



SOUTH WASHINGTON WATERSHED DISTRICT

2017 Annual Report



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Board of Managers

2017

Manager	Position	Term Expires	City/County
Mr. Jack Lavold 6859 Ideal Avenue South Cottage Grove, MN 55016 651-459-8891	President	05/01/2020	Cottage Grove/Washington
Mr. Kevin ChapdeLaine, 601 2 nd 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	05/01/2020	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.

In 2016, the SWWD updated the WMP dated 2007, amended in 2010 and 2011. On October 26, 2016, BWSR approved the October 2016 WMP, and the SWWD Board adopted the WMP in November 2016. This third generation WMP once again builds on past work in the District and is intended to serve SWWD for decades to come. It is structured in three parts.

Part I serves as a summary of various District plans and assessments and points the reader to more regularly updated District data, all of which is available on the District's website, www.swwdmn.org.

The website which includes the District's water quality database and web map viewer with extensive spatial data and serves as a repository for District plans and reports. Part II includes identified issues and goals and serves as the basis for all actions that the District takes. Progress toward achieving goals will be routinely assessed and implementation actions adjusted as necessary. Should additional issues be identified by SWWD they will be incorporated through amendment. Part III serves as the District's implementation plan, establishing District programs, Long Range Workplan, and Administrative procedures. This part will be routinely updated through amendment to continue to serve the District.

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 2017.

2017 Financial Report

The 2017 audit report is in Appendix A. Revenue and program expenditure summaries 2017-2018 are presented below.

Revenue

Revenue Source	2017	2018*
Ad Valorem Levy	\$ 993,340.11	\$ 1,077,887.75
Stormwater Utility		
25% Area	\$ 1,457,070.00	\$ 1,620,000.00
75% Area	\$ 1,093,950.00	\$ 715,000.00
E. Mississippi	\$ 322,860.00	\$ 407,500.00
Lower St. Croix	\$ 93,520.00	\$ 128,000.00
Total Revenue	\$ 3,390,740.11	\$ 3,948,387.75

*Anticipated Revenue

Program Expenditures

Program Area	2017 Budget	2017 Actual/Unaudited	2018 Budget
1.0 Planning	\$ 359,917	\$ 221,787	\$ 300,909
2.0 Regulatory	\$ 103,413	\$ 96,787	\$ 108,850
3.0 Implementation & Maintenance	\$ 2,258,374	\$ 2,706,574	\$ 2,699,235
4.0 Education & Information	\$ 76,575	\$ 92,916	\$ 128,586
5.0 Operational	\$ 358,961	\$ 318,785	\$ 383,306
6.0 Debt Service	\$ 803,500	\$ 795,800	\$ 327,500
Total Budget	\$3,960,740	\$4,232,649	\$3,948,387

2017 Activity Report

Fund 1-Planning

PURPOSE: TO PROVIDE CURRENT, SOUND GUIDANCE FOR IMPLEMENTATION

Surface Water

- **Climate Adaptation and Resiliency Plan.** In September 2017, SWWD held a two-day climate adaptation and resiliency plan workshop. The workshops were focused on adaptation and building resiliency into infrastructure and systems. This planning effort is an opportunity for our communities to address risks due to non-climate concerns as well; including poor planning, under-design, lack of maintenance, etc. Representative from local governments, institutions, and businesses participated in the workshops. Feedback from the workshops will be used to complete a full Climate Adaptation Plan and is expected to be done in 2018. Once complete, SWWD will work with workshop participants and City staff to roll out the plan.
- In 2017 SWWD directed consultants to move forward with XP modeling in Newport. Subsequent efforts in 2018 and 2019 will include St Paul Park and Grey Cloud. Development of XP models in East Mississippi is included in SWWD's new Watershed Management Plan. Models will be developed following recently completed modeling guidance to ensure consistency with past SWWD modeling efforts. Additionally, in 2017, SWWD staff has begun a stormwater retrofit analysis to help identify cost effective practices to meet SWWD nutrient and sediment goals throughout East Mississippi.

Natural Resources

- **Glacial Valley Interpretative Center.** In the SWWD Watershed Management plan, SWWD has identified the potential and need for a facility (learning center) on the CDSF Prairie site to carry out desired functions of the site. In February, 2017, SWWD staff held a learning center scoping meeting with stakeholders. In August 2017 SWWD awarded a contract to LHB, Inc. for schematic level design of an interpretive center at SWWD's CDSF prairie site. The scope of the schematic design includes parking, regional and interior trail alignments and circulation, a shelter facility with restrooms, informational/interpretive kiosks, and gateway and wayfinding signage/structures. In December 2017 final design of the Glacial Valley Interpretative Center was approved by the SWWD Board.
- **Trout Brook Ravine Inventory.** In 2017, the SWWD began working with the Washington Conservation District to inventory and prioritize ravines within the Trout Brook subwatershed that have the greatest potential for pollutant load reduction for Trout Brook.

Water Quality Assessment

- **SWWD Lake Management Plans.** Consistent with the SWWD Watershed Management Plan, SWWD worked with Wenck Associates to review existing SWWD lake management plans and develop a new plan for La Lake. Existing SWWD plans were developed in 2010 to 2012. This effort will review past analyses to incorporate data collected since 2010 and account for watershed improvements completed since that time and develop recommendations for in-lake management efforts. This effort also includes

development of a management plan for La Lake at the request of the City of Woodbury which is supporting the effort.

Fund 2-Regulatory

PURPOSE: TO LIMIT THE AFFECTS OF LAND ALTERATIONS AND PROTECT THE PUBLIC HEALTH, WELFARE, AND NATURAL RESOURCES OF THE DISTRICT

Development Reviews

- Development Reviews. 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 2017.
- 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.

Wetland Conservation Act

- Wetland Conservation Act Administration. In 2012, SWWD became the Local Governmental Unit (LGU) for wetland permits within the SWWD boundary. In 2017, SWWD reviewed 18 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.

Erosion and Sediment Control

- 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.

Fund 3-Implementation and Maintenance

PURPOSE: TO PROVIDE INFORMATION NECESSARY TO ASSESS STATE OF DISTRICT RESOURCES AND IMPACT OF DISTRICT ACTIONS

Monitoring

- 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 2017 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 2017, SWWD continued to work with UMN staff to complete an extensive analysis of SWWD's regional monitoring assessment sites. This project provided any potential data inconsistencies resulting from changing sampling procedures over the time of record and provide in depth analysis of quality of water leaving the watershed.

Maintenance

- In 2017, 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 September 2017, Great River Greening scheduled planting of 100 white oak trees adjacent to new development between Military Road and 70th St. Planting was completed by volunteers from Anderson Windows and Thomson Reuters. SWWD is coordinating with the City of Woodbury and the Great River Greening (GRG) organization on GRG's Pollinator Seed Initiative to address the shortage of pollinator-friendly seed. The primary goal of the initiative is to create a sustainable future for pollinator habitat restoration and conservation by creating local sources of genetically appropriate seed which could be harvested when commercial seed suppliers lack sufficient inventory. The partners have identified over 10 acres of Koch pipeline corridor and adjacent parkland from Bailey Road to Ojibway Park in Woodbury as a prime location not only for seeding and propagation - where the corridor is accessible by trail and the current vegetation needs improvement, but also as an ideal setting to engage the neighborhood and schools adjacent to the corridor – over 1,500 households and 3 schools within 0.5 miles of corridor. A grant agreement between Woodbury and GRG was signed December 2017. Preparation, planting and seeding will take place in spring, 2018.

- **Greenway Planning.** In 2017 SWWD began the inventory and analysis process reaching out to county planning and reviewing city comprehensive plans for current local and regional trails and greenways either planned or constructed. SWWD will work to meet with city and county staff to further identify and analyze opportunities and constraints. The County is including a greenway planning update as part of their Comprehensive Plan update taking place in 2017-2018. SWWD will focus greenway planning efforts to identify local, east-west connections between SWWD communities and resources to help inform the County during their greenway planning process.
- **South Washington County School District Campus Greening.** In 2017, SWWD began working with facilities staff of South Washington County Schools to create an open space plan at the Lake Middle School and Middleton Elementary School (93 acre site - Woodbury) that not only supports active recreation, but provides both water quality and habitat goals. These schools are located within the SWWD greenway corridor. Partners with the 'greening' of the school sites are SWWD, the City of Woodbury, and District 833. Prairie areas and most of the trees will be planted in spring 2018. SWWD is engaging stakeholders for any additional opportunities to be considered as part of the project, including outdoor classrooms. A partnership with a local nonprofit, Tree Trust, has been established to carry out a tree planting event and in-school education with both schools in Spring of 2018.

Capital Improvement Plan

- **Central Draw Overflow Phase III and IV.** In cooperation with Washington County Overflow Phases III and IV were started in 2015 and continued 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). The construction of the lake outlet was completed in 2017. 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. Work will continue into the Spring of 2018. Cottage Grove Ravine Park is set to open in May 2018. Vegetation management was completed in 2017 in the Lower East Ravine and Cottage Grove Ravine area to restore native vegetation, provide forest management and stabilize soils.
- **Central Draw Overflow Phase V.** Phase V design work will begin in 2018. 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.

- CDSF Improvements to the Central Draw Storage Facility (CDSF) occurred in 2017. Improvements include stabilization of the CSAH 19 embankment for future water impoundment, grading of SWWD’s CDP86SN basin, and a berm separating the CDP86SN and CDP86N basins to maximize storage capacity of the CDP86N basin, and the outlet from CDP85, where it discharges into CDSF is showing excessive erosion around the outlet structure. All work was completed in 2017.
- Central Draw Overflow Media Production. In 2017, SWWD Contracted with North Star Aerial to produce photo, video, and aerial footage capturing the watershed overflow project. Phase II project ground and aerial shots as well as phases III and IV preconstruction ground and aerial shots were completed in May. Phases III and IV construction footage will be taken as site construction takes place through spring of 2018.
- 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 2017, 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. 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.

Incentives

- 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 2017 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.
- In 2017 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 2017 reimbursement rate was \$5,000.00 per pound of phosphorus retained with reimbursement capped at total project cost. SWWD awarded \$60,000 to 22 project applicants in 2017 expected to capture 11 lbs of total phosphorus. There were 14 projects landowner projects installed in 2017 (including grant recipients from previous years) costing SWWD \$44,150 and capturing an estimated 29 lbs of phosphorus. Projects with higher funding levels typically treated runoff from several properties.

- In 2017 the SWWD implemented a BMP Maintenance Program. The SWWD has recently installed several stormwater BMPs in conjunction with road improvements projects with Cities where vegetation maintenance is the responsibility of the SWWD. Other older stormwater BMPs installed were also in need of maintenance. In March 2017, SWWD sent out request for professional services for maintenance services for the BMPs. The SWWD Contract with Outdoor Lab Landscape Design, Inc. for 2017 BMP Maintenance.
- 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.
- The SWWD Board of Managers awarded \$263,504 through its Coordinated Capital Improvement Program (CCIP) in 2017. \$91,910 was awarded to the City of Cottage Grove for stormwater retrofit of Central Fire Station, and \$29,252 for 2017 pond maintenance. \$4,342 was awarded to the City of Woodbury for de-icing AVL equipment and \$100,000 for 2018 pond maintenance. Washington County was awarded \$38,000 for Ravine Park improvements. Completed projects will address known system deficiencies and ensure continued function of existing facilities.
- 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 were 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. An EAW and a 3rd party review for the project was completed in 2016. Construction of the bridge was completed in October 2017. SWWD staff is working with Great River Greening to pursue shoreline restoration along the channel.



