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# CALUMET STORMWATER COLLABORATIVE

MEETING SUMMARY – June 5, 2015

Metropolitan Planning Council

140 S. Dearborn St., Suite 1400, Chicago



## Attendees

John Mick II, Baxter and Woodman, Inc.  
Jeff Edstrom, Cardno  
Molly Oshen, Center for Neighborhood Technology  
Mary Debacker, Center for Neighborhood Technology  
Anjolie Cheema, CH2M  
Erin Aleman, Chicago Metropolitan Agency for Planning  
Jason Navota, Chicago Metropolitan Agency for Planning  
Kate Evasic, Chicago Metropolitan Agency for Planning  
Nora Beck, Chicago Metropolitan Agency for Planning  
Naureen Rana, Chicago Park District  
Thomas Burke, Christopher Burke Engineering  
Jason Berry, City of Blue Island  
Michael Berkshire, City of Chicago Department of Planning & Development  
Benet Haller, City of Chicago Department of Planning & Development  
Jane Hornstein, Cook County Department of Planning & Development  
Alex Simmons, Cook County Land Bank Authority  
Matt Harrison, Delta Institute  
Ryan Wilson, Elevate Energy  
Peter Nicholson, Foresight Design Initiative  
Anthony Cefali, Friends of the Chicago River  
Eric Otto, Forest Preserve District of Cook County  
Matt Bardol, Geosyntec  
Lisa Cotner, Illinois Department of Natural Resources  
Emily Clamp, Illinois Environmental Protection Agency  
Margaret Schneemann, Illinois-Indiana Sea Grant  
Momcilo Markus, Illinois State Water Survey  
Edith Makra, Metropolitan Mayors Caucus  
Josh Ellis, Metropolitan Planning Council  
Danielle Gallet, Metropolitan Planning Council  
Bridget Hardy, Metropolitan Planning Council / Northwest Water Planning Alliance  
Kelsey Pudlock, Metropolitan Planning Council  
Luz Reyna, Metropolitan Planning Council  
Eric Smith, Metropolitan Planning Council  
Kelli-Ann Sottile, Metropolitan Planning Council



John Watson, Metropolitan Water Reclamation District of Greater Chicago  
Beth Hall, Midwest Regional Climate Center  
Andrew Szwak, Openlands  
Dennis Latto, South Suburban Mayors and Managers Association  
Bob Newport, U.S. Environmental Protection Agency  
Mary Pat Mattson, University of Illinois  
Joe Sparrey, Village of Midlothian

## **Opening Remarks**

Josh Ellis, MPC, explained that the Calumet Stormwater Collaborative decided to meet a few times in the afternoon to accommodate many of the Collaborative members. However, afternoon meeting attendance has been lower than those held in the morning. Given these current trends, Ellis stated that September's Collaborative meeting will likely be held in the morning rather than the afternoon.

## **Member Updates**

Josh Ellis, MPC, extended an invitation to the Collaborative to meet at Berghoff for happy hour and networking after the meeting.

Molly Oshun, CNT, announced that RainReady is growing. There are a couple of jobs available – one is an administrative position that will be supporting the RainReady initiative, and the other is a project manager position that will work on RainReady home. (Click link for full [job descriptions](#).) Oshun also stated that the Urban Flood Awareness Act was introduced in federal congress the week of June 1, 2015. The Act looks at urban flooding as well as flooding that occurs outside of designated floodplains.

Dennis Latto, SSMMA, announced that a number of green infrastructure sites are underway in various Calumet communities including Blue Island and Robins. These projects are resulting from SSMMA's work with the IDNR Coastal Management program.

Jason Berry, City of Blue Island, announced that Saturday, June 6, 2015, is the grand opening of the Cal-Sag Trail, and also happens to be national trails day. The trail extends from Lake Katherine to Palos Heights.

## **Green Infrastructure Design and Landscape Architecture Resources**

### [A Landscape Architecture Perspective on Green Infrastructure](#)

Mary Pat Mattson, University of Illinois, gave a presentation on the research and work that she has been involved with at Water Lab, and as an Assistance Professor of Landscape Architecture at the University of Illinois, Urbana Champaign. Using a landscape architecture perspective, Mattson outlined a few design strategies/approaches for stormwater management. Mattson described approaches to fit within the context of both water urbanism and ecological urbanism – design considerations are site specific and encompass site aesthetics, as well as the cost/benefits of shared ecosystem services.

