and flow restoration to the Grey Cloud Island Slough.

- BWSR approved SWWD's petition to enlarge its jurisdictional boundary to incorporate 4 of the 5 subwatersheds from the dissolved Lower St. Croix Watershed Management Organization. In 2011, SWWD amended its WMP to establish the Lower St. Croix management district and incorporate priorities and projects identified in the LSCWMO WMP. In 2012, SWWD will be collecting stormwater utility fees in the Lower St. Croix management unit. Revenue will be used to fund water quality projects only within the Lower St. Croix.

Data Management

- SWWD staff continues to collect and organize all SWWD monitoring data from the Washington Conservation District. Data will be uploaded to one database in one format. The database will serve as the basis for accessing monitoring data through the SWWD website.

General

- The SWWD maintains a general fund for daily operations of the district. General fund operations include, staff, managers, office expenses, insurance, audit and legal services.

Debt Service

- The SWWD maintains a debt service fund for the purpose of retiring current debt. In 2002 the SWWD issued general obligation bonds for the purchase to property. The property provided the necessary downstream capacity for existing flood control conditions. Debt was issued on a 15 year term. In 2011, the SWWD issued general obligation bonds for the construction of three projects within the East Mississippi management area.

2012 Workplan

Floodplain Management

Floodplain management is an integral element of stormwater management in the South Washington Watershed. The watershed exhibits many large depressions in the landscape that are land locked. Preservation of locally identified floodplains provides adequate storage and flood protection for future development. Federal Emergency Management Agency recently completed a floodplain restudy of Washington County.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$85,000	85,000	37,500	43,650	\$251,150

2012 Work Plan

South Washington Watershed District 2012 Budget					
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total	
(1) Floodplain Management					\$32,500.00
Hydrologic Modeling			\$32,500.00		
Project Management	\$2,500.00				
Data Collection	\$5,000.00				
Model Development Calibration	\$10,000.00				
Assessment and Evaluation	\$7,500.00				
Reporting	\$7,500.00				
(1) Floodplain Management					\$8,750.00
Hydrologic Modeling			\$8,750.00		
Project Management	\$1,250.00				
Data Collection	\$3,750.00				
Model Development Calibration	\$0.00				
Assessment and Evaluation	\$3,750.00				
Reporting	\$0.00				
Legal	\$0.00				
(1) Floodplain Management					\$2,400.00
Hydrologic Modeling			\$2,400.00		
Project Management	\$800.00				
Data Collection	\$0.00				
Model Development Calibration	\$0.00				
Assessment and Evaluation	\$800.00				
Reporting	\$800.00				

Management Area Goal

Opportunisticly manage floodplains for multiple, non-development uses.

2012 Action Items

- Maintain adequate floodplain protection in newly developing areas.
- Ensure correct floodplain freeboard for newly built structures in developing areas.
- Provide assistance to County, Cities and Townships with application of updated FEMA Map FIRM's.
- Provide general assistance to watershed residents regarding floodplain information.

Stormwater Runoff Rate and Volume

A primary focus of the SWWD since creation in 1993 has been the management of stormwater runoff. Since the Northern Watershed is essentially land locked, the watershed is volume sensitive, therefore additions of stormwater runoff volumes due to development requires rigorous management. The major component of this management area is the planning, design and construction of the watershed overflow. The overflow will provide overflow capacity for excess runoff during extreme hydrologic events from the northern watershed to the Mississippi River.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$1,869,000	\$1,273,000	\$1,260,000	\$1,110,650	\$5,512,650

2012 Work Plan

South Washington Watershed District 2012 Budget					Management Area
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget		Total
(2) Storm Water Runoff Rate and Volume					\$984,300.00
Flood Damage Reduction			\$97,000.00		
FDR Grant Program					
Project Management	\$5,000.00				
Legal	\$4,500.00				
Modeling/Mapping/Protection					
Project Management	\$10,000.00				
Data Collection	\$10,000.00	\$25,000.00			
Model Development Calibration	\$15,000.00				
Assessment and Evaluation	\$15,000.00				
Reporting	\$12,500.00				
Overflow Design			\$84,400.00		
Project Management	\$5,000.00				
Data Collection	\$10,000.00				
Feasibility/Preliminary Design	\$20,000.00				
Final Design	\$20,000.00				
Final Plans and Specs	\$15,000.00				
Legal	\$14,400.00				
Watershed Overflow Implementation Fund			\$722,900.00		
Project Management	\$10,000.00				
Data Collection	\$10,000.00				
Appraisal	\$10,000.00				
Survey	\$10,000.00				
Legal	\$14,400.00				
Land Acquisition		\$300,000.00			
Implementation Fund		\$368,500.00			
Hydrologic Modeling			\$80,000.00		
Project Management	\$7,500.00				
Data Collection	\$15,000.00				
Model Development Calibration	\$20,000.00				
Assessment and Evaluation	\$15,000.00				
Meetings/Correspondence	\$7,500.00				
Reporting	\$15,000.00				

(2) Storm Water Runoff Rate and Volume				\$22,000.00
Newport Ravine Stabilization			\$0.00	
Project Management	\$0.00			
Data Collection	\$0.00			
Appraisal	\$0.00			
Survey	\$0.00			
Legal	\$0.00			
Land Acquisition				
Implementation Fund				
Project Design			\$0.00	
Project Management	\$0.00			
Data Collection	\$0.00			
Model Development Calibration	\$0.00			
Assesment and Evaluation	\$0.00			
Meetings/Correspondance	\$0.00			
Feasibility/Preliminary Design	\$0.00			
Final Design	\$0.00			
Implementation Fund				
Reporting	\$0.00			
Legal	\$0.00			
Hydrologic Modeling/Project Design			\$22,000.00	
Project Management	\$1,875.00			
Data Collection	\$2,500.00			
Model Development Calibration	\$4,378.00			
Assesment and Evaluation	\$5,000.00			
Meetings/Correspondance	\$2,500.00			
Reporting	\$2,500.00			
Legal	\$3,247.00			

(2) Storm Water Runoff Rate and Volume				\$81,355.00
Hydrologic Modeling/Project Design			\$23,160.00	
Project Management	\$2,500.00			
Data Collection	\$5,000.00			
Feasibility/Preliminary Design	\$3,750.00			
Final Design	\$5,000.00			
Final Plans and Specs	\$5,000.00			
Legal	\$1,910.00			
Sub Watershed Implementation Fund			\$44,410.00	
Project Management	\$1,250.00			
Data Collection	\$1,250.00			
Appraisal	\$5,000.00			
Survey	\$5,000.00			
Legal	\$1,910.00			
Land Acquisition				
Implementation Fund		\$30,000.00		
Hydrologic Modeling			\$13,785.00	
Project Management	\$1,250.00			
Data Collection	\$2,500.00			
Model Development Calibration	\$3,125.00			
Assesment and Evaluation	\$2,500.00			
Meetings/Correspondance	\$1,250.00			
Reporting	\$1,250.00			
Legal	\$1,910.00			

(2) Storm Water Runoff Rate and Volume					\$22,995.00
Flood Damage Reduction					
				\$6,465.00	
FDR Grant Program					
Project Management	\$400.00				
Legal	\$2,865.00				
Modeling/Mapping/Protection					
Project Management	\$800.00				
Data Collection	\$0.00				
Model Development Calibration	\$0.00				
Assessment and Evaluation	\$800.00				
Reporting	\$1,600.00				
Overflow Design				\$7,665.00	
Project Management	\$2,400.00				
Data Collection	\$0.00				
Feasibility/Preliminary Design	\$0.00				
Final Design	\$2,400.00				
Final Plans and Specs	\$0.00				
Legal	\$2,865.00				
Watershed Overflow Implementation Fund				\$4,465.00	
Project Management	\$1,600.00				
Data Collection	\$0.00				
Appraisal	\$0.00				
Survey	\$0.00				
Legal	\$2,865.00				
Land Acquisition					
Implementation Fund					
Hydrologic Modeling				\$4,400.00	
Project Management	\$400.00				
Data Collection	\$400.00				
Model Development Calibration	\$800.00				
Assessment and Evaluation	\$800.00				
Meetings/Correspondence	\$800.00				
Reporting	\$1,200.00				

Management Area Goal

Minimize existing and future potential damages to property, public safety, and water resources due to flood events.

