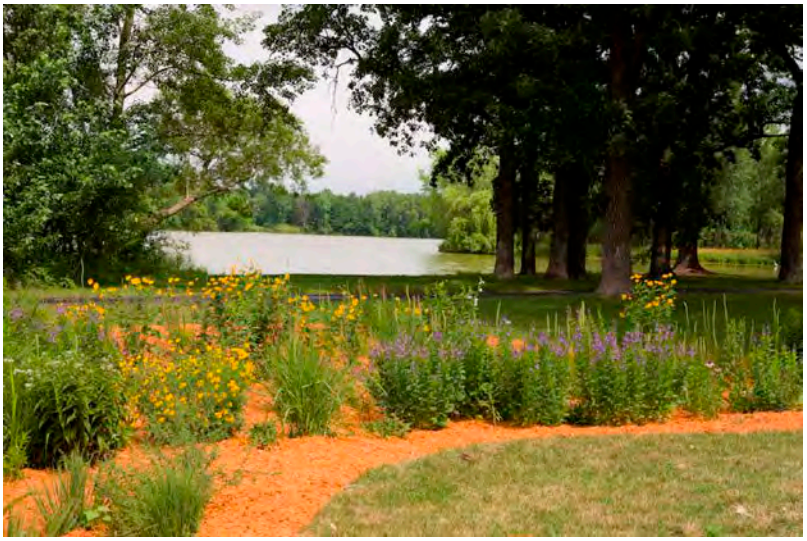
SOUTH WASHINGTON WATERSHED DISTRICT

2016 Annual Report



Contents

Board of Managers

2016

Manager	Position	Term Expires	City/County
Mr. Jack Lavold 6859 Ideal Avenue South Cottage Grove, MN 55016 651-459-8891	President	05/01/2017	Cottage Grove/Washington
Mr. Kevin ChapdeLaine, 601 2nd Avenue Newport, MN 55055 612-508-1284	Vice-President	05/01/2019	Newport/Washington
Mr. Brian Johnson 4353 Dorchester Drive Woodbury, MN 55129 651-458-3739	Vice-President	05/01/2019	Woodbury/Washington
Mr. Don Pereira 8232 River Acres Road Cottage Grove, MN 55016 651-769-0429	Secretary	05/01/2018	Cottage Grove/Washington
Mr. Mike Madigan 2366 Hidden Lake Cove Woodbury, MN 55125 651-702-0488	Treasurer	05/01/2017	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 2020 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. Another amendment to incorporate areas in its expanded boundary and the priorities and projects identified in the LSCWMO plan was completed in 2011.

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 2016.

2016 Financial Report

The 2016 audit report is in Appendix A. Revenue and program expenditure summaries 2015-2017 are presented below.

Revenue

Revenue Source	2015	2016	2017*
Ad Valorem Levy	$ 777,590.76	$ 858,337.40	$ 993,340.11
Stormwater Utility			
25% Area	$ 1,383,300.00	$ 1,413,400.00	$ 1,457,070.00
75% Area	$ 1,107,150.00	$ 1,123,950.00	$ 1,093,950.00
E. Mississippi	$ 287,860.00	$ 295,680.00	$ 322,860.00
Lower St. Croix	$ 91,270.00	$ 91,680.00	$ 93,520.00
Total Revenue	**$ 3,647,170.76**	**$ 3,783,047.40**	**$ 3,960,740.11**

*Anticipated Revenue

Program Expenditures

Program Area	2015 Budget	2015 Actual	2016 Budget	2016 Actual/Unaudited
1.0 Floodplain Management	$ 11,330	$ 6,382	$ 12,426	$ 6,038
2.0 Stormwater Management	$ 1,157,330	$1,536,050	$ 1,048,420	$ 2,164,776
3.0 Water Quality	$ 387,500	$ 267,397	$ 553,665	$ 1,212,275
4.0 Wetlands	$ 33,720	$ 30,529	$ 25,437	$ 22,665
5.0 Natural Resources	$ 44,400	$ 29,543	$ 48,178	$ 56,171
6.0 Groundwater	$ 90,000	$ 27,365	$ 90,719	$ 21,099
7.0 Erosion	$ 14,000	$ 13,625	$ 16,928	$ 16,222
8.0 Education	$ 44,100	$ 28,081	$ 38,032	$ 31,137
9.0 Long Range Work	$ 589,600	$ 81,572	$ 593,135	$ 180,811
10.0 Data Management	$ 177,919	$ 228,997	$ 228,920	$ 222,360
11.0 General	$ 298,772	$ 302,610	$ 321,187	$ 309,193
12.0 Debt Service	$ 798,500	$778,325	$ 806,000	$ 779,335
Total Budget	**$3,647,171**	**$3,330,476**	**$3,783,047**	**$5,022,082**

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.
- Multiple projects within the Wilmes Lake watershed were reviewed for potential downstream impact at Wilmes Lake which has exhibited past flooding. No projects reviewed in 2016 are expected to exacerbate existing flooding concerns.
- SWWD maintains extensive hydraulic and hydrologic modeling of the District. Staff continues to work with City staff to accommodate incoming development while preserving critical floodplain storage in the District as identified in District models.

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 or update controls. In Municipalities with an adopted plan and updated controls, SWWD reviews projects for regional impact. Staff reviewed 27 projects in 2016.

- SWWD continued to operate an extensive stormwater monitoring network. Data collected as part of the program is used to identify trends in water quality which are largely driven by changes in stormwater runoff. Monitoring reports for 2016 are expected to be available mid-summer. The monitoring data is available on the SWWD Web-based database that allows users to access District data and performs basic statistical and plotting functions. In 2016, SWWD worked with UMN staff to complete an extensive analysis of SWWD's regional monitoring assessment sites. This project provided any potential data inconstancies resulting from changing sampling procedures over the time of record and provide in depth analysis of quality of water leaving the watershed.

- SWWD continued coordination with the City of St. Paul Park, Cottage Grove, Washington County and the Minnesota Department of Transportation to solve a drainage problem at 70th Street and Highway 61. In 2013 Minnesota Native Landscapes completed construction on the lower ponds of the project. In 2014 SWWD continued to work with landowners to acquire the remaining easements to begin construction on the upper portion of the ponds. In 2015, the contract with Minnesota Native Landscapes was cancelled to allow the SWWD to address other project needs. Only the lower portions of the project were completed however the upper portions of the project may be completed with development in the area. In 2016 maintenance was completed on the project.

- The Grey Cloud Slough is a side channel of the Mississippi River in southern Washington County. This section of the River is within the Mississippi National River and Recreational Area and is a designated State water trail. Unfortunately, the slough is severely degraded.

Flow from the Mississippi River into the slough was cut off following construction of an earthen embankment and roadway across the mouth of the slough in the 1960s. As a direct result, the slough exhibits stagnation, poor water quality, and severely degraded backwater aquatic habitat. Water quality and habitat restoration in the slough has long been a priority for the region and draws significant interest from local, state, and federal agencies, non-profit organizations, and area residents. That interest is evidenced by a high level of participation in a Technical Advisory Committee (TAC) to explore options to restore the slough. That TAC included representatives from Denmark Township, Washington County, Minnesota Department of Natural Resources, U.S. Army Corps of Engineers, National Park Service, and U.S. Fish and Wildlife Service.

The SWWD formed its Grey Cloud TAC in 2011 to provide a formal setting to engage all interested parties, coordinate agency efforts, and tap technical expertise in identifying cost-effective solutions to achieving SWWD water quality and habitat goals for the slough. The consensus of the TAC was that reconnecting the slough to the main channel of the Mississippi River was the essential first step to restore water quality and habitat. Through use of an engineering consulting firm, the TAC examined several options for that making that reconnection. Ultimately, the TAC came to the consensus that constructing a bridge or bottomless culvert in place of the existing earthen embankment was the best of several options explored due to the following reasons: 1) Most importantly, a bridge fully restores hydrologic connectivity to the slough over other options (e.g. culverts) and will immediately improve water quality to match that of the main channel and restores sediment transport; 2) The bridge offers improved fish passage, provides boating access to the slough, and dramatically improves boater and roadway safety. The SWWD Board of Managers accepted the TAC consensus and is proposing to construct a bridge or bottomless culvert as a first step toward the goal of restoring water quality and backwater aquatic habitat in the Grey Cloud Slough.

In 2014, the Township and County decided that construction of a bridge would best maintain the full hydro connectivity with the main channel. SWWD Staff continues work to develop both public and private partnerships. Supplemental funding sources to fill the gap between SWWD and Washington County funds and the total project costs where provided by the 2015 State Legislature. With the help of County Commissioner Karla Bigham the SWWD and Washington County worked with Senator Sieben, Representative Schoen and Representative McNamara to support legislation to provide $520,000 from the Clean Water Legacy Funds for the project. In 2016 aquatic plant surveys and mapping for Grey Cloud was completed. In cooperation with Washington County planning and design of the project is underway as part of Washington County's planned County Road 75 pavement management. Construction is planned for 2017 and 2018. A discretionary EAW was completed for the project. in 2016 a 3rd party review was completed for the project.

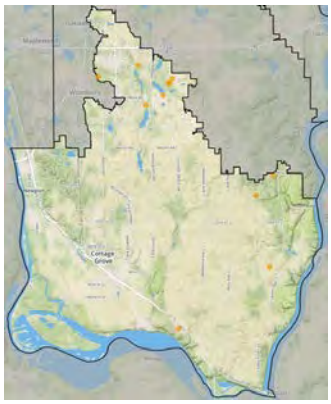
- Construction of Phase II of the Overflow project was completed in 2015. Stabilization of the channel from Highway 61 to the Mississippi River included vegetation management, rock check dams, woody check dams, cedar tree revetments and boulder revetments. Construction began in August and was completed by October 15, 2015. The SWWD will continue to inspect the project to determine any maintenance or vegetation management needs.

- Central Draw Overflow Phase III and IV. In cooperation with Washington County design of Overflow Phases III and IV were started in 2015 and continued in 2016. Both phases are planned for construction in 2017. Washington County is planning improvements to CSAH 19 along the western edge of the park including a new entrance and circulation road for Cottage Grove Ravine Park. The circulation road will include a new lake outlet to control lake bounce and downstream flooding as part of the Overflow project (Phase III). As a third element of this project Phase IV of the Overflow project will be constructed during the fall of 2017. This phase will include the stabilization of the ravine North of Ravine Lake. Stabilization techniques will utilize re-enforced channel, drop structures and check dams to reduce stormwater velocities and reduce slope channel. A flow path through the park currently exists however sandy soils make the channel prone to erosion, this phase of the Overflow project will protect to park from further or devastating erosion due to flow. Vegetation management was completed in 2016 to restore native vegetation, provide forest management and stabilize soils throughout the park. Construction of the channel and trail changes will occur in 2017 in conjunction with phase III of the CDO and Washington County's park entrance and circulation road improvements.

- Central Draw Overflow Phase V. Phase V is pending. It will include configuration of a regional detention basin in Cottage Grove and installation of a 72" stormwater pipe from that basin to Ravine Park where flow will daylight. Completion of phase V will mark complete the connection of the CDSF to the Mississippi River. In 2016, SWWD contracted an engineering firm to develop technical information needed to determine land easement requirements, a preliminary opinion of probable construction costs and project schedule to complete the outlet design and pipe segment to East Ravine. This information will be used to secure funding and purchase land for the project.

- Cottage Grove East Ravine. After years of negotiation and development, the City of Cottage Grove and the SWWD entered into an agreement for the common use SWWD property for flood control, stormwater management, parks and open space, the conveyance of regional floodwaters through the City's Central Draw storm sewer system, and development of a combined local/regional storm sewer (Central Draw Overflow) system through the planned East Ravine neighborhood. The purpose of this Agreement is to integrate local and regional management efforts resulting in a combined Stormwater Management system to convey local and regional runoff in a controlled and efficient manner and to improve the quality of surface water.

Water Quality



- In 2016 SWWD continued its performance-based cost-share program. Instead of reimbursing land owners for a specific percentage of total project cost, SWWD reimburses land owners based on the amount of phosphorus that their project is expected to retain. SWWD's 2016 reimbursement rate was $5,000.00 per pound of phosphorus retained with reimbursement capped at total project cost. SWWD awarded $70,000 to 16 project applicants in 2016 expected to capture 27 lbs of total phosphorus. There were 7 projects landowner projects installed in 2016 (including grant recipients from previous years) costing SWWD $20,795 and capturing an estimated 4.2 lbs of phosphorus. Projects with higher funding levels typically treated runoff from several properties.

BMP Cost Share Program: 2016 Implementation

7 completed practices

4.2 lbs total phosphorus reduction

- The SWWD Board of Managers awarded $410,950 through its Coordinated Capital Improvement Program (CCIP) in 2016. $307,800 was awarded to the City of Cottage Grove for stormwater retrofit of the former Home Depot site, 80th St. Crossing Redevelopment, Pine Hill Elementary stormwater improvements and 2016 pond maintenance. $103,150 was awarded to the City of Woodbury for maintenance of ponds draining to Wilmes and Colby lakes and Chloride pre-wetting equipment for the public works vehicles. Completed projects will address known system deficiencies and ensure continued function of existing facilities.

  Additionally, the SWWD Board of Managers allocated $39,000 in carryover CCIP funds toward construction of right of way bioretention basins and a pond iron-enhanced sand filter retrofit as part of the City of Woodbury's 2016 road rehabilitation work and as match to SWWD's Woodbury Lakes 2016 CWF grant (covered in more detail below).

- SWWD used Lower St. Croix Stormwater Utility Fees (SUFs) to secure match funding to install several grade stabilization projects in Denmark Township matching grant dollars provided by the Washington Conservation District's Top50P! phase II CWF grant.

- In 2016, SWWD continued to develop the Armstrong Lake, East Mississippi and Markgrafs Lake retrofit assessments. The retrofit assessment follows a protocol developed by the Metro Association of SWCDs to systematically identify the most cost effective projects for reducing the target pollutant. All of the assessments focus on growing season phosphorus loading; however the East Mississippi also focus on TSS loading.

- SWWD secured a FY 2016 Clean Water Fund grant for installation of priority BMPs throughout the Wilmes, Colby and Powers lakes watersheds which were identified through subwatershed retrofit analyses for each lake completed in 2014, 2012 and 2010 respectively. All projects were installed in concert with City of Woodbury's 2016 Road Rehabilitation work. The completed projects will remove over 20.25 lbs TP/ annually from Wilmes lake (16.5 lbs), Colby Lake (1 lb), and Powers lake (2.75 lbs) watersheds.

- Restoration of Trout Brook was identified as a local priority by the former Lower St. Croix Watershed Management Organization which previously managed SWWD's Trout Brook watershed. Throughout 2016, SWWD worked with MnDNR and Afton Alps Ski Area to develop a restoration plan for Trout Brook. The Trout Brook project was included in the Big Rivers Proposal by several Nongovernmental Organizations and will be funded as part of the work on the St. Croix River. SWWD, MnDNR, Afton Alps (Vail), and Great River Greening have developed a proposal which was included as part of the Metro Big Rivers (MBR) proposal to Lessard Sams for FY2017. The Lessard Sams council has recommended partial funding for the MBR partnership which will include the full request (~$700,000) for the Trout Brook project. Funds will be allocated by the legislature in the 2016 session. Afton Alps expressed an interested in expanding the scope of the project to extend the restoration through the entirety of their facility. Expansion of the project scope would likely push construction to 2018.

