



MS4 STORMWATER POLLUTION PREVENTION PROGRAM: East Metro Water Resource Education Program Annual Report (2008)

Background: The East Metro Water Resource Education Program (EMWREP) is a comprehensive water resource education and outreach program for the east metro area of St. Paul, MN. Members of EMWREP in 2008 included 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.

Program Components: The EMWREP education plan includes five areas:

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.

2008 Program Activities and Highlights:

Public Education: In 2008, the EMWREP educator continued to write weekly columns about water resource issues, which were published in seven local newspapers. EMWREP's educator also contributed newsletter articles for thirty cities in the EMWREP area, as well as the Washington County newsletter. EMWREP partnered with Washington County Parks and the Sierra Club to lead four hikes during the summer, attended by a total of 50 people. For the third year, EMWREP partners coordinated a joint booth and informative talks at the Washington County Fair. EMWREP also teamed up with several agencies and non-profits to plan the Healthy Waters Fair at William O'Brien State Park, which attracted 2300 visitors.

As a member of the Metro WaterShed Partners steering committee, EMWREP helped to coordinate media campaign activities, which included 26 spring radio ads on Minnesota Public Radio, 60 spring radio ads during MN Twins games, 16 billboards in



the metro area during April and May and more than 200 televised ads on prime time cable during September and October. WaterShed Partners also had a prominent booth in the Minnesota DNR building at the Minnesota State Fair.



Blue Thumb: EMWREP has continued to use the Blue Thumb – Planting for Clean Water program to promote partner BMP (best management practice) programs and has been active in the development of the Blue Thumb partnership. Blue Thumb grew to 55 partners in 2008, and received both the Governor’s MN GREAT! award and the Minnesota Association of Watershed Districts “Program of the Year” award. Tracking data shows that the number of people using the www.BlueThumb.org website has increased exponentially from 2007-2008, with 5500 people visiting the website in April and May of 2008 alone, which is an average of 78 people a day.

EMWREP helped to coordinate four Blue Thumb technical training sessions in 2008. Two raingarden design workshops in the spring had a total of 123 participants, and a third workshop for Washington County Master Gardeners had 40 attendees. In the fall, EMWREP helped to coordinate a Train-the-Trainer session for 40 Blue Thumb program partners.

EMWREP partnered with Metro Blooms to host two raingarden design courses for homeowners in 2008. The two workshops, held in Mahtomedi and St. Paul Park, attracted 87 attendees. In addition, four Blue Thumb neighborhood parties were held in Mahtomedi, Stillwater and Woodbury, the EMWREP educator presented at several community events, and partners sponsored one of 16 Blue Thumb billboards in the metro area during April and May.

EMWREP worked with the University of Minnesota CURA program to conduct focus group sessions in Forest Lake and southern Washington County to explore barriers that currently prevent people from planting Blue Thumb projects. Four sessions were held with 35 people total. In Forest Lake a survey was also distributed to and completed by 55 lakeshore residents. Findings indicate that people are generally receptive to BMP planting projects once they are aware of the resources available and the benefits of the projects. The research also found that aesthetics are very important in persuading people to adopt new landscaping behaviors.

Between 1965 and 2004, the Washington Conservation District helped to install 197 BMP projects in Washington County (roughly five per year). Since 2006, EMWREP program partners have installed 73 projects, 55 of which were in 2008 alone. This marked increase in water quality improvement projects is largely a result of Blue Thumb outreach.

Stormwater U: During 2008, EMWREP created a new Stormwater U series – Stormwater Pond Management - in conjunction with Ramsey-Washington Metro Watershed District and University of Minnesota Extension. The first three workshops in this series addressed outfalls and inventories, visual



assessments and easements and vegetation issues. A total of 135 local public works staff attended the workshops, including representatives from Cottage Grove, Forest Lake, Hastings, Hugo, Lake Elmo, Mahtomedi, Maplewood, Newport, North St. Paul, Oakdale, Stillwater, White Bear Lake, Willernie, and Woodbury.

University of Minnesota Extension has hired two full-time educators to coordinate stormwater outreach and education for city staff and elected officials in the metro area. With these new staff people, UM Extension has been able to take on the role of developing and coordinating Stormwater U workshops across the metro area, with support from local partners like EMWREP.