Mattson gave a background of this perspective by looking back at Chicago's ecological history. Chicago has always been a place for water, and is at the nexus of two major water routes – Lake

Michigan and Mississippi River. Many of the primary challenges that Chicago is tackling today can be foreseen in the historic topographic and soil maps of the region. However, when you compare these types of maps to the region's geological origins, you can start to see infiltration opportunities. Burnham's approach to the region's landscape was heavily influenced by industry; it is very likely that he wrestled with soils through his planning work.

After the region's primary flux of urbanization, maps begin to reference the presence of water through horizontal and vertical lines. One example of using "lines" within a landscape to inform green infrastructure design is the use of a mini-watershed approach in industrial corridors. This approach examines individual linear corridors to gain an understanding of how water is conveyed and how the corridor can become a sponge for stormwater mitigation. Another example of green infrastructure design from an urbanist perspective is Philadelphia's Green City Clean Water work. This approach is about weaving small scale projects into a larger green infrastructure network.

One of three projects that Mattson has been working on over the past few years is a student-based project from 2012 located on the IIT campus. The project spanned 120 acres on IIT's campus surrounded by a highly urbanized area. The project was a response to the U.S. EPA Open Call for their [Campus RainWorks Challenge](#). The proposed project consisted of a series of bioinfiltration basins that represented the region's ecology and native plants. As the winning team, the project was implemented and is intended to educate and enhance social and ecological environments.

The second project Mattson worked on was a Surface Inventory where her students collaborated with engineering students to use LiDAR and flow paths to inform green infrastructure design. This worked indicated that catchments are significantly impacted by the City's infrastructure (i.e. roads and rail lines). Engineering students were able to use SWMM models to validate catchment and flow path results. Each of the project areas was then design to model wet, mesic or dry ecosystems; these areas were also designed to double as social gathering spaces. This project won first place, nationally, and thereby caught the attention of MWRD, who asked them to develop a Comprehensive 8<sup>th</sup> Ward Water Plan. MWRD's site of interest included 35 acres of land divided by the direction in which water flowed into two wastewater treatment plants. Through this site area, there are connections to park space (Burnham Park in the north and Big Marsh in the south). Students worked on projects using the notion of a "super organism" as the geographic scope. The Stoney Island corridor is significantly paved with a lot of impervious and vacant land; this is the area where flooding in the 8<sup>th</sup> ward is most prevalent. Students looked at changing avenues to boulevards to make connections, transforming parking lots into pervious surfaces, vacant lots into forests and intersections into water holding basins. Another design strategy that a student worked on was how to network neighborhood blocks. If green infrastructure is design at the lot or block scale, how does it function at the large scale.

The Comprehensive 8<sup>th</sup> Ward Water Plan led to a third project south of the 8<sup>th</sup> Ward. Here, Mattson's students worked on a Calumet Waterlands Inventory using SSMMA data. Taking into consideration the fragmentation and barriers that exist in the geographic scope as well as getting to the river, students identified underutilized areas (including vacant land), and proposed a multitude of connections – trails for recreational use and channels for flooding. Another connection that was made in the area was the coupling of the Village of Robin's commercial and private manufacturing assets. After looking into the municipality's history, Robins discovered that they could support natural dye production at the regional scale. This demonstration showed the kind of design thinking that could help move green infrastructure for stormwater management forward.