Wetlands

- In 2012, SWWD became the Local Governmental Unit (LGU) for wetland permits within the SWWD boundary. In 2016, SWWD reviewed 28 applications. 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

- In 2016, Great River Greening continued contract work on the prairie restoration and maintenance at its Central Draw regional infiltration basins. The contract includes proposed work through June 2017 and includes prairie/savanna establishment and maintenance, development and coordination

of volunteer events, development and oversight of a simulated grazing (i.e. haying) program, and development of research opportunities with the University of Minnesota. This work will partially be funded through LCCMR funds through Great River Greening. Once restored, the basins will provide regional water quality treatment and flood control while also serving as public open space and providing key connections in regional greenway and trail corridors. In June 2016, SWWD partnered with Great River Greening and hosted a Restoration Event.

Groundwater

- SWWD staff worked with Washington Conservation District and the Minnesota Department of Health to continue development and operation of 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. This effort is part of a larger initiative by State agencies to evaluate potential effects of large scale infiltration.
- SWWD began collaboration with the Minnesota Department of Natural Resources to install additional monitoring wells on SWWD property as part of an effort to expand the State's groundwater monitoring network. Information on these wells located on SWWD property can be found at http://www.dnr.state.mn.us/waters/cgm/index.html.
- The SWWD maintains communications with Municipal water suppliers to understand the implications of the North and East Metro Groundwater Management area draft plan. A major effort of the draft plan is promoting water conservation. The SWWD partners with Municipal water suppliers to promote water conservation through residential irrigation retro-fits, education, smart technology and stromwater reuse.

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

- SWWD participated and continued support of the East Metro Water Resource Education Program (EMWREP). The EMWREP annual activities report is in Appendix B.
- SWWD continues to participate and support the Metro Watershed Partners program to help provide regional watershed education efforts. The SWWD is supported through EMWREP's participation in the group.
- SWWD partnered with Kids4Conservation(K4C) to provide education activities and workshops with 5th graders from Grey Cloud Elementary in Cottage Grove. K4C activities include a 6-week, in-class program focused on water quality and watershed science. The program will culminate with a daylong field trip to SWWD's prairie. Feedback from K4C and the teachers will be used to further develop SWWD's experiential learning program for expansion and full rollout by 2020.

Long Range Work Planning and Finance

- In 2016, SWWD continued collecting stormwater utility fees in the South Washington Watershed, East Mississippi, and Lower St. Croix management units. Revenue will be used to fund water quality projects only within each of the management units.
- In 2014, SWWD began the process for updating the SWWD Rules and Standards. SWWD's current rules were adopted December 13, 2011. Since that time, a new MS4 general permit has been issued, the District has updated its hydrologic guidance documents to include Atlas 14 rainfall rates, and the District updated its Ravine Lake management plan. All of these changes necessitate changes to District Rules. After the public comment period, the Rules were formally adopted by the SWWD in early 2015.

Data Management

- In 2016 SWWD completed a re-design of the District's website and logo.

- SWWD staff continues to collect and organize all SWWD monitoring data from the Washington Conservation District. SWWD completed an online database 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. The 2002 bond debt will be paid off in 2017.

- In 2011, the SWWD issued general obligation bonds for the construction of three projects within the East Mississippi management area. In 2016, SWWD refinanced the 2011 general obligation bonds.

2017 Workplan

As part of its annual reporting, the District evaluates performance of programs and progress toward meeting goals through implementation indicators established in this Plan and adopted guidance documents. SWWD has developed a workplan layout matching issues and program categories and subcategories outlined in the Watershed Management Plan:

Progress Evaluation for the Issue: FLOODING

Subcategories: FLOOD DAMAGE REDUCTION AND MITIGATION

Issue Goal:

Minimize existing and complete establishment of a controlled overflow from SWWD's Northern Watershed to the Mississippi River resources due to flood events.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Prevent increases in runoff from development activity through development and enforcement of District Rules;	Ongoing.	-	Enforce SWWD rules.
2	Prevent increases in flooding risk due to development (e.g. Wilmes, Ravine, and O'Conner's Lakes);	Ongoing.	-	Enforce SWWD rules.
3	Achieve no net loss in inventoried key flood storage areas;	Ongoing.	-	Enforce SWWD rules.
4	Achieve progress towards identified inter-community flow limits as development occurs;	Ongoing.	-	Enforce SWWD rules.
5	Maintain implementation flexibility (program framework and funding) to respond to identified flood damage reduction/mitigation needs that may arise.	Limited funds budgeted to begin building a reserve balance.	-	Continue to budget for unexpected flooding issues.

Progress Evaluation for the Issue: FLOODING

Subcategories: CENTRAL DRAW STORAGE FACILITY AND OVERFLOW

Issue Goal:

Complete establishment of a controlled overflow from SWWD's Northern Watershed to the Mississippi River.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Phase III, modification of the Ravine Lake outlet by 2017;	Project is out for bid.	-	Construct project.
2	Phase IV, stabilization of Ravine Park by 2018	Project is out for bid.	-	Construct project.
3	Phase V, construction of remaining pipe sections by 2019;	SWWD is in discussions with affected communities regarding timing of Phase V. Project may be delayed to 2025.	-	Begin design of phase V or amend existing agreement for completion.
4	Completion of functioning overflow system by January 1, 2020 as specified in SWWD/Lower St. Croix WMO consolidation agreement, unless otherwise agreed to by Cottage Grove, Woodbury, and SWWD.	Completion of full overflow system may be delayed to 2025. A limited overflow is currently in place through Cottage Grove's existing system.	-	Begin design of phase V or amend existing agreement for completion.

Progress Evaluation for the Issue: WATERSHED ALTERATIONS

Subcategories: SURFACE WATER DEGRADATION AND IMPAIRMENT

Issue Goal:

Protection and restoration of District resources to meet local resource goals and State standards.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Adoption of completed TMDLs for Statewide and Regional resources for which implementation actions are identified for SWWD;	N/A	-	Review TMDLs as they are finalized.
2	Colby Lake: Restore Colby Lake to state eutrophication standards by reducing the growing season total phosphorus load by 156 kg.	SWWD estimates that the annual TP load has been reduced by 100 kg.	-	
3	Wilmes Lake: Restore North and South Wilmes Lake to state eutrophication goals by reducing the growing season total phosphorus load by 49 and 12 kgs, respectively.	SWWD estimates that the annual TP load to Wilmes Lake has been reduced by 45 kg.	-	
4	Powers Lake: Protect Powers Lake from exceeding state eutrophication standards by maintaining existing watershed phosphorus load.	Powers Lake continues to meet State standards. Additional BMPs were installed to protect the lake in 2017.	-	
5	Armstrong Lake: Protect Armstrong Lake from exceeding state eutrophication standards by reducing the growing season total phosphorus load by 5 kg.	N/A	-	
6	Markgrafs Lake: Restore Markgrafs Lake to state eutrophication standards by reducing the growing season total phosphorus load by 48 kg.	N/A	-	
7	Ravine Lake: Restore Ravine Lake to state eutrophication standards by reducing the	N/A	-	

	growing season total phosphorus load by 22 kg at full build-out through enforcement of established total phosphorus loading standards.			
8	Mississippi River: Meet proposed TMDL loading rate of 154 lbs/ac/yr of Total Suspended Solids;	Proposed developments tributary to the Mississippi River are being reviewed for compliance with the TMDL loading rate.	-	Review proposed developments for compliance. Promote sediment control BMPs as part of proposed municipal projects.
9	Lake St. Croix: Achieve 36%, or approximately 315 kg of total phosphorus load reduction for Trout Brook as specified in the Lake St. Croix TMDL.	Multiple BMPs have been installed in the Trout Brook watershed to date. Monitored stream load at SWWD's regional assessment location meets the proposed TMDL loading rate.	-	Continue project development in the Trout Brook watershed. Projects under development include land cover conversion, stream restoration, and ravine stabilization.
10	No net loss in wetland acreage or function;	Ongoing.	-	Enforce SWWD and WCA rules.
11	Protect/promote soil health as part of District projects and through District rules as a means to limit hydrological impacts of land alteration.	N/A	-	
12	Continue existing Incentive programs to encourage voluntary implementation of BMPs;	Programs are ongoing.	-	Distribute up to $80,000 for BMP cost share.
13	Coordinate CIP plan with municipalities through engagement of a standing Technical Advisory Committee and implementation of the District's CCIP program;	Program is ongoing.	-	Distribute up to $500,000 for CCIP projects.
14	Evaluate impact of emerging contaminants and identify District programs or actions to control or mitigate that risk.	N/A	-	Nothing planned.

Progress Evaluation for the Issue: WATERSHED ALTERATIONS

Subcategories: EROSION

Issue Goal:

Prevent resource degradation of District resources from bluff, streambank, shoreland, and construction site erosion.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	In partnership with State and Municipal programs, promote and ensure erosion and sediment control compliance at active construction sites.	SWWD rules require compliance with ESC rules. SWWD staff assists its municipalities in site inspections during the construction season.	-	Enforce SWWD rules. Continue to support municipalities with ESC inspections.
2	Develop and implement buffer regulatory measures to comply with State requirements;	N/A	-	Nothing planned.
3	Establish and maintain a 50 foot, permanently vegetated buffer along all bluffs, ravines, lakes, and streams;	N/A	-	Nothing planned.
4	Identify and prioritize actively eroding ravines and address as budget allows;	SWWD has contracted with WCD to beging the ravine inventory.	-	Continue work on a ravine inventory and prioritization.
5	Maintain and enforce rules which prevent increased channel instability due to development;	Rule is in place and enforced during development.	-	Enforce SWWD rules.

Progress Evaluation for the Issue: GROUNDWATER SUSTAINABILITY

Subcategories: SUPPLY

Issue Goal:

Implement conservation efforts to ensure long term viability of groundwater resources in South Washington County.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Participate in development of a county-wide groundwater monitoring effort as identified in the County Groundwater Plan;	N/A	-	Continue partnership with MPCA to monitor SWWD wells as part of the MPCA ambient groundwater monitoring program.
2	Maintain rules and permitting program necessary to adequately protect groundwater resources, protect recharge potential, and promote low impact development as identified in the County Groundwater Plan	Ongoing.	-	Nothing planned.
3	Implement conservation actions identified through regional planning efforts identified in the County Groundwater Plan;	Ongoing.	-	Continue to support cities in improving De-icing operations.
4	Incentivize practices that reduce demand on groundwater supply;	Ongoing. SWWD is currently assisting Woodbury with several pilot conservation programs.	-	Continue to support pilot conservation programs.
5	Promote and incentivize feasible re-use of water;	Ongoing.	-	Nothing planned.
6	Promote use of infiltration as a tool for recharge where appropriate;	Not started.	-	Nothing planned.
7	Evaluate feasibility of active recharge.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: GROUNDWATER SUSTAINABILITY

Subcategories: PROTECTION (POLLUTION PREVENTION)

Issue Goal:

Protect groundwater resources through pollution prevention and management of surface water groundwater interactions.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Continue enforcement of existing karst rules;	Ongoing.	-	Enforce SWWD rules.
2	Consider pollution potential in siting and design of District funded stormwater BMPs;	Ongoing.	-	Enforce SWWD rules.
3	Utilize alternative compliance sequencing for meeting District development rules in areas where infiltration is not appropriate;	Ongoing. Several proposed developments in SWWD have used alternative compliance sequencing due to shallow bedrock, wellhead protection, and poor soils.	-	Enforce SWWD rules.
4	Participate in State and regional efforts to quantify risks to groundwater resources from de-icing operations;	SWWD is partnering with MPCA to include SWWD's groundwater monitoring sites as part of the MPCA ambient groundwater monitoring program.	-	Continue monitoring program.
5	Supplement County incentive programs to prevent pollution from septic systems and abandoned wells;	Not started.	-	Nothing planned.
6	Incentivize road authority upgrades to de-icing operations to prevent overuse of road salt;	Ongoing. SWWD continues to incentivize improvements through its CCIP program.	-	Continue to support cities in improving De-icing operations.

7	Continue groundwater quality monitoring at District regional infiltration facilities sufficient to identify potential impacts to groundwater from large scale infiltration practices.	Ongoing.	-	Continue monitoring program.
8	Consider additional protection of surface water features with potential to impact groundwater quality with guidance from State Agencies.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: NATURAL RESOURCES

Issue Goal:

Protect, restore, and reconstruct native terrestrial and aquatic habitat for the benefit of resource management.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Protect, restore, and reconstruct native terrestrial and aquatic habitat for the benefit of resource management.	Ongoing. SWWD continues resotration efforts on its Central greenway which includes over 200 acres of prairie and 50 acres of woodland restoration.	-	Continue current restoration efforts at SWWDs CDSF and Ravine Park.
2	Participate in development of regional programs to address spread and management of invasive terrestrial and aquatic invasive species;	Not started.	-	Nothing planned.
3	Implement local actions identified in regional planning efforts;	Not started.	-	Nothing planned.
4	Avoid impacts to rare, unique, and high quality habitats as part of all District projects;	Ongoing.	-	Nothing planned.
5	Maintain natural buffers or riparian areas on all District water resources;	Ongoing.	-	Nothing planned.
6	Promote use of site appropriate native plants as part of District funded projects;	Ongoing. In addition to promoting use of native vegetation, SWWD is partnering with Great River Greening to pursue a grant to convert an existing Woodbury trail	-	Continue use of native plants on SWWD projects and promote their use throughout the District.

		corridor from turf to prairie which will then serve to increase seed available for subsequent projects.		
7	Promote compliance with guidance for pollinator friendly design practices as part of District funded projects;		-	
8	Consider preservation or restoration of native habitat and benefits to pollinators and other wildlife in allocation of incentive funding.		-	
9	Evaluate potential credit mechanisms to incentivize developers to maintain mature trees during development within 3 years;	Not started.	-	Nothing planned.
10	Implement habitat improvement practices identified in completed Resource Management Plans.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: CLIMATE CHANGE

Issue Goal:

Facilitate increased resilience of District resources and public infrastructure through development of information and strategies and implementation of accepted climate adaptation practices.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Consider adaptive capacity—ability of a system to adjust to climate change to mitigate potential damages, take advantage of opportunities, or cope with consequences— of District systems and resources in Developing projects and management plans;	Not started.	-	Nothing planned.
2	Require use of up to date hydrologic data for meeting District development and redevelopment standards;	Ongoing. SWWD requires use of Atlas 14.	-	Enforce SWWD rules.
3	Utilize District surface water modeling and County Groundwater model to explore changes in surface water/groundwater interactions as a result of predicted changes in hydrologic conditions and water demand;	Not started.	-	Nothing planned.
4	Utilize District CCIP or similar program framework to assist Cities in adapting their infrastructure systems to increase resiliency—capability to anticipate, prepare for, respond to, and recover from significant threats with minimum damage to social well-being, the economy, and the environment;	Not started.	-	Nothing planned.