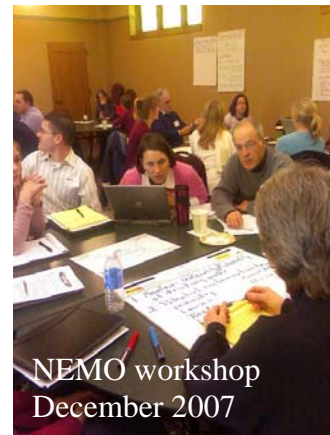
Filming a raingarden maintenance training video for the MS4 toolkit

MS4 Toolkit: During 2008, the EMWREP educator continued to collect and create educational materials for the MS4 Toolkit project. These materials will be accessible on the newly redesigned www.CleanWaterMN.org website in May 2009.

A major project for EMWREP was the filming of two training videos for this toolkit. The videos, designed for parks, grounds keeping and public works staff cover parks maintenance for stormwater pollution

prevention and raingarden maintenance techniques. Shot in August, with support from Stillwater and Washington County Parks, the videos are entertaining and informative.

NEMO: With the creation of two positions at UM Extension to coordinate metro-wide Stormwater U and NEMO activities, EMWREP played less of a role in NEMO outreach in 2008. The Washington County Water Consortium has continued to function as a venue for information sharing and discussion for city, county, watershed and state agency staff and elected officials. EMWREP used several Water Consortium meetings in early 2008 to provide further education on topics introduced at a December 2007 Comprehensive Planning workshop. The EMWREP educator has also continued to sit on the Northland NEMO steering committee.



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 areas specify audience, goals, activities and performance measures.

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

The East Metro Water Resource Education Program had thirteen partners in 2008. EMWREP also coordinates with several other public agencies, collaboratives, non-profits and citizen groups in the metro area.

Requirement (e) - One public meeting per year

Forest Lake, Stillwater and Washington County held a joint public meeting in 2008. Other EMWREP partners held individual public meetings.

**East Metro Water Resource Education Program
Progress towards goals in 2008**

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.
 - a. When the EMWREP program began in 2006, it had seven original members. As of January 2009, there will be 17 members in the program. All of the watershed organizations in Washington County are now represented in the program, with the exception of Carnelian Marine St. Croix.
 - b. With the addition of new program partners, the EMWREP program can educate more residents within the county.
2. Develop partnerships with at least five other organizations in Washington County to carry out educational activities.

a. Metro WaterShed Partners: The EMWREP program has worked with the WSP media campaign to support radio, television and billboard messages in Washington County. During 2008, the campaign produced:



- i. 26 spring radio ads on Minnesota Public Radio with a “streets to streams” stormwater pollution prevention message
- ii. 60 spring radio ads during MN Twins games, urging listeners to keep grass clippings and excess fertilizer off of streets and sidewalks.
- iii. 16 billboards in the metro area during April and May featuring the “streets to streams” message, two of which were located in the east metro area. The billboard designs were also used for bathroom stall ads during the MN State Fair.
- iv. More than 200 televised ads on prime time cable during September and October, featuring the “Rubber Ducky” and “Fishbowl” segments.
- v. A newly redesigned website (www.cleanwatermn.org) to be used as an on-line stormwater education resource center for educators, students, teachers and citizens.

- b. Master Gardeners: EMWREP held one training for Master Gardeners in spring of 2008 and collaborated with MG's for special events and workshops for the public.
- c. St. Croix Basin Team: EMWREP presented at the St. Croix Basin Conference in 2008 and coordinated with the team on its efforts to meet the phosphorus goal for the river.
 - d. Great River Greening, Carnelian Marine St. Croix WD and DNR State Parks: EMWREP worked with GRG, CMSCWD and state park staff to organize A Million Shades of Autumn: Healthy Waters and Heritage Fair at William O'Brien State Park in September of 2008. The fair featured booth, presentation and activities to educate the public about raingardens, buckthorn, and other resource issues.
- e. Community and civic groups: EMWREP worked with Stillwater Rotary, Mahtomedi Garden Club, Woodbury and Cottage Grove Chambers of Commerce, St. Croix Lego League and several other community groups during 2008.



- 3. Recruit citizen members to the education and outreach effort.
 - a. EMWREP has worked with citizens on several small projects in the community, but has not yet created a volunteer program to engage citizens as educators.
- 4. Promote EMWREP members and their BMP (best management practices) and cost-share programs.

- a. Dozens of presentation were given during 2008 to promote BMP and cost-share program and the efforts of EMWREP partners. Presentations were given for garden clubs, school groups, homeowners associations and the rotary.
- b. EMWREP was present at several community events throughout the year, including city home and garden expos, landscaping workshops, the Washington County Fair, the annual conservation district tree sale and school events.
- c. EMWREP's educator wrote weekly articles for seven local newspapers, discussing a range of water resource topics and issues. Articles were also sent to 25-30 cities within the area to include in their newsletters.