- In 2017 SWWD contracted with Minnesota Native Landscapes to provide 2017-2019 maintenance work on the Clear Channel pond project. Work will consist of mowing, weed control, and prescribed burning.
- 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 continued its collaboration with the Minnesota Department of Natural Resources with 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 stormwater reuse.
- In 2017, the SWWD partnered with the City of Woodbury to address water conservation through smart irrigation. A retrofit of the irrigation system Eagle Valley Golf Course, and the City wide Residential Irrigation Controller program. Both projects will promote water conservation efforts within SWWD.

Fund 4-Education and Information

PURPOSE: TO EFFICIENTLY INFORM AND EDUCATE DISTRICT RESIDENTS AND STAKEHOLDERS

- SWWD participated and continued support of the East Metro Water Resource Education Program (EMWREP). The EMWREP annual activities report is in Appendix B.
- SWWD partnered with Refuge Friends formally known as Kids4Conservation to provide education activities and workshops with 5th graders from Grey Cloud Elementary in Cottage Grove. Refuge Friends 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 Refuge Friends and the teachers will be used to further develop SWWD's experiential learning program for expansion and full rollout by 2020.
- In 2017 SWWD was a Road Salt Symposium Sponsor. The symposium was presented by the Freshwater Society, and it encourages smart salt use which protects the environment, reduces expense, and ensures safe roads.
- SWWD began using social media as well as the Districts website as a communication platform. A Facebook and Twitter account were created in 2017.
- In 2017, SWWD Contracted with North Star Aerial to produce photo, video, and aerial footage capturing the watershed overflow project and the Grey Cloud Slough Crossing. The footage has been shared on the Districts website and social media accounts.
- 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.

Fund 5-Operational

- The SWWD District Board annually prioritizes work activities from the long range work plan constituting targeted efforts for the coming year. These work activities translate into the annual work plan and budget for the SWWD. The annual work plan allows the District Board to establish a short term operating budget while maintaining connection to the overall long term management goals of the District. Six Management areas have been defined through which the SWWD will work to execute the annual work plan. The areas are: (1) Planning, (2) Regulatory, (3) Implementation & Maintenance, (4) Education & information, (5) Operational, and (6) Debt Service Fund. According to Minnesota Statute 103D.911 the SWWD must hold a hearing and adopt a preliminary budget on or before September 15th of each year. The Final budget certification is due to Washington County by December 31st of each year.
- In 2017, 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.
- 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.

Fund 6-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 was 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.

2018 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.	-	Budget for unexpected flooding issues. Update SWWD Emergency Response Plan and expand to East Mississippi and Lower St. Croix



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;	Complete	-	None.
2	Phase IV, stabilization of Ravine Park by 2018	Project is in progress.	-	Complete project.
3	Phase V, construction of remaining pipe sections by 2019;	Engineer is under contract for final design. Project is on track for 2019 construction	-	Complete design of phase V. Complete land acquisition.
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.	On track with progress on phase V.	-	Continue work on phase V.



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.	-	Opportunistically implement projects as they arise.
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.	-	Opportunistically implement projects as they arise.
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.	-	Opportunistically implement projects as they arise.
5	Armstrong Lake: Protect Armstrong Lake from exceeding state eutrophication standards by reducing the growing season total phosphorus load by 5 kg.	N/A	-	Construction of 15th and Hilo filtration swale BMP in cooperation with Oakdale Opportunistically implement projects as they arise.
6	Markgrafs Lake: Restore Markgrafs Lake to state eutrophication standards by reducing the growing season total phosphorus load by 48 kg.	N/A	-	Opportunistically implement projects as they arise.
7	Ravine Lake: Restore Ravine Lake to state eutrophication standards by reducing the	N/A	-	Opportunistically implement projects as they arise.

	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.	-	Opportunistically implement projects as they arise. 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.	-	Opportunistically implement projects as they arise. 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.	Change % funding from 35 to 50 to improve quality of projects.	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	-	Review State requirements as part of planned WMP amendment.
3	Establish and maintain a 50 foot, permanently vegetated buffer along all bluffs, ravines, lakes, and streams;	N/A	-	Work with developers to ensure adequate buffers as part of development.
4	Identify and prioritize actively eroding ravines and address as budget allows;	Inventory completed for Trout Brook Watershed	-	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.	-	Enforce SWWD rules.
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 restoration 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. Work with Woodbury, Koch Pipelines, Great River Greening to transition pipeline corridors from turf to prairie.
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.	-	Continue use of native plants on SWWD projects and promote their use throughout the District.

7	Promote compliance with guidance for pollinator friendly design practices as part of District funded projects;	Ongoing	-	Continue to promote practices.
8	Consider preservation or restoration of native habitat and benefits to pollinators and other wildlife in allocation of incentive funding.	Ongoing	-	Continue to promote practices.
9	Evaluate potential credit mechanisms to incentivize developers to maintain mature trees during development within 3 years;	Not started.	-	Evaluate issue with City staff.
10	Implement habitat improvement practices identified in completed Resource Management Plans.	Not started.	-	Update Lake management plans. Plans will include habitat recommendations.



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.	-	Modify CCIP program to incentivize resiliency and adaptation.

5	Promote use of alternative landscapes which require less water;	Ongoing	-	Work on turf to prairie conversion on pipe corridor and public campus redevelopments.
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 St. Paul Park in SWWD's East Mississippi watershed.
2	Calibrate completed models to collected monitoring data once every 3 years.	NWS model updated.	-	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;	Identified climate related topics as part of Climate Adaptation plan.	-	Nothing planned.
2	Pursue research opportunities to provide for identified information needs;	Ongoing. SWWD staff participates on the Stormwater Research Council advisory board and contributes 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.	-	Update Monitoring Database to improve function. Get set up to use PTMapp in rural portions of SWWD.



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. Developed a conceptual plan for future learning center at CDSF with Cities as stakeholders.	-	Include plans for future learning center as part of planned WMP amendment. Pursue grant funding to fund construction.
4	Evaluate the need and opportunity for shared Learning Center at the Central Draw Storage Facility;	Complete.	-	Incorporate in WMP through amendment.
5	Develop shared interpretive and educational programming through EMWREP for use at Municipal and District facilities focused on identified District issues;	Not started.	-	Design and install signage at Ravine Lake as part of CDO project.
6	Engage local public, private, and NGO partners to develop experiential programming for children;	Ongoing. Pilot effort is continuing at two schools with Refuge Friends, Inc, formerly Kids 4 Conservation.	-	Continue work with RFI 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 plan roll out. 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.	-	Continue to refine reporting and documentation methods. Complete update of Lake management plans.
2	Incorporate strategy documentation, progress evaluation, and annual workplan into annual report;	Ongoing.	-	Continue to refine reporting and documentation methods.
3	Amend Watershed Plan as necessary to provide the District with programs and tools necessary to implement identified strategies.	Not started.	-	Complete a minor plan amendment to incorporate additional guidance documents



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. Apply for continued coverage under new permit.
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 was engaged as part of Climate Adaptation Planning in 2017.	-	Engage technical staff at Cities in roll out and implementation of adopted climate adaptation plan.
2	Incorporate local input into District planning efforts through engagement of a standing Citizens Advisory Committee	Ongoing. CAC was engaged as part of Climate Adaptation Planning in 2017.	-	Engage Citizens in roll out and implementation of adopted climate adaptation plan. Engage 2018 class of Master Water Stewards as CAC members.
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. Completed Grey Cloud project in partnership with County.	-	SWWD continues to partner with Washington County to complete CDO phase III and IV projects in Ravine Regional Park as well as ongoing restoration work.
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 2018 to update info and add and update guidance documents	As Planned	-	\$ 33,725.00
2 Complete SWWD Flooding Emergency Response Plan within 6 years;	Complete by 2023.	\$ 45,000.00	\$ -	Planned to begin in 2018.	N/A, will be evaluated in 2019.	-	\$ -
3 Complete development of subwatershed hydrologic models within 6 years;	Complete by 2023.	\$ 160,000.00	\$ -	Ongoing. Newport model completed in 2017. Rest of East Miss to be completed in 2018.	As Planned	-	\$ 45,000.00

					Work will expand to Lower St Croix watershed and continue throughout the next 5 years.			
4	Update/calibrate completed hydrologic models every 3 years	Ongoing.	\$ 390,208.00	\$ -	NWS model was updated in 2017. Will begin to evaluate E Ravine model in 2018.	As planned	-	\$ 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 updates.	N/A, will be evaluated in 2019.	-	\$ -
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 is working on a management plan for La Lake. Will be complete in 2018.	Ahead of schedule	-	\$ 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 lake management plans being updated. Complete 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.	As planned	-	\$ 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 2019.	-	\$ 8,000.00
10	Develop a Climate Adaptation Plan within 6 years;	Completed by 2023.	\$ 105,000.00	\$ -	Plan adopted by Board. Will be added to WMP as guidance document as part of plan amendment in 2018.	Ahead of schedule	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.	As planned	-	\$ -



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.	As planned	-	\$ -
2 Annually implement District’s monitoring plan;	Ongoing.	\$ 1,776,901.00	\$ -	Ongoing.	As planned	-	\$ 155,000.00
3 Monitor levels and water quality of all publicly accessible lakes annually;	Ongoing.	N/A, included in monitoring budget	\$ -	Ongoing.	As planned	-	\$ -
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	\$ -	Monitoring efforts ongoing.	As planned	-	\$ -

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.	As planned	\$ -
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 2019.		-
4	Stabilization of identified ravines to prevent downstream transport of sediment and nutrients (Ravine Survey and Assessment Plan);	TBD, pursuing grant funds to supplement SWWD funding.	\$ 179,591.00	\$ -	Survey complete for Trout Brook watershed. Additional survey pending.	As planned	-	\$ -
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)	Climate plan complete. Will be incorporated into WMP in 2018. Existing programs to be modified for implementation.	\$ 1,000,000.00	\$ -	Plan complete. Implementation tools under development.	Ahead of schedule	-	\$ -
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 2019.	-	\$ -
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. Update of emergency response plan is planned for 2018.	N/A, will be evaluated in 2019.	-	\$ 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 2019.	-	\$ -
9	Provide adequate funding for local		\$	\$	Not started.	N/A, will be evaluated	-	\$

implementation actions identified in the Washington County Groundwater Plan		132,026.00	-		in 2019.		5,000.00
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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	As planned	-	\$ 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	As planned	-	\$ 5,000.00
3	Perform maintenance or enforce maintenance agreements as necessary to maintain full resource benefits of BMPs.	Ongoing.	\$ 523,194.00	\$ -	SWWD contracts with private companies to perform annual maintenance.	As planned	-	\$ 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.	As planned	-	\$ -
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 2018. Regional pond improvements and Trout Brook are scheduled for 2018.	N/A, will be evaluated in 2018.	-	\$ 5,000,000.00