2012 Action Items

- Coordinate design of overflow system in cooperation with Washington County and potential 70th CASH 19-20-22 Intersection realignment project.
- Maintain implementation fund for the watershed overflow project.
- Maintain and update watershed models to provide best available information to guide SWWD programs and projects.
- Work cooperatively with the City of Newport to stabilize the North Ravine located in the EMW.
- Work cooperatively with the City of Cottage Grove and St. Paul Park to provide stormwater control for the Clear Channel Pond project in the EMW.

- Work cooperatively with the Grey Cloud Island Township to secure funding and support for implementation of the Grey Cloud Channel project in the EMW.

Water Quality

Water quality improvement is the main focus of the SWWD 2007 watershed management plan. The SWWD has established water quality standards and rules to reduce pollutant loading and improve water quality throughout the watershed. The overall goal of work under this fund is to identify water quality impacts and implement projects to correct impacts. Over time this strategic approach will meet future TMDL requirements.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$224,058	\$160,000	\$314,620	\$359,200	\$1,057,878

2012 Work Plan

South Washington Watershed District 2012 Budget					Management Area
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget		Total
(3) Water Quality					\$200,000.00
Loading Assessment					
				\$60,000.00	
Project Management	\$5,000.00				
Data Collection	\$15,000.00				
Model Development Calibration	\$15,000.00				
Assessment and Evaluation	\$15,000.00				
Reporting	\$10,000.00				
Water Quality Cost Share Program				\$0.00	
Cost share to projects					
Project Management	\$0.00				
Assessment and Evaluation	\$0.00				
Final Design	\$0.00				
Reporting	\$0.00				
Lake Assessment (TMDL/Impaired Waters/Non-Degradation)				\$140,000.00	
Project Management	\$5,000.00				
Data Collection	\$7,500.00				
Watershed Evaluation	\$7,500.00				
Modeling Water Quality Physical/Chemical	\$25,000.00				
Lake Biological Assessment	\$10,000.00				
Feasible Remedial Alternatives Analysis	\$15,000.00				
Lake Management Plan/Report	\$20,000.00				
Sub-watershd implementation		\$ 50,000.00			

(3) Water Quality					\$97,200.00
Loading Assessment			\$8,000.00	\$5,102.88	
Project Management	\$800.00				
Data Collection	\$1,200.00				
Model Development Calibration	\$1,200.00				
Assessment and Evaluation	\$1,600.00				
Reporting	\$3,200.00				
Water Quality Cost Share Program			\$78,800.00	\$50,263.37	
Cost share to projects		\$70,000.00		\$0.00	
Rain Barrels				\$0.00	
Project Management	\$2,400.00			\$0.00	
Assessment and Evaluation	\$2,400.00			\$0.00	
Final Design	\$2,400.00			\$0.00	
Reporting	\$1,600.00			\$0.00	
Lake Assessment (TMDL/Impaired Waters/Non-Degradation)			\$10,400.00	\$6,633.74	
Project Management	\$1,600.00				
Data Collection	\$800.00				
Watershed Evaluation	\$1,600.00				
Modeling Water Quality Physical/Chemical	\$1,600.00				
Lake Biological Assessment	\$1,600.00				
Feasible Remedial Alternatives Analysis	\$1,600.00				
Lake Management Plan/Report	\$1,600.00				

Management Area Goal

Maintain, or where practical improve, the water quality of wetlands and water bodies within the District.

2012 Action Items

- Continue water quality BMP cost share program watershed wide.
- Develop watershed water quality model based on sub-watersheds for two sub-watersheds.
- Define loading capacity on a sub-watershed and water body scale.
- Establish accounting of stormwater BMP's for load reduction implementation
- SWWD will apply for a Clean Water Fund grant for installation of priority BMPs throughout the Trout Brook watershed. Those funds will be used to target priority projects identified through WCD's Top50P! project. Outreach with priority landowners will begin in 2012.
- SWWD is working with Afton Alps to identify and implement priority projects throughout the Afton Alps property with the goal of improving habitat in Trout brook and reducing runoff volume and phosphorus load to Trout Brook and Lake St. Croix.
- SWWD will apply for a Clean Water Fund grant for its 2012 Colby Lake Neighborhood Retrofit project. The project will result in installation of 20-30 priority small-scale BMPs in the Colby 1st Addition and reduce annual loading to Colby Lake by over 10 lbs.

Wetlands

Provide for management of the watersheds wetland resources. The SWWD works with the Washington Conservation District and Local Government Units to effectively management the Districts wetland resources. The SWWD provides assistance with the Wetland Conservation Act and has established standards for management of the wetlands, including water quality, water quantity, buffers, and mitigation of impacts.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$20,000	\$85,000	\$16,250	\$3,200	\$124,450

2012 Work Plan

South Washington Watershed District 2012 Budget					
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total	
(4) Wetlands					\$3,200.00
Wetland Assessment			\$3,200.00		
Project Management	\$800.00				
Data Collection	\$400.00				
Model Development Calibration	\$400.00				
Assessment and Evaluation	\$400.00				
Meetings/Correspondance	\$800.00				
Reporting	\$400.00				

Management Area Goal

Manage the quantity and quality of wetlands within the watershed for their best function in a rapidly urbanizing environment.

2012 Action Items

- Support Local Government Units (LGU) with implementation of the Wetland Conservation Act.
- Provide administration as the LGU for the Wetland Conservation Act.
- Apply wetland standards across the watershed to ensure future functions and values of wetland resources.

Natural Resources

This management area provides for the improvements to the natural resource of the watershed. The SWWD has developed a greenway plan to establish a multi-use green corridor through the watershed. This corridor utilizes planned green space by the Municipalities and natural features protected from development.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$100,000	\$20,400	\$20,400	\$42,800	\$183,600

2012 Work Plan

South Washington Watershed District 2012 Budget					
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total	
(5) Natural Resources and Recreation					\$40,400.00
Greenway Implementation			\$40,400.00		
Construction		\$20,000.00			
Site Monitoring	\$2,700.00				
Project Management	\$2,700.00				
Maintenance		\$10,000.00			
Replacement		\$5,000.00			
(5) Natural Resources and Recreation					\$2,400.00
Greenway Implementation			\$2,400.00		
Construction					
Site Monitoring	\$800.00				
Project Management	\$1,600.00				
Maintenance					
Replacement					

Management Area Goal

Participate in conservation or creation of key natural areas with respect to habitat, wildlife, or recreation.

2012 Action Items

- Manage CD-P86 prairie restoration.
- Manage restoration activities in cooperation with grant from Great River Greening
- Pursue grant opportunities for further restoration work in CD-P86 focused on non-cropped areas.

Groundwater

In cooperation with Washington County, the SWWD provides management of groundwater resources as identified in the County Groundwater Plan. The SWWD's focus is on regional groundwater quality and potential impacts from stormwater management practices. The SWWD will continue to evaluate potential impacts from regional stormwater infiltration. Support to the County and Municipalities relating to other groundwater issues is also provided. The SWWD has partnered with municipalities to provide for management of deicing chemicals through application, storage and handling.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$100,000	\$105,000	\$102,500	\$87,400	\$394,900

2012 Work Plan

South Washington Watershed District 2012 Budget				
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total
(6) Groundwater				\$85,000.00
Groundwater Monitoring - quality			\$85,000.00	
Project Management	\$10,000.00			
Data Collection	\$10,000.00			
Model Development Calibration	\$10,000.00			
Assessment and Evaluation	\$12,500.00			
Reporting	\$7,500.00			
Implementation Fund		\$35,000.00		
(6) Groundwater				\$2,400.00
Groundwater Monitoring - quality			\$2,400.00	

Management Area Goals

Pursue a sustainable balance between surface water management, land use activities, and groundwater integrity.

2012 Action Items

- Work with the County and MDH to evaluate the potential impacts of regional stormwater infiltration.
- Coordinate with Washington County through groundwater planning.