5	Promote use of alternative landscapes which require less water;	Not started.	-	Nothing planned.
6	Promote water re-use where feasible to reduce demand on aquifers;	Not started.	-	Nothing planned.
7	Work with local partners to improve delivery of soil conservation programs to prevent increased field erosion from changing precipitation patterns.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: INFORMATION AND EDUCATION

Subcategories: RESOURCE ASSESSMENT

Issue Goal:

In partnership with Local, State, and Regional partners, operate a monitoring program adequate to establish baseline water quality and quantity measures and identify long-term trends. Operate a monitoring program adequate to detect changes in loading rate as a result of District implementation actions.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Maintain equipment inventory to quickly establish additional monitoring locations in response to identified resource concerns;	Ongoing.	-	Repair and replace monitoring equipment as needed.
2	Biennially, complete trend analyses for all lakes and Regional Assessment Locations and complete a review of the District's Monitoring Plan;	Ongoing.	-	Complete SWWD monitoring reports for inclusion on the website.
3	Expand groundwater monitoring program in partnership with Washington County, MnDNR, MDH, and MPCA to adequately characterize groundwater resources in the District;	Ongoing.	-	Continue partnership with MPCA to monitor SWWD wells as part of the MPCA ambient groundwater monitoring program.

Progress Evaluation for the Issue: INFORMATION AND EDUCATION

Subcategories: DISTRICT-WIDE HYDROLOGIC MODELING

Issue Goal:

Maintain updated, District-wide hydrological modeling to inform District and Municipal management of resources and infrastructure.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Complete development of subwatershed models to complete District-wide coverage within 6 years;	Ongoing. Development of East Mississippi model is underway.	-	Complete development of model covering Newport in SWWD's East Mississippi watershed.
2	Calibrate completed models to collected monitoring data once every 3 years.	Not started.	-	Nothing planned.
3	Promote use of District models and modeling specifications through dissemination on SWWD website.	Ongoing. Draft modeling spec is available on web. Models are available through request.	-	Update website to ensure that stakeholders can access models as needed.

Progress Evaluation for the Issue: INFORMATION AND EDUCATION

Subcategories: RESEARCH

Issue Goal:

Work with local and regional partners to advance knowledge of watershed management issues.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Further identify and refine research and information needs as ongoing role of Technical Advisory Committee;	Ongoing.	-	Nothing planned.
2	Pursue research opportunities to provide for identified information needs;	Ongoing. SWWD staff participates on the Stormwater Research Council advisory board and contrubutes funds to the collaborative effort.	-	Participate in the MN Stormwater Research Council through staff participation on advisory board and through contribution of funds.
3	Biannually publish a summary of completed and ongoing research efforts as part of annual reporting.	Not started.	-	Nothing planned.
4	As part of annual reporting, review existing District web tools for improvements and incorporation of new technologies.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: INFORMATION AND EDUCATION

Subcategories: EDUCATION

Issue Goal:

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.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	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.	Ongoing.	-	See EMWREP
2	Actively participate in regional education efforts as an active partner in the East Metro Water Resources Education Partnership (EMWREP);	Ongoing.	-	See EMWREP
3	Develop District facilities for use as interpretive and educational sites as user demand grows with development (i.e. Signage trails, programming at CDSF);	Ongoing. CDSF is site of a spring field trip for area 5th graders.	-	Develop site plan for educational use in partnership with Kids 4 Conservation and Dodge Nature Center.
4	Evaluate the need and opportunity for shared Learning Center at the Central Draw Storage Facility;	Ongoing. Planning efforts have begun at staff level.	-	Develop site plan for learning center.
5	Develop shared interpretive and educational programming through EMWREP for use at Municipal and District facilities focused on identified District issues;	Not started.	-	Nothing planned.
6	Engage local public, private, and NGO partners to develop experiential programming for children;	Ongoing. Pilot effort is underway at Grey Cloud Elementary School in partnership with Kids 4 Conservation.	-	Continue work with Kids 4 Conservation to expand program to all District 5th graders.

7	Maintain a website to disseminate consistent information and coordinate program implementation;	Ongoing.	-	Update website as needed.
8	Utilize existing Municipal committee structure to educate residents and disseminate information as part of the District's Citizen Advisory Committee;	Ongoing.	-	Engage TAC and CAC in climate adaptation planning process. Deliver annual update to Cities at their regular Council meetings.
9	Develop a mechanism to gauge effectiveness of educational programming efforts.	Not started.	-	Nothing planned.

Progress Evaluation for the Issue: EFFICIENCY AND ACCOUNTABILITY

Subcategories: PROGRESS EVALUATION

Issue Goal:

Utilize a Results Based Accountability approach in evaluating and refining implementation strategies for achieving resource goals and to evaluate and improve program performance.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Ongoing development and use of documented strategies and actions (i.e. Management plans and other guidance documents) to achieve established resource goals;	Ongoing.	-	Develop reporting format and progress evaluation format for annual reporting to be completed in 2018.
2	Incorporate strategy documentation, progress evaluation, and annual workplan into annual report;	Ongoing.	-	Develop reporting format and progress evaluation format for annual reporting to be completed in 2018.
3	Amend Watershed Plan as necessary to provide the District with programs and tools necessary to implement identified strategies.	Not started. We anticipate executing a minor plan amendment following annual reporting to update key information (e.g. monitoring data).	-	Update WMP to reflect current information.

Progress Evaluation for the Issue: EFFICIENCY AND ACCOUNTABILITY

Subcategories: UNIFORM STANDARDS

Issue Goal:

Establish and maintain District controls necessary to achieve established District resource goals, comply with mandated permits and programs, and maximize regulatory consistency with neighboring jurisdictions.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Regularly review and update District Rules as necessary to keep pace with changing resource issues and mandated regulatory programs;	Ongoing.	-	Nothing planned.
2	Ensure uniform MS4 program coverage across District using a documented cooperative approach;	Ongoing.	-	Complete required MS4 reporting.
3	Work with neighboring Watershed Districts to develop uniform standards where possible;	Not started.	-	Nothing planned.
4	Require municipal adoption of District Rules within 2 years of any completed update;	Ongoing.	-	Assist municipalities in Comp Plan and ordinance updates as requested.

Progress Evaluation for the Issue: EFFICIENCY AND ACCOUNTABILITY

Subcategories: COLLABORATION AND COORDINATION OF EFFORTS

Issue Goal:

Limit duplication of planning and implementation efforts by the District and its State and Local partners by improving collaboration and coordination of efforts. Create efficiencies in implementation through partnerships.

	Implementation Indicator	Issue Progress	Recommended Change /Action	Current Year Workplan
1	Collaborate and coordinate agency efforts through engagement of a standing Technical Advisory Committee;	Ongoing. TAC will be engaged in 2017 in development of a climate adapation plan. Effort will include multiple facilitated workshops.	-	Engage TAC and CAC in climate adaptation planning process. Deliver annual update to Cities at their regular Council meetings.
2	Incorporate local input into District planning efforts through engagement of a standing Citizens Advisory Committee	Ongoing. CAC will be engaged in 2017 in development of a climate adapation plan. Effort will include multiple facilitated workshops.	-	Engage TAC and CAC in climate adaptation planning process. Deliver annual update to Cities at their regular Council meetings.
3	Inform State and Regional agencies and organizations of local efforts through participation in their advisory committees;	Ongoing.	-	Participate as opportunities arise.
4	Combine local implementation to gain economy of scale;	Ongoing.	-	Partner with Washington County to complete Grey Cloud crossing project as part of County roads project. Partner with Washington County to complete CDO phase III and IV work as part of County parks improvement project.
5	Incorporate implementation actions identified in regional planning efforts into District programs.	Not started.	-	Nothing planned.

Progress Evaluation for the Program: Planning

Subcategories: RESOURCE, FLOOD DAMAGE REDUCTION & MITIGATION PLAN, CLIMATE ADAPTATION PLAN, NATURAL RESOURCES, GROUNDWATER, GUIDANCE DOCUMENTS, ADVISORY COMMITTEES, MODELING

Program Purpose:

Through its various planning efforts, SWWD evaluates resource issues, risks, and uncertainty in formulating a strategy or identifying practices to address identified issues. The District routinely collects information to evaluate success of implemented practices and better informed understanding of resource issues. Using that information, the District re-visits planning efforts to revise strategies as necessary.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Maintain up to date planning documents necessary to guide District Implementation (staff time);	Ongoing.	$ 532,206.00	$ -	SWWD anticipates execution of a minor plan amendment in 2017 to update annual information (e.g. monitoring data).	N/A, will be evaluated in 2018.	-	$ 33,725.00
2	Complete SWWD Flooding Emergency Response Plan within 6 years;	Complete by 2023.	$ 45,000.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
3	Complete development of subwatershed hydrologic models within 6 years;	Complete by 2023.	$ 160,000.00	$ -	SWWD has contracted with one of its consultants to begin development of an East Mississippi watershed model.	N/A, will be evaluated in 2018.	-	$ 45,000.00

					Work will expand to Lower St Croix watershed and continue thorughout the next 6 years.			
4	Update/calibrate completed hydrologic models every 3 years	Ongoing.	$ 390,208.00	$ -	SWWD anticipates undertaking an update of its Northern watershed model in 2017.	N/A, will be evaluated in 2018.	-	$ 10,000.00
5	Review and update inter-community flow limits within 3 years (modeling);	Review/update by 2020.	N/A, included above	$ -	Not started. Will occur during model update.	N/A, will be evaluated in 2018.	-	$ -
6	Complete resource management plans for all lakes and perennial open channel streams within the District within 6 years;	All plans completed by 2023.	$ 100,000.00	$ -	SWWD has contracted with one of its consultants to developme nt a lake managemen nt plan for La Lake in 2017. Remaining resource plans will follow.	N/A, will be evaluated in 2018.	-	$ 15,000.00
7	Re-assess completed management plans at a minimum of once every 3 years to evaluate progress and review and adjust strategies;	Re-assess all plans by 2020. Every 3 years thereafter.	$ 227,821.00	$ -	All existing plans under 3rd party review in 2017-2018.	N/A, will be evaluated in 2018.	-	$ 50,000.00

8	ID excessively eroding bluff ravines within 3 years;	Completed by 2020.	$ 45,000.00	$ -	ID process underway via WCD.	N/A, will be evaluated in 2018.	-	$ 12,500.00
9	Update the District's Greenway Plan within 3 years;	Completed by 2020.	$ 30,000.00	$ -	Plan will be updated as part of County's greenway plan update process expected to begin in 2018.	N/A, will be evaluated in 2018.	-	$ 8,000.00
10	Develop a Climate Adaptation Plan within 6 years;	Completed by 2023.	$ 105,000.00	$ -	Effort has been accerlated. SWWD has contracted with one of its consultants to facilitate community workshops and develop the plan in 2017-2018.	N/A, will be evaluated in 2018.	Effort accelerated upon community request.	$ 107,000.00
11	Participate in State or Regional planning efforts to coordinate groundwater resource assessment and regulation.	Ongoing.	N/A, included above	$ -		N/A, will be evaluated in 2018.	-	$ -
12	Work with partners to develop a Strategic Groundwater Assessment Plan to guide and coordinate groundwater monitoring efforts within 3 years;	Completed by 2020.	$ 8,000.00	$ -	Limited coordination with MPCA. SWWD's groundwater monitoring efforts now under umbrella of MPCA	N/A, will be evaluated in 2018.	-	$ -

					ambient groundwater monitoring program.			
13	Work with partners to develop a Strategic Groundwater Regulatory Coordination Plan within 3 years;	Completed by 2020.	$ 15,000.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
14	Update and finalize the Districts Wetland inventory within 3 years.	Completed by 2020.	$ 50,000.00	$ -	Planned for 2018-2019.	N/A, will be evaluated in 2018.	-	$ -

Progress Evaluation for the Program: IMPLEMENTATION AND MAINTENANCE

Subcategories: MONITORING

Program Purpose:

To optimize monitoring efforts for regional assessment, the District has designated key locations at critical crossings and checkpoints throughout the watershed as regional assessment locations (Chapter 6, Section 8 of the SWWD 2007 WMP, Houston Engineering). Locations were chosen to characterize water quality and quantity entering or leaving a region and are included on the District's web viewer. Data collected at these locations is used to identify trends in regional water quality and quantity as well as potential areas for concern, develop and verify regional models, set benchmarks for regional water quality, evaluate effectiveness of District Rules and evaluate regional effects of proposed development projects. Once established, all regional assessment locations are part of the District's permanent monitoring program and will be operated until deemed unnecessary by analysis and modeling.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Survey aquatic vegetation of District Lakes a minimum of every 3 years;	Survey completed in 2015. Re-survey every 3 years.	N/A, included in monitoring budget	$ -	Next survey planned for 2018.	N/A, will be evaluated in 2018.	-	$ -
2	Annually implement District's monitoring plan;	Ongoing.	$ 1,776,901.00	$ -	Ongoing.	N/A, will be evaluated in 2018.	-	$ 155,000.00
3	Monitor levels and water quality of all publicly accessible lakes annually;	Ongoing.	N/A, included in monitoring budget	$ -	Ongoing.	N/A, will be evaluated in 2018.	-	$ -
4	Monitor established Regional Assessment Locations a minimum of 3 out of every 6 years;	Monitor established sites 3 of every 6 years.	N/A, included in monitoring budget	$ -	2017 is the end of a 3 year rotation for some of our sites. 2018 program will drop some sites	N/A, will be evaluated in 2018.	-	$ -

					around Powers and Colby lakes and pick up others throughout the District.			
5	Implement recommendations of the Strategic Assessment Plan once complete.	TBD	N/A, included in monitoring budget	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -

Progress Evaluation for the Program: IMPLEMENTATION AND MAINTENANCE

Subcategories: WATERSHED RESTORATION, RECONSTRUCTION, AND RESILIENCY

Program Purpose:

The District's Watershed Restoration, Reconstruction, and Resiliency program provides implementation funds to address problems that these changes cause including altered hydrographs or increase in peak flows as water runs off of the watershed more quickly, stabilization of natural drainage systems to withstand anticipated discharges, protection and restoration of rare and native communities, increasing resiliency of natural and man-made systems against climate changes, reducing habitat fragmentation by creating or maintaining linear corridors, managing invasive species, and protecting groundwater resources.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Establishment and protection of identified greenway corridors (Greenway Plan);	Limited implementation ongoing under SWWD's existing greenway plan.	$ 700,000.00	$ -	Work will continue on the Central greenway (Lake Elmo to Ravine Park). Update of the greenway plan will occur in conjunction with the County's greenway plan update process.	N/A, will be evaluated in 2018.	-	$ -
2	Implementation of completed resource management plans as guided by accompanying retrofit analyses;	Ongoing.	$ 3,875,000.00	$ -		N/A, will be evaluated in 2018.	-	$ 150,000.00
3	Establishment and protection of	TBD	$	$	Not started.	N/A, will be evaluated	-	$

	vegetated buffers along streams, ravines, bluffs and around lakes and wetlands (Buffers, Part II);		100,000.00	-		in 2018.		-
4	Stabilization of identified ravines to prevent downstream transport of sediment and nutrients (Ravine Survey and Assessment Plan);	TBD	$ 179,591.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
5	Implementation of yet to be identified practices to increase resiliency of natural and man-made systems against land use and climate change (Climate Adaptation Plan)	TBD	$ 1,000,000.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
6	Implementation of regionally identified strategies to address aquatic and terrestrial invasive species.	TBD	$ 40,000.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
7	Implement yet to be identified flood damage reduction and mitigation projects and practices (Flood Damage Reduction and Mitigation Plan;	TBD	$ 101,423.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ 5,000.00
8	Identify willing landowners and begin operation of pilot agriculture BMP research program within 6 years;	Identify participants, develop program, and roll out by 2023.	$ 383,123.00	$ -	Not started.	N/A, will be evaluated in 2018.	-	$ -
9	Provide adequate funding for local		$	$		N/A, will be evaluated	-	$

	implementation actions identified in the Washington County Groundwater Plan		132,026.00	-		in 2018.		5,000.00

