



April 29, 2008

Melissa Lewis, Board Conservationist
Minnesota Board of Water & Soil Resources
520 Lafayette Road North
St. Paul, MN 55155

RE: South Washington Watershed District 2007 Annual Report

Dear Ms. Lewis:

The South Washington Watershed District is submitting an Annual Report for the calendar year 2007. A copy of the annual audit will be submitted under separate cover when concluded. This report is being submitted according to Minnesota Rules Chapter 8410.015.

If you need additional information or have any questions please contact me at 651.714.3729 or mmoore@ci.woodbury.mn.us.

Thank you.

Sincerely,
South Washington Watershed District

Matt Moore
Administrator

Enclosure

c: Ms. Amanda Goebel, Washington County



2007 Annual Report



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1. Introduction

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

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

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

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

SWWD 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 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 2007.

2. Financial Report

2.1. 2007 Audit

2.1.1. A complete copy of the 2007 Audit is included Appendix A of this report. The following tables illustrate the funds and approved levies for 2007 and 2008.

2.2. 2007 Budget

2.2.1. The budget format has changed from previous years with the implementation of the updated Watershed Management Plan. In 2004 the SWWD implemented a stormwater utility fee for the majority of project revenue. 2007 was the fourth year of stormwater utility fee collection for the SWWD. The utility was implemented to provide the SWWD with sub-watershed financing authority. Sub-watershed financing is used to the implementation of the watershed overflow project which splits the cost 75% sub-watershed and 25% entire watershed. The SWWD works with the Cities each year to update stormwater utility parcel information for consistency between City and Watershed utility charges. Washington County is the collection agent through property tax collections. The fee is listed on property tax statements as a special assessment.

Management Area	2007	Total
1	Flood Plain Management*	\$ -
2	Stormwater Runoff Rate and Volume	\$ 1,854,000.00
3	Water Quality	\$ 170,000.00
4	Wetlands	\$ 15,000.00
5	Natural Resources and Recreation	\$ 100,000.00
6	Groundwater	\$ 90,000.00
7	Erosion and Sediment Control	\$ 40,000.00
8	Education	\$ 70,000.00
9	Long Range Work Plan Financing	\$ 15,000.00
10	Data Management	\$ 147,000.00
11	General	\$ 248,534.00
Total		\$ 2,749,534.00

**Project overlap.....see page 4*

Budget Summary:

BREAKDOWN	2006	2007	Change from Previous Year (+/-):
Projects:	\$ 2,098,840.00	\$ 2,149,535.00	2%
Programs:	\$ 361,390.00	\$ 355,835.00	-2%
Administrative:	\$ 182,108.00	\$ 248,534.00	27%

Year	Budget	Change from Previous Year (+/-)
Projected 2008	\$2,759,371.00	0.3%
Proposed 2007	\$2,749,534.00	4%
2006	\$2,642,338.00	4%
2005	\$2,549,012.00	-6%
2004	\$2,716,083.00	10%
2003	\$2,447,826.00	39%
2002	\$1,488,400.00	10%
2001	\$1,338,800.00	0%

2.3. 2008 Budget

2.3.1. A summary of the 2008 budget is included below. The SWWD continues to collect the majority of the revenue through the stormwater utility fee. The SWWD anticipates the planning, design and construction of the Watershed Overflow in the next few years. Implementation of stormwater conveyance systems, which include Military Road box culvert, CD-P85/86 connection and County Road #19 stabilization, will continue throughout 2008.

Management Area	2008	Total
1	Flood Plain Management*	\$ -
2	Stormwater Runoff Rate and Volume	\$ 1,945,000.00
3	Water Quality	\$ 242,428.57
4	Wetlands*	\$ -
5	Natural Resources and Recreation	\$ 100,000.00
6	Groundwater	\$ 85,000.00
7	Erosion and Sediment Control	\$ 24,952.38
8	Education	\$ 62,380.95
9	Long Range Work Plan Financing	\$ 18,714.29
10	Data Management	\$ 249,523.81
11	General	\$ 227,565.00
Total		\$ 2,955,565.00

**Project overlap with other Management areas provides activities in these Management areas for 2008.*

Budget Summary:

Year	Budget	Change from Previous Year
Projected 2008	\$2,955,565.00	7%
Proposed 2007	\$2,749,534.00	3.9%
2006	\$2,642,338.00	3.5%
2005	\$2,534,581.00	-6%
2004	\$2,716,083.00	10%
2003	\$2,447,826.00	39%
2002	\$1,488,400.00	10%
2001	\$1,338,800.00	0%
2000	\$1,341,717.00	21%

3. Annual Activity Report

3.1. Board Members

Manager	Position	Term Expires	City/County
Mr. Jack Lavold 6859 Ideal Avenue South Cottage Grove, MN 55016 651-459-8891	President	05/01/2008	Cottage Grove/Washington
Mr. Dennis Hanna, 9301 Grey Cloud Island Dr. St. Paul Park, MN 55071 651-459-2281	Vice-President	05/01/2010	Grey Cloud Island/Washington
Mr. Brian Johnson 4353 Dorchester Drive Woodbury, MN 55129 651-458-3739	Vice-President	05/01/2010	Woodbury/Washington
Mr. Don Pereira 8232 River Acres Road Cottage Grove, MN 55016 651-769-0429	Secretary	05/01/2009	Cottage Grove/Washington
Mr. Mike Pouliot 10406 Lancaster Ln. Woodbury, MN 55129 651-459-6228	Treasurer	05/01/2008	Woodbury/Washington

3.2. Employees and Consultants

Employees	Position	Address	Telephone	E-mail
Matt Moore	Administrator	Mail: 2302 Tower Drive Woodbury, MN 55125 Office: 2302 Tower Drive Woodbury, MN 55125	Phone: 651-714-3729 Fax: 651-714-3721	mmoore@ci.woodbury.mn.us
Melissa Imse	Administrative Assistant	Mail: 2302 Tower Drive Woodbury, MN 55125 Office: 2302 Tower Drive Woodbury, MN 55125	Phone: 651-714-3715 Fax: 651-714-3721	mimse@ci.woodbury.mn.us
Consultants	Services	Address	Telephone	E-mail/website
Teresa Buhl	Recording Secretary	6175 25 th Street North Oakdale, MN 55128	651-770-7379	buhltab@comcast.net
Jack W. Clinton, P.A.	Attorney	Suite 200 Currell Centre 7616 Currell Blvd. Woodbury, MN 55125	651-264-3077	jwclinton@usinternet.com
HLB Tautges Redpath, Ltd.	Accounting	4810 White Bear Parkway White Bear Lake, MN 55110	651-426-7000	www.hlbtr.com
BARR Engineering Company	Engineer	4700 West 77 th Street Minneapolis, MN 55435-4803	952-832-2600	www.barr.com
Bonestroo, Rosene, Anderlik & Assoc.	Engineer	2335 West Highway 36 St. Paul, MN 55113	651-636-4600	www.bonestroo.com
Emmons & Olivier Resources	Engineer	651 Hale Avenue North Oakdale, MN 55128	651-770-8448	www.corinc.com
HDR Engineering, Inc.	Engineer	6190 Golden Hills Drive Minneapolis, MN 55416	763-591-5400	www.hdrinc.com
Houston Engineering, Inc.	Engineer	10900 73 rd Avenue North, Suite 106 Maple Grove, MN 55369-5400	763-493-4522	www.houstonengineeringinc.com
Wenck Associates, Inc.	Engineer	1800 Pioneer Creek Center P.O. Box 249 Maple Plain, MN 55359-0249	763-479-4200	www.wenck.com
Howard R. Green Company	Engineer	2550 University Avenue W, Suite 400N St Paul, MN 55114	651-644-4389	www.hrgreen.com
MSA Professional Services	Engineer	412 Hayward Avenue N Oakdale, MN 55128	608-242-7779	www.msa-ps.com
Owen Ayres and Associates, Inc.	Engineer	3433 Oakwood Hills Parkway P.O. Box 1590 Eau Claire, WI 54702-1590	715-834-3161	www.AyresAssociates.com
Limno-Tech, Inc.	Engineer	1326 Birch Park Ridge Houlton, WI 54062	715-549-6740	www.limno.com
Schoell and Madson, Inc.	Engineer	10580 Wayzata Blvd., Suite 1 Minneapolis, MN 55305-1525	952-546-7601	www.schoellmadson.com
Washington Conservation District	Technical Services	1380 W Frontage Rd, Hwy 36 Stillwater, MN 55082	651-275-1136	www.mnwed.org