Erosion and Sediment Control

Erosion of soil presents one of the greatest threats to water quality. The SWWD implements an annual program to provide assistance to Municipalities that increases compliance with existing local state and national permits. Soil erosion and resultant deposition of sediment carries with it many pollutants delivered directed to the water resource. The SWWD has a role in controlling erosion and helping to prevent degradation of the water body.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$23,095	\$13,575	\$13,168	\$3,200	\$53,038

2012 Work Plan

South Washington Watershed District 2012 Budget					
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total	
(7) Erosion and Sediment Control					\$3,200.00
NPDES Phase II Construction Site Inspections			\$3,200.00		

Management Area Goals

Facilitate erosion control and reduce impacts to wetlands and water bodies from sedimentation.

2012 Action Items

- Continue coordinated effort with the WCD and Municipalities to increase permit compliance on construction sites.
- Provide assistance to municipalities to correct erosion problems.
- Work with the City of Newport on stabilization of the Newport Ravines.
- Work with the WCD on stabilization of ravines tributary to the Mississippi River.

Education

The SWWD must provide an education program for Municipal Officials and residents of the watershed through the watershed management plan. The SWWD Board believes that County wide and Regional efforts are more effective educational programs than localized efforts. The SWWD is a member of the East Metro Water Resources Education Program and other regional efforts to provide annual education programming in the watershed. In addition these programs fulfill educational requirements places on the SWWD through its MS4 permit.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$48,114	\$55,182	\$54,745	\$40,300	\$198,341

2012 Work Plan

South Washington Watershed District 2012 Budget				
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total

(8) Education					\$40,300.00
Education Local			\$1,600.00		
SWWD specific program	\$1,600.00	\$0.00			
Public Input			\$1,600.00		
CAC	\$1,600.00	\$-			
Education			\$2,500.00		
Website Modifications	\$2,500.00				
Shared Education Position			\$25,800.00		
Washington County Education	\$800.00	\$25,000.00			
Education			\$8,800.00		
Metro Watershed Partners	\$0.00	\$3,500.00			
Blue Thumb	\$0.00	\$1,800.00			
Project NEMO	\$0.00	\$3,500.00			

Management Area Goals

Heighten the awareness of key constituencies within the District, sufficient to modify behavior to improve the recognition and implementation of District policies, programs and activities.

2012 Action Items

- Maintain membership in the EMWREP and Blue Thumb and NEMO.
- Provide local education opportunities in cooperation with Municipalities and other local organizations.
- Continue improvements to SWWD website and utilize as a primary information outlet.
- Establish link to school science programs and teachers at specific grade level.

Long Range Work Planning and Finance

The SWWD Board stressed implementation during development of the current 10 year plan adopted in 2007. As a result the SWWD established this management area to provide overall management of the watershed and focus effort and resources on implementation. This management area provides the short and long range work plan and funding authorities for the SWWD implementation. Through annual evaluation and work planning, the SWWD is provide flexibility to adapt or refocus as a result of changing environments or regulations.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$29,510	\$386,400	\$484,632	\$560,505	\$1,461,047

2012 Work Plan

South Washington Watershed District 2012 Budget				
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total

(9) Long Range Work Planning and Financing					\$533,600.00
Coordinated CIP				\$533,600.00	
Project Management	\$5,000.00				
Data Collection	\$5,000.00				
Model Development Calibration	\$10,000.00				
Assesment and Evaluation	\$10,000.00				
Meetings/Correspondance	\$5,000.00				
Feasibility/Preliminary Design	\$7,500.00				
Final Design	\$7,500.00				
Implementation Fund			\$475,000.00		
Reporting	\$5,000.00				
Legal	\$3,600.00				
Plan Amendment				\$0.00	
Design Manual				\$0.00	
(9) Long Range Work Planning and Financing					\$26,905.00
Coordinated CIP			\$7,265.00		
Project Management	\$800.00				
Data Collection	\$400.00				
Model Development Calibration	\$400.00				
Assesment and Evaluation	\$400.00				
Meetings/Correspondance	\$800.00				
Feasibility/Preliminary Design	\$400.00				
Final Design	\$400.00				
Reporting	\$800.00				
Legal	\$2,865.00				
Plan Amendment			\$9,420.00		
Project Management	\$800.00				
Data Collection	\$1,600.00				
Assesment and Evaluation	\$1,600.00				
Reporting	\$1,600.00				
Legal	\$3,820.00				
Design Manual			\$10,220.00		
Project Management	\$800.00				
Data Collection	\$1,600.00				
Assesment and Evaluation	\$1,600.00				
Meetings/Correspondance	\$800.00				
Reporting	\$1,600.00				
Legal	\$3,820.00				

Management Area Goals

Utilize District funds to initiate or support long range work plan projects which reduce flooding or otherwise benefit key District resources.

2012 Action Items

- Continue implementation of Coordinated Capital Improvement Program focused on water quality improvements.
- Provide short and long range planning and implementation for the SWWD.
- Maintain an updated and current watershed plan to reduce future planning costs.
- Update SWWD rules to current standards.

Data Management

A primary role of the 2007 SWWD watershed management plan is to help guide decisions of the Board of Managers. A key element is the use of scientific data to assist the Managers in making decisions based on best available information. The SWWD maintains extensive data through studies, reports, monitoring, information and internal operations.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$279,059	\$247,836	\$251,352	\$194,686	\$972,933

2012 Work Plan

South Washington Watershed District 2012 Budget					
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total	
(10) Data Management					\$194,686.70
Web Site			\$800.00		
Project Management	\$400.00	\$0.00			
Data Collection	\$400.00				
Assessment and Evaluation	\$0.00				
Reporting	\$0.00				
Stormwater Utility Administration			\$22,810.00		
Annual Setup	\$800.00				
Rate Calculations	\$800.00				
Assessment and Evaluation	\$800.00	\$2,500.00			
Legal	\$1,910.00				
Washington County Administrative Fee		\$15,000.00			
Washington County Surveyor		\$1,000.00			
Surface Water Monitoring Program			\$155,076.70		
MS1-North Tributary to Wilmes Lake	5,945.50				
MS2-N Tributary to Bailey Lake	5,945.50				
O'Conner's Creek	0.00				
Trout Brook	5,945.50				
Wilmes Lake Outlet	8,268.60				
Central Ravine	8,268.60				
100th Street	5,945.50				
St. Paul Park	8,268.60				
Newport	8,268.60				
Waterbody Assess-Wilmes	5,945.50				
Waterbody Assess-Powers	5,945.50				
Waterbody Assess-Colby	22,480.00				
Lake Levels	2,184.00				
Flow-4 Locations	13,468.00				
In Lake Water Quality	4,043.00				
Groundwater	7,040.00				
Report	0.00				
Lab Expense		15,914.30			
Capital Equipment Costs		21,200.00			
Surface Water Monitoring Program			\$7,200.00		
Project Management	\$1,600.00				
Data Collection	\$2,400.00				
Assessment and Evaluation	\$1,600.00				
Reporting	\$1,600.00				
Development Reviews			\$8,800.00		
Correspondence	\$1,600.00				
Plan review	\$2,400.00				
Meetings	\$1,600.00				
Project Management	\$1,600.00				
Site Review	\$1,600.00				

Management Area Goals

Collect and manage data in a manner which maximizes the availability to and use by constituents of the District.

2012 Action Items

- Maintain SWWD website with current information.
- Maintain and update the stormwater utility information annually.
- Maintain and operate an annual monitoring network that provides water resource information vital to SWWD programs and projects.
- Provide development review services to Municipalities.

