
CALUMET STORMWATER COLLABORATIVE

MEETING SUMMARY – December 4, 2015

Metropolitan Planning Council

140 S. Dearborn, Suite 1400



Attendees

Burrell Poe, Center for Neighborhood Technology
Molly Oshun, Center for Neighborhood Technology
Anjolie Cheema, CH2M
Nora Beck, Chicago Metropolitan Agency for Planning
Kate Evasic, Chicago Metropolitan Agency for Planning
Jason Navota, Chicago Metropolitan Agency for Planning
Thomas Burke, Christopher Burke Engineering
Monica Giermek, Christopher Burke Engineering
Jeffrey Wiseman, Cook County Department of Planning & Development
Tylon McGee, Cook County Department of Homeland Security & Emergency Response
Gene Ryan, Cook County Department of Homeland Security & Emergency Response
Lyndon Valicenti, Foresight Design Initiative
Anthony Cefali, Friends of the Chicago River
Brian Eber, Illinois Department of Natural Resources
Lisa Cotner, Illinois Department of Natural Resources
Margaret Schneemann, Illinois-Indiana Sea Grant
Mark Wagstaff, M3 Engineering Group
Sarah Cardona, Metropolitan Planning Council
Josh Ellis, Metropolitan Planning Council
Danielle Gallet, Metropolitan Planning Council
Valerie Poulos, Metropolitan Planning Council
Kelsey Pudlock, Metropolitan Planning Council
Peter Skosey, Metropolitan Planning Council
John Watson, Metropolitan Water Reclamation District of Greater Chicago
Beth Hall, Midwest Regional Climate Center
John Legge, The Nature Conservancy
Ted Haffner, Openlands
Bob Newport, U.S. Environmental Protection Agency
Moira Zellner, University of Illinois at Chicago
Karen Kreis, Village of Midlothian



Member Updates

Lisa Cotner, IDNR, announced that the IDNR Coastal Management Program will be funding 2016 projects that focus on environmental education and coastal planning. The grant application deadline is January 29, 2016. IDNR is encouraging organizations to sign up for grant consultations to discuss proposed projects. A presentation about the grant opportunity will be posted on IDNR's website, and application materials will be available soon at <http://www.dnr.illinois.gov/cmp/Pages/grants.aspx>.

Debra Stone, Cook County Department of Environmental Control, announced that the Department of Environmental Control has money for pilot projects for community shared solar power. They are now taking applications for pilot projects; applicants must own the building or ground upon which the project is proposed.

John Watson, MWRD, announced that the agency has completed a number of green infrastructure projects in 2015:

- Rain gardens in Blue Island
- Green alleys in Kenilworth
- Permeable pavement parking lot with rain gardens in Evanston
- The District's Green Infrastructure Program Plan was approved by the US EPA
- Two more Chicago Public schools with greened schoolyards

A few projects that MWRD will continue to work on in 2016 include:

- Up to nine more Chicago Public School green infrastructure projects
- Water main reuse for stormwater capture
- Green infrastructure projects in Berwyn, Crestwood, Niles and Skokie

MWRD is also developing a more standardized form for green infrastructure projects that they hope to move through municipalities once it's complete. A few key points that recipients will need to identify on the form will include: 1) type of flooding concern (this will help determine whether the project would be impacting a lot of people), 2) design retention capacity, and 3) how many structures are affected. If anyone would like additional information, he/she can contact John Watson at WatsonJ@mwrdd.org.

Josh Ellis, MPC, announced that MPC has three positions open: Development Director, Executive Assistant and an Associate/Manager position within Housing and Community Development. More detailed descriptions of these positions can be found [here](#).

Karen Kreis, Village of Midlothian, announced that the Village is recruiting a Building Superintendent. The full job description can be found on the [Village's website](#).

Working Group Update: Modeling & Data Sharing

Thomas Burke, Christopher Burke Engineering and Anjolie Cheema, CH2M presented on behalf of the Modeling and Data Sharing Working Group, which has been meeting once every other month for the past year. Three major initiatives that they have been working on are:

- 1) Stormwater regional mapping viewer with geospatial data and stormwater layers to help understand stormwater on site. The group has been working with SSMMA and building upon their green atlas map and stormwater atlas to ensure a good user experience.
- 2) Modeling extents data layer: a GIS feature class that shows the geographic boundaries of the models that have been developed over the years; the feature class will also identify the owner of the model (including contact information), the type of model and program used to create it. The purpose of this layer is to minimize the duplication of modeling efforts across the region.
- 3) Data Sharing Portal will build off of the existing SSMMA data portal, but will be available through Illinois' open data portal. This project is still in its early stages.

If any CSC members have useful datasets or models that can be shared, please send them to the Modeling and Data Sharing Working Group—Anjolie Cheema, CH2M:
Anjolie.Cheema@ch2m.com.