3.3. 2007 Annual Work Plan

3.3.1. Flood Plain Management

SWWD provided assistance to member cities as part of the FEMA FIRM Washington County Restudy.

3.3.2. Stormwater Runoff Rate and Volume

The SWWD has participated with the City of Woodbury to address flooding issues on Wilmes Lake. The City has established a fund to assist homeowners to flood proof properties that are at risk from flooding.

South Washington Watershed District continued to update the XPSWMM Model for the entire watershed in 2007. HDR Inc. established and updates the watershed model through information obtained from development reviews submitted to the District, and monitoring data collected throughout SWWD.

3.3.3. Water Quality

Cost share programs are an effective and innovative approach to reaching cities, companies, and individuals to educate and install structural Best Management Practices (BMP). SWWD developed a new cost share program 2007, with public participation in 2008. Four case studies were conducted in 2007 to ensure program effectiveness.

Local stormwater management is critical to the quantity and quality of stormwater runoff in the watershed. The SWWD works with development projects to implement management practices beyond traditional techniques. These techniques are directed at volume control and water quality enhancement.

3.3.4. Wetlands

Development of the District's Draft Design Manual in respect to wetland issues were a major portion of the Wetland Fund in 2007. Included in the development were wetland classification, wetland buffer regulations, and data analysis. SWWD will use both the Draft Design Manual and the updated WMP to ensure the greatest allowable protection to wetlands within the District.

3.3.5. Natural Resources and Recreation

In January 2002 the SWWD Board issued bonds in the amount of \$5.8 million for the acquisition land to provide the overflow capacity. Acquisition of approximately 200 total acres was completed in 2004. The acquisition of this property will provide the necessary area, and storage volume to provide stormwater management and flood control to the developed portions of the watershed.

Restoration of agricultural fields back to an Oak Savannah prairie began in 2007 within the property highlighted in the previous paragraph. Initial work was the planting of 460 trees and seeding 2.25 acres. SWWD is establishing a buffer area between future trails and private property ultimately planned for medium density residential.

With the completion of the East Ravine AUAR/Master Plan, SWWD is working with the City of Cottage Grove to finalize the regional drainage system. This system will serve both the local and regional needs.

3.3.6. Groundwater

SWWD has conducted infiltration monitoring at various sites throughout the District since 2000. This data has been used in the development of the Draft Design Manual, specifically the interaction of land type and infiltration rates. The program was discontinued in 2007. Data collected during the seven years of this study has been a valuable resource in understanding how infiltration works.

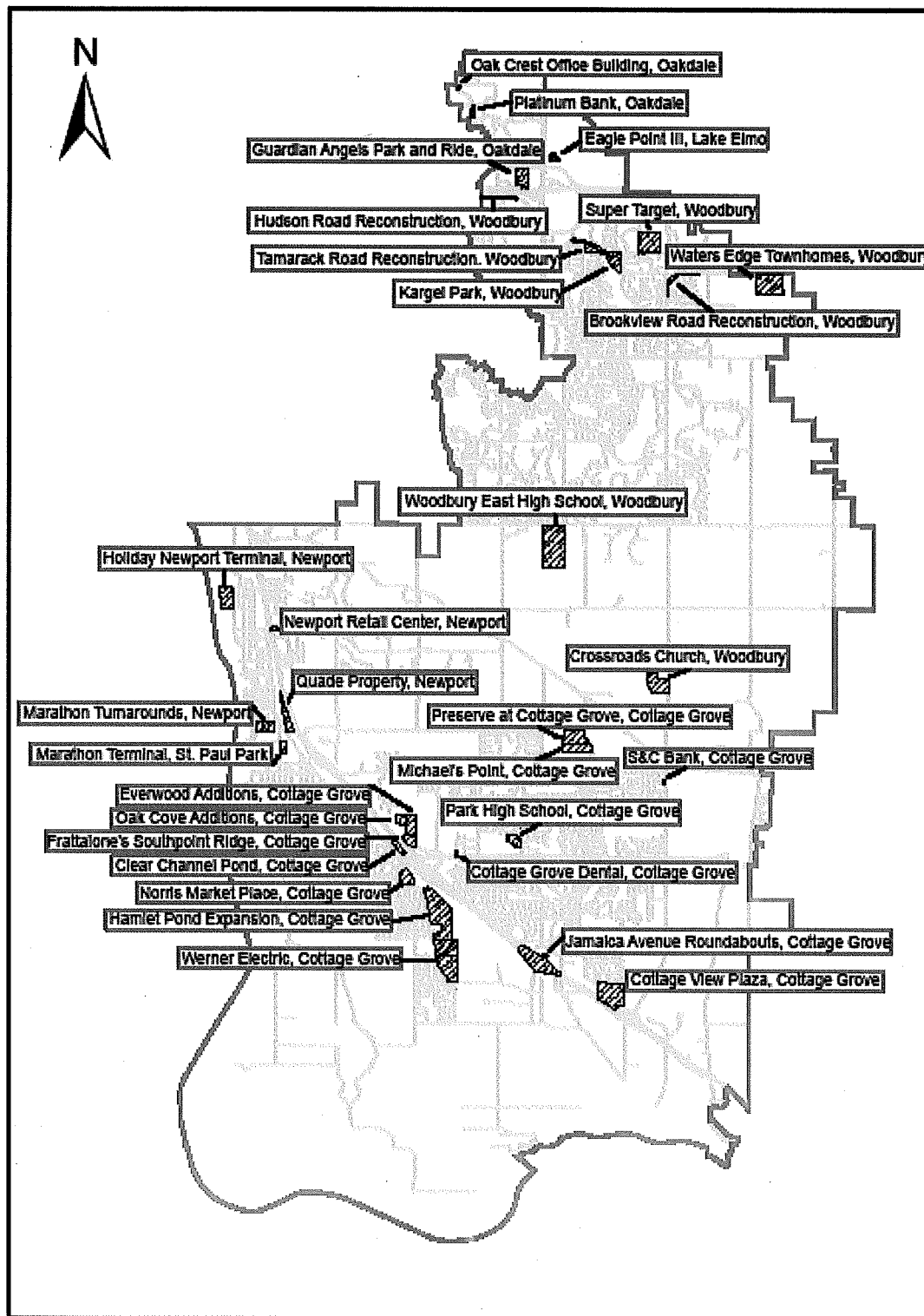
Plans for installing additional monitoring wells around CD-P85/86 basins were established in late 2006. With increased infiltration from the basins, well extension is essential for monitoring groundwater interactions.