General

Not specifically mentioned in the 2007 SWWD Watershed Management Plan as a management area, general is included in the SWWD annual budget as an accounting fund. The general fund provides the necessary revenue for daily operation of the SWWD. General fund revenue is levied district wide under MS 103D.905 and is capped at \$250,000. General fund revenue is also collected through MS103B.241 taxing authority available to metropolitan watershed districts.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$233,387	\$233,004	\$239,855	\$253,357	\$959,603

2012 Work Plan

South Washington Watershed District 2012 Budget				
Management Area / Action Item	Professional Services	Capital Outlay	2012 Budget	Management Area Total

(11) General				\$250,000.00
Salaries/Benefits			\$128,272.50	
Manager Per Diem/Expenses			\$28,500.00	
Administration/Office				
Office Rent			\$18,119.00	\$3,357.00
Employee Expenses			\$4,500.00	
Employee Training			\$5,000.00	
Office Equipment			\$14,189.23	
Office Supplies			\$1,500.00	
District Vehicle			\$0.00	
Legal Notices			\$1,500.00	
Dues			\$5,000.00	
Insurance and bond			\$12,000.00	
Accounting/HR/Legal				
payroll			\$2,039.40	
monthly accounting			\$2,970.52	
audit			\$13,261.25	
Legal			\$9,548.10	
HR/other consulting			\$3,600.00	

Management Area Goals

Provide for day-to-day operations of the South Washington Watershed District.

2012 Action Items

- Maintain adequate funding for SWWD daily operation.
- Provide for annual staff and manager training opportunities.
- Ensure adequate protection against legal actions towards the SWWD.

Debt Service

Not specifically mentioned in the 2007 SWWD Watershed Management Plan as a management area, debt service is included in the SWWD annual budget as an accounting fund. In 2002 the SWWD issued \$5.8 million in General Obligation Bonds for the purchase of real property as described in the 1997 watershed plan. The SWWD completed acquisition of 150± acres for increased downstream stormwater system capacity, flood control and stormwater management. Bonds were issued with a 15-year pay off, and refinanced in 2007.

Budget History

Year	2009	2010	2011	2012	4-yr total
Budget	\$549,000	\$535,000	\$537,000	\$777,000	\$2,398,000

2012 Work Plan

(12) Debt Service					\$537,000.00
Debt Service					\$537,000.00
(12) Debt Service					\$240,000.00
Debt Service					\$240,000.00

Management Area Goals

Sound financial planning for future infrastructure needs.

2011 Action Items

- Maintain adequate funding for the overflow project debt service.
- Maintain adequate funding for the East Mississippi subwatershed projects debt service.

Appendix A 2011 Audit Report on Compliance



TAUTGES REDPATH, LTD.
Certified Public Accountants

REPORT ON COMPLIANCE WITH MINNESOTA LEGAL COMPLIANCE AUDIT GUIDE FOR POLITICAL SUBDIVISIONS

To the Board of Managers
South Washington Watershed District
Woodbury, Minnesota

We have audited the basic financial statements of the South Washington Watershed District, as of and for the year ended December 31, 2011 and have issued our report thereon dated April 20, 2012.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the provisions of the *Minnesota Legal Compliance Audit Guide for Political Subdivisions* promulgated by the State Auditor pursuant to Minnesota Statutes Section 6.65. Accordingly, the audit included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The *Minnesota Legal Compliance Audit Guide for Political Subdivisions* covers six categories of compliance to be tested: contracting and bidding, deposits and investments, conflicts of interest, public indebtedness, claims and disbursements, and miscellaneous provisions. Our study included all of the listed categories.

The results of our tests indicate that for the items tested, the South Washington Watershed District complied with the material terms and conditions of applicable legal provisions.

This report is intended solely for the information and use of the South Washington Watershed District's management, members of the Board and others within the Organization, and is not intended to be, and should not be, used by anyone other than these specified parties.

HLB Tautges Redpath, Ltd.

HLB TAUTGES REDPATH, LTD.

April 20, 2012

4810 White Bear Parkway White Bear Lake, MN 55110 651.426.7000 651.426.5004 fax www.hlbtr.com
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2011 Annual Report

Background: The East Metro Water Resource Education Program (EMWREP) is a partnership that was formed in 2006 to develop and implement a comprehensive water resource education and outreach program for the east metro area of St. Paul, MN. Current members of EMWREP include Brown's Creek, Carnelian-Marine-St Croix, Comfort-Lake Forest Lake, Rice Creek, Ramsey-Washington Metro, South Washington, and Valley Branch Watershed Districts, Middle St. Croix Watershed Management Organization, the cities of Cottage Grove, Dellwood, Forest Lake, Lake Elmo, Stillwater, and Willernie, West Lakeland Township, Washington County and the Washington Conservation District. The EMWREP region covers all of Washington County as well as the portions of Valley Branch and Comfort Lake - Forest Lake Watershed Districts that stretch into Anoka, Chisago and Ramsey Counties. A map and list of EMWREP partners can be found at www.mnwcd.org/cleanwater.

Purpose: The purpose of the EMWREP partnership is to educate the public and various other target audiences within the EMWREP region about the impacts of non-point source pollution on local lakes, rivers, streams, wetlands and groundwater resources and engage people in projects that will help to protect and improve water quality in the region.

Partnership Structure: EMWREP is guided by a steering committee comprised of representatives from each of the 17 partner organizations. The committee generally meets twice a year to provide recommendations on the program budget and activities. The EMWREP educator sends a quarterly e-newsletter to all partners' staff, council members and board members, and communicates one-on-one with individual partners on projects throughout the year. The EMWREP education plan is revised every two to three years to accommodate changing priorities and new target audiences. In addition, the EMWREP educator prepares an annual report on program activities and provides outreach data and statistics for partners' MS4 Permit reports. All EMWREP reports, plans, print materials and news articles are available on-line at www.mnwcd.org/emwrep.

Summary of 2011 EMWREP Education Programs:

A [map](#) of EMWREP priority areas for 2011 is included at the end of this report.

General Education Campaign: EMWREP engages in a number of activities aimed at increasing awareness of water resource issues, promoting a conservation ethic among local residents, and catalyzing behavior change. Many of these activities are accomplished in partnership with existing government, non-profit, and community based groups, as well through local media outlets. The general education campaign is also used to promote targeted outreach efforts and partner BMP programs.

Outreach activities in 2011 included community events, student programs, mailings, newspaper columns, press releases, city newsletter articles, websites and social media. EMWREP also took part in the WaterShed Partners Clean Water Minnesota media campaign and launched the “Save the Fish” marketing campaign.

Blue Thumb Program: The Blue Thumb – Planting for Clean Water® program (www.BlueThumb.org) is a dynamic coalition of more than 85 partner organizations working together to raise awareness about stormwater pollution and encourage homeowners to plant native gardens, raingardens and shoreline projects to protect surface and groundwater resources.

EMWREP uses Blue Thumb to promote partner BMP programs. This outreach is a critical component of an adaptive ecosystem management approach that connects outreach with project implementation and water monitoring. During 2011, EMWREP hosted Blue Thumb workshops in North St. Paul, Scandia, Stillwater and Woodbury, in addition to giving presentations in many other communities in the area, and participated in several local events, including the Family Means St. Croix Valley Garden Tour and the Phipps Artful Raingardens Project. Additionally, Blue Thumb partners had prominent exhibit space in the Eco Experience at the Minnesota State Fair. Outreach this year has resulted in 128 new projects being initiated within the eight EMWREP partner watersheds.

Go Wild!: Go Wild (www.mnwcd.org/gowild) is a new program, still under development, to engage rural property owners. The goal is to leverage public interest in birds and wildlife to engage people in planting and habitat improvement projects in targeted areas that will also reduce erosion and non-point source water pollution.

A key component of this program is collaborative outreach with local non-profits and sportsmen groups such as Ducks Unlimited, Pheasants Forever and Audubon Minnesota. EMWREP hopes to support the outreach conducted by these groups, to help connect landowners with additional resources available through EMWREP partners, and to encourage projects that protect water as well as improving wildlife habitat.

In 2011, EMWREP completed preliminary audience research, hosted a bird habitat workshop in central Washington County, and participated in the Hugo Feed Mill Open House and MN Outdoor Youth Expo coordinated by the Wild Wings Hunt Club in Hugo. We also used city newsletters and websites to begin promoting services for rural landowners.

Blue Biz: The Blue Biz program consists of a website (www.cleanwaterMN.org/businesses) and outreach materials that partners can use to engage commercial property owners in BMP projects. The EMWREP educator also works with partners to target specific property owners as needed.