Progress Evaluation for the Program: IMPLEMENTATION AND MAINTENANCE

Subcategories: INSPECTION AND MAINTENANCE

Program Purpose:

Communities rely on public watercourses, both natural and piped, for conveyance of stormwater runoff. Additionally, the District and its partners utilize an increasingly long list of BMPs to meet local resource goals. Conveyance systems and physical BMPs need routine inspection and maintenance to ensure long term functionality.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Maintain database of all physical BMPs;	Ongoing.	$ 185,000.00	$ -	Work completed annually in cooperation with Washington Conservation District	N/A, will be evaluated in 2018.	-	$ 10,000.00
2	Inspect BMPs at a minimum of 10, 33, and 66% of expected BMP lifetime;	Ongoing.	$ 50,000.00	$ -	Work completed annually in cooperation with Washington Conservation District	N/A, will be evaluated in 2018.	-	$ 5,000.00
3	Perform maintenance or enforce maintenance agreements as necessary to maintain full resource benefits of BMPs.	Ongoing.	$ 523,194.00	$ -	Maintenance through enforcement of agreements and contracting maintenance in effect	N/A, will be evaluated in 2018.	-	$ 45,000.00

Progress Evaluation for the Program: IMPLEMENTATION AND MAINTENANCE

Subcategories: CAPITAL IMPROVEMENT

Program Purpose:

Consistent with MN Rule 8410.0080 subp. 2, SWWD defines Capital Improvement Project (CIP) as a physical improvement with an extended useful life. For the purposes of its CIP Program, the District further defines a CIP as having a lifetime of greater than 25 years and a total project cost greater than $50,000. Generally, projects implemented under the District's CIP are developed and analyzed through completion of a feasibility study

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Provide adequate funding to carryout identified capital projects	Ongoing.	N/A	$ -	Current funding levels are adequate to complete planned work. SWWD collected revenue will begin dropping in 2018 as larger projects are completed.	N/A, will be evaluated in 2018.	-	$ -
2	Deliver Capital improvements as scheduled in the long-range workplan	Ongoing.	$ 18,183,123.00	$ -	Work on phases III and IV of the CDO will be completed in 2017. Construction of the Grey Cloud crossing will be completed in 2017.	N/A, will be evaluated in 2018.	-	$ 5,000,000.00

					Plans for regional pond improvements are being developed for 2018 implementation. Plans for Trout Brook phase I are being developed for 2018 implementation.			

Progress Evaluation for the Program: IMPLEMENTATION AND MAINTENANCE

Subcategories: INCENTIVES

Program Purpose:

Implementation need outpaces the District's implementation capacity. To address that need and gain efficiency by drawing on the capacity of public and private entities in the District, SWWD operates several incentive programs to facilitate implementation by District residents and partners. Those programs are briefly described here. Additional information is available on the SWWD website.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Maintain and refine existing incentive programs to adequately leverage community interest;	Ongoing.	$ 6,738,742.00	$ -		N/A, will be evaluated in 2018.	-	$ 570,000.00
2	Expand existing cost share program to effectively target rural areas for source reduction within 3 years;	Expand/refine program by 2020.	N/A, inlcuded above.	$ -		N/A, will be evaluated in 2018.	-	$ -
3	Annually review District's role in and need for supplementing County groundwater focused cost share and loan programs.	Ongoing.	N/A	$ -		N/A, will be evaluated in 2018.	-	$ -

Progress Evaluation for the Program: INFORMATION AND EDUCATION

Program Purpose:

SWWD is a member of the East Metro Water Resource Education Program. EMWREP is a partnership formed in 2006 that serves 20 local units of government in the east metro area. The purpose of the shared education program is to provide education to District communities and their residents about the impacts of non-point source pollution (e.g. Nutrients, de-icing chemicals) on local lakes, rivers, streams, wetlands and groundwater resources and to engage them in projects that will help to protect and improve water quality in the region.

SWWD intends for this plan and its website to serve as a repository of water resource related information. The District's website includes several tools which serve to deliver information to District residents and stakeholders including: Resource Library, Water Quality Monitoring Database, Web Map Viewer and project Story Maps.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Continue support of and participation in EMWREP;	Ongoing.	$ 366,844.00	$ -		N/A, will be evaluated in 2018.	-	$ 32,000.00
2	Increase use of Website and Web Tools (staff time);	Ongoing.	$ 261,376.00	$ -		N/A, will be evaluated in 2018.	-	$ 22,800.00
3	Annually update story mapping as part of annual report to reflect current project status;	Ongoing.	N/A, included above	$ -	CDO story map has been updated to better inform community during construction of phases III and IV. The Grey Cloud story map will be updated by start of constructio	N/A, will be evaluated in 2018.	-	$ -

					n August 1.			
4	Annually update water quality database to include previous year's data;	Ongoing.	N/A, included above	$ -	Database is current through the 2016 monitoring season.	N/A, will be evaluated in 2018.	-	$ -
5	Annually update web viewer to reflect most recent spatial data;	Ongoing.	N/A, included above	$ -		N/A, will be evaluated in 2018.	-	$ -
6	Distribute semi-annual newsletter to District residents and stakeholders regarding District efforts and progress in addressing identified resource issues.		N/A, included above	$ -		N/A, will be evaluated in 2018.	-	$ -
7	Maintain up to date files on electronic library;	Ongoing.	N/A, included above	$ -		N/A, will be evaluated in 2018.	-	$ -
8	Establish standard modelling specifications within 3 years;	To be completed by 2020.	N/A, inlcluded above	$ -	Draft specs are complete. Draft is being used as a model for developme nt of the East Mississippi watershed model. Draft will be refined as necessary during model developme nt.	N/A, will be evaluated in 2018.	-	$ -

Progress Evaluation for the Program: ADMINISTRATION

Program Purpose:

Watershed administration program has five focus areas to develop and maintain: District Boundary, Funding, Local Water Plans, Reporting and Progress Evaluation and Long Range Workplan.

	Performance Indicator	Implementation Schedule	Long Range Work plan Budget	Amount Spent to Date	Status	Program Performance	Recommended Change	Current Year Work plan
1	Annually, evaluate District progress in achieving identified issue goals and effectiveness of District programs (staff);	Ongoing.	$ 2,226,090.00	$ -	Forms are being developed. Will be used beginning in 2018 to gauge plan progress.	N/A, will be evaluated in 2018.	-	$ 194,183.00
2	Maintain funding levels adequate to meet implementation demand of the District;	Ongoing.	N/A, inlcluded above	$ -		N/A, will be evaluated in 2018.	-	$ -
3	In partnership with neighboring Districts, maintain legal boundary that reflects SWWD's hydrological boundary.	Ongoing.	N/A, inlcluded above	$ -	VBWD is leading a current effort to update the boundaries of SWWD, VBWD, and RWMWD.	N/A, will be evaluated in 2018.	-	$ -

Progress Evaluation for the Program: DEBT SERVICE

Program Purpose:

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. In 2011, SWWD bonded for three projects in the East Mississippi watershed (Newport Ravine, Clear Channel Pond, and Grey Cloud Slough). In 2016, SWWD refinanced the 2011 general obligation bonds.

Appendix A 2016 Audit Report on Compliance

Audit will be submitted as separate document

Appendix B Education

East-Metro
Water Resource Education Program

2016 Annual Report

Above: (Clockwise from upper left) A young participant shows off a water scorpion found in Powers Lake, Woodbury; Lake Association meeting for Ramsey and Washington Counties; Stillwater residents learn more about Brown's Creek.

Members of the East Metro Water Resource Education Program:

Brown's Creek Watershed • Carnelian-Marine-St. Croix Watershed •
Comfort Lake-Forest Lake Watershed • Cottage Grove • Dellwood • Forest Lake
Grant • Hugo • Lake Elmo • Middle St. Croix Watershed • Newport • Oak Park Heights • Oakdale
Ramsey-Washington Metro Watershed • Rice Creek Watershed • South Washington Watershed
Stillwater • St. Paul Park • Valley Branch Watershed • Willernie • West Lakeland
Woodbury • Washington Conservation District • Washington County

East Metro Water Resource Education Program
2016 Annual Report

TABLE OF CONTENTS

About the East Metro Water Resource Education Program

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 EMWREP partners 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, Grant, Hugo, Lake Elmo, Newport, Oakdale, Oak Park Heights, Stillwater, St. Paul Park, Willernie, and Woodbury, West Lakeland Township, Washington County and the Washington Conservation District.

Purpose: The purpose of the shared education program is to provide education about the impacts of non-point source pollution on local lakes, rivers, streams, wetlands and groundwater resources and to engage people in projects that will help to protect and improve water quality in the region. In addition to educating the public, EMWREP also provides training for city, county and watershed staff and local elected officials.

Partnership Structure: EMWREP is guided by a steering committee comprised of representatives from each of the 24 partner organizations. The committee generally meets twice a year to provide recommendations on the program budget and activities. The EMWREP coordinator communicates regularly with partner staff, council members and board members; prepares an annual report on program activities; provides outreach data and statistics for partners' MS4 Permit reports; and communicates one-on-one with individual partners on projects throughout the year. All EMWREP reports, plans, and education updates are available on-line at www.mnwcd.org/emwrep.

Staff: During 2016, EMWREP staff included Angie Hong - education specialist and coordinator for the program, Jenn Radtke - education assistant (860 hours), and Wendy Griffin (now retired) - who provided 60 hours of support for rural education activities.

Coordination with Other Regional Education Efforts: One of the major benefits of the EMWREP program is that it has helped to strengthen relationships between Washington Conservation District, Washington County and the eight watershed management organizations and 14 cities that constitute the partnership, which has resulted in better coordination and less overlap in the management of local water resources. By promoting partner's BMP programs, EMWREP has helped to increase the total number of water quality improvement projects implemented and to target these projects in priority areas.

EMWREP staff help to coordinate and execute projects of Watershed Partners (a collaborative of more than 60 non-profit and public entities in the Twin Cities metro area), in addition to working in partnership with organizations active in the St. Croix Basin.

Accolades: In 2012, the Minnesota Association of Watershed Districts recognized EMWREP as the Watershed Program of the Year.

2016 Executive Summary

General Education Campaign: During 2016, EMWREP used a variety of strategies to promote partner programs and activities, and to educate the public about stormwater pollution and other issues affecting surface and groundwater resources. EMWREP contributed 54 press releases and news columns to 18 area newspapers, in addition to producing educational content for city newsletters, social media, and on-line news sites. EMWREP staff attended more than 30 community events and participated in the planning and program development for several regional water education initiatives.

Though the impact of these larger public education and awareness raising efforts is often hard to measure directly, we know they greatly improve the success of our targeted outreach activities and are usually the initial gateway through which people learn about partner organizations and get involved at a higher level.

In 2016, EMWREP also conducted the following special education projects:

- Education for Homeowners' Associations (HOAs):
  - Provided outreach support for the Green Communities Clean Water grant. During 2016, projects were completed at Evergreen Country Homes and Lakeridge Townhomes in Woodbury (RWMWD). Projects at Heritage Glen and Powers Lake Townhomes (Woodbury, SWWD) and Lakeview Terrace (Oakdale, RWMWD) will be completed in 2017.
  - Presented about the project at the St. Croix Summit.
  - Created a guidebook with guidelines for working with HOAs on clean water and landscaping projects.
- Education about groundwater and water conservation
  - Developed a water conservation education campaign for Century College.
  - Created two new tabletop displays about water conservation and groundwater.
  - Staged a "Water Bar" at the Washington County Fair.
- Worked to build relationships with lake associations in the East Metro
  - Hosted meetings in the spring and fall to discuss strategies for controlling aquatic invasive species (AIS).
  - Developed a monthly e-newsletter to provide information for lake association members in Chisago, Ramsey, and Washington Counties.
- Helped Watershed Partners (WSP) to launch a new metro-wide water education initiative
  - New website – www.cleanwatermn.org – features stories of Minnesotans taking action to protect their local water resources. An innovative tracking component was developed to help partners measure the individual and collective impact of the campaign.
  - WSP has continued to bring in speakers and offer workshops to help partners improve the effectiveness of their education and outreach efforts.
- Connected with new audiences through neighborhood nature events:
  - Family-friendly events were help in Stillwater (BCWD and CMSCWD), Cottage Grove (SWWD), Woodbury (SWWD), Maplewood (RWMWD), and Forest Lake (CLFLWD).
- Supported water education for area youth.
- Participated in the NAVIGATE St. Croix Program, which is a locally-led effort to enhance art, nature, and community connections in the St. Croix Valley.
- Worked with City of Maplewood and Valley Branch Watershed District to begin creating four interpretive signs for Joy Park.

Blue Thumb Program: EMWREP uses Blue Thumb – Planting for Clean Water (www.BlueThumb.org) tools and resources to enhance outreach efforts for watershed cost-share programs and neighborhood raingarden projects. The program was developed by the Rice Creek Watershed District in 2006 and is currently led by Metro Blooms.

- In 2016, EMWREP:
  - Taught landscaping workshops in Cottage Grove, Lake Elmo, Forest Lake, Scandia and Denmark Twp.
  - Hosted a Blue Thumb neighborhood party in Lakeland.
  - Led a raingarden maintenance training in Woodbury (Colby Lake).
  - Gave presentations at Mahtomedi Garden Club, Friends of Scandia Parks and Trails, Forest Lake Business to Business Group, the Master Gardener Spring Program, and a Washington County realtor training.
- For 2016, Washington Conservation District program staff reported:
  - 274 site visits
  - 21 new projects installed; 31 projects from previous years completed
  - 490.59 pounds of phosphorus (P) captured by all projects installed in 2016
  - 542,681.62 pounds of total suspended solids (TSS) captured by all projects in 2016

Rural Outreach: During 2016, EMWREP:

- Offered a workshop for horse owners.
- Held a farmer breakfast with information about cover crops and conservation programs.
- Provided outreach support for the MN Agricultural Water Quality Certification Program.

Stormwater U: EMWREP works in partnership with Minnesota Extension, the University of Minnesota Erosion and Stormwater Management Certification Program, and the Minnesota Erosion Control Association (MECA) to provide professional training and workshops for local government staff and consultants, as well as builders, developers and contractors. Training offered in 2016 included:

- MIDS Calculator workshop.
- Erosion and Sediment Control Regulatory Enforcement workshop.
- Presentations to Forest Lake Public Works staff, Washington County field staff, and county office staff about MS4 permits and illicit discharges (IDDE).

