

REIMAGINING WATER:

Linking Sustainable Urban Water Systems in the Great Lakes Basin

July 25-27, 2019

PURPOSE

To create a shared vision and agenda for collaborative research and actions to sustain the life and livelihoods of Great Lakes waterfront cities and waters.

WORKSHOP GOALS

1. To identify the needs and opportunities for improving integrative practices in sustainable urban water systems to meet the unique challenges of Great Lakes waterfront cities and their watersheds and near-shore environments.
2. To lay the groundwork for ongoing ‘communities of practice’ serving Great Lakes Basin waterfront cities, linking research and practice around sustainable urban systems and the food/energy/water nexus.

Conference Coordinators

James Wasley, Professor, School of Architecture and Urban Planning, Co-Director, Institute for Ecological Design, University of Wisconsin- Milwaukee.

Carol Miller, Professor, Civil and Environmental Engineering, Director, Healthy Urban Waters, Wayne State University

Conference Sponsors

National Science Foundation, Milwaukee Metropolitan Sewerage District, City of Milwaukee Environmental Collaboration Office, Fund for Lake Michigan, Wisconsin Coastal Management Program, SmithGroup

Location

All meetings will be held at the UWM School of Freshwater Sciences, 600 E Greenfield Avenue, Milwaukee, WI 53204.

About workshop process

CASE STUDIES: All participants are invited to submit short case studies to describe actual projects, challenges and barriers in applying green infrastructure projects to urban coast environments, and how the challenges were met.

ANNOTATED BIBLIOGRAPHY: An annotated bibliography of selected references related to Great Lakes research, sustainability, climate action agendas, and green infrastructure references is posted on the workshop website <https://huw.wayne.edu/workshop>. The bibliography will be expanded following the workshop to include references recommended by speakers and workshop participants.

PRESENTATIONS: will provide examples that address the workshop goals and suggest avenues for further research, development, and innovation.

BREAKOUT GROUPS: Two rounds of breakout group discussions, giving all participants opportunities to contribute, to be summarized as part of the Workshop Proceedings. Topics include: green infrastructure practices and policies, overlay development districts / waterfront developments; municipal infrastructure, climate action plans, “way forward” strategies.

NETWORKING: All participants will be listed in a printed “attendee” list with e-mails, for contacts and referrals.

WORKSHOP PROCEEDINGS: Workshop presentations, break-out group notes, key findings and recommendations will be completed after the workshop, as a record of proceedings and shared resource for next steps.

BREAKOUT DISCUSSION QUESTIONS:

First Discussion (Friday) – Desired Outcome: Identify opportunities for and barriers to improving integrative practices for creating sustainable urban water systems; How do we address those barriers to best protect and utilize resources?

Target systems could include:

- Urban river mouth
- Urban watersheds
- Near shore aquatic systems
- Land-water interface
- Municipal water infrastructure

Second Discussion (Friday) – Desired Outcome: Envision pathways based on identified opportunities and needs; what new research or collaborations could link sustainable practices for greater effectiveness?

Target pathways could include:

- Knowledge co-production between industry, academia, government, practitioners and community
- Innovative practices that require bench testing, proof-of-concept, or scaling
- Refinements in data and analytic tools
- Scientific understanding of co-benefits, trade-offs, spatial and temporal scales, leverage points, socio-ecological-technical systems
- Integration tools

Third Discussion (Saturday) – Desired Outcome: Next Steps for crafting a future integrative network; How do we create a community of research and practice and keep it going? What are the funding opportunities?

Facilitator Note: Session 3 discussion items include...

- Who needs to be included in this group for this vision to be implemented?
- Identify leaders of next steps
- Ideas for next meeting location (2020 IAGLR or another conference like SFS; what that conference would need to look like to get neighborhood and community groups engaged)
- Other ideas about what to do as a group next

WORKSHOP SCHEDULE

Thursday, July 25 1:00pm-5:00pm Pre-workshop Activities

- Arrivals Participants should secure their own transportation from the airport to the Saint Kate Arts Hotel or SFS. For people driving and staying at the hotel, hotel parking is \$28/night. Alternately, you can park at the SFS and take a van to the hotel.
- 1:00pm Optional tour of Milwaukee as a Water-Centric City (Workshop shuttle will leave from the SFS and stop at the Saint Kate at 1:05pm)
- 4:00pm Optional harbor tour on the UWM research vessel *Neeskay* (The boat will depart from the SFS. Shuttle will leave from hotel at 3:45pm to SFS.)