In 2011, two commercial entities identified in South Washington Watershed District's Hwy 61 subwatershed assessment - Target and the school district's service center – initiated infiltration projects. Plans are underway to work with two businesses in Stillwater in 2012 as well.

Stormwater U: Stormwater U is a technical training series for municipal staff and contractors, including engineers, planners, inspectors and public works. Stormwater U workshops are hosted in collaboration with University of Minnesota Extension and the Minnesota Erosion Control Certification Program.

This year, EMWREP collaborated on a Turf Management workshop and three raingarden design and installation courses for contractors during the spring, as well as two erosion control seminars during the summer. Presentations were also given at Woodbury and Washington County Public Works trainings.

NEMO: The Northland NEMO program (Non-point Education for Municipal Officials - www.northlandnemo.org) provides local elected officials and decision makers with resources and information to make informed decisions about land use and water quality in their communities. Northland NEMO is hosted by the University of Minnesota Extension and EMWREP is one of more than a dozen partner organizations. Program offerings include several basic presentations, as well as the interactive Watershed Game.

During the spring of 2011, EMWREP conducted a focus group session with local communities as part of the St. Croix Basin Minimal Impact Design Standards (MIDS) grant project and gave presentations to the West Lakeland Planning Commission and the Cottage Grove Environmental Planning Commission. EMWREP also helped to organize the third annual Workshop on the St. Croix River, which was attended by nearly 100 local decision makers.

MS4 Toolkit: EMWREP developed the MS4 Toolkit (www.cleanwatermn.org/MS4toolkit) with a grant from the Minnesota Pollution Control Agency. The toolkit includes educational materials that partners can use to meet the six minimum control measures in the MS4 permit, such as brochures, posters, slide shows, training videos and more. In addition to the on-line materials, training videos for parks and public works staff and pop-up banners for community events are available partners to borrow. EMWREP continues to provide basic website maintenance for the MS4 toolkit and to occasionally add new materials to the kit as they are developed.

MS4 STORMWATER POLLUTION PREVENTION PROGRAM
Correlating Minimum Control Measures with EMWREP Programs and Audiences

1. Public Education and Outreach

- General Education Campaign (general public)
- Blue Thumb (homeowners)
- Go Wild! (rural landowners)
- Blue Biz (commercial property owners)

2. Public Participation

- General Education Campaign
- Blue Thumb
- Go Wild!
- Blue Biz

3. Illicit Discharge Detection and Elimination

- General Education Campaign
- MS4 Toolkit (multiple audiences)

4. Construction Site Storm Water Runoff Control

- Stormwater U (municipal staff and contractors)
- MS4 Toolkit

5. Post Construction Storm Water Management

- Stormwater U
- NEMO (local elected officials and decision makers)
- Blue Biz
- MS4 Toolkit

6. Pollution Prevention and Good Housekeeping in Municipal Operations

- Stormwater U
- MS4 Toolkit

2011 Program Activities and Highlights

Public Education: General public education and outreach activities in 2011 included community events, student programs, mailings, newspaper columns, press releases, city newsletter articles, websites and social media. EMWREP also took part in the WaterShed Partners Clean Water Minnesota media campaign and launched the “Save the Fish” marketing campaign.

Save the Fish: This summer, EMWREP worked with the St. Croix River Association and Lift Bridge Brewery to create the “Save the Fish” campaign. JJ Taylor Companies



distributed 100,000 drink coasters to bars and restaurants in the St. Croix Valley between June and July. Coasters directed people to the newly created www.stcroix360.com to sign up for an e-newsletter, be entered to win prizes, and learn about protecting water quality.

Community events: EMWREP reached more than 5000 people at local community events including:

- Power’s Lake Trees workshops, March 1-2 (65)
- Washington County Fair, Aug. 3-7 (5000)
- Cottage Grove Public Works Open House, Sept. 15 (500)
- Newport Community Buckthorn Pull, Oct. 29 (40)



Friends pose as native flowers at the 2011 Washington County Fair.

Student Programs: EMWREP participated in several water education programs during 2011 for K-12 students:

- Da Vinci Festival, Stillwater ISD - Jan. 8 (2500 K-12 students and parents)
- MN Youth Outdoor Expo, Hugo, May 21-22 (50 K-12 students and parents)
- OH Anderson Field Day, Mahtomedi – May 13 (100 3rd-5th grade students)
- Children’s Water Festival, St. Paul – September 28 (175 5th grade students)



Project WET Teacher Training: EMWREP sponsored a teacher training at Valley Creek ELC in June. Twenty-five teachers from South Washington School District attended.

Left: April Rust, MDNR, instructs a group of teachers on watershed science for their classrooms.

Storm Drain Stenciling: On July 18, EMWREP worked with Minnesota Conservation Corps to stencil storm drains in downtown Stillwater.

Targeted Mailings: Postcards and/or letters were sent to 2540 residences during the year to advertise workshops and opportunities, including:

- 2000 homeowners in RWMWD near Battle Creek Lake and Tamarack Swamp
- 300 homeowners in VBWD near Silver Lake
- 180 homeowners in MSCWMO near Lily Lake
- 60 landowners in southern Washington County identified by the Top50P! project

Newspaper articles: The EMWREP educator writes weekly articles (52 per year) for several local papers. These articles can be found on-line at the East Metro Water blog <http://eastmetrowater.areavoices.com>. In addition, the articles were printed in the following papers:



- Valley Life - 49,000 readers in Stillwater, Bayport, Oak Park Heights, Stillwater Township, Afton, Lakeland, Marine, Hugo, Lake Elmo, Houlton, Somerset and New Richmond.
- Lillie Reviews –34,392 readers in Oakdale, Lake Elmo, North St. Paul, Maplewood, White Bear Lake, White Bear Township, Gem Lake, Western Mahtomedi, and Landfall. (Articles are occasionally printed in Lillie owned papers outside the EMWREP area as well, reaching another 83,608 readers.)
- South Washington County Bulletin – 8616 readers in Cottage Grove, St. Paul Park, Newport and Grey Cloud.
- Oakdale Patch – on-line newspaper with 6700 monthly readers, 312 facebook followers and 270 Twitter followers
- Stillwater Patch - on-line newspaper with 6434 monthly readers, 613 facebook followers and 302 Twitter followers
- Woodbury Patch – on-line newspaper with 8243 monthly readers, 813 facebook followers and 393 Twitter followers

Press releases: Several other papers print press releases and news articles from EMWREP one to five times per year, including:

- Hugo Citizen - 10,000 readers
- Forest Lake Times – 13,029 readers
- Scandia Messenger – 1075 readers
- Woodbury Bulletin – 7811 readers
- Pioneer Press – 185,736 weekday readers

City newsletter articles: Information about water resources and EMWREP partner activities reached more than 175,000 people through community newsletters in 2011:

- Afton (pop. 2800)
 - [March](#) – Go Wild! Program; WCD Tree Sale; Septics and flooding info; Bird Workshop
 - [April](#) – Rain barrel sale; Buckthorn grants
 - [June](#) – Artful Raingardens; St. Croix River Paddle
 - [July](#) – St. Croix Garden Tour; St. Croix Paddle; Artful Raingardens; Save the Fish
 - [Sept.](#) – Native plant sales
 - [Oct.](#) – Fall leaf raking
- Bayport (pop. 3200)
 - [March](#) – Green Streets grant project
- Baytown (pop. 1970) - “Baytown Neighbors” goes to 140 households
 - [May](#) – Well water testing
- Cottage Grove (pop. 34,000)
 - [April](#) – Blue Star Award
 - [July](#) – Car washing
 - [Aug.](#) – Phosphorus in the Mississippi River
- Lake Elmo (pop. 7647)
 - [April](#) – WCD tree and rain barrel sale; septic systems
 - [Sept.](#) – Blue Star Award; Stormwater pollution prevention
- Lake St. Croix Beach (pop. 1051)
 - [March](#) – Go Wild!
 - [April](#) – Axdahl’s Raingarden workshop; pesticide use
 - [July](#) – Lawn care
- Lakeland (pop. 1830)
 - [March](#) – Go Wild!
 - [May](#) – Phosphorus and St. Croix
 - [July](#) – Summer calendar of water events
 - [Aug](#) – Save the Fish
 - [Sept](#) – Fall native plant sales
- Mahtomedi (pop. 8000)
 - [April – June](#) – Axdahl’s Raingarden Workshop
 - [July – Sept](#) – Stormwater pollution
 - [Oct – Dec](#) – Rake for Lakes Sake
- Newport (pop. 3715)
 - [Spring](#) – Stormwater pollution prevention
- Oak Parks Heights (pop. 4724)
 - [Second quarter](#) – Axdahl’s Raingarden Workshop
 - [Third quarter](#) – Calendar of summer water events; Groundwater protection
- Oakdale (pop. 27,300)
 - [Sept – Nov.](#) - Fall yard care