NEMO: The Northland NEMO program (Non-point Education for Municipal Officials) 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 a partner organization.

In September 2016, EMWREP collaborated with partners to host the 7th Annual NEMO St. Croix River Workshop on the Water, which celebrated the 100th Anniversary of the National Park Service, provided information about riverway and stormwater standards, and helped community leaders understand the importance of an orderly development process.

MS4 Toolkit and Blue Biz: In 2009, EMWREP created the MS4 Toolkit – a collection of resources and educational materials to help local cities and watershed organizations meet their stormwater permit requirements. Until recently, the toolkit was available on-line on the Clean Water Minnesota website. Education and outreach resources for businesses and commercial entities were hosted on the same website. With the creation of a new www.cleanwatermn.org website, EMWREP is in the process of uploading the MS4 Toolkit and Blue Biz resources to a FTP site so that they are still available to local partners.

General Education Campaign

Minimum Control Measure Addressed

☑ Public education & outreach	☐ Construction site runoff controls
☑ Public participation & involvement	☐ Post-construction storm water management
☑ Illicit discharge detection and elimination	☐ Municipal pollution prevention & good housekeeping

Audience: General Public

Program Goals:

1. Provide education on water resource issues and stormwater pollution prevention for people living and working in the east metro area.
2. Collaborate with state and local government as well as non-profit and community groups to carry out educational activities.
3. Utilize master gardeners and other citizen volunteers to help conduct education and outreach.
4. Promote EMWREP partners and their BMP (Best Management Practices) programs.
5. Engage community members and other stakeholders in TMDL (Total Maximum Daily Load) and Non-Degradation Plan processes.

Educational Goals:

Learning

1. Increase the overall understanding and awareness of water resources and storm water runoff among the general public.
2. Increase understanding of the connection between individual actions and water resource quality among the general public.
3. Increase awareness of storm water best management practices among the general public.
4. Increase understanding of the roles that cities, watershed agencies, counties and conservation districts play in managing water resources.

Behavior Change

1. Engage the public in the prevention of storm water pollution at home.
2. Increase the utilization of storm water best management practices and adoption of desirable clean water practices among the general public.
3. Engage the public and other stakeholders in creating and implementing watershed, TMDL and Non-Degradation plans.
4. Unite government, non-profit and community based organizations with a common clean water theme.
5. Develop leaders among citizens and other water related organizations that can carry water resource education to the general public.

Water Quality Improvement

1. Reduce and prevent non-point source pollution of surface and groundwater resources.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals:

Maintaining and developing educational partnerships: EMWREP continues to work collaboratively with government, non-profit, private and citizen partners to engage the public, plan and promote educational events and activities, and develop and distribute educational materials and resources. EMWREP works with partners in both the Twin Cities Metro area and the St. Croix River Basin. Some of these many partners include:

- Local units of government: The 24 partnering entities in EMWREP, as well as other LGUs inside and outside of Washington County;
- Non-profits: St. Croix River Association, ArtReach St. Croix, local nature centers, Trout Unlimited.
- Schools and Universities: Century College, 4H, St. Croix Preparatory Academy
- Citizens: Lake Associations, Master Gardeners, churches, and other community groups.

Below is information about two of the regional partnerships EMWREP was part of in 2016:

WaterShed Partners: WaterShed Partners is a collaborative of more than 60 non-profit and public entities in the Twin Cities metro area that work together to educate the public about stormwater pollution. Angie Hong has been a member of the Watershed Partners steering committee for ten years.

During 2016, Watershed Partners developed and launched a new website (www.cleanwatermn.org) designed to help partners reach out to the public and encourage behavior change. The new campaign provides partner organizations with compelling stories and professional photos that they can use in their own communications and outreach. In addition to the stories, there is also a unique tracking component that allows Watershed Partners to measure how many people are accessing the stories and which media platforms are most successful.

Future plans for the next two years include helping partners to organize clean-up events in their communities (cleaning leaves, dirt and debris out of streets and storm sewers in spring and fall) as well as expanding an Adopt-a-Drain program that started in St. Paul.

In addition to the new media campaign, Watershed Partners continues to offer monthly meetings for partners and staffs the StormDrain Goalie booth at the Minnesota State Fair. Professional training topics in 2016 included:

- MS4 Permit updates
- National Park Service Centennial (workshop held on the Mississippi River)
- Best practices for social media
- Interpretive sign development
- Mississippi State of the River Report

NAVIGATE: Angie participated in NAVIGATE, an initiative sponsored by Arts Midwest and Art Reach St. Croix to bring together artists and environmental professionals in the St. Croix Valley. The goal of the project was to develop partnerships, increase access to arts and nature in the region, and strengthen community connections.

EMWREP participated in more than 30 community and youth events in 2016. In addition, we held five neighborhood nature events around the county to engage with new audiences.

Community events:

- Lake Phalen Freeze Fest – Feb. 20 (St. Paul)
- The Governor's Water Summit – Feb 27 (St. Paul)
- St. Croix Summit – March 23 (River Falls)
- Paul Douglas Climate Change Event – April 5 (Mahtomedi)
- Grant Earth Day Clean-Up – April 23 (Grant)
- Tree sale – April 22-23 (Lake Elmo)
- Great River Greening Gala – April 30 (St. Paul)
- Healthy Yards and Gardens ECFE – May 5 (St. Paul)
- White Bear Lake Conservation Event – May 7 (WBL)
- Oakdale Discovery Center Planting Event – May 7 (Oakdale)
- Mill Stream Day – May 15 (Marine on St. Croix)
- Waterfest – June 4 (Lake Phalen – St. Paul)
- Master Gardener Plant Sale – June 4 (Lake Elmo)
- Sustainable Stillwater launch party – June 9
- Belwin Bison Release – June 11 (Afton)
- Forest Lake Arts in the Park – July 19
- Washington County Fair – August 3-7 (Lake Elmo)
- Century College Back-to-School Fair – August 24 (Maplewood)
- Minnesota State Fair – Aug. 25 – Sept. 5
- PolliNATION – Sept 11 (Stillwater)
- Brown's Creek Nature Event - September 13 (Stillwater)
- Washington County Environmental Fair and Family Event – October 4 (Lake Elmo)
- Campfire Program at St. Croix Bluffs Regional Park – October 22 (Hastings)

Above: Jenn's chilrenLinnea and Reed look on as the bison are released into the Belwin Prairie on June 11, 2016.

Student Programs:

- 4H Camp and Movie Festival – June 20-23 (Lake Elmo)
- Eco-Kids at Advent United Methodist – June 30
- Woodbury Safety Camp – July 19
- Cottage Grove Safety Camp – July 20
- Trout in the Classroom event – Sept. 16 (Afton)
- Children's Water Festival – Sept. 28 (1300 4th grade students)
- Prairie seeding at St. Croix Prep (Oct. 28)

Neighborhood Nature Events:

- Cottage Grove Meadowgrass Park – June 22
- Woodbury Powers Lake – June 28
- Maplewood Keller's Creek – July 13
- Stillwater South Twin Lake – July 26
- Stillwater Brown's Creek Park – Sept. 13

Right: Families look for aquatic life in South Twin Lake, Stillwater.

Newspaper articles: EMWREP contributed more than 50 press releases and news columns to 18 area newspapers in 2016. Angie Hong's news columns (indicated in italics in the list below) are published weekly in the Valley Life edition of the Stillwater Gazette and bi-weekly in other area newspapers. Read them on-line at www.eastmetrowater.areavoices.com.

Chisago Press (Circulation - 3963)
March 8 – *Horse Workshop*
March 1 – *Community Supported Agriculture*
April 4 – Press release: Landscape design workshops
April 5 – *A chat about scat*
April 11 – *AIS*
May 10 – *Of sheep, scythes and lawns*
July 7 – Press release: Flowering rush
Oct. 18 – *Mow leaves instead of raking*

Forest Lake Lowdown (Circulation – 13,997)
Jan 20 – Press release: Winter Aeration CLFLWD
Feb 16 – Press release: Clean Water Fund
April 4 – Press release: Landscape design workshops
Nov 21 – Press release: MnTAP

Forest Lake Times (Circulation - 13,029)
Jan. 19 – *History of the MS4 Permit*
Jan 20 – Press release: Winter Aeration CLFLWD
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
March 15 – *Spring Dreaming*
May 3 – *Wastewater*
May 10 – *Of sheep, scythes and lawns*
May 16 – *Frogs and toads*
April 5 – *A chat about scat*
April 11 – *AIS*
June 14 – *North and East Metro Groundwater Management Plan*
June 27 – Press release: Flowering rush on Forest Lake
July 12 – *Splish, splash, creepy crawlies*
Aug. 2 - *Maintaining New Native Plantings*
Aug. 2 – *Making better use of rainwater at CHS field*
Aug. 2 – *The economics of clean lakes and rivers*
Aug. 9 – *Out of Rock, Water*
Aug. 16 – *Join the PolliNATION*
Aug. 30 – *Recipe for saucy homegrown algae*
Sept. 13 – *Two llamas and a prairie*
Oct. 18 – *Mow leaves instead of raking*
Oct. 25 – *Lake turnover*
Nov. 15 – *Condos and townhomes are going green*
Nov. 28 – *Washington County partners with businesses to save money and water*
Dec. 19 – *Save money, do good – use less salt*

Hastings Star Gazette (Circulation – 5,547)
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
Sept. 13 – *Two llamas and a prairie*

Hugo Citizen (Circulation – 14,500)
May 3 – *Wastewater*
March 8 – *Horse Workshop*
May 10 – *Of sheep, scythes and lawns*
June 14 – *North and East Metro Groundwater Management Plan*
June 27 – Press release: Flowering rush on Forest Lake
Aug. 16 – *Join the PolliNATION*
Oct. 18 – *Mow leaves instead of raking*
Nov. 28 – *Washington County partners with businesses to save money and water*
Nov. 28 – *Battling floods and saving trout*

Oakdale-Lake Elmo (Circulation – 11,066) **& Ramsey Reviews** (Circulation – 24,326)
Jan. 11 – *Water News for the New Year*
Jan 26 – *Under the Snow*
Feb. 2 – *Laugh in the face of the Winter Maker*
Feb. 22 – *History of the MS4 Permit*
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
March 15 – *Spring Dreaming*
April 5 – *A chat about scat*
April 11 – *AIS*
April 18 – *Ode to Odonata*
April 26 – *Another reason to turn out the lights*
May 3 – *Wastewater*
May 10 – *Of sheep, scythes and lawns*
May 12 – Press release: SWWD plan update
May 24 – *Please park on the grass*
May 31 – *Giants of the prairie*
June 14 – *North and East Metro Groundwater Management Plan*
July 12 – *Splish, splash, creepy crawlies*
Aug. 9 – *Out of Rock, Water*
Aug. 16 – *Join the PolliNATION*
Aug. 23 – *Mushrooms*
Aug. 30 – *Recipe for saucy homegrown algae*
Sept. 13 – *Two llamas and a prairie*
Oct. 18 – *Mow leaves instead of raking*
Oct. 25 – *Lake turnover*
Nov. 15 – *Condos and townhomes are going green*
Nov. 28 – *Washington County partners with businesses to save money and water*
Dec. 19 – *Save money, do good – use less salt*

Scandia Country Messenger (Circulation - 1075)
Jan 28 – *Watershed District breaks ground on Clean Water Fund Project for Sand Lake*
Feb 23 – *All about insects*
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
March 15 – *Spring Dreaming*
March 24 – *Shoreline landscaping*
April 11 – *AIS*
May 3 – *Wastewater*
May 31 – *Giants of the prairie*
June 20 – *Poetry of Nature*
June 27 – Press release: Flowering rush on Forest Lake
Aug. 16 – *Join the PolliNATION*
Aug. 30 – *Recipe for saucy homegrown algae*
Oct. 18 – *Mow leaves instead of raking*
Oct. 25 – *Lake turnover*
Dec. 19 – *Save money, do good – use less salt*

South Washington County Bulletin (Circulation - 8616)
Jan. 11 – *Water News for the New Year*
Jan. 19 – *History of the MS4 Permit*
Jan 26 – *Under the Snow*
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
April 5 – *A chat about scat*
April 11 – *AIS*
April 26 – *Another reason to turn out the lights*
May 3 – *Wastewater*
May 10 – *Of sheep, scythes and lawns*
May 12 – Press release: SWWD plan update
May 24 – *Please park on the grass*
June 14 – *North and East Metro Groundwater Management Plan*
June 23 - *Maintaining New Native Plantings*
June 28 – *Making better use of rainwater at CHS field*
July 5 – *The economics of clean lakes and rivers*
Aug. 9 – *Out of Rock, Water*
Aug. 16 – *Join the PolliNATION*
Aug. 30 – *Recipe for saucy homegrown algae*
Sept. 13 – *Two llamas and a prairie*
Oct. 18 – *Mow leaves instead of raking*
Nov. 15 – *Condos and townhomes are going green*
Nov. 28 – *Washington County partners with businesses to save money and water*
Dec. 19 – *Save money, do good – use less salt*

St. Croix 360 (On-line: 25,647 followers)
Sept. 15 – *St. Croix Stories*

St. Croix Lowdown (Circulation – 5000)
Feb 16 – Press release: Clean Water Fund
April 4 – Press release: Landscape design workshops
Nov 21 – Press release: MnTAP

Valley Life edition of Stillwater Gazette (Circulation - 17,479)
Jan. 11 – *Water News for the New Year*
Jan. 19 – *History of the MS4 Permit*
Jan 26 – *Under the Snow*
Jan 28 – *Watershed District breaks ground on Clean Water Fund Project for Sand Lake*
Feb. 2 – *Laugh in the face of the Winter Maker*
Feb. 4 – *St. Croix Lake or River*
Feb. 16 – *Worlds apart and yet somehow not so different*
Feb 23 – *All about insects*
March 1 – *Community Supported Agriculture*
March 8 – *Horse Workshop*
March 15 – *Spring Dreaming*
March 29 – *Earth Day Clean-up*
April 5 – *A chat about scat*
April 11 – *AIS*
April 18 – *Ode to Odonata*
April 26 – *Another reason to turn out the lights*
May 3 – *Wastewater*
May 10 – *Of sheep, scythes and lawns*
May 16 – *Frogs and toads*
May 24 – *Please park on the grass*
May 31 – *Giants of the prairie*
June 8 – *Suwannee River*
June 9 – *Save the fish (AIS)*
June 14 – *North and East Metro Groundwater Management Plan*
June 20 – *Poetry of Nature*
June 23 - *Maintaining New Native Plantings*
June 28 – *Making better use of rainwater at CHS field*
July 5 – *The economics of clean lakes and rivers*
July 12 – *Splish, splash, creepy crawlies*
July 19 – *Camping without Water*
July 26 – *Maintaining New Native Plantings*
Aug. 1 – *The Water Bar*
Aug. 9 – *Out of Rock, Water*
Aug. 16 – *Join the PolliNATION*
Aug. 23 – *Mushrooms*
Aug. 30 – *Recipe for saucy homegrown algae*
Sept. 6 – *Celebrating the wild along Brown's Creek*
Sept. 13 – *Two llamas and a prairie*
Sept. 15 – *St. Croix Stories*
Sept 27 – *Unicorn Ranches*
Oct. 10 – *Love from Down Under*
Oct. 18 – *Mow leaves instead of raking*
Oct. 25 – *Lake turnover*
Nov. 1 – *Students plant 10 acres of prairie at St. Croix Prep*
Nov. 8 – *Brown's Creek rock crib*
Nov. 15 – *Condos and townhomes are going green*
Nov. 28 – *Battling floods and saving trout*