Educational Goals:

Learning

- 1. Increase the overall understanding and awareness of water resources and storm water runoff among the general public.
 - a) In 2006, we used an on-line survey and a paper questionnaire at the Washington County Fair to begin assessing base-line knowledge for people

living in Washington County. We also used a paper questionnaire at the EMWREP annual public meeting in April 2008. Because of the small sample size for all three surveys, it would be hard to draw any conclusions about knowledge gain during the first two years of the program.

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.
 - a. EMWREP has used the Blue Thumb Program to help residents prevent stormwater pollution at their homes by installing native gardens, raingardens and shoreline plantings.
 - b. EMWREP has also collaborated with citizen groups, such as the Mahtomedi Area Green Initiative and the Millstream Association, which have become advocates for stormwater pollution prevention in the east metro area.
2. Increase the utilization of storm water best management practices and adoption of desirable clean water practices among the general public.
 - a. During 2008, EMWREP program partners installed 55 BMP projects with the help of education and outreach and newly available watershed cost-share grant programs. This was a marked increase from previous years.
 - b. At least a dozen additional projects were installed by non-profits, homeowners and cities in the east metro area as a result of EMWREP educational outreach.
3. Unite government, non-profit and community based organizations with a common clean water theme.
 - a. The creation of the EMWREP program has allowed greater collaboration between cities, watersheds and the county. The protection of water quality is a priority for many entities working in the East Metro.
4. Develop leaders among citizens and other water related organizations that can carry water resource education to the general public.
 - a. We continue to work with Master Gardeners and other citizens to educate the public.

Water Quality Improvement

1. Prevent non-point source water pollution through storm water runoff.
 - a. Through its outreach activities, EMWREP has educated thousands of local residents on ways that they can prevent stormwater pollution.

2. Protect ground water quality and quantity.
 - a. EMWREP has strived to integrate groundwater and surface water education for the public.
 - b. Several newspaper and newsletter articles written by EMWREP have specifically addressed groundwater issues.
 - c. During public presentations, residents are encouraged to plant native gardens and raingardens not just to protect surface water from stormwater pollution, but also to reduce irrigation needs and encourage groundwater recharge.



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.
 - a. Blue Thumb homeowner packets were distributed at workshops, neighborhood parties, during focus group sessions and to interested individuals.

2. Implement BMP's in targeted areas within EMW partner communities.



Raingarden in Middle St. Croix 2008 residential BMP project

- a. More than 50 new BMP projects were installed in the EMWREP area during 2008.

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 within the first year of the program.
5. Catalyze the creation of 25 raingardens at public buildings, 25 church raingardens, 30 shoreline stabilization projects and 100 residential raingardens within three years.
 - a. Newly constructed raingardens between 2006 and 2008 at public buildings and parks include:

- i. Washington County Fairgrounds – 4 demonstration gardens
- ii. Big Marine Regional Park – several raingardens
- iii. Washington County South Service Center – several raingardens
- iv. Lakeland City Hall



South Service Center raingarden

- v. Crosswinds Art and Science School (Woodbury)
- vi. Washington Square Park (Stillwater)
- b. Newly constructed raingardens between 2006 and 2008 at churches include:
 - i. St. Andrew's Lutheran Church, Mahtomedi
 - ii. First Presbyterian Church, Oak Park Heights
 - iii. White Bear Unitarian Church



- c. New shoreline projects in 2008 included:
 - i. Geyen - Lake St. Croix Beach
 - ii. Anderson – Stillwater
 - iii. King - Stillwater
 - iv. Hewitt – Stillwater
 - v. Forest Heights – White Bear Lake
 - vi. Metelak – Mahtomedi
 - d. More than 50 new raingardens were installed at homes during 2008.
 - i. In the Legend's neighborhood of Stillwater, a target for the BCWD, 18 projects have been installed or scheduled.
 - e. EMWREP partners are continuing to identify priority neighborhoods for outreach in 2009.
6. Create sustainable raingarden programs for churches and cities and a sustainable shoreline stabilization program that can continue with limited assistance from the EMWREP educator after the first three years.
- a. While the public interest in raingardens has increased over the past three years, it will be quite a while before citizens, municipalities and other groups are able to coordinate Blue Thumb projects without support from EMWREP.
7. Coordinate with landscapers, nurseries, Master Gardeners, and others to implement the Blue Thumb program in the EMWREP region.
- a. EMWREP helped to coordinate four Blue Thumb technical training sessions in 2008.
 - b. Two raingarden design workshops were held for landscape professionals in the spring. 123 contractors, landscapers and nursery staff attended.
 - c. A workshop for Washington County Master Gardeners in the spring had 40 attendees. All of the Master Gardeners who attended received a copy of the Blue Thumb Guide to Raingardens and were trained to use the book as well as other EMWREP education and outreach materials to help educate the public.

