Improving and Protecting Local Water Quality through the H2O Hero Mass Media Campaign

Caroline Kilmer, MS, CPESC, CPMSM, CPSWQ
Chairperson of the Water Education Collaborative
Background

• Stormwater Consultant-CMK Consulting, LLC
• Former Executive Director Monroe County SWCD
• 20+ years providing education on stormwater permits, erosion and sediment control and water quality.
• Public education, rain barrel & rain garden workshops, how to improve water quality at home, stormwater permit assistance to regulated municipalities, and the construction industry.
(The WEC) A nonprofit coalition of organizations that work together to increase awareness and improve water quality education in the community based out of the Rochester Museum & Science Center.
WEC members include...

- Nazareth College
- New York State Dept. of Environmental Conservation
- NY Water Environment Association Genesee Valley Chapter
- Rochester Institute of Technology
- Rochester Museum and Science Center
- Seneca Park Zoo
- Sierra Club - Rochester Regional Group
- Stormwater Coalition of Monroe County
- University of Rochester

- Center for Environmental Initiatives
- City of Rochester
- Finger Lakes Institute
- Genesee / Finger Lakes Regional Planning Council
- Monroe County Dept. of Environmental Services
- Monroe County Dept. of Public Health
- Monroe County Parks Dept.
- Monroe County Soil and Water Conservation District...
What We Do:

- Promote H2O Hero Program
- Outreach at Community Events and Schools
- Open Meetings Every Other Month
- A Forum for Public Education Activities
- Scheduling coordination
- Event Tracking
- Support Materials
- H2OHero.org Website
In 2007, WEC developed an educational campaign to educate the residents of the Genesee Regional Watershed of Lake Ontario about the enormous impact they can have on the water quality in our area.

Partners: Stormwater Coalition of Monroe County and Causewave Community Partners, a local nonprofit organization that creates awareness campaigns to address community-wide issues.
• Print, TV, radio, billboards and digital ads...

Be an H2O Hero at Home!

Install a Rain Barrel

Rain Barrels help reduce stormwater pollution and protect our local waterways. You can save 34" of rainfall a year, enough to fill 423 rain barrels!

Find out more at www.H2OHero.org
LAKE ONTARIO
BEACH
CLOSED!
Social media presence...

Larry the H2O Hero@LarryH2OHero
Website
H2O Hero Mass Media Campaign Support

- Public Education and Outreach (RMSC)
- Schools, Community and Corporate Events
- Enviroscape
- Distribute Educational Materials
- Promote Public Participation
Exhibits

RMSC

Seneca Park Zoo

Lake Ontario Beach Bath House
RMSC GIGP Showcase
Water quality educational signage throughout the County…

Plant a Rain Garden!

Did you know that 15% to 20% of bacteria in your waterways comes from pet waste?

Be an H2O Hero!
Dispose of pet waste properly: Please bag pet waste and throw in the trash.
Help East Rochester prevent stormwater pollution!

Stormwater runoff is water that flows off of paved surfaces and roofs when it rains or the snow melts. This water is carried to the nearest waterway, untreated, through a system of gutters and pipes. Stormwater collects the pollutants in its path, such as sediment, salt, automotive fluids, pet waste, pesticides, and fertilizers. These pollutants are then discharged directly into our streams without any treatment. This is the primary cause of water pollution in the Rochester area.

The landscaped area you see in front of you is a Bioretention Facility which is an engineered stormwater system designed to remove pollutants washing off the parking lot. Before the installation of this bioretention system, polluted runoff discharged directly into Irondequoit Creek.

In a Bioretention Facility water ponds on the surface, then slowly filters through soil and sand layers to help filter polluted runoff. Plants that are native to New York State are installed because their deep root system encourages infiltration and helps absorb nutrients. These native plants are also adapted to survive temporary standing water and attract birds, butterflies, and other pollinators.

You can be an H2O Hero too! Prevent stormwater pollution by keeping automotive fluids, detergents, pesticides, fertilizers, grass clippings, and pet waste from entering storm drains.

Remember: Only Rain Down The Drain!