3.3.7. Erosion and Sediment Control

2007 was the second year of participating in a NPDES Compliance Study. Working with WCD Staff, inspections at construction sites throughout the boundaries of South Washington were conducted four times. Data was analyzed and reproduced in a report ranking sites on a grading system. This report has been a key drive for change in NPDES Permit compliance within SWWD.

The SWWD Board has pursued a process to provide comments on projects to be included in the established permit process of the Cities, since the goal of the SWWD is to NOT duplicate a permit process. The Board is working to strengthen the review process by working more closely with individual cities. The following map illustrates projects reviewed in 2007.

2007 Development Reviews



3.3.8. Education

The SWWD is supporting the Watershed Partners to provide metro wide coverage and information of watershed issues. The Watershed Partners provides an annual report of their activities. The SWWD also developed a web site in 2005 that was launched in March of 2006

www.swwdmn.org. The website is used to communicate with the advisory committees, provide information to residents of the watershed and increase the identity of the watershed.

In addition to Watershed Partners, SWWD has paid for a portion of the shared Water Resources Educator position hosted by Washington Conservation District. This full time position continued in 2007. The shared position developed the East Metro Water Resource Education Program and continues to operate under that title. Since 2006, SWWD has been a partner of EMWREP and through this partnership educational needs are fulfilled for the District. Additional material is administered through local media outlets. An example is included in Appendix C.

3.3.9. Long Range Work Plan and Financing

A stormwater utility assessment is used for generating project funds within SWWD. The utility fee is established upon the amount of runoff generated by a parcel based upon the percent impervious surface and normalized to a Residential Equivalence Unit. The utility was implemented to provide the SWWD with sub-watershed financing authority. Sub-watershed financing is used to the implementation of the watershed overflow project which splits the cost 75% sub-watershed and 25% entire watershed. Washington County is the collection agent through property tax collections. The fee is listed on property tax statements as a special assessment.

3.3.10. Data Management

SWWD contracts the Washington Conservation District to conduct all water monitoring efforts within the District. The monitoring program started in 1997 with two stream monitoring stations, one lake site, eight lake gage sites, and seven observation wells. Amount of monitoring sites has increased dramatically in the past ten years to include fourteen stream monitoring stations, four lake sites, six observation wells, and twelve lake gage sites that were monitored in 2007. Data that has been collected over the years are a key component in development of the updated WMP. Ongoing monitoring will provide evaluation of programs and projects contained in the WMP.

3.3.11. General

Administration costs for SWWD are budgeted within this category. Such costs include, but not limited to; salaries, rent, office supplies, and equipment.

Consultant services for accounting, legal, and engineering were solicited in 2007 for the calendar years 2008-2009. A copy of the information is included in Appendix B.

3.4. 2008 Projected Work Plan

3.4.1. Floodplain Management

For 2008, no projects are planned for Floodplain Management, projects for the flood damage reduction program are included in section 3.4.2.

3.4.2. Storm Water Runoff Rate and Volume

SWWD is partnering with the City of Woodbury to establish a grant program to flood proof properties around Wilmes Lake. This is in relation to the October 2005 rain storm that resulted in high water conditions on Wilmes Lake.. Through numerous studies, non-structural BMP's have been identified as the best option to reduce flood risk. To help with the cost of implementing non-structural BMP's the City is offering grants to defer cost of the projects for the individual property owner.

3.4.3. Water Quality

SWWD Cost Share Program will become public for 2008. With the program going public, the number of projects within the District will continue to increase. The emphasis will still be towards City projects and large, high impervious, commercial parcels. SWWD hopes to use the success of four case studies that were constructed in 2007 to help raise public awareness and acceptance. The shared Water Resources Educator will also assist in distributing cost share educational materials.

3.4.4. Wetlands

For 2008, no projects are planned for Wetlands, projects for Wetlands are included in section 3.4.5.

3.4.5. Natural Resources and Recreation

The SWWD participated with the City of Cottage Grove during the completion of the East Ravine AUAR and master plan for the comprehensive plan update. The City is planning for significant greenway/open space and part of the land use plan. A major portion of the land in the greenway is land purchased by the SWWD for flood control. These areas are being planned as open space available for flood control with compatible land uses. In 2008, SWWD will continue to return areas of open space from agricultural land use to a native prairie.

3.4.6. Groundwater

Ground water monitoring will continue for 2008. Monitoring is essential to understanding the relationship of surface water and groundwater interactions. In addition to the interaction, risk analysis of stormwater infiltration will use data collected by continuing to monitor groundwater.

3.4.7. Erosion and Sediment Control

NPDES Phase II construction site inspections are important to enforcing the permit and ultimately will lead to a better compliance rate within the District. In 2008, SWWD will continue to perform site inspections in tandem with development reviews to increase compliance and to address those that are not in compliance. In addition to site inspections, the NPDES Compliance Study started in 2006 will continue for 2008. Site inspections will occur four times throughout the construction season.

3.4.8. Education

SWWD will continue to fund a portion of the Washington Conservation District's Water Resources Educational Specialist in 2008. This position will be responsible for most of the distribution of educational materials within the District.

3.4.9. Long Range Work Planning and Financing

Stormwater utility fees as defined and administered by SWWD will remain the same in 2008. It is anticipated that in 2009 that the East Mississippi Subwatershed will be included in the Stormwater Utility collection. Funds collected in East Mississippi will be used to fund projects only within the East Mississippi subwatershed. Currently, East Mississippi does not have access to funds generated by the stormwater utility fee.

3.4.10. Data Management

To insure that SWWD has the ability to make informed decisions, the water monitoring program will continue for 2008. In addition to the water monitoring program, the SWWD website will be a key component in relating information to the public in an easy to use platform.

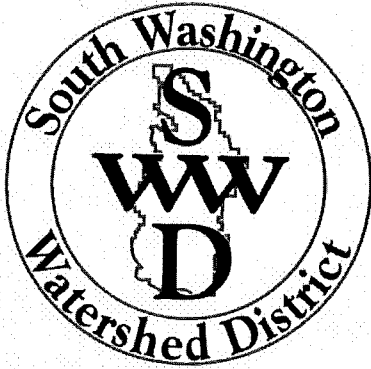
Development reviews will become a more focused area of expertise for SWWD as the updated WMP becomes fully integrated into both the District and the Cities. It is the intention of SWWD NOT to duplicate City Permitting programs, but instead give recommendations and comments in regards to our rules and regulations.

3.4.11. General

No major changes will occur within the General Fund for 2008.

Appendix A
2007 South Washington Watershed Audit

Appendix B
Solicitation for Professional Services



October 4, 2007

Sent via e-mail

Bulletin Newspapers
Legal Advertisement
8420 City Centre Drive
Woodbury, MN 55125

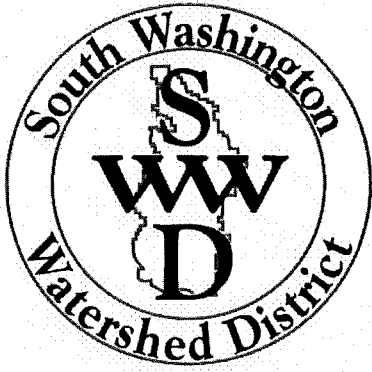
RE: South Washington Watershed District Request for Professional Services.