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	\$ -	Programs will be modified to incentivize climate resiliency and adaptation.	As planned	-	\$ 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, included above.	\$ -	Not started	N/A, will be evaluated in 2019.	-	\$ -
3 Annually review District’s role in and need for supplementing County groundwater focused cost share and loan programs.	Ongoing.	N/A	\$ -	Not started	N/A, will be evaluated in 2019.	-	\$ -



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	\$ -	Ongoing	As planned	-	\$ 32,000.00
2 Increase use of Website and Web Tools (staff time);	Ongoing.	\$ 261,376.00	\$ -	Ongoing, improvements planned for 2018	As planned	-	\$ 22,800.00
3 Annually update story mapping as part of annual report to reflect current project status;	Ongoing.	N/A, included above	\$ -	Ongoing	As planned	-	\$ -

4	Annually update water quality database to include previous year's data;	Ongoing.	N/A, included above	\$ -	Database is current through the 2017 monitoring season.	As planned	-	\$ -
5	Annually update web viewer to reflect most recent spatial data;	Ongoing.	N/A, included above	\$ -	Ongoing.	As planned	-	\$ -
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	\$ -	Ongoing.	As planned	-	\$ -
8	Establish standard modelling specifications within 3 years;	To be completed by 2020.	N/A, included above	\$ -	Draft specs are complete. Draft is being used as a model for development of the East Mississippi watershed model. Draft will be refined as necessary during model development.	Complete	-	\$ -



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	\$ -	Ongoing	As planned	-	\$ 194,183.00
2 Maintain funding levels adequate to meet implementation demand of the District;	Ongoing.	N/A, included above	\$ -	Ongoing	As planned	-	\$ -
3 In partnership with neighboring Districts, maintain legal boundary that reflects SWWD's hydrological boundary.	Ongoing.	N/A, included above	\$ -	Ongoing	As planned	-	\$ -



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.

Audit will be submitted as separate document

Appendix B Education



2017 Annual Report



Above: (Clockwise from upper left) St. Croix Boom Site Clean-up participants; Campfire program at St. Croix Bluffs Regional Park; Master Water Stewards' learn about Brown's Creek improvement projects; New yard signs.

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
2017 Annual Report**

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About the East Metro Water Resource Education Program

Background: The East Metro Water Resource Education Program (EMWREP) is a partnership formed in 2006 to implement a comprehensive water education and outreach program for the east metro area of St. Paul, MN. Current EMWREP partners include:

- Washington Conservation District (host)
- Washington County
- Watershed management organizations: Brown's Creek, Carnelian-Marine-St. Croix, Comfort-Lake Forest Lake, Rice Creek, Ramsey-Washington Metro, South Washington, and Valley Branch Watershed Districts, and the Middle St. Croix Watershed Management Organization
- Cities and townships: Cottage Grove, Dellwood, Forest Lake, Grant, Hugo, Lake Elmo, Newport, Oakdale, Oak Park Heights, Stillwater, St. Paul Park, Willernie, and Woodbury, West Lakeland Township

Purpose: The purpose of the shared education program is to educate community residents, businesses, staff and decision-makers about issues affecting local lakes, rivers, streams, wetlands and groundwater resources and to engage people in projects that will help to protect and improve the health of these water resources.

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: Angie Hong is the EMWREP program coordinator. Additional education support in 2017 was provided by Jenn Radtke and Lauren Haydon.

Coordination with Other Regional Education Efforts: The EMWREP partnership helps to strengthen relationships between Washington Conservation District, Washington County and the eight watershed management organizations and 14 cities that constitute the partnership. This translates into better coordination and less overlap in the management of local water resources.

EMWREP staff provide leadership for Watershed Partners (a collaborative of more than 60 non-profit and public entities in the Twin Cities metro area), work actively with organizations in the St. Croix Basin, and participate in the Blue Thumb partnership and Master Water Stewards program.

Accolades: EMWREP was the 2012 MAWD Watershed Program of the Year.

2017 Executive Summary

Public Education and Engagement: EMWREP continues to lead water education efforts in the East Metro area through outreach, community engagement, public education, and media communications. Highlights from 2017 include:

1. **Public education:** Eight (8) landscaping workshops; four (4) backyard tours; ten (10) family nature events; and 15+ community events.
 - **Highlights:**
 - i. Landscaping workshops in North St. Paul, St. Paul Park, Oakdale, Hugo, Forest Lake and Woodbury
 - ii. Raingarden maintenance workshops in Stillwater and Forest Lake
 - iii. AIS Identification workshops in Forest Lake, Big Marine and Lake Elmo
 - iv. Clean the Croix – river clean up and buckthorn pull with 60 participants
 - v. BCWD 20th Anniversary & WCD 75th Anniversary events
2. **Volunteer engagement:**
 - **Master Water Stewards:** With state funding, EMWREP recruited eight citizens to become Master Water Stewards and will be recruiting 12 additional stewards in 2018. Stewards complete 50-hours of training and a capstone project to become certified and volunteer 25-50 hours per year to support local watershed work.
 - **AIS Detectors:** We used county funds to train nine local residents as aquatic invasive species “AIS Detectors”, through a partnership with University of MN.
 - EMWREP continues to work in partnership with Washington County Master Gardeners and to provide support for education initiatives led by St. Croix Watershed Stewards.
3. **Youth education:** Staff taught lessons about groundwater and watersheds to more than a dozen 4th and 5th grade classes; led activities at Cottage Grove and Woodbury Safety Camps; and provided support to Ramsey-Washington Metro Watershed District to engage 500 students in planting a raingarden at Woodbury Elementary.
4. **Media and communications:** Angie Hong continued to write weekly articles about water and conservation for local newspapers (www.eastmetrowater.areavoices.com). Through Watershed Partners, we created a new blog-style website (www.cleanwatermn.org) with monthly articles about local water heroes.

Outreach Support for Project Implementation: EMWREP staff provide support for Clean Water grants and other partner projects, in addition to promoting cost-share incentive programs. Examples from 2017 include:

- **Green Communities:** Completing a three-year grant project to conduct audience research and install stormwater reduction practices at five Homeowners’ Associations (HOAs) in Washington County
- Helping Brown’s Creek WD to plan and promote its 20th anniversary event
- Organizing a neighborhood gathering at Hay Lake in Carnelian-Marine-St. Croix WD
- Conducting a raingarden maintenance training for cost-share recipients in Comfort Lake – Forest Lake WD and Rice Creek WD
- Helping Middle St. Croix WMO to develop a community engagement plan for Lily Lake
- Helping Ramsey-Washington WD staff to plant a raingarden at Woodbury Elementary

- Meeting with landscape architects to develop a vision for new park space and an interpretive center at South Washington WD's Glacial Valley Park in Woodbury.
- Working with Valley Branch WD and City of Maplewood to design and install four interpretive signs at Joy Park on Silver Lake
- Providing education support for Washington CD outreach to farmers
- Helping Washington County to develop education activities for its Groundwater Plan

In addition, outreach and education helped to support:

- 257 landowner site visits with Conservation District staff
- 57 new projects installed with watershed cost-share grants
- 79.18 pounds of phosphorus (P) kept out of surface waters (all projects combined)

Professional Trainings for Business and Local Government: EMWREP provides professional training for businesses and local government through Stormwater U, NEMO, and other partnerships. Training partners include Minnesota Extension, the University of Minnesota Erosion and Stormwater Management Certification Program, the Minnesota Erosion Control Association (MECA), Fortin Consulting, St. Croix River Association, and the Minnesota Department of Natural Resources (DNR). Professional trainings in 2017 included:

- Turfgrass management & Winter maintenance workshops
- Illicit discharge detection and elimination (IDDE) workshop and presentations
- Stormwater volume control & bioretention design workshop
- Shoreline workshops for realtors
- Business BBQ
- Watershed Partners monthly meetings
- St. Croix River Workshop on the Water

New Materials and Resources: During 2017, EMWREP created [new materials and resources](#) to support water education. Highlights include:

1. **Neighborhood Clean-up Engagement Kit:** This kit, developed in partnership with Metro Watershed Partners includes doorhangers, sign-up forms, step-by-step instructions and other materials to help local residents and community groups organize neighborhood "storm drain" clean-up events.
2. **Yard Signs:** "This yard is part of the solution" - These signs come in four different colors and designs and are sold for \$3 each or two for \$5.
3. **NEW High quality photos:** Through the Watershed Partners new media campaign we now have a collection of more than 100 new high quality photos to help illustrate common water education topics (ie. lawn care, winter salting, native plants, raking leaves out of the street, pet poop, etc.). The collection also includes in-action and people photos.
4. **Table-top banners:** EMWREP has four new table-top pop-up banners available for partners to borrow: AIS, Pollinators, Lawn Care, and Ag Practices for Soil Health. The banners are light-weight and retract to fit in small carrying bags.
5. **Interactive groundwater displays:** Two new groundwater displays developed in 2016 got lots of use in 2017. One features information about groundwater resources in Washington County, while the other focuses on water conservation. Both are hands-on and fold-up into wooden suitcases with wheels and handle for easy transport.
6. **Green Communities Guidebook:** This short [guidebook](#) summarizes feedback from focus groups conducted with homeowner association (HOA) residents, property management companies, and lawn care professionals and provides advice for engaging HOAs in clean water projects.

Public Education and Engagement

Minimum Control Measure Addressed

<input checked="" type="checkbox"/> Public education & outreach	<input type="checkbox"/> Construction site runoff controls
<input checked="" type="checkbox"/> Public participation & involvement	<input type="checkbox"/> Post-construction storm water management
<input checked="" type="checkbox"/> Illicit discharge detection and elimination	<input type="checkbox"/> Municipal pollution prevention & good housekeeping

Audience: General Public, Urban and Rural Landowners, Youth

Program Goals:

1. Educate the public about nonpoint source water pollution, groundwater conservation, and basic watershed ecology and management.
2. Build partnerships with state and local government, non-profit organizations, and community groups.
3. Engage citizen volunteers to help conduct education and outreach.
4. Motivate urban and rural landowners to practice behaviors that protect water resources.
5. Train and assist urban and rural residents to complete projects on their land that reduce runoff pollution, conserve groundwater, and increase infiltration.

Educational Objectives:

Citizens will learn:

1. That nonpoint source water pollution comes from a variety of land uses - residential, commercial, and agricultural.
2. That common pollutants impacting surface and groundwater resources in the east metro area include phosphorus, sediment, nitrates, *E. coli*, chloride, and mercury.
3. That a watershed includes all of the land draining to a lake, stream or river, and that Watershed Districts and Watershed Management Organizations are special-purpose local units of government charged with managing the resources of a given watershed to prevent flooding and protect water quality.
4. That surface and groundwater resources interact.
5. That area residents can help to prevent nonpoint source water pollution through a variety of behaviors, including raking leaves and grass clippings out of the street, using less fertilizers and chemicals on lawns and gardens, covering bare soil during landscaping and construction, picking up pet poop, replacing failing septic systems, using less salt for winter maintenance and water softening, disposing of household waste properly, and using less electricity.
6. That landowners can help to reduce runoff pollution, conserve groundwater, and increase infiltration by installing best management practices such as habitat plantings, raingardens, and shoreline plantings; repairing erosion; and managing drainage around homes, farms, and commercial buildings.