For more information on how you can help, visit www.H2OHero.org.
Community Survey

• A professional marketing survey of the public to gauge effectiveness of education campaign. i.e. Do you recognize the H2O Hero logo?

• Where does the water go when it goes down the storm drain? What is a watershed?

H2O Hero campaign key messages to educate the public on ...

• What is a watershed?
• Where does the water go?
• What is stormwater runoff and what are sources of local water pollution?
Key messages of H2O Hero campaign…

• Why is the beach closed?
• What causes algae blooms and bacteria?
• What are the conditions of our local waterways.
• What is the Rochester Embayment Remedial Action Plan?
MS4 MUNICIPAL SEPARATE STORM SEWER SYSTEM

1. Sanitary Sewer
2. Waste Water Treatment Plant
3. Treated Wastewater

This system uses separate pipes for sanitary sewage and stormwater flow.

CSS COMBINED SEWER SYSTEM

1. Combined Sewer
2. Waste Water Treatment Plant
3. Treated Wastewater

This system uses the same pipes for sanitary sewage and stormwater flow.
Stormwater Pollution
What Goes In

Is What Comes Out
What YOU can do to help reduce local water pollution?

• Pet waste
• Lawn care & Landscaping
• Car maintenance
• Litter and plastics
What YOU can do to help reduce local water pollution?

- Electronics, pharmaceuticals, Household chemicals,
- Gutters and downspouts
- Pools and spas
- Septic systems
- Volunteer Opportunities
How does this help local municipalities?
NY State Pollutant Discharge Elimination System (SPDES) General Stormwater Permits

GP-0-20-001
SPDES General Permit for Stormwater Discharges from Construction Activity

*Regulates Construction Activities that disturb 1 acre or more of land*

GP-0-15-003
SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s)
Six Minimum Control Measures of an MS4 Stormwater Management Program

1. Public Education and Outreach
2. Public Participation & Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff
5. Post-construction Site Runoff
6. Pollution Prevention & Good Housekeeping of Municipal Operations
#1: Public Education and Outreach

Develop and implement an ongoing public education and outreach program to educate the general public and target audiences:

- About the impacts of stormwater discharges on waterbodies;
- Identify pollutants of concern and their sources i.e phosphorous from fertilizers
- Steps that people can take to reduce pollutants i.e homeowners to use P free fertilizer
#2: Public Participation & Involvement

- Comply with State & Local public notice requirements
- Involve the public in the decision-making process
- Accept citizen input in developing, implementing and reviewing the municipality’s stormwater management program
- Utilize citizen and watershed groups’ knowledge about streams and problem areas
- Activities like stream cleanups, storm drain marking, and volunteer water quality
A group of 29 municipal representatives from towns and villages throughout the county working together to comply with federal and state stormwater regulations and requirements.
WEC, Causewave Community Partners and the Stormwater Coalition of Monroe County Partnership

- Spring Media Buy each year
- Stormwater Coalition provides financial support to the campaign in order to address Stormwater Permit Public Education, Outreach and Participation Requirements
- Provide funding to the Rochester Museum & Science Center staff to provide education and outreach activities.
H2O Hero resources available to municipalities..

- Staff available to attend local community events, farmer’s markets, presentations to municipal boards
- Water quality presentations to local schools, rain barrel workshops, storm drain marking with local groups, local clean-ups, planting projects
- Community presentations, exhibits (Rochester Museum & Science Center (RMSC), and Ontario Beach Park),
Public Participation Events tailored to individual municipalities to meet their permit requirements…

Storm Drain Marking

Rain Barrel workshops
H2O Hero resources available to municipalities…

- Comic books, kids activity books, book marks, plants and seed packets, rain gauges, reusable bags, pens, dog poop bags…

- How to help water quality brochures, landscaping, rain barrels, stormwater ponds etc.
Lake Ontario needs heroes.

Find out more at H2OHero.org

Contact Info:
Caroline Kilmer, Chairperson
Caroline.myers.kilmer@gmail.com
Paul Sawyko
psawyko@rmsc.org