The South Washington Watershed District (SWWD) is requesting the Bulletin Newspapers to publish the following "Request for Professional Services". Please publish this notice in **BOTH** the Woodbury Bulletin and South Washington County Bulletin for **TWO** consecutive weeks, beginning **October 24, 2007 and October 31, 2007**.

Please provide the SWWD with an Affidavit of Publication subsequent to publication. If you have any questions or need additional information, please call me at 651.714.3729

Sincerely,
South Washington Watershed District

Matt Moore
Administrator



**South Washington Watershed District
8301 Valley Creek Road
Woodbury MN, 55125
Request for Professional Services**

The South Washington Watershed District uses outside consultants to provide professional services in the following areas:

- 1) Engineering
- 2) Legal
- 3) Financial Accounting

The SWWD Board is requesting any firm interested in providing services to the SWWD submit a letter of interest, a list of related work/projects/clients, a list of key personal and their qualifications, and a current fee schedule. Information should be limited to four (4) pages total. The SWWD is required to request proposals for professional services every two years. Those firms selected will be placed in a pool of professional service consultants for calendar years 2008-2009.

Information must be submitted no later than 4:00 p.m. Friday November 30, 2007 to:

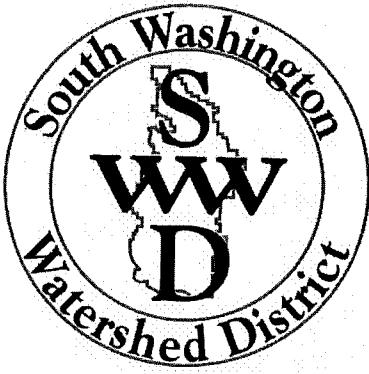
South Washington Watershed District
Attn: Matt Moore, Administrator
8301 Valley Creek Road
Woodbury, MN 55125
Ph: 651.714.3729
Fax: 651.714.3721
mmoore@ci.woodbury.mn.us

Dated this 4th day of October, 2007.
South Washington Watershed District

Matt Moore, Administrator

L:\swwd\Admin\Professional Services\Profservicepublication2007.doc

8301 Valley Creek Road • Woodbury, MN 55125 • 651-714-3729 • Fax 651-714-3729



Memo

To: SWWD Board of Managers

From: Matt Moore, SWWD Administrator

CC:

Date: December 12, 2007

Re: 2008-2009 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 11 responses for engineering services, 1 legal response and 2 financial response. Currently, there are 11 firms in the engineering pool; of those 6 we received 9 returning responses and 2 new responses for the 2008-09 request.

Engineering:

- 1) Ayres, Associates
- 2) Barr Engineering Inc.
- 3) Bonestroo
- 4) Emmons & Olivier Resources, Inc.
- 5) HDR Engineering Inc.
- 6) Houston Engineering Inc.
- 7) Howard R. Green Company
- 8) LimnoTech
- 9) PBS&J
- 10) Sunde Land Surveying, LLC.
- 11) Wenk Associates, Inc.

Legal

- 1) Jack W. Clinton P.A.

Financial

- 1) HLB Tautges Redpath, Ltd.
- 2) MMKR & Co., P.A.

The Board could choose one of the following processes to establish engineering services for the 2008-2009 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 eleven 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 \$150/hour for Principals, \$104/hour for Professional Engineers, and \$67/hour for Technicians.

The Board sub-committee recommends to the Full Board selection of Jack W. Clinton P.A. for legal services and HLB Tautges Redpath for financial services. In addition, place all engineering firms that responded into the pool.

Requested Board Action

Approval of 2008-2009 professional legal, financial and engineering services.

Appendix C
Communications

Lake that flooded in '05 still is awash in controversy

A proposed development near Woodbury's Wilmes Lake has some worried about the risks of runoff.

By [Kevin Giles](#), Star Tribune

Last update: December 22, 2007 - 8:51 PM

Some of Woodbury's nicest neighborhoods surround Wilmes Lake, which is fringed with woods and on a snowy December day resembles a holiday greeting card.

But controversy has dogged the lake since it flooded after a heavy rainfall two years ago. Some nearby homeowners say little has been done to prevent another -- and possibly more catastrophic -- overflow of the lake. City engineers and watershed officials counter that they've invested considerable time and money to figure out how to channel water through Wilmes Lake while keeping residents dry.

And now a new wrinkle is emerging: Just north of Wilmes Lake, a developer wants to build a 327,000-square-foot business park that would include offices, shops, a bank and a big-box retailer. The proposal, although in the early stages of environmental review, worries Wilmes Lake residents who say that storm water runoff from roofs, driveways and parking lots will worsen the flooding risk on the lake.

Resident Mike Kazmerski said that such commercial development, coupled with "huge volumes" of water already flowing into Woodbury from Lake Elmo and Oakdale to the north, suggest serious consequences for Wilmes Lake.

"It's a fact of too much water coming into Woodbury and no way to get it out," he said.

Long before houses arrived on the shores of Woodbury's five major lakes, the water ebbed and flowed over farm property. Now it has to be channeled past houses and businesses as it meanders south through the watershed toward the Mississippi River. Most everyone agrees that the Wilmes Lake issue is a complicated one, involving disputes, engineering reports, conflicting ownership rights along the shoreline, and at least three government agencies.

"The problem, I think, is as old as property development," said Dan Belka, one of the Wilmes Lake neighbors most critical of Woodbury's surface water management.

When a deluge of rain fell overnight in the Twin Cities on Oct. 4, 2005, Woodbury received 5½ inches overall but much of it in a three-hour span. Twenty areas around the city flooded. Several residents on the east side of Wilmes Lake in northeast Woodbury threw up walls of sandbags. Most kept the water away, but a few houses flooded.

In response, said City Engineer Klayton Eckles, the city developed a \$1.5 million plan to help avoid more flooding of that magnitude. Grants that would help homeowners pay for floodproofing are being considered, he said, and the city considered building large storm water ponds nearby but decided the idea was too expensive and wouldn't fully solve the problem.

Managing storm water, Eckles said, can be a difficult challenge for a city. "It points to the need to be a well-planned community," he said.

But Belka, an engineer himself, said the city erred by allowing houses to be built at lower elevations near Wilmes Lake. "We're kind of living with the consequences of so much development in an inadequate standard," he said. "We have a storm water system that's not up to the task."

Eckles describes Woodbury's storm water regulations as "strict" and said the Wilmes Lake neighborhood was developed on standards written in 1979. He said the city's knowledge of surface water management is far more sophisticated today.

Belka said he knows that public officials in Woodbury cringe when they see him coming, but said he won't give up his campaign to find a solution for Wilmes Lake.

"I'm thinking somebody's got to hold people accountable here," he said. "If we live in a city that can adopt the Kyoto protocol, we certainly ought to be able to take care of our own water."

Kazmerski and Belka say the lake is too high already and more water would have nowhere to go. "If we had six inches of rain tomorrow, we'd be flooded again," Kazmerski said.


Eckles said the city wouldn't allow construction of a business park without storm water ponds built at the developer's expense to prevent runoff into Wilmes Lake.