PUBLIC EDUCATION AND ENGAGEMENT ACTIVITIES IN 2017

1) Public Education

Tree Workshop – taught in partnership with Minnesota DNR and US Forest Service.

- Oakdale – Feb. 23 (53 attendees)

Spring Landscaping Workshops – taught in partnership with Master Gardeners. Participants learned about lawn care and lawn alternatives, composting, and “Blue Thumb” projects – native gardens, raingardens and shoreline plantings.

- North St. Paul – April 6 (29 attendees)
- St. Paul Park – April 11 (20)
- Oakdale – April 18 (31)
- Hugo – April 27 (15)
- Forest Lake – May 2 (18)

Raingarden Maintenance Workshops

- Stillwater – July 20 (6 attendees)
- Forest Lake – Aug. 23 (33)

Buckthorn Workshop

- Woodbury – Sept. 19 (25 attendees)

Brown’s Creek Open Yards Series –hosted by members of the Brown’s Creek Watershed District Citizen Advisory Committee.

- May 24 - large lots: buckthorn, woodland wildflowers, native shrubs
- June 21 - large lots: septic systems, infiltration, weed management
- Aug. 23 - large lots: prairies
- Sept. 20 - urban/suburban lots: raingardens, weeds vs native plants

Family nature events: hands-on, outdoor events to teach children and adults about aquatic invertebrates and lake and river health

- Forest Lake - June 20 (Arts in the Park)
- St. Croix Bluffs Regional Park – June 24 (campfire program)
- Woodbury, Colby Lake - June 27
- Oak Park Heights, Autumn Hills Park - July 6
- North St. Paul, Silver Lake – July 8 (Silver Lake SPLASH)
- Oakdale, Tanners Lake - July 12
- Lake Elmo Park Reserve – July 15 (campfire program)
- St. Paul Park, Lions Park on the Mississippi River - July 18
- Stillwater, Long Lake - July 24
- Cottage Grove, Pinetree Pond - July 26

Sales (trees, plants, rain barrels, compost bins): EMWREP partnered with other organizations to promote sales and provide educational materials at these events.

- Rain barrel and compost bin sale – April 28, Hugo
- Tree sale – April 28-29, Lake Elmo
- Master Gardener plant sale - May 21, Lake Elmo
- Landscape Revival native plant expo and market - June 3, Roseville

Aquatic Invasive Species identification workshops: hands-on workshops taught in partnership with Comfort Lake – Forest Lake Watershed District staff using special funding from Washington County.

- Forest Lake – June 19 (18 participants)
- Big Marine Lake – June 29 (5 participants)
- Tri-Lakes in Lake Elmo – Aug. 15 (15 participants)

Community events: EMWREP partnered with other organizations to plan, promote, provide educational materials, and conduct educational programming at these events.

- Feb. 8 – Mahtomedi Garden Club spring event
- Feb. 11 – Phalen Freeze Fest (St. Paul)
- March 9 – Pollinator Forum (West St. Paul)
- April 22 – Grant Community Clean-up
- April 29 – Mahtomedi RITE of Spring
- May 20 – Belwin Bison Release (Afton)
- May 21 – Mill Stream Day (Marine on St. Croix)
- June 3 – WaterFest (Lake Phalen – St. Paul)
- June 22 – Oakdale Summerfest Parade
- July 8 – Boomsite Cleanup (Stillwater Twp.)
- Aug. 2-6 – Washington County Fair (Lake Elmo)
- Aug. 13 – Newport Pioneer Day
- Aug 24 – Sept. 4 – Minnesota State Fair
- Sept. 6 – Stillwater Community Water Meeting
- Sept. 10 – PolliNATION (Stillwater Twp.)
- Sept. 16 – Brown’s Creek 20th Anniversary Event (Stillwater)
- Sept. 17 – Washington Conservation District 75th Anniversary Event (Lake Elmo)
- Sept. 21 – Cottage Grove Public Works Open House
- Oct. 5 – Governor’s Water Town Hall (Stillwater)

Presentations: presentations given by EMWREP staff at community meetings and events

- Feb. 7 - Daylily and Trillium Garden Clubs Meeting (Stillwater)
- Feb. 16 - Great Rivers Confluence Symposium (Afton-Hastings-Prescott-River Falls)
- Feb. 27 – Tri-Lakes annual meeting (Lake Elmo-Oakdale)
- Sept. 27 – Marine on St. Croix Community Water Meeting

2) Volunteer engagement:

Master Water Stewards: In 2017, EMWREP received a Clean Water Fund grant to recruit and train two cohorts of Master Water Stewards in our area (20 volunteers total) in partnership with Freshwater Society. Stewards go through 50-hours of training and complete a capstone project to become certified. After that, they volunteer 50-hours the first year and 25 hours per year thereafter to remain certified. During the first year of the grant project we:

- Developed recruitment materials, held two information sessions, and offered invitations to participate to 13 applicants. Of those, ten people elected to join the program and eight are still participating as of February 2018.
- Secured a GreenCorps member to help develop the program.

- Worked with Freshwater Society to develop new curriculum to teach stewards about rural watershed issues and best management practices such as habitat restoration, invasive species management, and shoreline restoration.
- Current program participants include:
 - 1) Carnelian-Marine-St. Croix WD - John Goodfellow (Marine)
 - 2) Comfort Lake – Forest Lake WD - Tom Furey (Scandia)
 - 3) Middle St. Croix WMO - Sally Arneson (Stillwater and Lakeland) and Drew Chirpich (GreenCorps)
 - 4) South Washington WD – Cole Williams (Newport); Joan Nichols, Nathan Zerbe and Susan Goebel (Woodbury)
- Classes taught to stewards in 2017 included:
 - 1) Info sessions in August and September
 - 2) Introductory meeting - Oct. 10
 - 3) On-line capstone primer
 - 4) County watershed tour - Oct. 14
 - 5) Basic hydrology - Oct. 24
 - 6) Stormwater basics - Nov. 14
 - 7) Water policy - Nov. 28
- In 2018, the current stewards will take classes in environmental decision making, community engagement, rainscaping, residential stormwater management, and BMP evaluation and maintenance. They will also complete their capstone projects by November 2018. EMWREP will recruiting 12 new stewards for the 2018-19 cohort this summer and fall.

AIS Detectors: Last year, we used Washington County aquatic invasive species (AIS) funds to train nine local residents at AIS Detectors, through a partnership with the University of Minnesota. The program offers 6-8 hours of on-line training and one full-day, in-person training to help citizens learn how to identify invasive aquatic plants including Eurasian watermilfoil, hydrilla and starry stonewort; invasive invertebrates including spiny waterflea, rusty crayfish, zebra mussels, and quagga mussels; and invasive fish including bighead carp, silver carp, round goby, and ruffe. Volunteers received a certificate upon completion of training and will now be asked to provide 25 hours per year of volunteer work to help address local AIS issues.

AIS Detectors in Washington County include:

- 1) John Bower - Big Carnelian (CMSCWD)
- 2) Jeff Dahlberg - Big Marine (CMSCWD)
- 3) Tony Vavoulis - Big Marine (CMSCWD)
- 4) Sam Hathaway – Bone (CLFLWD)
- 5) Gary Lee – Clear (RCWD)
- 6) Link Lavey - Demontreville/Olson (VBWD)
- 7) Dale Dorschner – Elmo (VBWD)
- 8) Del Peterson – Lily (MSCMWO)
- 9) Mike Ziegelski – Sand (CMSCWD)

Engaging existing volunteer networks: EMWREP continues to work in partnership with Washington County Master Gardeners and to provide support for education initiatives led by St. Croix Watershed Stewards. During 2017, EMWREP:

- Co-taught spring landscaping workshops with Master Gardeners and helped to promote the Master Gardener plant sale.
- Provided flyers and storm drain stenciling materials for St. Croix Watershed Steward Jack MacKenzie, and also helped to promote MacKenzie's spring lawn care workshops.

3) **Youth education:**

Groundwater education: With special funding from Washington County, EMWREP staff provided groundwater education for more than a dozen school and youth groups in 2017:

- Staff taught lessons using the groundwater model and K-12 Watershed Game to 13 4th and 5th grade classes at the following schools:
 - Oakdale Elementary
 - Castle Elementary (Oakdale)
 - Eagle Point Elementary (Oakdale)
 - Crestview Elementary (Cottage Grove)
- EMWREP also led groundwater education activities for Washington County 4H Project Discovery (March 11), Trout in the Classroom Summit (March 17), Maplewood Middle School Field Day (May 26) and Children's Water Festival (Sept. 27).

Stormwater and watershed education:

- Woodbury Elementary field trip to Battle Creek Lake – March 1
- Woodbury Elementary raingarden field day - May 4
- Storm drain stenciling with Natural Sciences Academy in St. Paul Park - May 31
- Camp Clue stormwater pollution prevention activity at Cottage Grove and Woodbury Safety Camps – June 21 and July 19
- Woodbury Elementary raingarden planting with 500+ students – Oct. 4, 5, 10

4) **Media and communications:**

Newspaper articles: Angie Hong continues to write articles about water and conservation for local newspapers. Read them on-line at www.eastmetrowater.areavoices.com. For a list of articles sent to each paper in 2017, see Appendix B.

*There have been significant changes at most of the local newspaper companies over the past 12 years, including frequent staff turnover, elimination of local offices, and reduction in the frequency of printing. This has made it difficult to publish regular content in many EMWREP partner communities.

- **Chisago Press** (Circulation - 3963) – 4 articles
- **Forest Lake Lowdown** (Circulation – 13,997) – 2 articles
 - Staff writer Jackie Bussjaeger also attended and wrote articles about several watershed events.
- **Forest Lake Times** (Circulation - 13,029) – 21 articles
 - In September of 2017, Forest Lake Times changed its format to incorporate a new, ad-free editorial page with a slate of rotating columnists. From now on, they will be publishing our articles in this section once a month.
- **Hugo Citizen** (Circulation – 14,500) – 4 articles
- **Oakdale-Lake Elmo Review** (Circulation – 11,066) – 17 articles
 - There have been significant staff changes at the Review papers.
- **Ramsey Review** (Circulation – 24,326) – 4 articles
- **Scandia Country Messenger** (Circulation - 1075) – 14 articles
- **South Washington County Bulletin** (Circulation - 8616) – 10 articles
 - There have been significant staff changes at the Bulletins and there is no longer a local editor for either.
- **St. Croix 360** (On-line: 25,647 followers) – 1 article
- **St. Croix Lowdown** (Circulation – 5000) – 3 articles
 - This paper also runs articles from the Forest Lake Lowdown and Scandia Country Messenger on occasion.
- **Valley Life edition of Stillwater Gazette** (Circulation - 17,479) – 47 articles
- **White Bear Press** (Circulation – 19,331) – 3 articles
- **Woodbury Bulletin** (Circulation - 7811) – 13 articles

Newsletters: EMWREP also provides content for city, watershed and WCD newsletters.