Presentation: Highlights from the Urban Flooding and Awareness Act Report

Brian Eber, Illinois Department of Natural Resources, presented on the *Urban Flooding Awareness Act Report* that was published on June 30, 2015. Eber explained that IDNR had approximately one year to put together this report, which focuses solely on *urban* flooding.

There are three main sections of the report:

- 1) Analyze past, current and future flooding
- 2) Effectiveness of program and policies
- 3) Strategies for reducing urban flood damages

In the data collection phase, they looked at private, public and community-based data that reflected flooding-related damage and loss. One of IDNR's biggest findings was that over 90% of flooding happens outside the floodplain. He also pointed out they noticed that less claims were made in low-income areas.

Eber noted that the two most important recommendations highlighted in the first chapter of the report are to 1) Mandate flood insurance continuing education training for insurance agents; and 2) Develop a long term insurance database.

IDNR also looked at rainfall as it relates to the impacts of climate change overtime, which has been experiencing fluctuation in rainfall overtime but we are also seeing a gradual increase in precipitation. Even though Illinois is one of the poorest states, Eber asserted that we need to update the Bulletin 70 frequency data with additional years of rain fall as well as future projection and land use data, if available. Additionally, IDNR recommends that the state continues to fund data collection for monitoring climate and flooding.

Eber explained that the third chapter of the report covered some technological aspects that are currently be used or have the potential to address urban flooding in the near future. One approach that is of interest is image mapping with an overlay of topographic wetness indices (TWI); this approach helps users evaluate (or reevaluate) surface catchment areas. INDR recommends that TWIs be explored further and that communities should consider real time stormwater monitoring.

In the fourth chapter, Eber explains that there is a lot of work that counties can do to measure effectiveness. The most important recommendation to enable measuring to occur is to grant all counties with Stormwater Management Authority. Another recommendation IDNR has posed is to give counties and municipalities the authority to generate stormwater fees.

In response to the lack of monitoring and inconsistencies across stormwater infrastructure design guidelines, IDNR recommends establishing and maintaining overland flow paths within public right of ways and areas in and around new development.

Eber highlighted that the third sections of the report articulates the need for better informed agents (i.e. homeowners and renters), and identifies strategies for minimizing damage to property from urban flooding. IDNR wants the state to research lower income house insurance coverage—is there a way to pull insurances together to educate and cover low-income residents. IDNR also recommends that the state should establish flood insurance premiums based on flood loss history in Illinois. A few recommendations IDNR has proposed that would help minimize damages include: 1) funding repetitive loss buyouts inside and outside the floodplains; 2) funding local cost sharing; and 3) getting communities to help homeowners analyze their homes.

According to Eber, three of the report's big takeaways were:

- Flooding in urban areas is a \$2.3 billion problem;
- 90% of flood damages took place outside the flood plain; and
- Lack of federal level management or accounting for stormwater

The top ten recommendations of the report are:

1. Authority to generate stormwater fees
2. Community storm water planning and management
3. Mandate CEU education of insurance agents
4. Update rainfall frequency distribution information
5. Create a state model local stormwater ordinance
6. Continue funding data collection
7. IDNR/IEPA should expand state revolving fund
8. An awareness campaign about urban flooding for citizens
9. Communities should establish overland flow paths
10. Communities should help homeowners analyze their homes

Overall, Eber believes the report is a good step toward addressing urban flooding. In July 2015, the fifth recommendation—a state model stormwater ordinance—was completed; however, there is still a lot of work to do. IDNR will continue to push legislations changes, and build their outreach campaign that has a focus on continuing education for insurance agents and property owners.

A couple of CSC members had questions about the state model stormwater ordinance and its relation with the National Flood Insurance Program's (NFIP) Community Rating System (CRS). Eber explained that if you are in Cook County and adopt the state ordinance *and* reinforce it, you can get up to 300-400 points; on the other hand, if you only reinforce Cook County's ordinance, it has been assessed and weighted at approximately 56 points.

Presentation: Key Interventions for Understanding and Innovating Chicago's Water System

Lyndon Valicenti, Foresight Design Initiative, presented on a systems analysis research project that Foresight recently completed which focused on the region's water and energy efficiency efforts. The project was a part of Foresight's sustainability innovation studio to help better understand complex sustainability challenges, and identify opportunities or interventions that have a greater and faster impact on the region; in other words, how do we, as a region, effectively take on an issue given that one entity cannot take it on alone.