Nov. 28 – *Washington County partners with businesses to save money and water*
Dec. 5 – *Farmer in May Twp wages war on buckthorn and wins*
Dec. 19 – *Save money, do good – use less salt*
Dec. 22 – *Finding light in the darkness*

White Bear Press (Circulation – 19,331)
May 3 – *Wastewater*
June 14 – *North and East Metro Groundwater Management Plan*
Oct. 18 – *Mow leaves instead of raking*
Nov. 28 – *Washington County partners with businesses to save money and water*
Nov. 28 – *Battling floods and saving trout*

Woodbury Bulletin (Circulation - 7811)
Jan 26 – *Under the Snow*
Feb. 22 – *History of the MS4 Permit*
March 1 – *Community Supported Agriculture*
April 5 – *A chat about scat*
April 26 – *Another reason to turn out the lights*
May 31 – *Giants of the prairie*
May 10 – *Of sheep, scythes and lawns*
March 15 – *Spring Dreaming*
June 14 – *North and East Metro Groundwater Management Plan*
June 23 - *Maintaining New Native Plantings*
June 28 – *Making better use of rainwater at CHS field*
July 5 – *The economics of clean lakes and rivers*
Aug. 16 – *Join the PolliNATION*
Aug. 30 – *Recipe for saucy homegrown algae*
Sept. 13 – *Two llamas and a prairie*
Oct. 18 – *Mow leaves instead of raking*
Nov. 15 – *Condos and townhomes are going green*
Nov. 28 – *Washington County partners with businesses to save money and water*
Dec. 19 – *Save money, do good – use less salt*

City newsletter articles: Information about stormwater pollution, water resources and EMWREP partner activities reached more than 175,000 people through community newsletters in 2016. Below are some of the topics covered in these newsletters:

Afton (pop. 2800) - newsletters
- Planting Butterfly Gardens
- Groundwater Exhibit at County Fair
- Septic System Grant Program
- Well Water Testing for Nitrates
- AIS - What you can do

Bayport (pop. 3200)
- Mow Like A Pro: Tips for Green Lawn and Clean Water
- Go Wild: Bring Birds and Insects to Your Backyard
- Spring Workshop Series Schedule
- Winter Salt Application: Less is More!

Birchwood (pop. 875) - newsletter
- Spring and Fall clean-ups for clean water
- Water Quality Report
- Help Stop Lake Pollution

Cottage Grove (pop. 34,000) - newsletter
- Winter Tree Care
- Neighborhood Pond Dipping

Hugo (pop. 14,000) - newsletter
- Water Conservation Tips

Lake Elmo (pop. 7647) - newsletter
- Spring is Coming!
- Gardening Workshop
- Tree Sale
- Horse Workshop

Lake St. Croix Beach (pop. 1051) - newsletter
- Non-toxic cleaners
- Low-Salt diet
- Well Testing
- Lake St. Croix is an Impaired Water
- 5 Way to Reduce Nutrients in Lakes and Streams

Lakeland (pop. 1830) - newsletter
- Spring Composting
- Leaf Raking for Clean Water

Mahtomedi (pop. 8000) - newsletter
- Water Conservation
- Keep leaves and grass clippings out of lakes and rivers
- Water Conservation plantings

Maplewood (pop. 39,337) – newsletter
- Keep leaves and grass clippings out of lakes and rivers

North St. Paul (pop. 11,694) – newsletter
- Pollinator Habitat

Oakdale (pop. 27,726) – newsletter
- Explore you Lakes – Pond Dipping Event

Oak Park Heights (pop. 4724) - newsletter
- Spring Cleaning Tips
- Lawn Maintenance

Stillwater (pop. 18,000) - newsletter
- Rain barrel sale
- Fall clean-ups for clean water

Stillwater Twp. (pop. 3000) - newsletter
- Fall clean-ups for clean water

West Lakeland (pop. 3547) - newsletter
- Pollinator Landscaping Tips
- Fall clean-ups for clean water
- Household Hazardous Waste

White Bear Lake (pop. 24,555) - newsletter
- Fall clean-ups for clean water
- Make'n'Take Rainbarrel Workshop – Woodbury
- Fall clean-ups for clean water

Websites and Social Media: EMWREP uses social media, such as websites, Facebook, Twitter, Instagram and blogs to reach people in the community:

- **Washington Conservation District:** www.mnwcd.org received about 17,000 visits in 2016
- **Facebook:** WCD has 360 followers, up from 264 in 2015
- **Twitter:** @EMWREP has 185 followers and @angiehongwater has 322 followers
- **East Metro Water Blog:** www.eastmetrowater.areavoices.com had 8841 visits in 2016
- **Advertising:** EMWREP purchased Facebook advertising and averaged a reach of 5,000 per campaign:
    - Horse Workshop – 134 website clicks
    - Carpenter Nature Center Workshop – 197 website clicks
    - Forest Lake Landscaping Workshop – 62 website clicks
    - Scandia Rural Lands Workshop – 92 website clicks
    - Lake Elmo Landscaping Workshop – 80 website clicks
    - Brown's Creek Nature Event – 33 Event RSVPs
    - AIS Campaign – 2,817 website clicks and had a reach of over 50,000

Special Projects: In 2016, EMWREP also conducted the following special education projects:

Above: WCD landscape designer Tara Kline talks about a new planting project at Evergreen Townhomes.

- Education for Homeowners' Associations (HOAs):
    - Provided outreach support for the Green Communities Clean Water grant. During 2016, projects were completed at Evergreen Country Homes and Lakeridge Townhomes in Woodbury (RWMWD). Projects at Heritage Glen and Powers Lake Townhomes (Woodbury, SWWD) and Lakeview Terrace (Oakdale, RWMWD) will be completed in 2017.
    - Jenn and Angie co-presented at the St. Croix Summit on the topic of *Reaching New Audiences: Effective Outreach to Homeowner's Associations.*
    - Jenn created a guidebook with guidelines for working with HOAs on clean water and landscaping projects.
    - EMWREP hosted a Raingarden Celebration for 30 residents at Evergreen Country Homes in Woodbury. A similar celebration is planned for Lake Ridge Townhomes in the spring of 2017.

- Education about groundwater and water conservation:
    - Developed a water conservation education campaign for Century College that included posters, social media advertising, and a table with two table top displays and a survey conducted at the "Back to School BBQ."
    - Created new tabletop displays about water conservation and groundwater.
    - Staged a "Water Bar" at the Washington County Fair.

- Worked to build relationships with lake associations in the East Metro:
    - Hosted meetings in the spring and fall to discuss strategies for controlling aquatic invasive species (AIS).
    - Developed a monthly e-newsletter to provide information for lake association members in Chisago, Ramsey, and Washington Counties.

- Worked with City of Maplewood and Valley Branch Watershed District to create four interpretive signs for Joy Park.

New Projects:

- **Master Water Stewards**: During 2016, EMWREP applied for and received a 2017-19 Clean Water grant to recruit and train 20 citizen volunteers in the Brown's Creek, Carnelian-Marine-St. Croix, Comfort Lake - Forest Lake, Middle St. Croix, and South Washington Watersheds. To become certified, stewards will complete 50 hours of coursework and a capstone project. After becoming certified, stewards provide 50 hours of volunteer service to their host watershed during the next year, and 25 hours per year of volunteer service in subsequent years. We anticipate that stewards will help EMWREP to staff community events, engage local communities in water pollution prevention efforts, and provide assistance for other projects such as raingarden maintenance.

Evaluation: Though the impact of public education and awareness raising efforts is often hard to measure directly, we know they greatly improve the success of our targeted outreach activities and are usually the initial gateway through which people learn about EMWREP partner organizations and engage at a higher level by attending a workshop, participating in a watershed planning process, or installing a clean water project on their property.

The new WaterShed Partners metro-wide clean water education initiative will include several components designed to make it easier for partners to measure the impact of their outreach. Educational content will be delivered in a variety of formats, including email, websites, and Facebook and Twitter posts, making it easy to track how many people are reading the information. Partners will also track numbers of bags of refuse collected during fall clean-up events, which can be used as a proxy for the amount of phosphorus removed from the stormwater runoff in these areas.

Blue Thumb
Planting for Clean Water

Minimum Control Measure Addressed

☑ Public education & outreach	☐ Construction site runoff controls
☑ Public participation & involvement	☐ Post-construction storm water management
☐ Illicit discharge detection and elimination	☐ Municipal pollution prevention & good housekeeping

Audience: Homeowners

Program Goals:

1. Promote native gardens, raingardens and shoreline plantings in targeted areas within EMWREP partner communities.
2. Coordinate Blue Thumb outreach with partner BMP programs and TMDL implementation.
3. Coordinate with landscapers, nurseries, Master Gardeners, and others to conduct outreach and implement projects.
4. Publicize and utilize demonstration gardens created by the program to increase educational benefit. Create signage, conduct tours and highlight demonstration projects.

Educational Goals:

Learning

1. Provide a visible "hook" to discuss and encourage people to think about stormwater and water resources.
2. Increase understanding of native plants, raingardens and shoreline stabilization as best management practices for clean water.

Behavior Change

1. Engage the public in preventing non-point source water pollution.
2. Increase the utilization of native plantings, raingardens and shoreline stabilization by local residents.

Water-quality Improvement

1. Reduce and prevent non-point source pollution of surface and groundwater resources.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals:

Regional collaboration: The Rice Creek Watershed District (RCWD) developed the Blue Thumb – Planting for Clean Water program in 2006 as a "one stop shop" to for district landowners to learn about and find resources to plant native gardens, raingardens, and shoreline plantings. Over the next eight years, EMWREP and others helped RCWD to develop the program into a public-private partnership with more than 70 partners in the upper Midwest - nurseries, landscaping companies, watershed agencies, cities, non-profits and citizen groups. During 2015, leadership of the program was transferred from RCWD to Metro Blooms, a non-profit organization based in Minneapolis.

Over the years, EMWREP has used Blue Thumb tools and resources, such as the website and print materials, to conduct public education and enhance outreach efforts. EMWREP also uses Blue Thumb materials to promote watershed cost-share programs, conduct targeted outreach for neighborhood raingarden projects, and teach educational workshops for homeowners.

Workshops: In 2016, EMWREP taught landscaping workshops in Cottage Grove, Lake Elmo, Forest Lake, Scandia, Denmark Twp., and Woodbury.

- Landscape design workshops
    - Cottage Grove – April 26 (30 people)
    - Lake Elmo – April 7 (30 people)
    - Forest Lake – May 4 (24 people)
    - Scandia – April 27 (17 people)
    - Denmark Twp. – May 10 (14 people)
- Raingarden maintenance workshops
    - Woodbury (Colby Lake) – April 20

Neighborhood Parties: EMWREP held one neighborhood party in 2016:

- Lakeland – May 24, hosted by Sally Arnesen

Presentations:

- Mahtomedi Garden Club – Jan. 12 (20 people)
- Forest Lake Business to Business Group – Jan. 21 (15 people)
- Friends of Scandia Parks and Trails – Feb. 18 (25 people)
- Master Gardener Spring Program – March 26
- Washington County realtor training – Nov. 17

Targeted homeowner outreach: EMWREP provided assistance for targeted outreach within Stillwater and the lower portion of MSCWMO (St. Croix direct drainage).

Integration with partner Best Management Practices programs: EMWREP continues to integrate public education and outreach with partner BMP programs, using workshops, neighborhood gatherings and community events to promote cost-share programs and recommended practices. The BMP program liaisons report the following for 2016:

- 274 site visits
- 21 new projects installed; 31 projects from previous years completed
- 490.59 pounds of phosphorus (P) captured by all projects installed in 2016
- 542,681.62 pounds of total suspended solids (TSS) captured by all projects in 2016

A map of BMP projects and workshop participants in Washington County can be found at www.mapfeeder.net/wcdbmp.

Promotional materials: EMWREP has created a suite of print materials and brochures to help residents learn about native plants, raingardens, shoreline plantings, lawn care, and other aspects of landscaping for clean water. We also have interactive displays, digital photo frames, posters and banners that we display at community events and loan out to EMWREP partners and community groups. Go to www.mnwcd.org/emwrep-resources for pictures and downloadable pdf's of handouts and displays.

Evaluation: The number of raingardens and other residential projects installed in Washington County remains high each year, at least in part, as a result of EMWREP education and outreach efforts.

Rural Outreach

Minimum Control Measure Addressed

☑ Public education & outreach	☐ Construction site runoff controls
☑ Public participation & involvement	☐ Post-construction storm water management
☐ Illicit discharge detection and elimination	☐ Municipal pollution prevention & good housekeeping

Audience: Rural landowners

Program Goals:

1. Find creative ways to engage rural landowners in projects that improve habitat and also reduce erosion and non-point source water pollution.
2. Promote projects on sensitive and highly erodible lands, such as steep slopes, ravines and bluff tops; encourage buffer plantings on streams, lakes and wetlands; and help people to restore wetlands and natural stream corridors.
3. Coordinate outreach with partner BMP programs and TMDL implementation.

Educational Goals:

Learning

1. Increase awareness about watersheds and water resource issues in the East Metro, as well as the causes of non-point source water pollution.
2. Increase awareness of and knowledge about wildlife habitat requirements.
3. Increase public knowledge about forest, prairie and wetlands systems, including;
    a. The roles that plants, animals and non-living components such as soil and water play in ecosystems; and
    b. The threats posed by invasive species, habitat fragmentation and degradation and loss of natural processes.
4. Educate local residents about how to improve existing and create habitat on their property to attract wildlife and reduce runoff pollution.

Behavior Change

1. Engage private property owners in projects that will improve habitat and reduce non-point source water pollution. Specific actions may include:
    a) Removing buckthorn and other invasive plant species, especially on steep slopes, ravines and bluff tops, and in floodplains and drainage paths.
    b) Planting native trees, shrubs and plants, especially on steep slopes, ravines and bluff tops, and in floodplains and drainage paths.
    c) Repairing ravines, gullies and other erosion areas with native plants that also provide habitat.
    d) Establishing buffer plantings on streams, lakes and wetlands.
    e) Restoring wetlands and natural stream corridors.

Water-quality Improvement

1. Reduce and prevent non-point source pollution of surface and groundwater resources.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals:

Collaboration with local non-profits and sportsmen groups: EMWREP continues to seek out opportunities for collaboration with local non-profits and sportsmen groups in order to better reach rural landowners. EMWREP also provides support to the Washington Conservation District for some of its agricultural and rural outreach programs.