- Stillwater (pop. 18,000)
 - [Spring](#) – Axdahl’s raingarden workshop
- West Lakeland (pop. 3547)
 - [March](#) – Go Wild!; Blue thumb spring events
- Woodbury (pop. 57,345)
 - [Feb](#) – Blue Thumb workshop
 - [Aug](#) – Native plant sale
 - [Oct.](#) – Fall yard care



Websites and Social Media: EMWREP uses several websites to provide information and resources for the public and also uses social media, such as facebook, twitter and the East Metro Water blog to reach people in the community:

- Between Jan. 1 and Nov. 1, 2011, the Washington Conservation District website (www.mnwcd.org) received 10,118 visits from 4,832 visitors. EMWREP programs and partners are featured on several pages within the website, including www.mnwcd.org/cleanwater, www.mnwcd.org/emwrep, www.mnwcd.org/gowild and www.mnwcd.org/water_blue_thumb. WCD has 74 followers on facebook.
- The Blue Thumb website (www.BlueThumb.org) received 24,873 visits from 17,926 visitors. Blue Thumb has 526 friends on facebook.
- The Clean Water Minnesota website (www.cleanwatermn.org) received 3661 visits from 2880 visitors.
- The East Metro Water Blog (www.eastmetrowater.areavoices.com) averages 92 readers per week.

Clean Water Minnesota Media Campaign: EMWREP is one of 65 partners in the WaterShed Partners, an innovative, dynamic coalition of public, private and non-profit organizations in the Twin Cities metro area that work collaboratively to teach residents how to care for area waters. WaterShed Partners coordinate the Clean Water Minnesota Media Campaign, maintain the www.cleanwatermn.org website and MS4 Toolkit, and have prominent exhibit space in the DNR Building at the Minnesota State Fair.



2011 Media Campaign activities included [Public Service Announcements](#) on television (Cable & Channel 45), at sporting events (MN Twins Radio & St. Paul Saints TV), and on Minnesota Public Radio. During 2011 WaterShed Partners also began developing the new [Minnesota Clean Water Challenge](#), which will help communities to engage their citizens in stormwater pollution prevention efforts such as building raingardens, sweeping up grass clippings, redirecting downspouts and using less fertilizer. The Clean Water Challenge will also provide a way for communities to track and measure the impact of their outreach. Media activities in 2011 generated more than 6 million impressions.



Blue Thumb: During 2011, EMWREP hosted Blue Thumb workshops in North St. Paul, Scandia, Stillwater and Woodbury, in addition to giving presentations in many other communities in the area. EMWREP also participated in several local events, including the Family Mean St. Croix Valley Garden Tour and the Phipps Artful Raingardens Project. Additionally, Blue Thumb partners had prominent exhibit space in the Eco Experience at the Minnesota State Fair. Outreach this year has resulted in 128 new projects being initiated.

Workshops, meetings and presentations: In 2011, 375 people attended EMWREP sponsored Blue Thumb workshops, open houses and presentations.

- Presentation (West Lakeland Columbine Garden Club), Feb 17 (15 people)
- Workshop (Silver Lake, North St. Paul), Feb. 28 (13)
- Lily Lake Open House (Stillwater), March 7 (40)
- Workshop (Oakdale & Woodbury), March 8 (43)
- Workshop (Scandia), April 12 (34)
- Presentation (FIS in Woodbury), April 19 (15)
- Env. Sustainability Workshop (Woodbury), April 22 (50)
- Presentation (White Bear Lake Unitarian in Mahtomedi), May 18 (25)
- Presentation (Izaak Walton League in Mahtomedi), May 19 (15)
- Workshop (Axdahl's in Stillwater), May 21 (25)
- Presentation (Heritage Glen HOA in Woodbury), Oct. 18 (50)
- Presentation (Lion's Club in Stillwater), Nov. 1 (50)



Axdahl's Garden Center worked with BCWD to build two raingardens and then hosted a Blue Thumb workshop.

Community Events: EMWREP reached around 300,000 people at local community events and Blue Thumb partner events.

- Master Gardener Spring Fling, March 12 (300)
- Lakes Area Expo (Forest Lake), April 30 (50)
- Master Gardener Plant Sale (Lake Elmo), June 5
- St. Croix Valley Garden Tour (Stillwater and Lake Elmo), July 16-17 (850)
- Artful Raingardens Project, June – July
- Minnesota State Fair, Aug. 25-Sept. 5 (295,000)



Visitors at the State Fair were amazed by the lengths of native plant roots.



The Artful Raingardens Exhibit kicked off with a performance by Heart of the Beast Puppet theater.



The Grabowski home in Lake Elmo (VBWD) was featured on the St. Croix Valley Garden Tour.



The Zemcuznicov home in Stillwater (BCWD) was also featured on the tour.

Go Wild!: During 2011, EMWREP completed preliminary audience research to help develop outreach efforts for rural landowners, hosted a bird habitat workshop in central Washington County, participated in the MN Outdoor Youth Expo and the Hugo Feed Mill Open House and used city newsletters and websites to begin promoting services for rural landowners.

Bird Habitat Workshop: EMWREP collaborated with “Bird Chick” Sharon Stiteler on a workshop at Gander Mountain in Woodbury on March 29. The workshop was geared towards rural landowners with 5-10 acres looking to improve bird habitat.



Sharon Stiteler “Bird Chick” is a well-known author and blogger.

MN Outdoor Youth Expo: Wild Wings Hunt Club in Hugo sponsored the MN Outdoor Youth Expo on May 21-22. EMWREP led a bird habitat scavenger hunt and wildflower hike for the event and used the opportunity to meet representatives from local sportsmen groups.

Hugo Feed Mill Open House: We provided information for horse owners and others at this event on March 7.

Promotions: During 2011, EMWREP began promoting services for rural owners, focusing on projects that improve wildlife habitat and are also good for water quality. Information was posted on the county’s WashNET site from January 28 – February 3. Articles were also published in several city newsletters, and a new page was created on the Conservation District website – www.mnwcd.org/gowild.

Next Steps: We plan to organize two workshops for woodland landowners in 2012, as well as a landscaping workshop for people with 3-5 acres and two events for horse owners and boarders.

Blue Biz: In 2011, two commercial entities identified in South Washington Watershed District’s Hwy 61 subwatershed assessment - Target and the school district service center – initiated projects. Two businesses in Stillwater are interested in projects as well.

Stormwater U: This year, EMWREP collaborated on a Turf Management workshop and four raingarden design and installation courses for contractors during the spring, as well as two erosion control seminars during the summer. Presentations were also given at Woodbury and Washington County Public Works trainings.

Turf Management Workshop: This course, offered on February 8, was held in Maplewood in conjunction with the Ramsey – Washington Metro Watershed District. The workshop was geared toward private turf management contractors and covered topics such as mowing, watering, fertilizers and weed control.

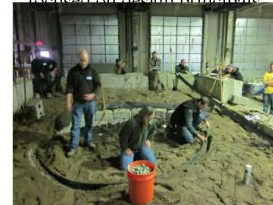
- 65 participants attended from companies in the east metro

Raingarden Design and Installation: EMWREP collaborated with Blue Thumb program partners on a series of raingarden workshops for city staff and contractors.