Using a systems thinking approach, Foresight looked to identify motivations and drivers for creating change, as well as capture the unique perspectives of each stakeholder. They conducted around 30 interviews with key players (many of which are active CSC members) and inventoried multiple projects to define the region's top six water-related issues. The information collected through interviews was then analyzed to gain a better understanding of the current system. Foresight analyzed the data by breaking up the system into three branches—the natural, built and social. The natural system encompasses ecological and hydrological systems that are permeable and constantly evolving. The built system encompasses fixed, largely linear, inflexible systems that help us manage natural systems (which are equally as complex as natural systems). The social system adds another layer to the process, representing our efforts to govern and manage the built and natural systems; the diversity and relationship of stakeholders in the system can be challenging, especially given that there are different perspectives based on varying backgrounds, experience, and positions within these systems. A key takeaway from this analysis was that unless stakeholders take steps to improve the social system, the other two systems could not be fully optimized. Nevertheless, the systems approach enabled Foresight to identify nine key interventions to enhance Chicago's water system. The interventions are as follows:

1. Get Smarter. Find way of improving our understanding of our water system.
2. Coordinate Research. We can do a better job bridging the gap between researchers and practitioners.
3. Identify Hotspots. Where are key problems? Geographically, there is a lack of information on location, extent and scales—especially water resources that are invisible (e.g. groundwater).
4. Integrate Evaluation. Build evidence base to determine which projects are working based on monitoring and evaluation of effectiveness.
5. Align Oversight. Each major entity that controls water systems have different objectives and outcomes—some are focused on climate change; others are focused on negotiation and compliance.
6. Evolve management. There are no fixed or definitive solutions; everything should be adaptive.
7. Coordinate Grants. Foresight inventoried 2013 grants from public and private sources that have been available throughout the region for water-related projects and determined that grants could be better coordinated in terms of topic and geography.
8. Value Water. A need for a new water ethic. Currently our region severely undervalues water. CMAP has focused on this issue through their work that looks at the full cost water pricing.
9. Broker Relationships. Try new mechanisms for new partnerships.

The full report—*Align, Leverage, Shift: Understanding & Innovating Chicago's Water & Energy Efficiency Efforts*—can be found [here](#) on Foresight Design Initiative's website.

Small Group Discussions: Next steps for the CSC—brainstorming how the CSC can increase its impact in 2016

After hearing two presentations Josh Ellis, MPC, concluded that a lot of the steps taken to develop Foresight's research project were also used in April 2014 at the formation of the Calumet Stormwater Collaborative. As a result, nine projects had been identified by the group, which were included in the CSC's 2015 work plan. In March 2016, the CSC should aspire to create a shorter version of this work plan using the year's accomplishments and lessons learned to prioritize and define projects to tackle in the upcoming year. Ellis mentioned that the Urban Flooding Awareness Act report highlights a range of issues that the CSC could include in 2016. He also pointed out that stormwater issues are being addressed and looked at differently today than they were a year ago. For example, MWRD's Thornton Reservoir is now online, and there are future scenarios, such as the possibility of Illinois entities receiving funding from the National Disaster and Resilience completion, that could create new avenues and capacity for stormwater planning and management in 2016.

In an effort to have a more in-depth discussion on this topic, CSC members broke into small groups to brainstorm on what topics and/or projects they should take on in 2016. Listed below are outcomes of these discussions:

- There is a strong consensus that the CSC can help implement the majority of the recommendations proposed in the Urban Flooding Awareness Act report.
- The liability around data issues is a fundamental challenge that should be looked at more closely in the New Year.
- Overbank flooding was one of the initial challenges identified by the CSC in 2014-2015. Some CSC members believe that enough entities have addressed this issue, and as a result can be removed from the CSC's list of main challenges as a new work plan is developed in 2016.
- Overland flooding should remain a top priority. Related issues are localized and hard to measure at the larger scale; it might be useful for the City of Chicago Department of Planning to share its overland flow paths to be used in stormwater planning.
- Monitoring should become a new priority. CSC members believe it would be worth creating a new working group that could look at monitoring best practices and help determine what effective stormwater monitoring would look like for the region.
- 'Social stickiness' is a challenge that many members would like to work on but the group will need to figure out how to approach this issue first.
- Strengthening critical levers should be a priority. The CSC should look into required recording to help drive data collections efforts.
- An emphasis on water quality and its connection to flooding should be more prominent in 2016. The CSC should start to identify overlaps with the two spheres to help improve the health of the entire system.
- Some CSC members felt that water supply should remain as well as be strengthened as a priority topic in 2016; others felt that water supply should be removed from the list of top challenges and priorities for 2015.
- Creating a database and mapping layer (similar to the stormwater layers being created by the Data Sharing and Modeling Work Group) of grant opportunities should be pursued; this could enable funders to talk, figure out how to avoid gaps or duplication in topic areas, and devise priorities that will match up more efficient.
- More municipal participation should be a priority. How does the CSC bring participation to the communities of the Calumet region; it may be useful to map areas that each member has or is working with on a project to see where there are gaps.

- Continuing education on insurance policies can be a new priority for 2016.
- FEMA's criteria for receiving funding has a lot to do with overbank flooding. The CSC should help rework the language to encompass the impacts urban flooding.
- A component of CMAP's LTA program is problem solving. CMAP should share LTA project outcomes with nearby communities who may be facing similar problems.
- Start to think about how non-government organizations deploy resources to the community (in addition to resources at the state and federal level).

Next Meeting

Friday, January 8, 10:00am – 12:00pm

Metropolitan Planning Council

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