Workshops:

- Farmer breakfast: March 5, Lake Elmo
    - Topics included the MN Water Quality Certification program and two new grants for reducing phosphorus to the St. Croix River.
- Horse-owners workshop: March 21, Lake Elmo.
- Groundwater workshop: June 16, Afton.

Above: Rural landowners in Washington County learn about new programs to protect land and water resources.

Kelle's Creek Outreach: During 2016, EMWREP provided outreach support for a Valley Branch Watershed District special grant to reduce to *E. coli* contamination in Kelle's Creek. VBWD is offering free voluntary septic inspections to homeowners in the Kelle's Creek watershed.

Support for targeted implementation projects: During 2016, EMWREP also provided outreach support for several rural outreach programs operated by the Washington Conservation District, including recruiting participants for the MN Water Quality Certification program and outreach to conservation easement holders.

Integration with partner BMP programs: EMWREP strives to integrate outreach and education efforts with partner BMP programs by encouraging landowners to schedule free site visits with Conservation District staff and apply for cost-share funding through their local watershed organization for habitat and clean water projects on their land.

Promotional materials: EMWREP distributes educational materials dealing with a variety of topics, including woodland management, prairies, and invasive species control.

Evaluation: During 2016, EMWREP did not conduct any audience research with rural landowners. Previous focus groups and surveys have indicated that rural landowners in our area are interested in creating and improving wildlife habitat on their land and managing invasive species, so we have modified our outreach to highlight the connections between habitat and clean water.

Stormwater U

Minimum Control Measure Addressed

☐ Public education & outreach	☑ Construction site runoff controls
☐ Public participation & involvement	☑ Post-construction storm water management
☑ Illicit discharge detection and elimination	☑ Municipal pollution prevention & good housekeeping

Audience: Municipal staff, consultants, and contractors

Program Goals:

1. Provide technical training for municipal staff, consultants and contractors to help them meet MS4 Permit requirements and reduce stormwater pollution.
2. Work with local communities and EMWREP partners to identify training needs and topics.
3. Develop high-quality trainings that can be carried to communities outside the EMWREP region by the University of Minnesota Extension and other partners.
4. Encourage EMWREP partners and local MS4 communities to send at least one staff person or contractor to each Stormwater U workshop.

Educational Goals:

Learning

1. Increase understanding of non-point source water pollution and water resource connections among municipal staff, consultants and contractors.
2. Increase this audience's understanding of their role in achieving and maintaining clean surface and groundwater resources.

Behavior Change

1. Through training, enable EMWREP partners and local communities to reduce stormwater pollution through illicit discharge detection and elimination, construction site runoff controls, post-construction stormwater management and municipal pollution prevention.

Water-quality Improvement

1. Reduce and prevent non-point source pollution of surface and groundwater resources.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals:

Coordination with University of Minnesota Programs: In 2016, EMWREP coordinated with Minnesota Extension, the University of Minnesota Erosion and Stormwater Management Certification Programs, and the Minnesota Erosion Control Association (MECA) to provide professional training and workshops for local government staff and consultants, as well as builders, developers and contractors.

Workshops: EMWREP co-hosted the following workshops:

- MIDS Calculator workshop – Oakdale.
- Erosion and Sediment Control Regulatory Enforcement workshop – Oakdale.

Presentations: During 2016, EMWREP also gave special presentations about MS4 permits and illicit discharge detection and elimination (IDDE):

- Forest Lake Public Works staff.
- Washington County field staff.
- Washington County office staff.

Evaluation: Workshop evaluations were used to measure learning at the MIDS Calculator and U of MN Erosion Control Workshops.

Northland NEMO

Minimum Control Measure Addressed

☐ Public education & outreach	☐ Construction site runoff controls
☐ Public participation & involvement	☑ Post-construction storm water management
☐ Illicit discharge detection and elimination	☐ Municipal pollution prevention & good housekeeping

Audience: Local elected officials and decision makers

Program Goals:

1. Work with NEMO partners to develop outreach programs for local communities that cover a range of topics related to water resources management.
2. Use NEMO programs to provide local decision makers such as city councils, planning commissions, watershed boards and county commissioners with the information they need to make land use decisions and protect water resources.

Educational Goals:

Learning

1. Increase understanding of water resources and storm water management among elected officials and decision makers.
2. Increase understanding among elected officials and decision makers of the connection between land use and water quality.

Behavior Change

1. Increase the implementation of city ordinances, zoning and planning practices that enable low impact development and stormwater best management practices.

Water-quality Improvement

1. Prevent non-point source water pollution from new development and redevelopment.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals:

Workshops: During 2016, EMWREP co-organized the 7th Annual St. Croix River Workshop on the Water on September 15.

- Topics included:
  - Celebrating the 100th Anniversary of the National Park Service
  - Riverway and stormwater standards.
  - Using an orderly process to review development applications.
- 67 local elected and appointed officials and community leaders participated along with approximately 20 experts and staff.

St. Croix Basin Minimal Impact Design Standards (MIDS) grant project: EMWREP continued to provide support for the MIDS St. Croix Community Assistance, which was completed at the end of 2016. Education support included outreach to communities, workshops, and project evaluation.

Washington County Water Consortium: In addition to conducting education and workshops for local communities, EMWREP staff provides support to Washington County for the Water Consortium, a group that includes city, county and watershed staff and officials, as well as state agencies and others working on surface and groundwater issues in Washington County. EMWREP helps to plan monthly meetings, schedule speakers, facilitate group conversations during the meetings, and plan the annual BMP tour.

Evaluation: Consistently high levels of participation from local communities indicate that our educational offerings are filling a need for local decision makers. Evaluations from the St. Croix Workshop on the Water indicated that participants found high educational value in the program:

- 90% of participants said the workshop had a high educational value in learning about:
    - The St. Croix as significant amenity;
    - Riverway policies and standards;
    - MIDS stormwater policies; and
    - Their roles as local leaders.
- 81% of leaders attending said they would take action as a result of what they learned:
    - Working towards implementing and adopting MIDS in their own community;
    - Utilize the checklist process, adopting a pre-application meeting process, and making their application process more transparent; and
    - Sharing information with other leaders who were not present for the program.

MS4 Toolkit

Minimum Control Measure Addressed

☑ Public education & outreach	☑ Construction site runoff controls
☑ Public participation & involvement	☑ Post-construction storm water management
☑ Illicit discharge detection and elimination	☑ Municipal pollution prevention & good housekeeping

Audience: General public, municipal staff and contractors, local elected officials, and other target audiences

Program Goals:

1. Provide simple and effective materials to MS4 staff to use when educating target audiences.
2. Help EMWREP partners to meet MS4 permit requirements.

Educational Goals:

Learning

1. Increase understanding of non-point source water pollution and stormwater best management practices among the target audiences.

Behavior Change

1. Engage municipalities and MS4 staff as active partners toward reducing non-point source water pollution from stormwater runoff and illicit discharges.
2. Increase the utilization of stormwater best management practices among the target audiences.
3. Increase the detection and elimination of illicit discharges to storm water systems.
4. Increase the utilization of best management practices in street sweeping, salt application, landscaping and other municipal operations.

Water-quality Improvement

1. Reduce and prevent non-point source pollution of surface and groundwater resources.
2. Maintain adequate groundwater and drinking water resources.

Activities used to reach goals: Until recently, the toolkit was available on-line on the Clean Water Minnesota website. Education and outreach resources for businesses and commercial entities were hosted on the same website. With the creation of a new www.cleanwatermn.org website, EMWREP is in the process of uploading the MS4 Toolkit and Blue Biz resources to a FTP site so that they are still available to local partners.

Evaluation: EMWREP has not evaluated the use of the toolkit materials in recent years.

APPENDIX A: EDUCATION PROGRAM BUDGET FOR 2016-2018

Staff Support and Overhead Expenses (1.5 FTE)	Materials	Total
$136,800	$10,000	**$146,800**

MEMBERSHIP STRUCTURE AND FUNDING CONTRIBUTIONS*

* PARTNER contributions will be reviewed and adjusted on an annual basis, as needed and in accordance with the terms of the Agreement.

PARTNER	Annual Contribution
SWWD	$24,000
VBWD	$18,500
BCWD	$18,500
CLFLWD	$18,500
CMSCWD	$12,250
RWMWD	$12,250
RCWD	$2,500
Washington County	$12,250
MSCWMO	$6,000
Cottage Grove	$2,500
Forest Lake	$2,500
Lake Elmo	$2,500
Hugo	$2,500
Oakdale	$2,500
Stillwater	$2,500
Woodbury	$2,500
Dellwood	$650
Grant	$650
Newport	$650
Oak Park Heights	$650
St. Paul Park	$650
West Lakeland	$650
Willernie	$650
TOTAL	**$146,800**

Appendix C Local Articles

FOR RELEASE: January 6, 2016
Contact: Washington Conservation District
651-330-8220 x44

Over $1 million in Clean Water grants awarded to organizations in Washington County

Washington County, Minn – Significant funding has been awarded to multiple local units of governments in Washington and Chisago Counties from the Minnesota Board of Water and Soil Resources (BWSR) through the Clean Water, Land and Legacy Amendment. Grant Recipients include the Washington Conservation District; South Washington, Comfort Lake-Forest Lake and Valley Branch Watershed Districts; and the Middle St. Croix Watershed Management Organization.

The projects vary in scope and scale, but will accomplish many lofty goals such as reducing pollution to lakes and rivers, restoring degraded waters, and keeping water clean. Projects in Washington County include:

- **Lake St. Croix**: The Middle St. Croix WMO will install up to 24 Low Impact Development practices, such as raingardens, to reduce urban pollution running into Lake St. Croix by at least 12 pounds phosphorous and 3,000 pounds of sediment.

- **Lake St. Croix**: The Washington Conservation District will implement a project to reduce phosphorus discharges to the St. Croix by enhancing the soluble phosphorus removal capacity of targeted agricultural stormwater best management practices.

- **Moody Lake** wetland rehabilitation: The Comfort Lake-Forest Lake Watershed District will implement three wetland rehabilitation projects within the Moody Lake watershed. Rehabilitating the degraded wetlands in the northwest portion of the watershed is expected to achieve 80% of the watershed phosphorus load reductions needed for Moody Lake to meet water quality standards.

- **Forest Lake** wetland rehabilitation: The Comfort Lake-Forest Lake Watershed District will work to reduce nutrient loading by improving a wetland basin within the watershed of Forest Lake, one of the top recreational lakes in the metro area.

- Restore **Colby, Wilmes and Powers Lakes**: The South Washington Watershed District will continue the restoration of Colby, Wilmes, and Powers Lakes through coordinated implementation of targeted watershed retrofits as part of planned roadway rehabilitation projects. Watershed retrofits will include right of way raingardens and iron enhanced sand filtration.

Since the Amendment was passed by Minnesota voters in Nov. 2008, more than $100 million has been invested in "on-the-ground" projects. Citizens and local governments have installed more than 4,100 conservation practices to improve the quality in the state's lakes, rivers and wetlands.

In this grant round 197 applications were received, totaling $37 million in requests for the $14 million in available funds. "Using the on-the-ground knowledge and experience of our local government partners we are able to fund projects that are targeted towards the most critical areas," BWSR Executive Director John Jaschke said. "These projects will make a local impact, and also help move our state towards its water quality goals."

These projects will begin in 2016. For more information about Clean Water Fund projects, please visit the website at: www.mnwcd.org

###

Watershed district to clear 20 acres of invasive plants at Ravine Regional Park

By **William Loeffler** on Feb 18, 2016 at 8:02 a.m.

It may seem slightly nuts to clear brush in Cottage Grove Ravine Regional Park in the middle of February.

That's by design, says Andy Schilling, watershed resource specialist at the South Washington Watershed District.

The conservation group hopes to clear 20 acres of invasive buckthorn and honeysuckle along a section of paved trail north of Ravine Lake and south of the pine plantation below the Washington County South Service Center.

They hope to finish by end of the month, Schilling said, but the work may extend into March.

Working in winter should inconvenience the fewest number of park users, he said. This time of year, that would consist mostly of cross-country skiers who use the snow-packed trail.

Schilling said they will contact the Washington County Parks & Recreation Department 24 hours in advance of any work. The county will post the information on social media.

Some trail closures may be necessary, but Schilling hopes that won't happen.

"We just wanted to make this project move through as quickly as possible so the park and

remain open," he said. "The work does fall near the paved trail. We just want to limit the amount of time we're there."

Skiers and others who use the trail should be alert to the possibility of motorized equipment on both sides of the trail.

Another reason for working in the winter is that the frozen ground will sustain less damage from the equipment.

Workers will cut non-native plants and shrubs and mulch them on-site. Most will be treated with a herbicide to prevent them from regenerating.

"You disturb the soil much more when you're yanking them out by the roots," Schilling said. "It's also more expensive. This is kind of a best practices."

This work is part of the watershed district's Central Draw Overflow, a multi-phase project that will help control stormwater runoff from Woodbury and Cottage Grove.

"By removing the invasive species like buckthorn we are allowing native groundcover to establish itself and, in effect, make the ground more resistant to erosion," Schilling said.

For additional information on the project, contact Andy Schilling at the South Washington Watershed District at 651-788-5279 or Dan MacSwain with Washington County Parks and Recreation at 651-430-4323.

NEWS

Sealed-off Mississippi channel in St. Paul Park will reopen

Boaters on the Mississippi River. (Associated Press/Brainerd Dispatch: Steve Kohls)

By **BOB SHAW** | bshaw@pioneerpress.com
June 20, 2016 | UPDATED: 2 days ago

A walled-off waterway on the Mississippi River is being reopened — cleaning the water and giving boaters a new passageway to Grey Cloud Island.

The $1.8 million project involves building a bridge on Grey Cloud Island Drive in St. Paul Park and dredging a new 45-foot-wide channel.

Re-establishing the natural flow through the channel will benefit the wildlife along two miles of shoreline, said Matt Moore, director of the South Washington Watershed District.

"That is the primary goal of restoring the channel," he said. "The navigation is a secondary benefit." But navigation under a new bridge will be the most visible benefit to local boaters.

The passageway was shut off during the record-breaking flood of 1965. "That was the big one," Moore said.

Officials watched in alarm as the river rose to endanger homes and businesses, so they sealed off the channel by dumping truckloads of rock into the river.

That solved the immediate crisis but created another set of problems.

The former waterway was nipped off, creating two dead ends. Those sloughs remain stagnant, and the water is often coated with algae.

In addition, no boats can pass through. Owners of power boats, canoes and kayaks can no longer float from the main channel of the river near St. Paul Park to the inland side of Grey Cloud Island. Scum-covered and without any public access, the dead-ends are barely used by boaters.

Moore said the district plans to dredge a 45-foot-wide channel reconnecting the waterway. He said a vessel up to 21 feet long and 6 feet off the water will be able to pass through.

Once the water is flowing again, the fresh supply of water will eliminate the excessive algae.

Moore said the $1.8 million project is being funded by the watershed district, Washington County and the state.

He said work on the project will begin next year and should be finished by the end of that summer.

