



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

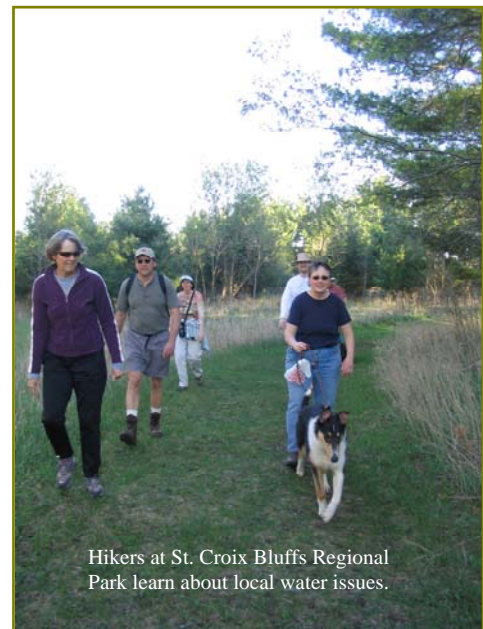
Minimum Control Measure Addressed

<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.



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.

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.



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

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

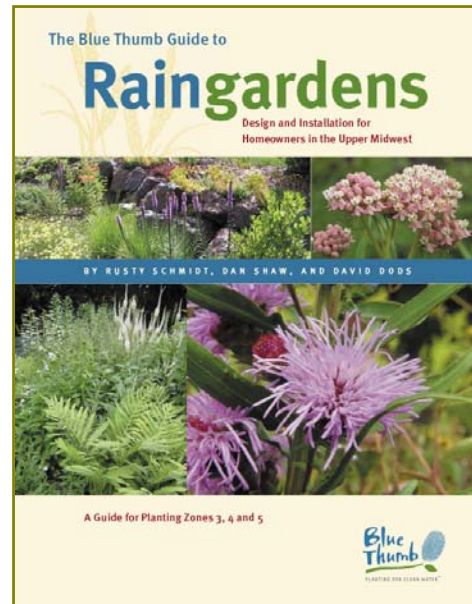
1. Reduce non-point source water pollution from storm water runoff.

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.

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

Water-quality Improvement

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

Activities used to reach goals:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.