Preventing Stormwater Systems for Climate Change
IHM Mother House | Monroe, Michigan
Thursday, October 10, 2013 | 8:30am - 4:00pm

Workshop Goal: The aim of this workshop is to assist technical staff working with or for municipalities and utility providers throughout the Lake Erie basin in understanding anticipated changes in precipitation patterns for the region and to learn about potential strategies for creating stormwater systems that are resilient to these climate changes and impacts.

Anticipated Outcomes: Workshop attendees will learn emerging approaches to addressing stormwater management and flooding through green, gray, and blue infrastructure; how to assess the value of green infrastructure projects; and how to finance green and gray infrastructure improvements. Additionally, participants will have an opportunity to meet and network with peers from communities throughout the region and share ideas and experiences on this pressing challenge.

Agenda

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<th>Time</th>
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<tr>
<td>8:30am</td>
<td>Networking and breakfast</td>
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<td>9:00am</td>
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| 9:15am     | Climate Change 101 – Basic impacts, regional historical changes, predicted changes, focus on precipitation  
- Dan Brown, Research Associate, Great Lakes Integrated Science and Assessments Center |
| 9:45 – 11:00 | Stormwater Impacts and Adaptation Plenary                                  |
| 9:45 – 10:15 | Natural System Impacts - Understanding stormwater impacts on the watershed scale: Building community responses to regional challenges  
- Laura Rubin, Executive Director, Huron River Watershed Council  
- Breann Hohman, Watershed Coordinator, Erie Soil and Water Conservation District |
| 10:15      | Break                                                                    |
| 10:30 – 11:00 | Engineering Solutions for a Changing Climate: Translating climate change to system impacts and mainstreaming innovative engineering into municipal practices  
- Mike Lunn, Environmental Services Manager, City of Grand Rapids |

11:00am – 12:15pm Breakout sessions

Breakout Session 1 – Economic Impacts of Climate Change and Stormwater Management Strategies
Learn about the ongoing NOAA Coastal Services Center economic study with Cities of Duluth Minnesota, and Toledo, Ohio. This assessment is focused on identifying green infrastructure options for reducing flooding from extreme rainfall events. The goal of the study is to develop a resource that can be used by other communities in the region to identify land use options that can reduce flooding and provide economic information to help make cost-effective land use decisions for the environment and the economy.

This session will also include a demonstration of the recently released, “Socioeconomics and Climate Change in the Great Lakes Region” interactive map. This tool provides social, economic and demographic statistics on 225 counties in the region, overlaid with detailed data about municipal spending, land-use change and climate-change characteristics.
- Patekka Pope Bannister, Stormwater Coordinator, City of Toledo
- Beth Gibbons, University of Michigan
- Jeff Adkins, NOAA Coastal Services Center (Unable to participate due to the federal government shutdown)
Breakout Session 2 - Increasing Your Stormwater Toolkit
Learn from the technical team of the University of New Hampshire’s Stormwater Center about the benefits of Low Impact Development as a climate change adaptation tool. The session will highlight through a series of case studies, the advantages of Low Impact Development (LID) in the economic terms of how municipal land use decisions are commonly made. Included is also an analysis of the cost impact of climate changes to stormwater infrastructure in the Oyster River Basin. Current methods to incentivize and incorporate improved stormwater management standards on private land and existing developments will also be discussed.
- Jamie Houle, Outreach Coordinator and Program Manager, Univ. of New Hampshire Stormwater Center

12:15pm       Lunch

1:00pm       Tour stormwater management and green infrastructure practices at IHM Mother House and Campus

1:30 – 2:45pm – Breakout Sessions
Breakout Session 3 – Administrative Set up and Management of Stormwater Utilities to Foster Adaptation
Participate in a panel discussion with municipal staff in engineering and legal departments about the challenges municipalities and other local and regional governments have faced implementing and maintaining stormwater utilities. Panelists will also discuss their successes in developing credit programs to incentivize green infrastructure and other climate adaptation strategies.
- Jen Lawson, Water Resources Manager, City of Ann Arbor
- Scott Sibley, Utility Engineering, City of Toledo
- Lorie Haslinger, Utility Engineering, City of Toledo
- Kyle Dreyfuss-Wells, Watershed Program Manager, Northeast Ohio Regional Sewer District

Breakout Session 4 - Integrating alternative strategies into stormwater management operations
Explore how projects in Minnesota and Ohio are combining infrastructure models with climate data to forecast the resilience of stormwater systems to increased precipitation events throughout a watershed and on individual sites. These collaborative studies are working with communities and stormwater professionals to identify ways stormwater systems can be adapted to the impacts of climate change. The presenters will provide background on funding their research, current findings, approaches to community engagement and more!
- Leslie Yetka, Education Manager, Minnehaha Creek Watershed District
- Heather Elmer, Program Coordinator, Old Woman Creek National Estuarine Research Reserve
- Ryan Winston, Extension Associate, North Carolina State University
- Jay Dorsey, Water Resources Engineer Ohio Department of Natural Resources

2:45pm       Opportunity for participants to meet with colleagues to discuss taking the day’s lessons forward in their work and engagement
3:15pm       Group report out and wrap up
3:45pm       Adjourn