The debate over Wilmes Lake now involves Sen. Kathy Saltzman, DFL-Woodbury, who said she will invite everyone to the table in January in hopes of solving a festering issue. "I think some of the frustration of the residents is, it's been two years," she said.


Eckles and Matt Moore, the watershed district administrator, said they've considered reducing the depth of the lake to make more room in case of a sudden heavy rain. However, other residents oppose that approach because of their concern that the lake could go dry in drought years.

No government agency can anticipate the power of the weather, Moore said: "We can't eliminate the risk, but we can reduce the damage."

Kevin Giles • 651-298-1554

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Check the box to include the list of links referenced in the article.



MS4 STORMWATER POLLUTION PREVENTION PROGRAM: East Metro Water Resource Education Program Annual Report (2007)

Summary: The East Metro Water Resource Education Program (EMWREP) is a partnership formed to develop a comprehensive water resource education and outreach program for the east metro area of St. Paul, MN. Members of EMWREP include Brown's Creek, South Washington, and Valley Branch Watershed Districts, Lower and Middle St. Croix Watershed Management Organizations, the cities of Cottage Grove, Dellwood, Forest Lake, Lake Elmo, Stillwater, and Willernie, Washington County and the Washington Conservation District. The EMWREP region covers all of Washington County as well as a small portion of Ramsey and Anoka Counties. The goal of EMWREP is to reduce non-point source water pollution from storm water runoff and illicit discharges by educating citizens, municipal staff and officials, developers and businesses.

During 2007, EMWREP hosted eight technical workshops attended by a total of 460 participants, covering a range of topics including infiltration design, erosion control, raingarden maintenance and comprehensive planning. Additionally, the program published a weekly column in three local newspapers, produced dozens of articles for city and county newsletters, and placed information kiosks at the eleven libraries in Washington County. The EMWREP educator spoke to several community groups throughout the year, participated in local events such as the Washington County Fair and Children's Water Festival and hosted four neighborhood "Blue Thumb Parties."

EMWREP has been a critical player in the creation of the newly formed Blue Thumb – Planting for Clean Water Program, a program that helps residents to plant native gardens, raingardens and shoreline projects to improve local water quality. The Blue Thumb Program recently received the MnGREAT – Governor's Award for environmental leadership and innovation. EMWREP has also launched a new technical training series "Stormwater U," with the goal of educating municipal staff such as engineers, planners and public works staff. Additionally, EMWREP is actively involved with the Metro WaterShed Partners, the Minnesota State Stormwater Steering Committee Education Group and the Washington Water Consortium.

EMWREP Program Components: The EMWREP education plan includes five program components that are used to educate the general public and target audiences about stormwater pollution. These include:

1. **General Education Campaign:** Articles in newspapers and newsletters, displays and presentations at community events, and collaborative work with other groups.
2. **Blue Thumb Program:** Website (www.BlueThumb.org), workshops, neighborhood parties and presentations for community groups.
3. **Stormwater U:** Workshops and field sessions for engineers, planners, public works staff and other municipal and agency employees.
4. **MS4 Toolkit:** A toolkit of materials to help MS4 communities meet their stormwater education requirements. The toolkits will be complete in 2009.
5. **NEMO:** Presentations and workshops for elected officials and decision makers.

MS4 Permit requirements for the Stormwater Pollution Prevention Program:

Requirement (a) – Public Education Program

EMWREP activities used to meet requirements:

- 1) General Education Campaign
- 2) Blue Thumb Program

Requirement (b) - An education program that addresses the six minimum control measures

1: Public education and outreach

- General Education Campaign
- Blue Thumb Program

2: Public participation

- General Education Campaign
- Blue Thumb Program

3: Illicit discharge detection and elimination

- MS4 Toolkit

4: Construction site storm water runoff control

- Stormwater U Training Series
- MS4 Toolkits

5: Post construction storm water management

- Stormwater U Training Series
- MS4 Toolkits
- NEMO Program

6: Pollution prevention and good housekeeping in municipal operations

- MS4 Toolkits

Requirement (c) - For each minimum control measure, list: 1) Audience, 2) Educational goals, 3) Activities used to reach goals, 4) Activity implementation plans, and 5) Available performance measures

* See East Metro Water Resource Education Plan. Individual program components each include a target audience, educational goals, proposed activities, a project timeline and a formative and summative evaluation component.

Requirement (d) - Coordination with other local stormwater education programs

The East Metro Water Resource Education Program has thirteen partners, including Washington County, the Conservation District, five watershed organizations and six cities. EMWREP also coordinates with other watersheds and cities in the metro area.

Requirement (e) - One public meeting per year

In 2007, partners held their own public meetings. A joint meeting is planned for 2008.

**East Metro Water Resource Education Program
Activities and Accomplishments in 2007**

GENERAL EDUCATION CAMPAIGN

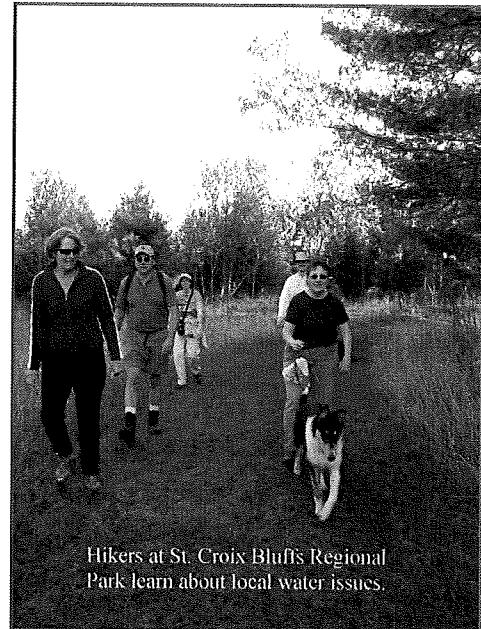
Minimum Control Measure Addressed

<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 type="checkbox"/> Illicit discharge detection and elimination	<input type="checkbox"/> Municipal pollution prevention & good housekeeping

Audience: General Public

Program Goals:

1. Determine a structure for implementing a countywide education effort.
2. Develop partnerships with at least five other organizations in Washington County to carry out educational activities.
3. Recruit citizen members to the education and outreach effort.
4. Promote EMWREP members and their BMP (best management practices) and cost-share programs.



Hikers at St. Croix Bluffs Regional Park learn about local water issues.

Educational Goals:

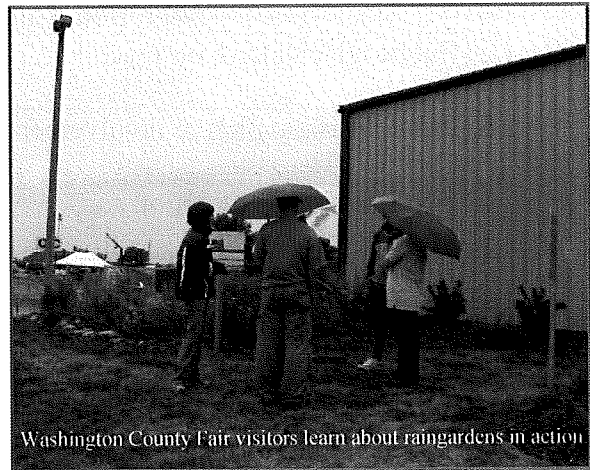
Learning

1. Increase the overall understanding and awareness of water resources and storm water runoff among the general public.
2. Increase understanding of the connection between individual actions and water resource quality among the general public.
3. Increase awareness of storm water best management practices among the general public.
4. Increase in awareness of the role of watershed districts among the general public.