- Workshop 1 – The first workshops focused on design considerations and maintenance of raingardens.
 - 30 Blue Thumb partners attended on Feb 11.
 - 45 independent contractors attended on Feb. 15.
- Workshop 2 – The second workshops were held at the Hedberg indoor training center in Plymouth, allowing participants to practice installing techniques using real equipment and tools.
 - Two sessions were held with around 20 participants at each.



The first set of workshops focused on design principals.



The second workshop allowed hands-on experience.

Erosion Control Field Seminars: On August 9, EMWREP collaborated with the Minnesota Erosion Control Association to hold two outdoor field seminars for city staff and contractors. The sessions began at Cottage Grove Ravine, where participants learned about a project underway to build a new road, bridge and city hall. Part two of the seminar took place at a McDonalds in Woodbury that was under reconstruction. Discussion at this location focused on the constraints of working in a small site. 37 people attended.



City staff and contractors visited an active construction site in Cottage Grove.

Presentations: Woodbury and Washington County requested presentations for their Public Works trainings.

- Woodbury – April 14 – We focused on preventing stormwater pollution during common activities and viewed the Lawn Care video created for the MS4 Toolkit.
- Washington County – Sept. 14 – We talked about Blue Thumb – Planting for Clean Water and encouraged county employees to help promote the program to the public and use it themselves.

NEMO: During the spring of 2011, EMWREP conducted a focus group session with local communities as part of the St. Croix Basin Minimal Impact Design Standards (MIDS) grant project and gave presentations to the West Lakeland Planning Commission and the Cottage Grove Environmental Planning Commission. EMWREP also helped to organize the third annual Workshop on the St. Croix River, which was attended by nearly 100 local decision makers.

MIDS Focus Group: A focus group session was held on April 27 with representatives from eight local communities in Washington County. The goal of the session was to learn what support the cities need to implement the St. Croix TMDL plan and to identify training needs as well. Some of the findings included:

- Local cities are already taking many steps to reduce phosphorus.
- Public education plays an important role in helping cities to reduce phosphorus.
- Communities in Washington County are very different and face very different challenges in reducing phosphorus.
- Agriculture is a big part of the problem that cities don't have control over.
- Cities need to lead by example.
- Funding is a major barrier to meeting the TMDL goal. Other barriers included:
 - Lack of public support
 - Lack of support from public works staff.
 - Stormwater regulations only apply to MS4 communities.
 - Staffing
 - Lack of participation from agricultural producers in the area.
- With more funding, cities would:
 - Do more public education.
 - Build demonstration and CIP (capitol improvement projects)
 - Establish stronger ordinances and enforcement
- Cities have support from their public officials to implement stormwater management activities but not funding.
- Most cities have amended their ordinances to meet new watershed requirements.
- Cities desire support from the WCD and watersheds to:
 - Work with agricultural producers in the area.
 - Meet MS4 permit requirements.
 - Conduct special workshops or presentations at regularly scheduled council meetings.
 - Provide materials and support for public education.

Workshop on the St. Croix River: 85 local officials and 25 staff attended the third annual workshop on the water held on June 29. During the workshop, participants learned about aquatic and terrestrial invasive species, Lakeland's new vegetation management ordinance, techniques for public education, funding opportunities and the MIDS pilot project. People who attended reported that they learned a lot and value these regional workshops.



Amy Carolan and Jenny Shillcox discussed Lakeland's new ordinance.

Presentations: West Lakeland and Cottage Grove requested presentations for their planning commission and environmental planning commission in the spring. Both talks focused on activities underway in the region to protect and restore water resources, as well as action that the communities can take leadership on.

MS4 Toolkit: In 2011, EMWREP continued to use materials from the MS4 Education Toolkit for education and outreach to a variety of audiences about non-point source water pollution.

Washington
County

WEDNESDAY, JUNE 8, 2011 **5A**

PHOTOS BY AMBER KISPERT

South Washington Watershed District president Jack Lavold presents Woodbury High School students Sarah Bradmire, Crystal Drake and Jason Buckeye with certificates, and checks, for their logo designs. Buckeye's design was chosen as the new official watershed district logo.

Going logo

WHS students participate in community logo contests

BY AMBER KISPERT
akispert@woodburybulletin.com

A group of Woodbury High School students have taken their artistic talents to the community by designing logos for both the South Washington Watershed District and the Woodbury Chamber of Commerce's Country Mile.

Earlier this year, students in Chris Dease's graphic design class designed logos for the two organizations as part of a class assignment.

WHS freshman Jason Buckeye won the South Washington Watershed District contest and junior Caitlin Bieza won the Country Mile logo contest.



Woodbury Chamber of Commerce's Country Mile logo contest selected Woodbury High School student Caitlin Bieza's submission as the new official logo of the annual race.

Designing for the watershed

Recently the South Washington Watershed District expanded its boundaries to include Denmark Township and east Cottage Grove, which grew the watershed district by roughly 40 percent.

Because of the growth and the addition of new communities, it seemed like a good time for a new logo, watershed district board President Jack Lavold said.

"We felt at this time we would like to have a new logo to represent that area and unify the whole area as a single," he said.

Lavold explained how the logo design project reached high schoolers.

"I've been involved with a logo design before and we've also had it open to the public," he said. "We were discussing it and someone said, 'How about the local high schools?' and it just evolved into that."

Roughly 50 students submitted logos.

Lavold and administrative assistant Melissa Imse said the criteria that they were looking for in a logo included something that was reproducible on clothing, distinguishable when you see it and something that represented the environment.

The top three submissions were Buckeye and runners-up seniors Crystal Drake and

See **LOGO** Page 5A

Logo: Representing local organizations

Continued from Page 3A

Sarah Brandmire.

Buckeye walked away with a \$150 cash prize and the honor of having his design reproduced and used by the South Washington Watershed District.

Drake and Brandmire each received a \$50 cash prize.

"Their designs were good too," Buckeye said. "I thought they were better than mine."

All three students said they looked to other watershed districts for logo ideas. All three students designed their logos using Photoshop.

Buckeye said he is excited to see his design on t-shirts, on the watershed website and various other mediums.

"It's pretty cool," he said. "I'll always be able to come back and see my design."

Creating for the Country Mile

The Woodbury Chamber of Commerce announced its Country Mile logo contest back in January of this year in recognition of the 30th run-

ning of race.

The logo will be used on the T-shirts and various marketing materials. The winner, Bieza, also won a \$100 cash prize.

Bieza said she decided to enter the logo contest since art is an interest of hers.

"I'm interested in designing things," she said.

Bieza said she went to the Internet to find images of people running before deciding on her design.

"The idea just kind of popped into my head," she said.

Bieza designed her logo in Photoshop.

Bieza said she was really surprised to find out that she had won the contest.

"I was like in shock," she said. "I didn't think mine was that good or anything, and since I've never done anything like this before. It was pretty surprising."

Bieza said she will definitely be participating in the Country Mile this year.

"I'm excited to see my logo," she said.



2011 Annual Report

Published April 30, 2011, 08:33 AM

Newport ravine to be stabilized

A summer project to stabilize that ravine and add ponds to better handle the storm runoff is aimed at alleviating the problem that for years has left homeowners at the foot of the hill with unwanted sludge in their yards and basements.

By: Jon Avise, South Washington County Bulletin

Muck, mud, sediment: call it what you like, but when heavy rains come it does, too, for residents near a wooded ravine in north Newport.

The cause? Thousands of gallons of runoff from the paved surfaces atop a large hill at the north end of the city, including busy Bailey Road and large parking lots at Bailey Nurseries, that rush down toward a neighborhood near Ford Road and can cause localized flooding.

"There's a lot of storm water that comes off the impervious surfaces up there and washes down — washes out — the ravine," City Administrator Brian Anderson said.

A summer project to stabilize that ravine and add ponds to better handle the storm runoff is aimed at alleviating the problem that for years has left homeowners at the foot of the hill with unwanted sludge in their yards and basements.

The improvements will be a joint undertaking, with the Minnesota Department of Transportation, South Washington Watershed District and the city sharing in the estimated \$2.4 million cost. Anderson said what portion of the project costs the city will cover hasn't been determined yet.

