
CALUMET STORMWATER COLLABORATIVE

MEETING SUMMARY – November 2, 2018
Metropolitan Planning Council
140 S. Dearborn, Suite 1400, Chicago, IL 60603

Attendees

Brad Kasberg, Audubon Great Lakes
Emily Grimm, Baxter & Woodman, Inc.
John Mick II, Baxter & Woodman, Inc.
Matt Moffitt, Baxter & Woodman, Inc.
Dan Lau, CDM Smith
Kim Siemens, CDMSmith
Marcella Bondie Keenan, Center for Neighborhood Technology
Bryan Nelson, Center for Neighborhood Technology
Thomas Burke, Christopher Burke Engineering
Carol Kim, Chicago Park District
Dylan O'Reilly, Current Water
Matt Bardol, Geosyntec
Karoline Qasem, Geosyntec
John Andersen, Greenleaf Advisors
Katie DeMuro, Greenleaf Advisors
Patrick Lach, Hey and Associates
Annie Turek, Illinois Department of Natural Resources
Sarah Cardona, Metropolitan Planning Council
Josh Ellis, Metropolitan Planning Council
Danielle Gallet, Metropolitan Planning Council
Justin Keller, Metropolitan Planning Council
Bob Newport, Metropolitan Planning Council
Adam Slade, Metropolitan Planning Council
Jack Chan, Metropolitan Water Reclamation District
Mollie Dowling, OAI Chicago Southland
Viktor Hlas, Opti
Bill Wood, SmithGroup
Siamek Malek, Terra Engineering
Christine Esposito, Terracom / The Ex.Change Project
Katherine Moore Powell, The Field Museum
Emily Okallau, The Morton Arboretum
Melissa Custic, The Morton Arboretum
Eric Boria, University of Illinois at Chicago



Member Updates

Matt Moffitt from Baxter & Woodman reminded everyone that the Illinois Section of the American Society of Civil Engineers will be hosting a one-day green infrastructure seminar on November 7 at UIC. The seminar will focus on completed projects, lessons learned during actual construction and continued performance. Registration costs and other details are available [here](#).

Danielle Gallet from MPC discussed the work MPC led in partnership with Christopher B. Burke Engineering and MWRD to develop water quality-focused supplemental materials for two Calumet-area watershed plans in Cook County to make them eligible for Illinois EPA's 319 grant funding. The updated watershed plan documents were approved in late 2017 and are up on [MWRD's website](#). Calumet region communities are eligible to apply for funding (which are grants not loans)! She offered kudos to the entire team and encouraged CSC members working in Calumet communities to remind them to apply.

Christine Esposito from Terracom and The Ex.Change Project talked about an exposition which will take place in fall 2020. The event will convene artists and scientists looking at climate change impacts in the Chicago region, and they are now seeking stormwater scientists to be part of this project. If you, or someone you know, are interested, email Christine at cesposito@ex-changeproject.com. Conversations will begin in fall 2019.

Annie Turek from IDNR announced that they are hiring a Coastal Outreach and Engagement Specialist located in downtown Chicago. She asked CSC members to share the job posting with people who might be good candidates. Information is available [here](#). For full consideration, applications should be submitted no later than November 22.

Katherine Moore Powell of the Field Museum shared that the final Chicago Wilderness workshop to discuss climate impacts in CW prairies will take place on December 10, with a focus on green infrastructure, recreation in prairie habitats, and selecting strategies for climate adaptation. They are looking for stormwater and green infrastructure experts to join. Attendees need not have participated in prior workshops; all are welcome. For more information, click [here](#).

Sarah Cardona from MPC shared that the designed version of the newly launched [CSC 3-year Work Plan](#) is now available. The document includes the CSC's goals, objectives and direction of work for the road ahead over the next 3 years. It also lists the member-led activities that CSC member agencies are (or will be) carrying forth. Taken all together, this work plan articulates the collective impact being made by the CSC and its members in stormwater management in the Calumet region. Sarah thanked everyone for their efforts this year to write this together!