Behavior Change

1. Engage the public in the prevention of storm water pollution at home.

2. Increase the utilization of storm water best management practices and adoption of desirable clean water practices among the general public.
3. Unite government, non-profit and community based organizations with a common clean water theme.
4. Develop leaders among citizens and other water related organizations that can carry water resource education to the general public.



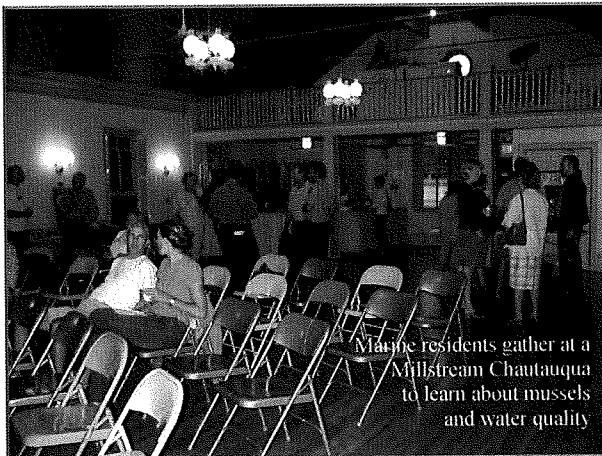
Washington County Fair visitors learn about raingardens in action

Water Quality Improvement

1. Prevent non-point source water pollution through storm water runoff.
2. Protect ground water quality and quantity.

Activities used to reach goals:

1. EMWREP produced 14 newsletter articles covering a variety of topics relating to stormwater pollution and water quality, including articles about algae, impaired waters, shoreline restoration and groundwater. These articles were printed in the Washington County and Conservation District newsletters as well as by most of the 35 cities and townships in the EMWREP service area.

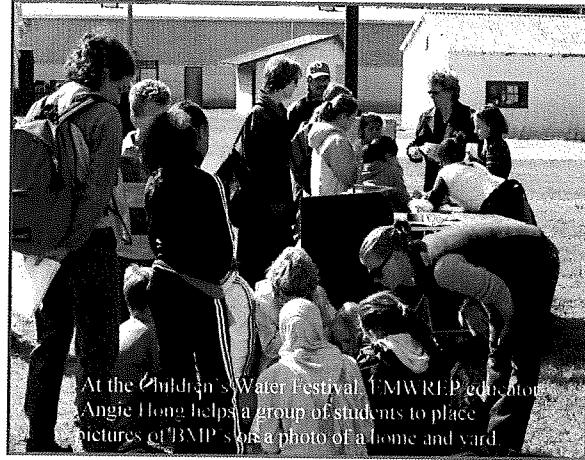


Maine residents gather at a Millstream Chautauqua to learn about mussels and water quality

2. A weekly column appears in the Woodbury/South Washington Review, Oakdale/Lake Elmo Review and the Stillwater Gazette, which highlights upcoming events, provides readers with information about cost-share and other grant programs and discusses issues related to local water resources.

3. EMWREP participated in several events in 2007 with displays and presentations, including:
 - a. Arbor Day and Public Works Open House – Cottage Grove
 - b. Children’s Water Festival – St. Paul
 - c. Environmental Landscape Workshop – Woodbury
 - d. Lake McKusick Day – Stillwater

- e. LID tour for HECUA interns - Washington County
 - f. Millstream Chautauqua and Millstream Day - Marine
 - g. Out in the Parks Day and Tuesday Night Hikes - Washington County
 - h. St. Michael's Fun Fest - Stillwater
 - i. Washington Conservation District Tree Sale - Lake Elmo
 - j. Washington County Fair - Lake Elmo
4. EMWREP led free Tuesday hikes in Washington County parks during the summer, attracting about 40 total participants.
 5. EMWREP has been a critical member in the Metro WaterShed Partners, contributing to the Metro Media Campaign, the Children's Water Festival and other metro-wide educational activities.
 6. The partnership has continued to work with other programs to host workshops and events. Some of these organizations include the Minnehaha Creek, Rice Creek and Ramsey Washington Watershed Districts, Dakota County, Minnesota Erosion Control Association, University of Minnesota Stormwater Program and Washington County Master Gardeners.



At the Children's Water Festival, EMWREP educator Angie Hong helps a group of students to place pictures of BMP's on a photo of a home and yard.



BLUE THUMB PROGRAM

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 type="checkbox"/> Illicit discharge detection and elimination	<input type="checkbox"/> Municipal pollution prevention & good housekeeping

Audience: General Public

Program Goals:

1. Prepare and distribute Blue Thumb homeowner packets through EMW partner BMP and cost-share programs.
2. Implement BMP's in targeted areas within EMW partner communities.
3. Install raingardens at 5-10 public buildings (including City Offices and Libraries), 5-10 churches and in 10 homes each in three targeted neighborhoods within the first year of the program.
4. Stabilize shorelines along 10 residential lots.
5. Catalyze the creation of 25 raingardens at public buildings, 25 church raingardens, 30 shoreline stabilization projects and 100 residential raingardens within three years.
6. Create sustainable raingarden programs for churches and cities and a sustainable shoreline stabilization program that can continue with limited assistance from the EMW educator after the first three years.
7. Coordinate with landscapers, nurseries, Master Gardeners, and others to implement the Blue Thumb program in the EMW region.
8. Publicize and utilize demonstration gardens created by the program to increase educational benefit. Create signage, conduct tours and highlight demonstration projects.



Educational Goals:

Learning

1. Provide a visible “hook” to discuss and encourage people to think about storm water and water resources.
2. Increase understanding of raingardens and shoreline stabilization as best management practices for clean water.

Behavior Change

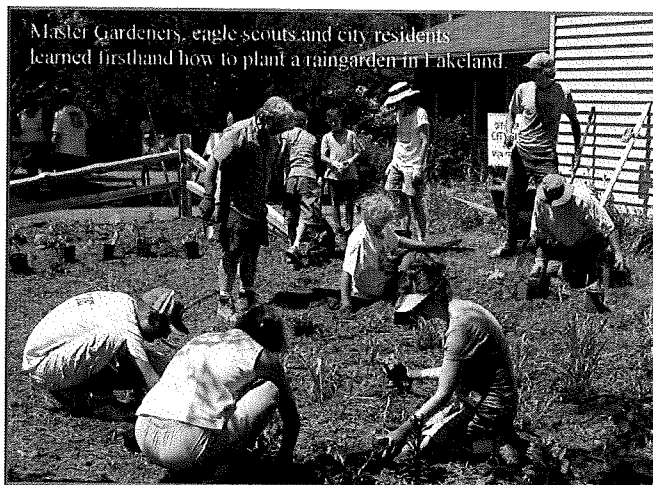
1. Engage the public in preventing non-point source water pollution.
2. Involve local businesses and non-profit organizations as active partners in the creation of Blue Thumb landscaping.
3. Increase the utilization of raingardens and shoreline stabilization by homeowners, churches and municipalities.