- Afton (pop. 2800) - [newsletters](#)
 - Jan – tree workshop
 - Feb – tree workshop
 - March – spring dreaming
 - May – Protect clean water/adopt a drain (?)
 - Sep – Master Water Stewards
 - Oct – MSCWMO cost share promotion
 - Nov – CWMA Grant
- Bayport (pop. 3200)
 - Spring – Clean Water Funds (MSCWMO) and Help Stop Invasive Species
 - Summer – Smart Outdoor Water Use and MSCWMO Cost Share Promotion
- Birchwood (pop. 875) - [newsletter](#)
 - Summer – Illicit Discharge
- Browns Creek Watershed District – content for annual newsletter
- Carnelian-Marine-St. Croix Watershed District – content for annual newsletter
- Cottage Grove (pop. 34,000) - [newsletter](#)
 - Jan – tree workshop
 - April – Arbor Day event and Hyvee/SWWD stormwater award
 - Dellwood
 - Dec – Stormwater pollution prevention program
- Lakeland (pop. 1830) - [newsletter](#)
 - Feb – Tree workshop
 - March – Spring Dreaming Workshop
 - April – Spring Dreaming Workshop

- November – MSCWMO Cost Share
- Mahtomedi (pop. 8000) - [newsletter](#)
 - Spring (Green Talk) – Spring dreaming workshop
- Oakdale (pop. 27,726) – [newsletter](#)
 - Spring – Water Saving Tips, Waterfest 2017, Zero Waste Tips, Clean Spring Runoff
 - Summer – Tanner’s Lake Pond Dipping
- Oak Park Heights (pop. 4724) - [newsletter](#)
 - March – Spring Dreaming workshop
 - Sep – MSCWMO cost share promotion
 - Stillwater (pop. 18,000) - [newsletter](#)
- Oct – Clean Streets for Clean Water
 - Stillwater Twp. (pop. 3000) - [newsletter](#)
 - Spring Dreaming Workshop
- St. Paul Park
 - Spring- Family Pond dipping
- Washington Conservation District – content for bi-annual newsletters
- White Bear Lake (pop. 24,555) - [newsletter](#)
 - Spring – Cost Share Grants (Advertised for all four WD/WMO)
- Woodbury
 - Sep – cost share promotion for irrigation heads

Minnesota Water – Let’s Keep it Clean: This campaign is a project of Watershed Partners, which is a partnership of more than 60 non-profit and public entities in the Twin Cities metro area that work together to provide education about stormwater pollution. The new blog-style website (www.cleanwatermn.org) features monthly articles about local water heroes and partners are provided with customized links to post and track the readership of these articles through their own social media networks.

EMWREP and its partners provide funding support for the Minnesota Water – Let’s Keep it Clean campaign and Angie Hong serves as a steering committee member and the large group meeting facilitator.

Articles for 2017 included:

- Jan. – [The Iceman Cometh: Sidewalk salt pollutes our lakes and streams](#)
- Feb. – [Recent immigrants become water stewards](#)
- March – [Tree-huggers unite: Protecting urban tree canopies](#)
- April – [Planting native seeds with a new generation](#)
- May – [Rain barrels herald spring](#)
- June – [Organic lawn care and maintenance yields field of dreams](#)
- July – [What’s in a ribbet? Frogtown frogs signal environmental health](#)
- Aug. – [Going native with shoreline restoration](#)
- Sept. – [Urban agriculture spawns North Side enterprise](#)
- Oct. – [Improving health and the planet with organic lawn care](#)
- Nov. – [Becoming a Mississippi River water quality action hero](#)
- Dec. – [Friends turn stormwater problem into a cistern solution](#)

Websites and Social Media:



- **East Metro Water**
 - Blog website: www.eastmetrowater.areavoices.com
 - 11,378 visits in 2017
 - Twitter followers
 - @angiehongwater – 360
 - @EMWREP - 261
- **Washington Conservation District**
 - Website: www.mnwcd.org
 - 18,500 visits from 15,700 unique visitors
 - Facebook: www.facebook.com/mnwcd
 - 476 page likes
 - Ads purchased in 2017:
 - Rain barrel and compost bin sale (795 people reached)
 - St. Paul Park and Oakdale workshops (2589 people reached)
 - AIS Fishing opener (4039 people reached)
 - Fall hunting AIS prevention (16,178 people reached)
 - Instagram: wcd_mn
 - 101 followers
- **Blue Thumb**
 - Website: www.bluthumb.org
 - EMWREP provides financial support for the Blue Thumb program partnership, website, events, and outreach materials.
 - Web resources for the public include a plant selector tool, map of landscape designers and native plant nurseries, calendar of events, raingarden and shoreline how-tos, and grant info.
 - During 2017, Blue Thumb also produced three blog/print articles about landscaping for clean water:
 - [Backyard conservation](#)
 - [How cities can manage climate change](#)
 - [Plant a tree: Invest in the urban environment](#)
 - Facebook: www.facebook.com/BlueThumbMN
 - 1328 page likes
- EMWREP has also helped BCWD, CMSCWD, and SWWD to create and manage Facebook accounts

Local television programming: A videographer from South Washington Telecommunications Commission (SWCTC) attended the Pond Dipping event in St. Paul Park and produced a short program for local television.

- **Pond Dipping Event Lion's Levee Park** - <https://youtu.be/Xv0jt3-pHIY>



Outreach Support for Project Implementation

Minimum Control Measure Addressed

<input checked="" type="checkbox"/> Public education & outreach	<input type="checkbox"/> Construction site runoff controls
<input checked="" type="checkbox"/> Public participation & involvement	<input checked="" type="checkbox"/> Post-construction storm water management
<input type="checkbox"/> Illicit discharge detection and elimination	<input type="checkbox"/> Municipal pollution prevention & good housekeeping

Program Goals:

1. Publicize EMWREP partner programs and projects.
2. Promote BMP (Best Management Practices) and cost-share incentive programs.
3. Engage community members and other stakeholders to help meet water quality goals identified through local water plans, TMDL (Total Maximum Daily Load) studies, WRAP (Water Restoration and Protection) strategies, and other regulatory programs.
4. Engage public and private land owners to complete activities funded through state and federal grants.

Educational Objectives:

1. Citizens will be aware of water-quality improvement projects and programs happening in their communities and understand the benefits of these activities.
2. Citizens will be aware of and utilize BMP and cost-share incentive programs to complete water protection projects on their land.
3. EMWREP will help partners to identify, reach out to, and engage public and private landowners and managers in targeted locations in order to complete water resource improvement and protection projects.

OUTREACH AND PROJECT SUPPORT IN 2017

1) Promotion of watershed BMP and cost-share incentive 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. In 2017, outreach and education helped to support:

- 257 landowner site visits with Conservation District staff
- 57 new projects installed with watershed cost-share grants
- 79.18 pounds of phosphorus kept out of surface waters (all projects combined)

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

2) Special grants

Green Communities: In 2014, the Washington Conservation District was awarded a \$50,000 Clean Water Fund Grant from the MN Board of Water and Soil Resources to conduct audience research and develop clean water projects with Homeowners' Associations (HOAs) in Washington County. The grant included funding to conduct focus groups with HOA board members, property managers, and lawn care companies, and to complete stormwater reduction projects with five HOA properties in Washington County.

EMWREP staff managed this grant, led education and outreach efforts, and prepared the [Green Communities Guidebook](#). Work was completed in 2017. Projects installed included:

- **Evergreen Country Homes in Woodbury** (RWMWD) - 2 vegetated swales; 2935sq ft; 0.34 lb/yr of phosphorus
- **Lakeridge Townhomes in Woodbury** (RWMWD) - Raingarden & bioinfiltration; 350 sq ft; 0.11lb/yr of phosphorus
 - Neighborhood celebration held on May 31, 2017
- **Powers Lake Townhomes in Woodbury** (SWWD) - vegetated swale; 600sq ft; 0.14lb/yr of phosphorus
- **Tanners Lake Townhomes in Oakdale** (RWMWD) - shoreline buffer; 3,094 sq ft; 0.27lb/yr of phosphorus
- **Heritage Glen in Woodbury** (SWWD) - plant buffer/vegetated swale; 5200 sq ft; 1.2 lb/yr of phosphorus

3) Education and outreach support for partner projects and programs

Brown's Creek Watershed District

- Helped to plan and promote the 110th St. public open house on April 18.
- Helped to plan, promote, and conduct activities for the BCWD 20th anniversary event on Sept. 15.
- Collaborated with citizen advisory committee to plan and promote Open Yards series.

Carnelian-Marine-St. Croix Watershed District

- Organized a neighborhood gathering with Hay Lake residents to talk about lake water quality and promote cost-share projects.
- Created a watershed survey for people attending the Mill Stream Festival.

Comfort Lake – Forest Lake Watershed District

- Attended the watershed district open house on Feb. 21.
- Helped to plan and publicize the watershed tour on May 6.
- Conducted a raingarden maintenance training for cost-share recipients on Aug. 23.
- Helped WCD staff to conduct outreach to landowners surrounding Bone Lake

Middle St. Croix Watershed Management Organization

- Helped to develop a community engagement plan for the Lily Lake Final 45 grant project and held an open house on July 11.
- Engaged local citizen groups to begin developing an Adopt-a-Raingarden program for Stillwater.

Ramsey-Washington Metro Watershed District

- Provided support to prepare and lead 500+ students in planting a new raingarden at Woodbury Elementary.

Rice Creek Watershed District

- Conducted a raingarden maintenance training for cost-share recipients on Aug. 23.

South Washington Watershed District

- Met with landscape architects to develop a vision for new park space and an interpretive center at Glacial Valley Park in Woodbury.

Valley Branch Watershed District

- Worked with staff from the City of Maplewood to design and install four interpretive signs at Joy Park on Silver Lake.
- Developed content for interpretive panels at the new Sally Manzara Interpretive Nature Center in Lake Elmo.

Washington Conservation District

- Helped to recruit five local farmers to become certified through the MN Agricultural Water Quality Certification Program
- Provided education match for the cooperative weed management program

Washington County

- Provided education support to help the county implement its Groundwater Plan by teaching lessons at local schools and conducting a groundwater education needs assessment.

Professional Trainings for Business and Local Government

Minimum Control Measure Addressed

<input type="checkbox"/> Public education & outreach	<input checked="" type="checkbox"/> Construction site runoff controls
<input type="checkbox"/> Public participation & involvement	<input checked="" type="checkbox"/> Post-construction storm water management
<input checked="" type="checkbox"/> Illicit discharge detection and elimination	<input checked="" type="checkbox"/> Municipal pollution prevention & good housekeeping

Audience: Water resource professionals, municipal staff, consultants and contractors, local elected and appointed officials, business owners, realtors, lawn care providers, winter maintenance providers

Program Goals:

1. Provide technical training to help EMWREP partners meet MS4 Permit requirements and reduce stormwater pollution.
2. Work in partnership with University of Minnesota to provide high-quality professional education at a local level.
3. Provide local decision makers (city councils, planning commissions, watershed boards, county commissioners, etc.) with information and training needed to implement policies, programs, and practices that protect and restore water resources.
4. Offer professional trainings for area business owners, realtors, lawn care providers, and winter maintenance contractors to share information about local water issues and encourage business practices that protect surface and groundwater resources.