- d. In the fall, EMWREP helped to coordinate a Train-the-Trainer session for 40 Blue Thumb program partners. Partners learned how to give a Blue Thumb introductory presentation for citizens.
8. Publicize and utilize demonstration gardens created by the program to increase educational benefit. Create signage, conduct tours and highlight demonstration projects.
- a. During July 2008, EMWREP conducted a tour of the new Big Marine Park, highlighting stormwater BMP's. Several tours were also given during the grand opening event for the park.
 - b. The Cottage Grove public access channel featured a segment on raingardens with footage shot at the South Service Center.
 - c. The St. Paul Pioneer Press ran a story about raingardens with interviews and photos taken at homeowner raingardens in BCWD, MSCWMO and VBWD.



- d. The Mahtomedi Garden Club featured the Griggs shoreline project in their annual garden tour. The Griggs' distributed Blue Thumb info to people on the tour.
- e. The Washington Water Consortium visited several BMP project sites in October 2008.

Educational Goals:

Learning

- 1. Provide a visible “hook” to discuss and encourage people to think about stormwater and water resources.
 - a. Native plantings, raingardens and restored shorelines are now in place at dozens of public locations throughout the EMWREP area. Many of these projects include interpretive signs or brochures to help the public make the connection between landscaping, stormwater and water quality.
 - b. During focus group sessions conducted in Forest Lake and southern Washington County, residents and business owners indicated that seeing photos of local Blue Thumb planting projects motivated them to plant projects on their own properties. Several of the people who attended the sessions are now working on designs for 2009.

2. Increase understanding of raingardens and shoreline stabilization as best management practices for clean water.
 - a. EMWREP has used Blue Thumb to educate thousands of local residents about water quality issues as well as the benefits of native gardens, raingardens and shoreline plantings.

Behavior Change

1. Engage the public in preventing non-point source water pollution.
 - a. Every homeowner, business owner or citizen volunteer that plants and Blue Thumb project is actively engaged 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.
 - a. Several local businesses, such as Bradshaw Funeral Home in Stillwater and Marathon Oil Refinery in St. Paul Park, have installed raingardens or other Blue Thumb landscaping projects.
 - b. Non-profits, like Great River Greening, have also been active in promoting and creating Blue Thumb projects.
3. Increase the utilization of raingardens and shoreline stabilization by homeowners, churches and municipalities.
 - a. Between 1965 and 2004, the Washington Conservation District helped to install 197 BMP projects (roughly five per year). Since 2005, WCD has helped to install 80 projects, 55 of which were in 2008 alone.

Water-quality Improvement

1. Reduce non-point source water pollution from storm water runoff.
 - a. During 2008, EMWREP program partners installed 55 BMP projects at private and municipal properties.
 - i. Modeling estimates predict potential load reductions to Long Lake in Stillwater (Brown's Creek Watershed District) to be:
 1. 376 pounds per year - total suspended sediments
 2. 6 pounds per year – total phosphorus
 3. 11.5 pounds per year – total nitrogen
 - ii. Potential load reductions within Middle St. Croix WMO (including Stillwater):
 1. 224 pounds per year – total suspended sediments
 2. 2.5 pounds per year – total phosphorus
 3. 6.5 pounds per year – total nitrogen
 - iii. Potential load reductions within South Washington Watershed District (including Cottage Grove):
 1. 290 pounds per year - total suspended sediments
 2. 4.25 pounds per year – total phosphorus
 3. 8.75 pounds per year – total nitrogen

- iv. Potential load reductions within Valley Branch Watershed District (including Lake Elmo):
 - 1. 5131 pounds per year – total suspended sediments
 - 2. 31 pounds per year – total phosphorus
 - 3. 89 pounds per year – total nitrogen
- b. Additional BMP projects were installed in the following EMWREP partner communities:
 - i. Forest Lake (Comfort Lake Forest Lake Watershed District)\
 - ii. Lower St. Croix WMO (Denmark Twp.)

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.
 - a. Stormwater U workshops held in 2007 taught 90 attendees from local cities, watersheds and consulting firms how to meet volume control standards with infiltration techniques.