Two phases to one

Officials originally planned to complete the ravine improvements in two phases when the city began discussing the project in 2009; it is now scheduled to move ahead as one piece beginning in July.

Work will stabilize the ravine with material that will prevent scouring of the ravine; improve storm sewers in the area; and reconstruct and re-grade portions of 21st Street, and Valley Road to better convey storm water runoff.

Impacted properties — including that of Newport City Council member Bill Sumner — could be assessed as much as \$3,450 under varying plans. A public hearing on the project is scheduled for May 19.

"The more we wait, the more it's going to go up in (cost) in the future," said City Council member Tracy Rahm. "Might as well go ahead and do it."

Tags: updates, newport, government, environment

StarTribune.com

Snake hibernacula: Build it, and they will come

Updated: November 5, 2011 - 9:05 PM

With development taking their habitat, snakes need winter homes. So volunteers recently built artificial hibernation structures, called hibernacula, as part of a bigger project to turn 80 acres to grassland prairie in southeast Washington County, on the border with Cottage Grove.

Snakes help provide a balanced ecosystem by keeping small animals and rodents in check as well as serving as food for other species, said Wayne Ostlie, conservation programs director for Great River Greening, based in St. Paul.

Recently, 175 volunteers pitched in to collect prairie seeds, remove invasive species and build the hibernacula, he said.

While most of the snakes using the hibernacula will be garter snakes, the rarer Eastern fox snake, hognose snake, smooth green snake and gopher snake would use them as well.

Funding for the work comes from lottery proceeds and the South Washington Watershed District.

JOY POWELL

2011 Monitoring Report Summary



Background

Established in 1993, SWWD manages approximately 65,000 acres near the confluence of the Mississippi and St. Croix Rivers. The District encompasses 12 lakes, 4 of which are impaired, and 120 miles of public waters streams (piped and open channel), of which 3 reaches are impaired. SWWD actively manages surface waters in the District and places a strong emphasis on implementation through enforcement of development and redevelopment standards, collaboration with municipalities and agencies, and pursuit of public/private partnerships.

SWWD monitors its resources using a Regional Assessment approach in that baseline monitoring is focused on key crossings and checkpoints throughout the District. Data from those monitoring locations is used to identify regional issues for further investigation and track long-term trends water quality trends of key water resources. In 2011, SWWD monitored water quality at 18 Regional Assessment locations (9 lakes and 9 stream/stormwater). SWWD also monitored flow and/or water quality at 10 additional surface water sites and 5 groundwater wells as part of various SWWD projects. This summary includes results from the District's baseline Regional Assessment monitoring sites. SWWD Monitoring Reports are available online at <http://www.swwdmn.org/programs/monitoring-program/>. All data is available through the SWWD.

Lakes

SWWD lakes are monitored as part of the Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). As part of the program, CAMP volunteers visit their assigned lake on a biweekly basis from April to October to measure a variety of water quality indicators. The Metropolitan Council compiles and analyzes the data and releases a report the following year. While the 2011 report has not been released, the data is available and summarized here. All SWWD lakes are eutrophic or hyper-eutrophic meaning that they all experience frequent nuisance algal blooms throughout the summer. However, water quality in some lakes—Armstrong and Ravine—has shown improvement since monitoring began. Water quality of La, O'Conner's, Wilmes, and Colby Lakes has been consistent since monitoring began. Water quality of the remaining District Lakes—Markgrafs, and Powers—appears to be declining. Markgrafs Lake exhibited continued, rapid degradation far exceeding both state eutrophication standards and SWWD water quality goals. Powers Lake, considered a priority water body by SWWD, also continued to exhibit a prolonged decline in all standard water quality measurements reflecting influence from large scale suburban development over the past decade. Lakes grades are displayed in Map 1.

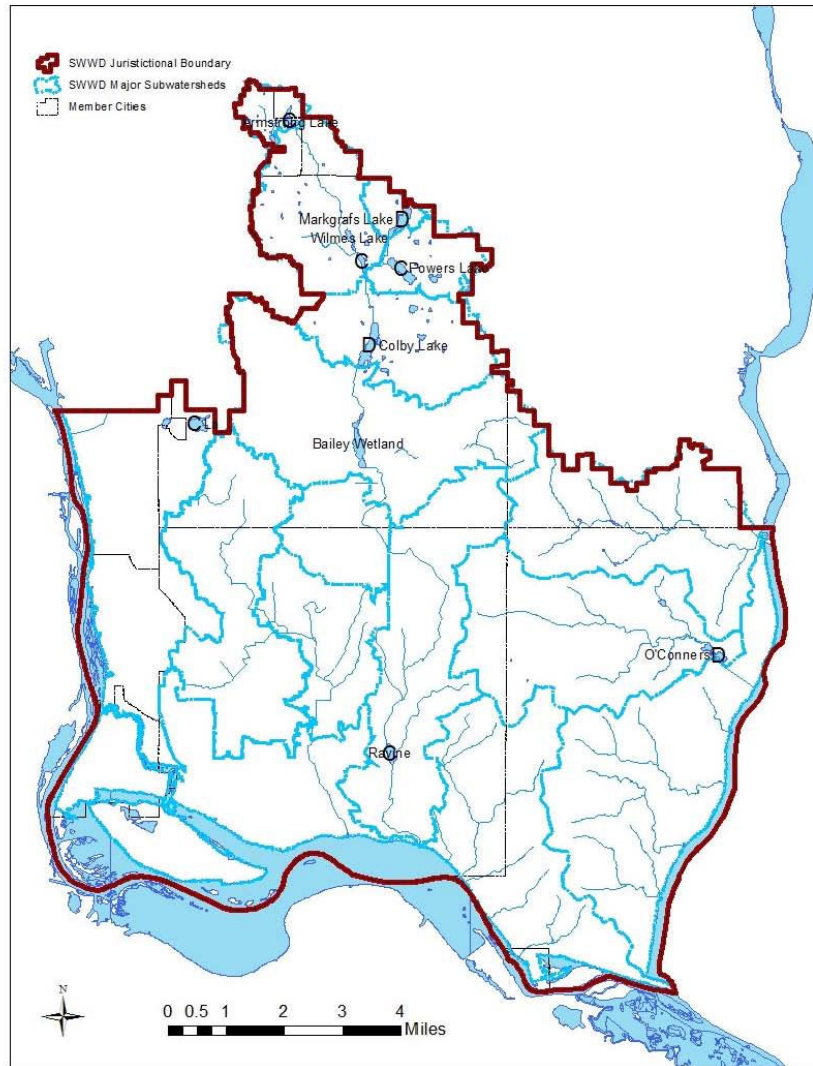
Stream and Stormwater

Regional assessment stream/stormwater locations were generally monitored from early April through October. Some sites—MS2, 100th Street, Wilmes Lake Outlet, and Trout Brook—display consistently good water quality. MS2 effectively serves as watershed outlet for the majority of SWWD's Northern Watershed (NWS) which is the focus of intensive SWWD assessment and restoration efforts. Data collected at MS2 indicates that the NWS, though mostly

developed, currently transmits relatively low runoff or pollutants and does not contribute to downstream problems. Likewise, the 100th St and Trout Brook sites showed very low pollutants transmitted out of SWWD's West and Central Draw and Trout Brook watersheds.

Other Regional Assessment Locations—St. Paul Park, Central Ravine, and MS1—display flashy hydrographs indicating rapid transmission of even small storm events and high concentrations of pollutants. 2010 results for Newport, St. Paul Park, and Central Ravine which all drain to the Mississippi River, indicate heavy metal concentrations frequently in excess of state standards. Of primary concern to the District, however is phosphorus (TP) loading rates (Map 2). TP loading rates at both St. Paul Park and MS1 far exceeded SWWD standards however, much of that was likely due to frequent and intense rainfall in early 2011. All remaining sites met SWWD loading standards. Trout Brook was monitored for the first time in 2011. Data shows phosphorus loading is currently below proposed TMDL levels for Lake St. Croix.

Map 1: 2011 Lake Grades



Map 2: 2011 Total Phosphorus Loading Rates at SWWD Regional Assessment Locations.