Thursday, July 25 5:00pm-8:00pm Defining the Context

- 5:00 Reception/ salmon boil at UWM School of Freshwater Sciences (Shuttle will leave from the hotel at 4:45pm to SFS)
- 6:15 **Jim Wasley**, School of Architecture and Urban Planning, UWM
Carol Miller, Dept. of Civil and Env. Engineering, Wayne State U.
Welcome, introductions, and workshop goals
- 6:30 **John Janssen**, School of Freshwater Sciences, UWM
The undiscovered frontier at the mouth of the Harbor
- 6:45 **Drew Gronewold**, School for Environment and Sustainability, U. Michigan
Lake level dynamics, climate change, and the challenges of waterfront design in Great Lakes cities.
- 7:00 Q&A panel discussion
- 7:15 **Don Watson**, FAIA and **Michele Adams**, P.E.
Advancing the state-of-art of sustainable urban water systems
- 8:00 Audience discussion and feedback
- 8:20 ADJOURN and shuttles to hotel

Friday, July 26 9:00am-4:00pm Best Practices and Holistic Solutions

- Breakfast on your own. Coffee and pastry at SFS
- 8:00-8:20am Shuttles from hotel to School of Freshwater Sciences
- PART 1: Focus Topic: Linking G.I. and Aquatic Habitat**
- 8:30 **Carol Miller**, Workshop co-chair
Reprise and speaker introductions
- 8:40 **Emily McKinnon**, PE, Principal and Ann Arbor Director of Operations, Smith Group
Ecology of urban waterfronts- case studies and emergent trends
- 8:55 **Sean Burkholder**, Assist. Professor. Landscape Architecture,
School of Design, U. Penn.
Linking dredging and habitat creation in the Great Lakes Basin
- 9:10 **Chris Glaisek**, Chief Planning and Design Officer, Waterfront Toronto
Waterfront Toronto's Port Lands Flood Protection project
- 9:25 **Jim Wasley**

Compilation of Case Studies and a Problem Statement: Solving the problem of linking stormwater and aquatic habitat work.

- 9:45 15 min. BREAK
- 10:00 Breakout groups - Round One (per topics defined)
11:00 Breakout group brief reports [8 reports @ 5 min. each]
11:50 Session summary
- 12:00pm LUNCH BREAK (box lunch provided)
12:50 **Guest speaker- David Rankin**, Great Lakes Protection Fund [10 min.]
- PART 2: *The Expanded Field: Sustainable Urban Systems Integration Through the Medium of Water***
- 1:15 **Patrick Lucey**, Senior Aquatic Ecologist, Aqua-Tex Scientific Consulting Ltd., Victoria B.C.
Proper ecological functioning conditions in five cases
- 1:30 **Jeffrey Nesbit**, Office for Urbanization, Harvard Graduate School of Design
Urban design responses to water in four Great Lakes cities
- 1:45 **Steve Apfelbaum**, Applied Ecological Services
Points of Friction: Examples of misalignment between regulation and reality
- 2:00 **Robert Zimmerman**, Zimmerman Environmental, Littleton, MA.
The Detroit Community Water and Energy Resource Center
- 2:15 15 min. BREAK
- 2:30 Panel and audience
Focusing the workshop challenge: The leading questions to pursue
- 2:45 Breakout groups Round Two (continuing prior topics)
3:45 Breakout group brief reports [8 reports @ 5 min. each]
4:15 Session summary:
What do you recommend as the most promising research and development initiatives to protect and sustain Lake Michigan waters and urban communities around this goal of Sustainable Urban Systems Integration?
- 4:30 ADJOURN. Shuttles to Saint Kate available.
- 5:00 COCKTAILS- On your own in the neighborhood. Options TBA
- 6:30 GROUP DINNER at Braise Restaurant, 1101 South 2nd street, next door to the Rockwell Clocktower. Shuttles will depart the hotel at 6:15pm if needed.

Saturday July 27 ***Building a Sustainable Urban Water Systems Research Network***

Breakfast on your own. There will be coffee and pastry at SFS

8:00-8:30am Shuttles from hotel to School of Freshwater Sciences

9:00 **Jim Wasley**, School of Architecture and Urban Planning, UWM
Reprise and speaker introductions

9:05 **Brenda Coley**, Co-Executive Director, Milwaukee Water Commons
Shared Stewardship, Shared Benefits

9:20 **Margaret Noodin**, Electa Quinney Institute for American Indian Education, University
of Wisconsin-Milwaukee

Resilience and Inclusion of Indigenous Coastal Great Lakes Communities

9:35 **Carol Miller**, Director, Healthy Urban Waters, Wayne State U.
Building a Sustainable Urban Water Systems Research Network

9:50 10 min. BREAK

10:00 Facilitated discussions, plenary and breakout
*Next steps to creating a Sustainable Urban Water Systems Research Network for
the Great Lakes Basin.*

11:15am Workshop summary and awards

11:45am ADJOURN

12:00pm [Informal Lunch options TBA]
Shuttles to the airport