Water-quality Improvement

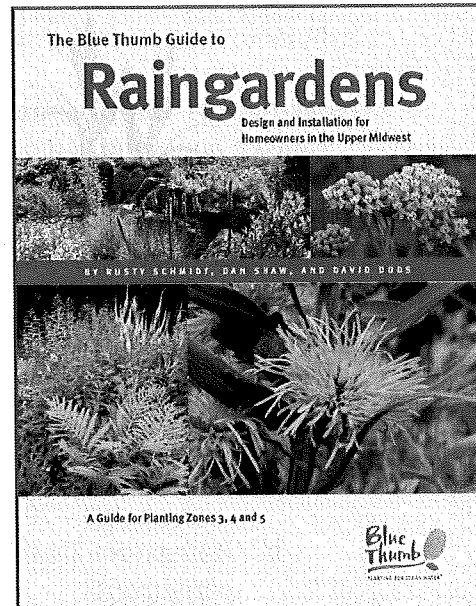
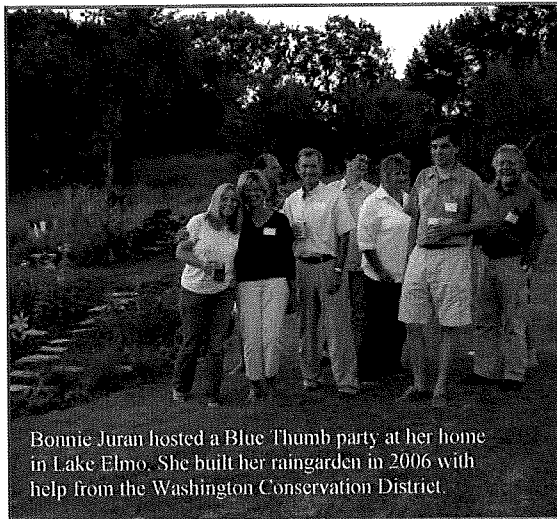
1. Reduce non-point source water pollution from storm water runoff.

Activities used to reach goals:

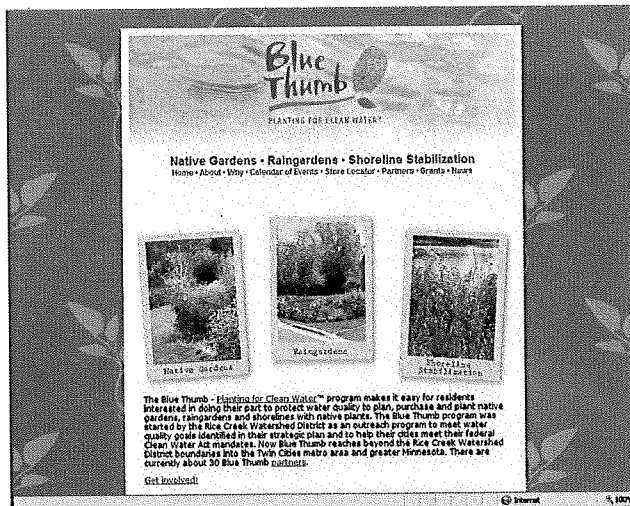
1. This year EMWREP placed 12 information kiosks at libraries in Washington County and at Park Nursery in Grant. The kiosks contained Blue Thumb brochures, contact lists for local nurseries and cost-share grant programs, and raingarden manuals. 500 raingarden manuals were distributed at these kiosks, as well as about 2000 other brochures and flyers.
2. There were three Blue Thumb workshops in 2007:
 - a. Landscaping for Water Quality (target audience – landscapers and contractors) - 70 participants
 - b. Raingarden Design (target audience - master gardeners) – 40 participants
 - c. Raingarden Installation (target audience – master gardeners, general public) – 30 participants
3. Blue Thumb house parties (4 total) were held in Stillwater, Lake Elmo and Cottage Grove. Many people who attended these parties have followed through with Blue Thumb projects at their homes.



4. Blue Thumb information was distributed at garden tours in Mahtomedi, Lake Elmo, Stillwater, Woodbury and Cottage Grove.
5. Blue Thumb presentations were given to lake and neighborhood associations and garden clubs, including:
 - a. Tri Lakes Association – Lake Elmo
 - b. McKusick Lake Association – Stillwater
 - c. Wild One’s Native Plant Society – St. Croix Valley
 - d. Lakeland Garden Club – Lakeland
 - e. Legends Neighborhood Association – Stillwater
 - f. Liberty Neighborhood Association - Stillwater
6. EMWREP has been a critical member in developing the Blue Thumb program, resulting in an enhanced www.BlueThumb.org website, a growing public outreach effort and heightened awareness of the program in the Twin Cities area. The Blue Thumb program now has 37 partners, including nurseries and landscaping firms, cities, watersheds and non-profit groups.



The Blue Thumb group worked with authors Rusty Schmidt and Dan Shaw to produce and distribute a raingarden guide for homeowners.



The redesigned www.BlueThumb.org website connects the public with planting designs, vendors, grants and more.

STORMWATER U TRAINING

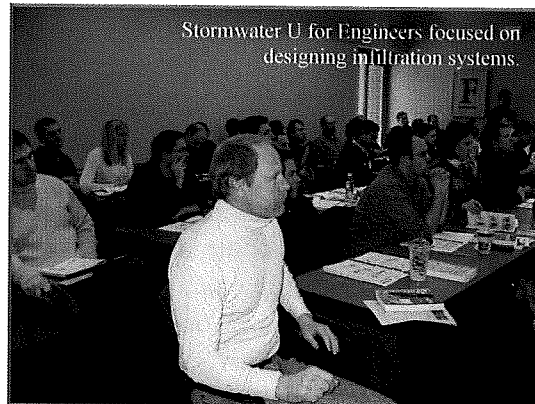
Minimum Control Measure Addressed

<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 type="checkbox"/> Illicit discharge detection and elimination	<input type="checkbox"/> Municipal pollution prevention & good housekeeping

Audience: City planners and engineers; commercial developers; builders and contractors

Program Goals:

1. Provide technical training needed to enable new development and construction projects in Washington County to meet local volume control standards.
2. Create locally specific trainings to help cities, developers and builders understand their local watershed regulations, and avoid duplication of existing trainings.
3. Create a menu of training options and package it for use by city staff, developers, builders and contractors.
4. Tailor and distribute the Storm Water U training package for use in other metro area communities.
5. Encourage attendance of city engineers and planners from all MS4 communities in Washington County at the Storm Water U training series.
6. Encourage attendance of developers, builders and contractors from large development projects in Washington County at the Storm Water U training series.
7. Develop new Stormwater U trainings as the program evolves.



Educational Goals:

Learning

1. Increase awareness of current trainings and workshops provided by various organizations in the metro area.
2. Increase understanding of non-point source water pollution and water resource connections among city planners and engineers and private developers, builders and contractors.

3. Increase understanding in the target audiences of their role in achieving and maintaining clean water in Washington County.