Presentations

On-the-ground perspectives: innovative approaches in stormwater management data & technology

Emily Grimm and Matt Moffitt, Baxter & Woodman

Kim Siemens, CDM Smith

Bill Wood, SmithGroup JJR

Viktor Hlas, Opti

Theme: advancing the CSC's Goal 4: Data-driven decision-making is more prevalent in stormwater management planning.

This suite of short presentations focused on technology and innovation, highlighting some examples of best approaches for working with communities on stormwater management solutions.

First, Emily Grimm and Matt Moffitt from Baxter & Woodman presented on using the GIS Hydrology toolset, Optimizer, stormwater harvesting and drones in stormwater management. Starting with an example in Belvidere, IL, they showed how the GIS Hydrology toolset can be used

to model stormwater solutions using multiple layers as inputs. The data can be manipulated and managed in GIS, making model-building more streamlined and autonomous. Next, they discussed using Optimizer with a hydraulic model. Optimizer combines costs and performance in a single analysis rather than finding a solution and then figuring out the costs later. They also discussed a project in Northbrook which uses automated features to maximize the reuse of underground storage and increase vault capacity. The system uses real-time weather forecast data and the reservoirs automatically drain when a storm is coming. Finally, they showed some ways unmanned aircraft vehicles (i.e., drones) can be used to assess flooding, including using aerial imagery of flood extents after a major storm, assessing streambanks for erosion or log jams, etc.

Up next, Kim Siemens from CDM Smith presented about the 30th Street Corridor Wet Weather Relief project in Milwaukee, WI. Prompted by a July 2010 storm event which impacted an industrial corridor, CDM Smith worked with the Milwaukee Metropolitan Sewerage District to design a stormwater management project which looked beyond flooding to consider economic opportunities and open space to make a neighborhood amenity which incorporated green infrastructure as well as walking paths and scenic overlooks. Additionally, the project was informed by community engagement, such as the selection of shorter native plants to ensure sightlines and prevent crime in the basin. The main takeaways were that infrastructure investments can serve as community amenities, but projects like these take time.

After that, Bill Wood from SmithGroup presented on flood mitigation work at Loyola University Medical Center. As Loyola was planning the design and construction of a new Center for Translational Research and Education, they began exploring the potential impacts of flooding and how to protect the facility. A 2013 storm event severely impacted the existing center campus, including road closures and ambulances having to be re-routed. SmithGroup collaborated with MWRD and IDOT who were also undertaking projects to address street flooding near the center. Stakeholder interviews helped to identify where flooding occurred, which they used in GIS models of stormwater impacts. Phase I of construction was recently completed, and the institution is seeking funding for the next phases.

Finally, Viktor Hlas from Opti discussed using cloud technology for preventing flooding. By intelligently managing the conditions of storage (e.g., empty, full, systems functioning properly, drains clogged) and using real-time weather forecasts, an automatic drainage system is able to manage storage volumes to maximize the capacity of storage infrastructure. Also, in the event of a disaster-level event such as Hurricane Irma, systems can be monitored from a central control center and maintenance personnel can be more efficiently deployed to fix problems. Based on questions from CSC attendees, Viktor responded that the level of drawdown is an ongoing negotiation. It is undesirable to impact aquatic plants and animals, especially if the actual precipitation is less than predicted. As a result, they start with smaller drawdowns and continue discussions to see what the community finds acceptable.

Visit the [CSC website](#) to review the full presentation materials.

Work Group Discussions

Following these presentations, the remaining CSC meeting time was devoted to break-out meetings of the Work Groups, which are formulating and implementing next steps to move forward with their Foundational Activities laid out in Phase 1 of the CSC's 3-Year Work Plan.

Next Meeting

Friday, December 7, 2018
10:00am to 12:00pm
Metropolitan Planning Council
140 S. Dearborn, Suite 1400, Chicago

For more information contact:

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