Educational Objectives:

1. Municipal employees will understand that stormwater runoff, erosion, and illicit discharge contaminate surface and groundwater resources and, also, that there are best management practices to reduce these causes of water pollution.
2. Local decision makers will understand that land use impacts water quality and that there are a variety of policies, programs and practices cities, counties, and watershed management organizations can implement to protect their water resources.
3. Area business owners, realtors, lawn care providers, and winter maintenance contractors will learn how to conserve groundwater resources and reduce surface and groundwater pollution through a variety of practices, including:
 - a. Completing water efficiency audits;
 - b. Talking with home buyers and sellers about shoreline landscaping, remodeling, and septic system maintenance;
 - c. Mowing higher and using fewer lawn chemicals; and
 - d. Reducing road salt application by using new technology, calibrating equipment, and adjusting anti-icing and deicing methods based on weather forecasts.

PROFESSIONAL TRAININGS FOR BUSINESS AND LOCAL GOVERNMENT IN 2017

1) Training for local government staff and consultants

Turfgrass management

- April 5 workshop in Cottage Grove

Illicit Discharge Detection and Elimination (IDDE)

- May 11 workshop in Oakdale (WCD) – taught in partnership with University of Minnesota Erosion and Sediment Control Program
- Oct 18 staff training for Oakdale Public Works
- Oct 18 training for wastewater installers and operators in Stillwater

Winter Maintenance

- April 26 – Smart Salting Level 2 training in Shoreview (RWMWD)
- Nov. 2 – Smart Salting Level 1 training (parking lots and sidewalks) in Oakdale (WCD) – 32 attendees
- Certified contractors listed at: www.pca.state.mn.us/water/salt-application-training

Stormwater Volume Control & Bioretention Design

- April 25 workshop in Oakdale (WCD)
- Topics: new technology, lessons learned, soil amendments, and best practices for installation and maintenance

2) Training for local decision makers

St. Croix River Workshop on the Water

- Sept. 14, Stillwater – 70 participants
- Topics:
 - Strategies on how to protect and prioritize water quality during development and landscaping projects
 - New trails and parks designed for the Lower Riverway:
 - Stillwater's Aiple Park
 - Hudson's plans for riverfront revitalization
 - Loop Trail
- Workshop partners: MN and WI DNRs, National Park Service, St. Croix River Association, University of Minnesota Extension

3) Training and outreach to local businesses

Shoreline realtor workshops – taught in partnership with St. Croix River Association and Minnesota DNR. Realtors received CEUs for attending.

- March 9 workshop in Stillwater – 45 attendees
- Nov. 16 workshop in Stillwater – 40 attendees

Business BBQ – May 23 at WCD office in Oakdale

- Approximately 100 people from local businesses attended.
- EMWREP staff visited local businesses in person to deliver invitations.
- During the BBQ attendees toured the building, viewed new clean water landscaping projects, and received information about cost-share grants.

4) Professional partnerships, meetings, and conferences

Watershed Partners – EMWREP and its partners contribute financial and staff support to Metro Watershed Partners, a partnership of 60+ public and non-profit organizations in the Twin Cities area. In addition to the public education campaign, Watershed Partners provides learning opportunities for water resource professionals through its monthly meetings.

Presentation topics in 2017 included:

- Jan – Environmental justice
- Feb. – Communicating on issues of equity and diversity (special workshop)
- March – Twitter for communicators
- April – Community clean-ups for water quality & Adopt-a-Drain
- May – Volunteer management
- June – Metro surface water management act & Future of the Minnesota River (workshop on the Mississippi River)
- Aug. - North Minneapolis canoe-share program (experiential paddle and bike event)
- Sept – 25 x 25 community water meeting
- Oct. – Social media
- Nov. – Communicating about water resources and climate change (panel and roundtable)
- Dec. – Restoring the Mississippi River Gorge

Water Consortium – EMWREP staff help to plan topics and presenters for Washington County water consortium meetings.

St. Croix Summit – EMWREP staff helped to plan the annual conference in River Falls on April 21.

Community resiliency planning – EMWREP staff attended and helped to promote this two-part workshop on Sept. 26 and 28, which was led by South Washington and Ramsey-Washington Metro Watershed Districts, Freshwater Society, and Barr Engineering.

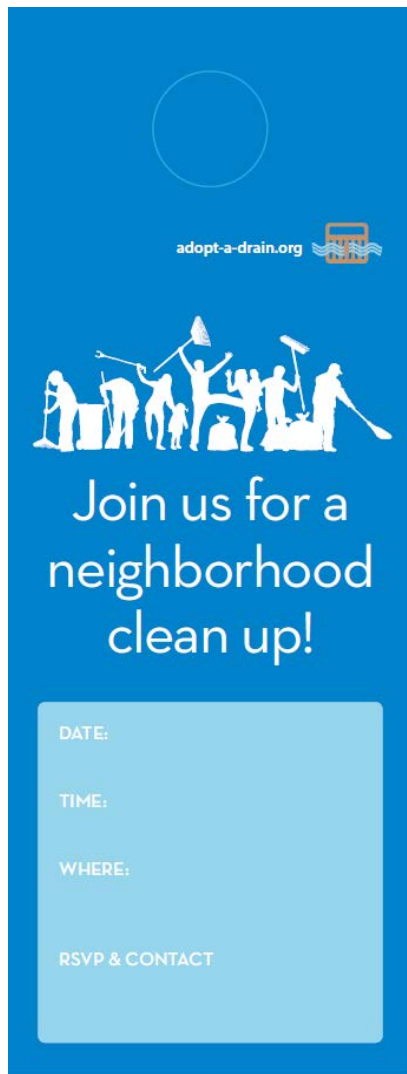
Water Conservation Education Task-Force – EMWREP staff attend meetings led by MN DNR to share ideas and resources about water conservation education.

NEW MATERIALS AND RESOURCES FOR 2017

1. Neighborhood Clean-up Engagement Kit

This kit, developed in partnership with Metro Watershed Partners includes doorhangers, sign-up forms, step-by-step instructions and other materials to help local residents and community groups organize neighborhood “storm drain” clean-up events.

EMWREP and other partners plan to pilot the kit in spring of 2018. We have also adapted the materials for our pilot Adopt-a-Raingarden program in Stillwater.



Hey neighbors!

Join us for this event to clean up our streets and sidewalks. Its a great way to get to know your neighbors, keep things looking nice, and protect our local lakes and rivers by sweeping up trash, leaves, and dirt so it doesn't wash down the storm drains.

What to bring (if you have it):

- Gloves
- Water bottle
- Rake/broom/snow shovel
- Trash picker-upper
- Dust pan

RSVP if you think you can make it (contact info on the other side).

See you there!



2. Yard Signs

“This yard is part of the solution” - These signs come in four different colors and designs and are sold for \$3 each or two for \$5. We worked with local artist Vera Wong to create the artwork and hope to install a metal sculpture with the same design along Lake McKusick in Stillwater.



3. NEW High quality photos

Through the Watershed Partners new media campaign we now have a collection of more than 100 new high quality photos to help illustrate common water education topics (ie. lawn care, winter salting, native plants, raking leaves out of the street, pet poop, etc.). The collection also includes in-action and people photos.

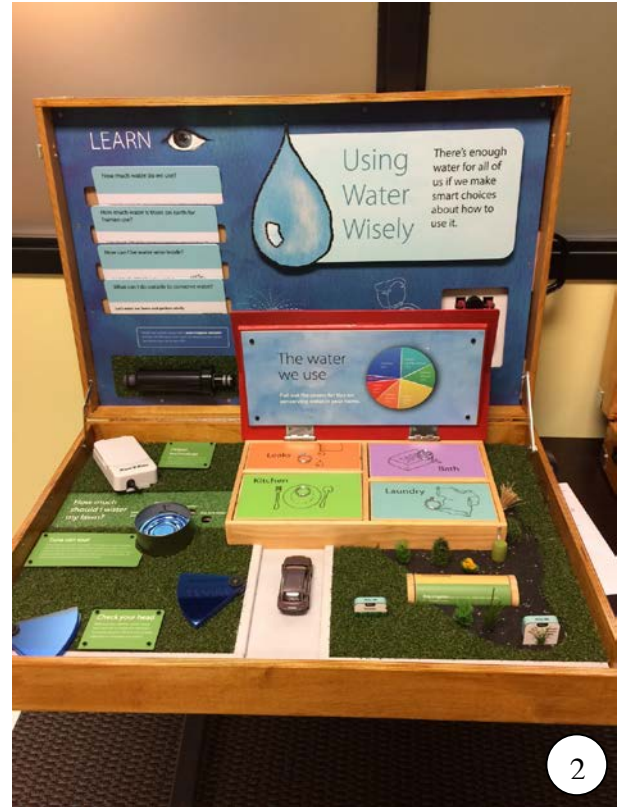
EMWREP partners can find and download photos at:

https://drive.google.com/open?id=1MAF97aqdkfv_U773WoXsAR9wpbKGI1Hf

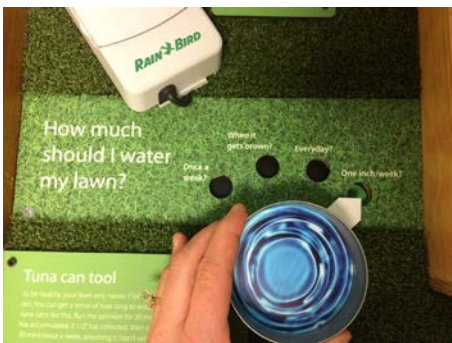
5. **Interactive groundwater displays:** Two new groundwater displays developed in 2016 got lots of use in 2017. One features information about groundwater resources in Washington County, while the other focuses on water conservation. Both are hands-on and fold-up into wooden suitcases with wheels and handle for easy transport.



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6. **Green Communities Guidebook:** This short [guidebook](#) summarizes feedback from focus groups conducted with homeowner association (HOA) residents, property management companies, and lawn care professionals and provides advice for engaging HOAs in clean water projects.