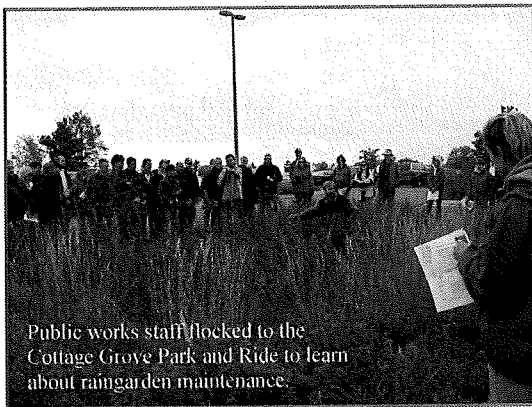
Behavior Change

1. Encourage planners, engineers, developers and builders to coordinate and embrace new volume control standards.
2. Through training, enable all new development projects in Washington County to meet volume control standards.
3. Through training, enable at several new development projects to exceed volume control standards.

Water-quality Improvement

1. Reduce non-point source water pollution from new construction and redevelopment in Washington County.

Activities used to reach goals:



Public works staff flocked to the Cottage Grove Park and Ride to learn about raingarden maintenance.

1. The first set of Stormwater U workshops - Designing for Volume Control Requirements – was held in February and March of 2007. The target audience was city engineers and designers and there were 90 participants.
2. In July, EMWREP partnered with the Minnesota Erosion Control Association to host an Erosion and Sediment Control Field Session. This outdoor workshop was held at a new development under construction in Woodbury and was targeted at builders, contractors and inspectors. There were three sessions and a total of 90 participants.
3. A hands-on work session called Raingarden Maintenance 101 was held in October 2007.
 - a. During the first session, three MCC crews (about 20 people) were trained in raingarden maintenance. These crews will now be able to offer contract services to local communities.
 - b. The following week, an outdoor workshop with two sessions was held to help public works staff learn how to maintain new raingardens. There were 83 participants.
4. An interactive workshop for city planners and planning commission members - Integrating Water Resource Protection into Comp Plan Updates – was held in December. 65 participants attended, representing most EMWREP cities.

MS4 TOOLKIT

Minimum Control Measure Addressed

<input checked="" type="checkbox"/> Public education & outreach	<input checked="" type="checkbox"/> Construction site runoff controls
<input checked="" 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: MS4 staff, public works employees, building inspectors, restaurant owners, construction employees and other specific audiences

Description: The MS4 toolkits will be toolboxes filled with educational materials such as brochures, videos, pod casts, and power points designed to help MS4 staff educate a variety of audiences about storm water and water resources.

Program Goals:

1. Provide simple and effective materials to MS4 staff to use when educating public works employees, building inspectors, restaurant owners, construction employees and other target audiences.
2. Create comprehensive MS4 toolkits for all MS4 communities in Washington County.
3. Create a MS4 toolkit design plan and “clearinghouse” on the CleanWater MN web site so that materials can be distributed in other metro area communities.

Educational Goals:

Learning

1. Increase understanding of best management practices for clean water among the target audiences.
2. Increase understanding among the target audiences of the sources of non-point source water pollution and their role in achieving and maintaining clean water in Washington County.

Behavior Change

1. Engage municipalities and MS4 staff as active partners toward reducing non-point source water pollution from storm water runoff and illicit discharges.
2. Increase the utilization of best management practices for clean water among the target audiences.
3. Increase the detection and elimination of illicit discharges to storm water systems.

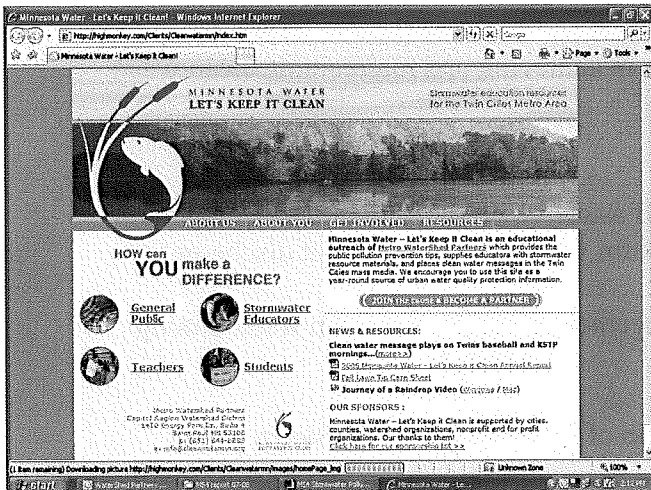
4. Increase the utilization of best management practices for municipal operations, such as street sweeping, salt application, and landscaping operations.

Water-quality Improvement

1. Prevent non-point source water pollution through storm water runoff.
2. Prevent non-point source water pollution through illicit discharges.

Activities used to reach goals:

1. EMWREP has secured a grant from the MPCA for \$40,000 to create a toolkit with educational materials for cities and other MS4's to use for stormwater education.
2. The WaterShed Partners Metro Media Campaign is working with a web design firm to overhaul the www.cleanwatermn.org website. When completed, many MS4 toolkit materials will be available for communities to access via this website. The website will also contain links to the EPA's stormwater education toolkit and other important web resources.
3. During the fall of 2007, an intern with the HECUA program at the University of Minnesota began collecting and organizing stormwater education materials from around Minnesota and the U.S. Members of the Metro WaterShed Partners and the Minnesota Water Resource Coordinators group have previewed these materials to begin choosing the best options for the toolkit.
4. EMWREP distributed a survey to MS4 entities in Minnesota to gather input on what materials are desired for the toolkits and what topics the materials should cover. About 25 entities responded to the survey.
5. Angie Hong, EMWREP educator, has been meeting with video production firms to select a company to produce 2-3 training videos for public works staff. These videos will likely cover the topics of general parks maintenance and raingarden design and maintenance. Approximately \$20,000 of the MS4 Toolkit budget is allocated towards these videos.
6. The toolkit project will be completed by May of 2009.



The redesigned www.cleanwatermn.org website will make MS4 toolkit materials available on-line.



Posters like this one, created by the City of Tacoma, may be included in the Minnesota MS4 Toolkit.

NEMO WORKSHOPS

Minimum Control Measure Addressed

<input type="checkbox"/> Public education & outreach	<input type="checkbox"/> Construction site runoff controls
<input 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

Audience: MS4 staff and elected officials

Description: NEMO (Non-point Education for Municipal Officials) workshops will be conducted with selected MS4 communities in Washington County to educate municipal staff and officials about water resources, storm water management, and cities' role in creating rules and ordinances that support best management practices for clean water.

Program Goals:

1. Work with the Twin Cities metro working group of Northland NEMO to hire a NEMO coordinator.
2. Work with the Twin Cities metro working group of Northland NEMO to develop a strategic plan, charter and organizational structure.
3. Hold NEMO workshops for several MS4 communities in Washington County.

Educational Goals:

Learning

1. Increase understanding of water resources and storm water management among municipal decision makers.
2. Increase understanding among municipal decision makers of the role of zoning and city planning in enabling clean water practices.

Behavior Change

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

Water-quality Improvement

1. Prevent non-point source water pollution from new development and redevelopment.

Activities used to reach goals:

1. In 2007, EMWREP worked with other members of the Twin Cities Metro NEMO working group to hire John Bilotta and Shane Missaghi to conduct stormwater education in the Twin Cities area. John will be managing the NEMO program, while Shane will be working with the Stormwater U program to make educational workshops for municipal employees available throughout the metro area.
2. NEMO helped to plan the December 2007 Stormwater U workshop in Stillwater, which focused on comprehensive planning. Utilizing the NEMO program and the Washington County Water Consortium, EMWREP will continue to work with communities that attended the workshop to develop policies, strategies and ordinances to protect water resources.