2. Create locally specific trainings to help cities, developers and builders understand their local watershed regulations, and avoid duplication of existing trainings.
 - a. EMWREP has developed trainings to address several unmet education needs.
 - i. The infiltration design workshops for engineers were developed after several people requested training on how to design bio-retention facilities. The workshops specifically addressed new volume control standards introduced by local watershed agencies and provided attendees with the tools to meet the new requirements.
 - ii. A raingarden maintenance course, offered in 2007, and the stormwater pond management series, created in 2008, were in direct response to requests from city public works staff for more training on these topics. Workshops were held at local facilities and taught by EMWREP program partners and other local experts.
 - iii. A comprehensive planning workshop, held in December of 2007, helped planners and city officials to develop plans that include watershed regulations and priorities, as well as incorporating groundwater and surface water protections.

3. Create a menu of training options and package it for use by city staff, developers, builders and contractors.
 - a. EMWREP does not yet have a menu of training options, but hopes to add this feature to the Washington Conservation District webpage soon.



4. Tailor and distribute the Storm Water U training package for use in other metro area communities.
 - a. With UM Extension taking the lead in Stormwater U trainings, trainings developed by EMWREP can now be used by 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.
 - a. Stormwater U trainings have been well attended by MS4 communities in and around Washington County.
6. Encourage attendance of developers, builders and contractors from large development projects in Washington County at the Storm Water U training series.
 - a. EMWREP did not hold any trainings in 2008 for development professionals.
7. Develop new Stormwater U trainings as the program evolves.
 - a. EMWREP has continued to develop new trainings and has at least two stormwater pond maintenance workshops planned for 2009.

Educational Goals:

Learning

1. Increase awareness of current trainings and workshops provided by various organizations in the metro area.
 - a. EMWREP has used the Washington Water Consortium meetings and list-serve to promote local workshops.
2. Increase understanding of non-point source water pollution and water resource connections among city planners and engineers and private developers, builders and contractors.
 - a. Participant surveys collected at Stormwater U workshops indicate that the planners, engineers, public works staff and contractors attending the workshops have better understanding of local water management and stormwater pollution.
3. Increase understanding in the target audiences of their role in achieving and maintaining clean water in Washington County.



- a. Through Stormwater U workshops, EMWREP has helped target audiences to understand their role in preventing stormwater pollution.
 - i. As a result of the comprehensive planning workshop, most local cities have included language in their plans that will allow them to better prevent stormwater pollution.
 - ii. After the infiltration design workshops, several cities built infiltration projects on municipal property and in street improvement projects.
 - iii. The raingarden maintenance and stormwater pond maintenance workshops are helping public works staff to better maintain stormwater features that help to prevent water pollution.

Behavior Change

- 1. Encourage planners, engineers, developers and builders to coordinate and embrace new volume control standards.
 - a. New projects in 2008 have reflected changes in volume control standards. Stillwater and St. Paul Park, for example, have built raingardens during street improvement projects to meet new standards.



- 2. Through training, enable all new development projects in Washington County to meet volume control standards.
 - a. New development projects are also mostly meeting new standards.
- 3. Through training, enable at several new development projects to exceed volume control standards.
 - a. Some new projects, such as Big Marine Park and the Washington County South Service Center, have exceeded volume control standards and are exemplary demonstration projects.

Water-quality Improvement

- 1. Reduce non-point source water pollution from new construction and redevelopment in Washington County.
 - a. Several new construction and reconstruction projects in 2008 have included infiltration basins and other stormwater control measures that will significantly reduce pollution in the future.

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:

*Progress on the MS4 Toolkits is still underway. The completed toolkits will be web-based and accessible on the www.cleanwatermn.org website in May 2009.

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.
 - a. UM Extension hired a full-time NEMO coordinator in 2007.
2. Work with the Twin Cities metro working group of Northland NEMO to develop a strategic plan, charter and organizational structure.
 - a. Northland NEMO has developed a strategic plan, charter and organizational structure.
3. Hold NEMO workshops for several MS4 communities in Washington County.
 - a. EMWREP had one NEMO workshop in Lake Elmo in 2008.
 - b. EMWREP has used the Washington Water Consortium to follow-up on water resource topics introduced at a December 2007 comprehensive planning workshop. Elected officials as well as city and watershed staff attend these meetings.
 - c. Three NEMO workshops for St. Croix River communities are planned for 2009.



The water consortium has been a good forum for continuing education after the comp planning workshop

Educational Goals:

Learning

1. Increase understanding of water resources and storm water management among municipal decision makers.
 - a. Participants who attended the 2007 comprehensive planning workshop reported better understanding of water resource issues and management.
2. Increase understanding among municipal decision makers of the role of zoning and city planning in enabling clean water practices.
 - a. EMWREP has not yet developed workshops that address the role of zoning and ordinances in promoting clean water.

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.
 - a. Many cities have incorporated water resource protections into their comprehensive plans, but most have not yet modified ordinances and zoning to reflect these plans.

Water-quality Improvement

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