Tags: Mississippi River, Washington County

Bob Shaw

Bob is a 40-year veteran (yes, he is grizzled) who edited one Pulitzer Prize winner and wrote two that were nominated. He has also worked in Des Moines, Colorado Springs and Palo Alto. He writes about the suburbs, the environment, housing, religion -- anything but politics. Secret pleasures: Kayaking on the Mississippi on the way to work, doughnuts brought in by someone else. Best office prank: Piling more papers onto Fred Melo's already trash-covered desk.

Follow Bob Shaw @BShawPP

South Washington County Watershed

2015 Stream Stabilization Project

In early 2012, the South Washington County Watershed District (SWWD) approached the 3M Cottage Grove site with a long term proposal to enter into a public and private partnership to address the stabilization of the east ravine flow channel on the 3M property.

The goal of the project is to properly manage the district's northern watershed. A City of Woodbury lift station now pumps water from Bailey Lake into the Central District Storage Facility. The system should be adequate to retain the runoff for a 6.3", 24 hour rainfall event. Because of limits in the design, recent trends of extreme precipitation events and the degree of safety necessary for flooding situations, the SWWD is constructing a controlled overflow out of the Central District Storage Facility to the Mississippi River which included the Cottage Grove east ravine.

To facilitate the east ravine construction, a low maintenance road was designed and installed within the 3M Cottage Grove property. This road allowed access for a 3M stand-alone project associated with the Waste Water Treatment plant and for future contractor access in the SWWD stabilization project. SWWD's concern with the east ravine flow channel was the lack of stability of the channel and floodplain for local flash flood events and

prolonged overflow discharge from the Central District Storage Facility.

To address the concerns, construction began in early August of 2015. Several in-stream and riparian improvements were installed and completed. These included rock and wood riffle construction which slows stream flow, reduces silt loading to the River and promotes the formation of pools to improve aquatic habitat. Boulder and tree revetments were also installed to armor and rebuild stream-banks including extensive planting of vegetation throughout the 25 acre corridor. Invasive trees and shrubs were removed and replaced with native plantings to develop understory growth which further helps minimize erosion during large flow events. The project was conducted in remote wooded portions of the site utilizing heavy earth moving equipment and had over 3,000 man hours with zero loss time incidents.

The end result design and installation is a park like setting through the 3M Cottage Grove east ravine property that will help control the estimated storm water flows without creating high erosion conditions. Periodic monitoring will take place after major rain events, plus groups such as the Friends of the Mississippi will be actively involved in the foreseeable future.

The project was a win-win for the SWWD, the 3M Cottage Grove site & the Mississippi River.

Special thanks to Tom Flicker, Sr. Specialist Division Engineer and Mark Hostrawser, Plant Engineering Construction for their great work and taking the lead on this project for the site!

Groundwater And Climate Change: South Washington Watershed District Prepares For New Challenges

June 13, 2016 Angie Hong Partners and Updates

Development is booming in southern Washington County.

Near the southeast corner of Inwood Ave. and County Rd. 10 in Lake Elmo, construction crews are busy moving dirt and pouring foundations for 130 new detached townhomes. The place is a hive of activity with contractors buzzing in and out throughout the day, digging trenches and laying pipe beneath roads that appear overnight. Further south, there are 11 residential developments currently under construction in Woodbury and another eight being built in Cottage Grove. Tractors are rolling, wood frames going up – signs advertise new restaurants, retail shops, and a school for the people coming here to live.

Managing the impacts of development on water resources has been at the core of South Washington Watershed District's mission since its inception in 1984. In the early years, a joint powers agreement was formed between five cities – Afton, Cottage Grove, Lake Elmo, Oakdale, and Woodbury – to address flooding concerns. Over time, the name changed, a watershed district was formed to replace the joint powers agreement, and the boundaries expanded to include Newport, St. Paul Park, Grey Cloud Twp. and Denmark Twp. South Washington Watershed District now covers 110 square miles, including 12 lakes, 120 miles of piped and natural streams, 2,400 acres of wetlands and the confluence of the Mississippi and St. Croix Rivers.

Development brings both challenges and opportunities. More rooftops, streets and parking lots means more places where rain and melting snow runs off instead of soaking into the ground. In the land-locked northern portion of the watershed, increased runoff used to cause flooding that put homes and roads underwater in southern Woodbury and northern Cottage Grove. The runoff also carries dirt, pollution and nutrients from the landscape into rivers, lakes and wetlands. As a result, some of the lakes in Woodbury began to turn green with algae during the 1990s. Less obvious was the impact to groundwater. More water running off the land means less infiltrating down into aquifers; that combined with more people washing clothes, watering lawns and flushing toilets has resulted in declining groundwater levels in some parts of the watershed. Working with the county and cities to ensure sustainable groundwater use will be a priority for the watershed district in coming years. It provided $50,000 in assistance to the city of Cottage Grove to install a system at its city hall that reuses stormwater for irrigation, and has also helped to fund similar projects at Prestwick and Eagle Valley Golf Courses.

Washington County Water Consortium visited the Cottage Grove City Hall in 2015 to learn about its water reuse system.

Along with changes to the landscape, development has also brought a larger tax base and more funding to address water concerns – some of which actually began back when Cottage

Jenn Ruelke helps Lauren Ruelke and Charlie Hong to plant trees at the South Washington Conservation Corridor in 2015.

Grove and Woodbury were nothing but farm fields. To address flooding problems, the watershed district built a regional infiltration basin on the border between Woodbury and Cottage Grove. The basin collects runoff after spring-melt and large rainstorms and allows it to soak into the ground. The 80-acre parcel, restored to native prairie and oak savanna, is part of the South Washington Conservation Corridor – a greenway that provides critical native habitat and will eventually connect trails from Lake Elmo Park Reserve all the way to the Mississippi River south of Cottage Grove Ravine Regional Park. A combination of pipes and natural streams running south from the basin will also provide a route for water to safely reach the river in the event of a mega-storm – the kind expected to be more common in the future due to climate change. Elsewhere in the watershed, the district will be working with cities and developers to size storm ponds and pipes appropriately during development and redevelopment so that communities are better protected from the impacts of large storms.

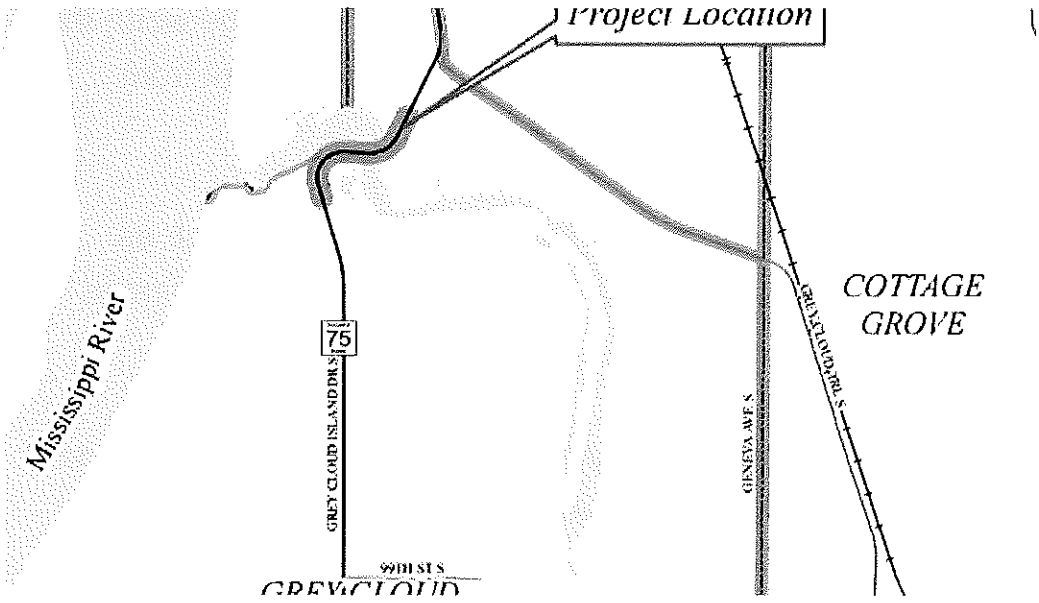
During the next ten years, South Washington Watershed District will continue working to improve water quality in area lakes and streams. The district provides grants to homeowners to plant raingardens in their yards that reduce runoff and increase groundwater infiltration. Rules established by the district require developers to use stormwater ponds, infiltration basins (large raingardens), and other best management practices in their new developments to prevent stormwater pollution. In some places, the watershed district has worked with private landowners to retrofit existing parking lots and roadways so that less runoff makes it to nearby lakes. As a result, Armstrong Lake in Oakdale; Colby, Markgrafs, and Wilmes in Woodbury; and Ravine Lake in Cottage Grove are all improving in water quality. In rural Afton and Denmark Twp., the watershed district has also been working with landowners to reduce runoff pollution to Trout Brook, which flows through Afton State Park to the St. Croix River. These efforts will continue in the future, as the district works toward cleaner lakes and streams for fishing and recreation.

South Washington Watershed District has worked with hundreds of private landowners to build raingardens and other landscaping practices that protect water resources.

South Washington Watershed District is currently seeking feedback from the public on its new 10-year watershed management plan. The document can be found online atwww.swwdmn.org/resources/watershed-management-planand includes links to new web-based tools including maps, water quality data, and project information. Comments are due to John Loomis by June 17: (651) 714-3714,jloomis@ci.woodbury.mn.us.

Land acquired for Grey Cloud bridge: County, watershed to build bridge on County Road 75

By **Katie Nelson** on Nov 2, 2016 at 4:00 p.m.



Washington County recently received approval to acquire right-of-way on three parcels surrounding the project area. (Submitted photo)

The Washington County Board approved the acquisition of right-of-way on three parcels surrounding a stretch of County Road 75 above the Mississippi River Oct. 25, allowing the county and the South Washington Watershed District to construct a bridge over Grey Cloud channel to allow for free water flow through the area.

The channel, also known as the Grey Cloud slough, is a 2.8-mile long meander of the Mississippi River that has been mainly closed off the the river since 1965. A flood that year destroyed culverts under County Road 75. South Washington Watershed District Administrator Matt Moore said there was no record of culvert repair or replacement since then.

To allow for new water flow in that location, the county will purchase right-of-way for three parcels where the bridge will be constructed in 2017 as part of the county's road

construction program for that year. The bridge will be county-owned, said Grant Wyffels, county public works consultant.

South Washington Watershed District and the county have had a cooperative agreement regarding the Grey Cloud Channel since 2015. Part of that agreement includes the watershed district funding the purchase of the parcels, estimated to cost $41,000.

The estimated total cost of the project is $1.74 million. The cost will be split between the county, paying $500,000; the watershed district, paying $720,000; and a grant from Minnesota's Legacy Clean Water Fund providing $520,000.

Moore said that there were several options for opening up the waterway — such as installing another culvert or a box culvert — but that a bridge would allow for the most improvement.

"To get the greatest footprint, we believe we need to create a greater channel or a wider opening," he said. With the water blocked in the slough, the aquatic habitat stagnated. Many of the native plants faded, and invasive species such as curly-leaf pondweed and millfoil have become dominant.

The two plants, especially the curly-leaf pondweed, create phosphorus, which then lowers oxygen levels and becomes a source for algae growth, especially in the summertime.

"We're moving new water into the channel and allowing some of the native plants to restore," Moore said."We're hoping there's still some natives in there, hoping to get the natives to outcompete."

The low oxygen levels also affect the fish species in the channel.

"Definitely with the low oxygen the fish community is rough fish and undesirables," he said. "Reintroducing the flow will hopefully allow the more desirable [fish] like pike, sunfish and walleye to maintain in there."

Moore said he's optimistic a reintroduced water flow into the channel will reinvigorate that environment, but that other restoration techniques could be implemented "if the flow

doesn't do everything anticipated."

Appendix D Biennial Solicitation for Professional Services

October 12, 2015

RE: South Washington Watershed District Request for Professional Services.

The South Washington Watershed District (SWWD) is required to biannually solicit for professional services. The SWWD is requesting letters of interest for Engineering, Legal, and Financial consulting services. This request will be published in the Woodbury Bulletin and South Washington County Bulletin newspaper for two consecutive weeks beginning October 14, 2015. Enclosed is a copy of the request for HDR Engineering, Inc. If your firm is interested in providing services, please submit **3 copies** of the requested information by November 13, 2015. If you have any questions or need additional information, please contact me at 651.714.3729 or mmoore@ci.woodbury.mn.us.
Thank you.

Sincerely,
South Washington Watershed District

Matt Moore
Administrator

c: SWWD Board of Managers

Memo

To: SWWD Board of Managers

From: Matt Moore. SWWD Administrator

CC:

Date: December 1, 2015

Re: 2016-2017 Professional Services

***** Please note in an interest of saving paper we are not providing copies of the consultant information, if you would like this information please contact the SWWD office *****

The SWWD received 12 responses for engineering services, 1 legal response and 3 financial responses. Currently, there are 11 firms in the engineering pool that are returning responses. There is 1 new firm that responded.

Engineering
1) Applied Ecological Services
2) Barr Engineering
3) Civil Methods
4) Emmons & Olivier Resources, Inc.
5) HDR Engineering Inc.
6) Houston Engineering Inc.
7) HR Green, Inc.
8) Inter-Fluve
9) MSA Professional Services, Inc.
10) RESPEC
11) Stantec Consulting Services
12) Wenck

Legal
1) Jack W. Clinton P.A.

Financial
1) Abdo, Eick & Meyers, LLP
2) Clifton Larson Allen, LLP
3) Redpath and Company

The Board could choose one of the following processes to establish engineering services for the 2016-2017 calendar years.

1) Place all responders in the pool and delegate work on a project by project basis.

2) Select a preferred vendor list using the information we have or request additional information.

3) Generate a short list from the twelve responders and conduct interviews to select one or multiple firms.

4) Other options

Each engineering firm has ample qualifications, personnel and experience in the types of watershed projects the SWWD is completing. Billing rates average $193/hour for Principals, $152/hour for Professional Engineers, $132/hour for Scientists and $105/hour for Technicians.

Requested Board Action

- The Board Sub-Committee recommendations:
    - Approval of 2016-2017 engineering services pool to include all respondents, providing a wide range of capabilities to address upcoming SWWD projects.
    - Approval of 2016-2017 legal services with Mr. Jack Clinton, Jack W. Clinton Law.
    - Approval of 2016-2017 financial services with Redpath and Company.
    - If the Board desires to select another firm to complete the 2016 and 2017 financial audits the committee recommends we keep the three financial consultants in the pool and select the firm at the end of December 2016 to complete the 2016 financial audit.

South Washington WATERSHED District

December 14, 2015

RE: South Washington Watershed District 2016-2017 Professional Services.

The South Washington Watershed District (SWWD) Board established the 2016-2017 Consulting Engineer Pool at their regular meeting on December 8, 2015. The SWWD received a total of twelve responses for engineering services. All twelve responding firms were place in the 2016-2017 consulting pool and will be considered for engineering services on a project by project basis. If the annual work plan includes projects best suited for your firm, the SWWD staff will contact you. Thank you for your time to respond to the request.
If you have any questions or need additional information, please contact me at 651.714.3729 or mmoore@ci.woodbury.mn.us.

Thank you.

Sincerely,
South Washington Watershed District

Matt Moore
Administrator
c: SWWD Board of Mangers