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 B: NEWSPAPER ARTICLES SUBMITTED IN 2017

Date	Article Title	Chisago Press	Forest Lake Lowdown	Forest Lake Times	Hugo Citizen	Oakdale-Lake Elmo Review	Ramsey County Review	Scandia Country Messenger	South Washington County Bulletin	St. Croix 360	St. Croix Lowdown	Stillwater Gazette	Valley Life	White Bear Press	Woodbury Bulletin
10-Jul	All that glitters and is gold			x		x		x	x				x	x	x
11-Apr	Rethinking the traditional lawn	x		x		x	x	x	x				x		x
3-Jan	2017 brings more than \$2 million in Clean Water Funds to Washington County			x		x		x	x				x		x
2-Nov	Elected board at Washington Conservation District provides leadership behind the scenes					x		x	x				x		x
7-Feb	Whisper of spring			x		x	x		x				x		x
17-Jan	The changing face of outdoor recreation and environmental protection					x	x		x				x		x
14-Feb	Measuring stream health				x	x			x				x		x
9-Oct	Adapting to a changing climate					x			x				x		x
28-Feb	State of the Mississippi River			x					x				x		x
14-Nov	Cole Williams becomes a river steward								x				x		x
14-Mar	Water conservation												x		x
17-Apr	Rain barrels herald spring												x		x
13-Apr	MASWCD Day at the Capitol					x						x			x
5-Sep	Brown's Creek Watershed District 20 th Anniversary Celebration & Fall Open Yards Event				x						x	x	x	x	
25-Apr	Earth Day clean-up event in Grant												x	x	
9-May	MN Water - Let's keep it clean	x		x		x	x	x					x		
12-Sep	Community water meetings			x		x		x					x		

20-Mar	Turning trash into treasure			x	x			x					x		
25-Jul	Creating a legacy of landscape restoration in Washington County			x	x			x					x		
24-Jan	Moody Lake wetland rehabilitation	x		x				x					x		
7-Mar	Community supported agriculture			x				x					x		
28-Mar	Spring landscaping workshops			x				x					x		
28-Nov	Water Quality Certification Program helps to nudge Minnesota farmers in a new direction			x				x					x		
8-Aug	Tracing lazy circles in the sand							x					x		
17-Oct	Nature based education							x					x		
1-May	Turf and lakes in Forest Lake	x		x		x							x		
15-May	Watch for AIS during 2017 fishing season			x		x							x		
27-Jun	Using geology to read the past			x		x							x		
1-Aug	Reflecting on 75 years of Conservation in Washington County			x		x							x		
18-Oct	Lake Elmo area flood prevention project					x							x		
18-Dec	Aquatic Invasives – The Battle Continues					x							x		
31-Jan	Swimming to Antarctica			x									x		
17-Aug	After the storm			x									x		
28-Sep	Street sweeping for cleaner lakes			x									x		
26-Oct	Caring for wetlands and lakes			x									x		
21-Feb	Change underway at Cottage Grove Ravine Park												x		
4-Apr	Migrating birds and habitat												x		
23-May	celebrate summer with upcoming events												x		

30-May	Incentive grants for raingardens and shoreline plantings																X		
19-Jun	The long and winding road																	X	
4-Jul	Clean the Croix																	X	
18-Jul	Exploring the smaller side of nature																	X	
16-Aug	Turtle tunnel provides a rare glimpse into the secret lives of wildlife																	X	
29-Aug	Protecting pollinators																	X	
19-Sep	Grey Cloud Bridge																	X	
26-Sep	Schaffer Family conservation																	X	
20-Nov	Winter weather ahead																	X	
5-Dec	Pausing																	X	
23-Jun	*Special pollinator insert		X																X
23-Jun	Maintaining your new native planting		X																X
9-Jan	Finding light in the darkness																	X	

Appendix C Local Articles

Outdated south Washington County park soon to become new and improved

A \$3.5 million construction project will transform the tattered Cottage Grove site.

By Kevin Giles Star Tribune | FEBRUARY 17, 2017 — 10:46PM



MATT WEBER - SPECIAL TO THE STAR TRIBUNE

Jessica Jones walked with her daughter, Braelyn, at Cottage Grove Ravine Park on a sunny afternoon. The park will be closing on March 1 for a major construction project that is expected to take a year to complete.

It's Washington County's forgotten park, an alluring but overgrown natural area with crumbling roads and an entrance largely hidden to anyone who doesn't have a map.

But no more.

Starting in March, Cottage Grove Ravine Regional Park will undergo the first steps in an ambitious \$3.5 million overhaul to make it more inviting, useful and visible.

Initial improvements include a new entrance road and trails, but eventually the park will have a substantially new look and purpose.

Residents are disappointed the park will be closed for a year while the work is done, but they're also excited about the changes, said Karla Bigham, who represents the Cottage Grove area on the Washington County Board.

"It's a quiet park but it's a tired park," she said. "These changes and upgrades are needed, long time coming."



MATT WEBER - SPECIAL TO THE STAR TRIBUNE

er Tretbar from Prairie Restorations
ares to refuel a rented tracked vehicle
an attached wood chipper used to...

More

Construction will come in phases beginning March 1, the day the park closes. County commissioners approved contracts Tuesday to remove nearly 800 trees, which will make room for trails and a new interior road and open more land to sunlight.

And the South Washington County Watershed District is leading a project to stabilize the ravine running the length of the park. That work, beginning this summer, will help protect the ravine against erosion from flash floods and water overflow and reduce phosphorus runoff into the lake, said County Engineer Wayne Sandberg.

"We're preparing the canvas for what we want to paint," he said.

In the second phase of the park project, not yet scheduled, county officials envision a larger and updated playground, new restrooms and an improved pavilion. Sandberg said the plan also might include a Nordic center for skiers, and sites for group camping.

The county's southernmost park, Cottage Grove Ravine is known for its wildlife and forests, fishing on Ravine Lake, skiing and hiking trails, and a picnic and playground area.

But the park also is known for buckthorn and other invasive plants, poor drainage, inadequate parking and restrooms, and that off-the-beaten-path entrance.

At 550 acres, it's among the smallest of the seven Washington County parks, nestled in a fold in the terrain from which nearby urban developments can't be seen. County records show the first large parcels of land for the park were acquired between 1969 and 1971.

The park often floods in the spring, Bigham said, but new road construction

should eliminate those problems.

The county will move the park entrance from the south end to Keats Avenue (County Road 19) on the west to improve visibility. That work will be done in conjunction with construction of a new roundabout farther south at the intersection with Innovation Road, Sandberg said.

Addressing concerns raised by the U.S. Army Corps of Engineers, trees in the park must be cut down before the end of March while the endangered northern long-eared bats are inactive, Sandberg said. S & A Land Clearing, Inc., of Hugo, will do the removal for \$119,600.

Road and trail improvements, costing about \$73,000, will be entirely funded by county bonds. About \$39,000 in ravine improvements will be funded by the watershed district.

“This park is kind of a forgotten park. It’s hard to get to, to find the entrance, and people don’t know it exists,” Sandberg said.

Ravine, stream and prairie projects underway: Watershed district starts work on several projects

By Katie Nelson Today at 8:30 a.m.



1 / 2



The South Washington Watershed District staff has their work cut out for them.

The watershed district has several large projects on the table, including stabilizing Cottage Grove Ravine Regional Park as part of phases three and four of their central draw overflow project; erosion control, prairie restoration, stream restoration at Afton Alps and what are known as "living streets" and "living fences."

Funding for watershed projects come in bulk from watershed district taxes, through stormwater utility fees.

Central Draw Overflow

The origin of the central draw storage facility and overflow project dates back to the late-1980s, when the effects of flooding raised concerns in Cottage Grove and Woodbury.

The central draw overflow storage facility is located near Bailey Lake and can handle runoff from up to 6.3 inches in 24 hours.

The central draw overflow is being put in place to handle any rain events that exceed the storage facility's capabilities.

As of now, phases one and two of the five-stage overflow buildout process are complete, and the watershed district is hoping the entire overflow will be complete by 2020. The first two phases added a pipe connection under Keats Avenue and a stabilization between Ravine Lake and the Mississippi River, where the stormwater discharges.

The watershed district will undertake phases three and four this summer, in Cottage Grove Ravine Regional Park. The work will concentrate on outlet structure and stabilization, Moore said.

The bulk of the work will be constructing a channel for the main ravine — running along the center of the park and to the north end of the river — to contain water flow in the park. There will also be a new outlet for the lake, and runoff in the park can travel along a central path to the Mississippi River, south of the park, Moore said.

He said the outlet will also help to "alleviate the park road entrance road being flooded."

"The existing park entrance road will be removed and new outlet constructed, will allow for better lake levels," he said.

Vegetation management will also be a part of the park restoration, and trees will be cut in March.

As the county constructs new paved roads and trails in the park, the watershed district will work with them to realign the trails and channel crossings.

Afton Alps stream restoration

To improve trout habitat and vegetation, the watershed district is also working on a project to restore Trout Brook on the northern edge of Afton Alps in Denmark Township.

Likely to be constructed next year, the bulk of the work includes directing the stream to the other side of Afton Alps' north parking lot.

"We will take the stream up against the bottom of the ski slope," Moore said. "It creates more of a cold water stream."

John Loomis, water resources program manager for the Trout Brook restoration, said the straightened stream along the alps is "essentially a ditch section" now. After they build a channel and divert the water south of the parking lot, he said the meander loop will be complete with pools and ripples. The new alignment should support the restoration of the trout population through the area, as well as native vegetation.

"The DNR does a fish survey, and every time they've found at least one or two (trout)," Loomis said. "They're likely migrating from the Wisconsin side during big floods ... the stream will likely be populated by fish migrating, and then hopefully they'll stay there."

The restoration is much more focused on habitat and wildlife than the other current watershed district projects and perhaps will help restore opportunities for trout fishing along the brook.

The straightening of the stream over time has augmented flooding issues, so the restoration process will include a 100-year floodplain.

Trout Brook currently runs along Afton Alps, through Afton State Park and into the St. Croix River. The restoration will not alter that path, only add a meander.

Loomis said Afton Alps has been cooperative and "fully supportive" through the process.

Loomis said funding is all in place for the anticipated restoration in summer 2018.

Water and prairie

Watershed district staff continue to work on the nearly 100-acre prairie restoration next to Woodbury Drive south of Dale Road. Andy Schilling, watershed restoration specialist, said 60 acres have already been restored since the conversion from farmland started in 2010. There are at least 40 more acres that could be restored.

Schilling said the restoration has dual function — as prairie land that can also be used as emergency overflow area for Woodbury stormwater.

The land is being looked into for research on several restoration and conservation topics, including the benefits and effects of haying in reducing nitrogen from the land's time as farm field; pollination research through the Xerxes Society; and grazing by cattle.

At some point, they could also partner with the county to extend trails through the prairie to provide more public access and to act as connecting land for a county-long trail system

spanning from Cottage Grove Ravine Regional Park all the way to Lake Elmo.

"It's at a really interesting location since it spans the cities of Cottage Grove and Woodbury," Schilling said. "It creates an interesting nexus, and we feel it can fill a good niche."

Moore said they are also looking into working on a program with the Dodge Nature Center "which is something we're pretty excited about."

The nature center could provide the grazers, as well as "trying to build an educational narrative" between them and the watershed district, Schilling said.

Schilling is also working on urban vegetation projects called living streets and living fences.

There are no streets planned to get the living treatment this summer, but they are working on developing the pilot for it.

"It's looking at streets more holistically," Schilling said. "It's multi-modal and on-site stormwater management ... revisioning streets to potentially capture rather than capturing it by pipe and sending it downstream." By using additional right-of-way and widening boulevards, sidewalks, trees and vegetation can be added to city streets. The idea is that the vegetation systems will help "clean it or infiltrate it into the ground so it stays closer to where it lands," Schilling said, as well as reducing the amount of infrastructure in terms of pipes and manholes for water systems.

Living fences follow a similar structure by placing trees, landscaping and grasses as a stormwater filter in residential backyards.

"There are multiple benefits, and also functions as buffer or barrier that's much more aesthetically appealing (than a fence)," Schilling said.

The watershed district is working with a developer on the Twenty-One Oaks neighborhood to implement living fences. "We are looking to see if this goes well, tweak it and roll out to other development," Schilling said.

Erosion control inspections have also become a mainstay operation at the watershed district, doing them for free for most of the cities in the district.

"Inspect construction sites and make sure all the erosion control is in place ... and then the contractors will take action as needed," Moore said.

Moore said they inspect active residential and commercial sites twice during the construction season, checking for sediment runoff, mud on the road and silt fence functionality.

"We'll get a call ... and we'll go down and take a look at it," he said.

A New Bridge And Better Habitat Along The Mississippi River

October 11, 2017 Angie Hong Local Achievements

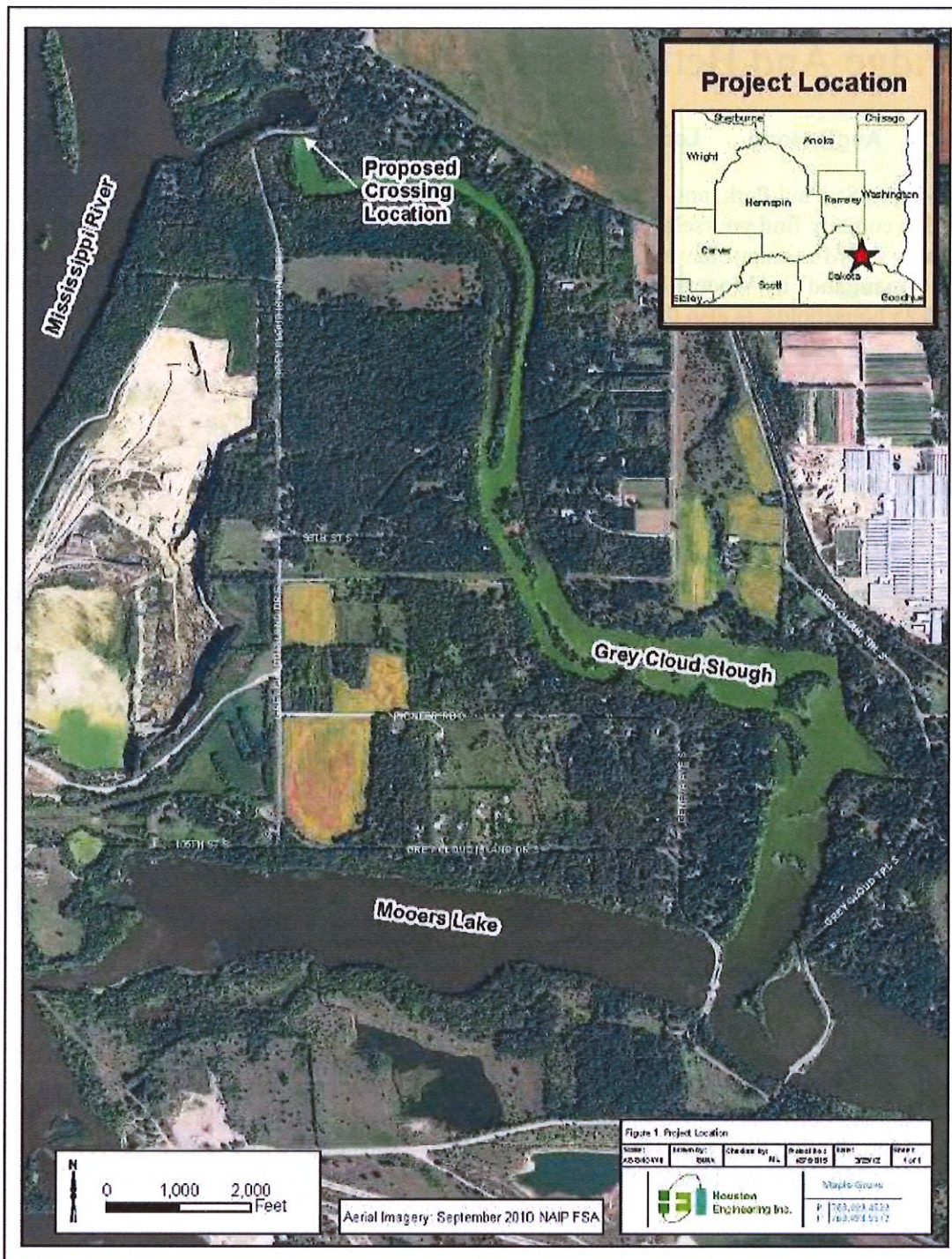
Turn off of Hwy 61 into St. Paul Park, and drive past the Masonic Lodge and then the American Legion. Head south out of town and you'll eventually find yourself rolling past farms in a seldom-visited corner of the county, hemmed in on the west and south by the Mississippi River. Grey Cloud Township occupies the upper of two islands in the river, separated from the "mainland" by Mooers Lake and the Grey Cloud Slough. This tiny township, with only 10 square miles of land and 125 households, is also the location of Washington County's newest bridge.



A view of Mooers Lake from the Grey Cloud Scientific Natural Area (actually located in City of Cottage Grove). Grey Cloud Island is separated from the rest of Washington County by the Grey Cloud Slough and Mooers Lake, which are part of the Mississippi River.

Though Grey Cloud Island is hard to access by modern standards, people have lived there for more than 2000 years. According to the Washington County Historical Society, the island has a large concentration of Indian mounds, built by woodland mound-builders between 100 BC and 600 AD, and was home to people of the Late Mississippian culture around 1000 AD. Mdewakanton Sioux also lived there during the 1800s until white settlers moved in and began establishing farms. In 1856, three of these settlers platted the future Grey Cloud City, advertising "400 lots, a good steamboat landing, and a view of the river."

Though Grey Cloud Island never became a city, the settlers did build wooden bridges across the Grey Cloud Slough so that wagons hauling wheat could reach Newport, Cottage Grove, Afton and Port Douglas. Eventually, in 1923, the wooden bridge at the north end of the island was replaced with culverts and filled over to create County Road 75. All was well until the 1960s, when back-to-back floods washed loads of sediment and debris into the culverts under the road, turning what was once a bridge into a dam, and what was once a meandering backwater channel into a dead-end slough filled with stagnant water.



The above map shows the location of the bridge to Grey Cloud Twp. Poor water quality in Grey Cloud Slough and excess algae growth are apparent in the aerial imagery.

This fall, Washington County and South Washington Watershed District are constructing a new bridge in Grey Cloud Township that will finally restore the natural water flow in Grey Cloud Slough and help to flush out sediment and nutrients that have accumulated over the past 50 years. The total project will cost \$1.8 million, with funding provided by Washington County, the South Washington Watershed District, and funds appropriated by the State Legislature from the Clear Water Fund.

New crossing fixes long-standing problems at Grey Cloud Island Township

The updated crossing in Washington County will help clear clogged portion.

By Kevin Giles Star Tribune | NOVEMBER 14, 2017 — 10:22PM

It took decades and a lot of head-scratching, but a long-standing Mississippi River backwater in Washington County is now history.

Several government agencies teamed up to replace a deteriorating earthen dam leading to Grey Cloud Island Township with a bridge that restored the river's free flow. The new bridge, now "substantially complete," will eliminate floods that sometimes trapped residents and will allow the river to flush an unsightly slough of stagnant water, said Nathan Arnold, a Washington County project engineer who worked on the \$1.6 million project.

"Before we opened it up there was no movement in the channel," Arnold said Monday.

The new bridge also leaves ample room for boats to pass underneath, he said.

Grey Cloud Island, near Cottage Grove, is among the smallest townships in Minnesota and falls within the Mississippi National River and Recreation Area, a unit of the National Park Service.

The Mississippi River borders it on the west, while the back channel loops around on the north and east, widening on the south into two small backwater lakes before reconnecting with the river.

The channel crossing dates to the early 1900s, when a wooden bridge spanned the channel. In 1923 the bridge was replaced with culverts and filled over, then paved as part of County Road 75.

Until a massive flood in 1965 and another in 1969, the culvert worked well. To keep residents from being isolated by floodwaters, emergency work was done to raise the road. As a result, culverts became blocked and milfoil and other invasive plants infested the channel, which is a little more than 2 miles long.

Resembling a swamp, the channel was so choked with weeds that boaters couldn't use it, said Matt Moore, director of the [South Washington Watershed District](#).

“We literally did see some changes overnight by changing the flow,” Moore said.

The channel’s restoration was a critical improvement for the Mississippi because “in those backwater areas, that’s where all the habitat is,” he said. “They’re really vital pieces of the river ecology.”

Washington County Commissioner Karla Bigham, whose district includes Grey Cloud Island Township, said the bridge project ensures that emergency vehicles can cross onto the island during high water.

Project funding was shared by the watershed district, Washington County and a state clean water grant.

Staff writer Jim Anderson contributed to this report.

A river runs through it, again: The Grey Cloud Slough restoration



Grey Cloud Slough, a 2.8 mile long waterbody was a “cut-off” meander loop of the Mississippi River located east of the main channel between Grey Cloud Township and St. Paul Park in Washington County.

The slough was cut off from the Mississippi years ago, when road projects, the additions of culverts, and a bridge replacement in the early 1900s failed to take into account the necessary design considerations that would maintain sufficient flow for the ecological function of the river meander.



Grey Cloud Slough before start of construction.

“The channel was dramatically impaired by a lack of water flow following road construction in the 1960s, resulting in degraded water quality. Because of this, the channel was only suitable for carp and dense, invasive vegetation,” said John Loomis, Water Resources Program Manager with South Washington Watershed District (SWWD).

To solve the water quality problem SWWD, Houston Engineering, Inc., and Washington County began the Grey Cloud Slough Restoration project. Their goal was to fully restore ecological functions to Grey Cloud Slough by reconnecting the slough with the river.

Funded in part by a Clean Water Fund grant, as well as dollars from SWWD and Washington County, construction kicked off in June 2017.

In the fall of 2017 flow was restored to Grey Cloud Channel.

The restored flow resulted in improved water quality, new fish passage and spawning, development of a boat water trail access through the slough, along with better boater safety and improved roadway safety.

Loomis summarized the work, “Grey Cloud is a unique project, but one with great and immediate benefit to the Mississippi River. By replacing the road embankment with the installation of a natural bottom bridge we were able to immediately restore water quality to the side channel and begin to replace habitat that was in short supply. Over the course of one construction season, we restored water quality to match that of the main channel and in the process restored over 2.5 miles of the channel and 125 acres of aquatic habitat in the Mississippi River system.”



Grey Cloud Restoration complete.

You can [watch a video](#) of the project by SWWD.

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

A handwritten signature in black ink, appearing to read "Matt Moore".

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.



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 placed 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

A handwritten signature in black ink that reads "Matt Moore".

Matt Moore
Administrator
c: SWWD Board of Managers