### Landscape Performance Research: Benefits Toolkit

The second half of Mattson's presentation gave an overview of her research through the Landscape Architecture Foundation (LAF). She highlighted LAF's Landscape Performance Series, which provides case studies of high performing landscapes, as well as a benefits toolkit. The toolkit includes a variety of calculators and tool sets that can be used to gain a better understanding of how a site may perform. Such tools include the U.S. EPA's National Stormwater Calculator and CNT's Green Values National Stormwater Management Calculator. The case studies are evaluations of previously constructed green infrastructure projects. They provide a brief overview of the site including project description, client, primary physical features, outline sustainable features included in the site's design, call out the challenges and solutions unique to the project, cost comparisons, lessons learned, and a list of the products used in the project that are commercially available. Mattson emphasized that at the heart of each case study are the landscape performance benefits. Benefits are categorized into three tiered categories – environmental, social and economic – with water at the forefront under environmental benefits. Each benefit provides an exclusive description of how the system is achieving that corresponding benefit. Calculators and plan view renderings are meant to show users how water is being managed on site. One case study that is well known among the Collaborative is the Meadow Lake and permeable parking lot at The Morton Arboretum. Another local example in Chicago is Palmisano Park. Overall the major takeaways were 1) to integrate green infrastructure as landscape architecture; 2) design matters – there is a need to couple infrastructure with the landscape; and 3) scale matters.

After Mattson's presentation, Collaborative members had a few questions. John Watson, MWRD, asked, of the constructed work and design, what was the most effective at capturing stormwater, or what drew the greatest performance? Mattson turned to the Morton Arboretum example to respond Watson's question. She explained that there was a big drive by the client; they wanted to integrate green infrastructure into their plan, and saw the project as an opportunity to educate the public. Morton Arboretum recently reported that they broke even on the project – much earlier than the estimated time frame based on project costs and water flows into Meadow Lake.

Another Collaborative member asked Mattson if the Chicago Park District felt that Palimsano Park was successful, particularly as it relates to the overall design, performance and maintenance? Mattson replied that the client was fully committed to ensure that maintenance was properly handed over. Mattson explained that there are a number of stewards in the community that help maintain the park grounds. Naureen Rana, Chicago Park District, commented that Palmisano Park was designed as a natural area, so it would naturally collect stormwater through native landscape features. As for stewardship, there is a separate volunteer stewardship program through the Chicago Park District that brings volunteers to the site to maintain the landscape.

Edith Makra, Metropolitan Mayors Caucus, asked how profiles can be used for project design and advocacy. Mattson replied that the research provided is dense and rigorous. It provides a set of drawings and photo that could be applicable to other projects. One can also search by topic area, (e.g. public parks) to look at lessons learned, or the benefits and context of a site. Overall it's a growing database. Mattson did six in the region and is planning to include more in the future.

### **CMAP Local Technical Assistance Program's Call for Projects**

Erin Aleman, CMAP, gave an overview of the 2016 Call for Projects being publicized by and in partnership with the Regional Transportation Authority and Healthy Hotspot (contracted out to Active Transportation Alliance).

Aleman explained that the Local Technical Assistance Program (LTA) was started in 2010 to incentivize municipalities to achieve action in CMAP's GO TO 2040 Plan. Since its fruition, it has initiated over 160 local projects through CMAP's seven county district. CMAP's LTA program provides technical assistance such as staff or consulting assistance to help municipalities and organizations carry out their proposed plan. This year, the program has seeded by funding from EPA. Eligible applicants include local governments, multijurisdictional groups and nonprofit organizations that demonstrate local government support. Eligible projects will address transportation, water resources, land use and/or economic development (including local food, arts and cultures). Projects proposed can include comprehensive plans, multijurisdictional projects, downtown/sub-area plans, corridor plans, zoning ordinances, housing plans and/or water resource plans. Of particular interest this year are proposed plans that incorporate water and transportation. Eligible projects must fall within CMAP's seven county region – Cook, DuPage, Kane, Kendall, Lake, McHenry and Will Counties. Proposed projects will need to align with GO TO 2040, and they will need to be feasible – i.e., proposed plans include implementable actions. Projects will need to indicate that there is involvement and coordination among interjurisdictional stakeholders. This year the LTA program will have a local match requirement. This is to ensure communities are committed to the project and its ultimate implementation. The standard match rate is 20% but it can be lowered in an effort to not discourage communities with limited financial resources.

Aleman then showed the group a couple of projects that have been accepted by the LTA program in the past. The first example was Park Forest's sustainability plan. This plan functioned similarly to a comprehensive plan in that it addressed development patterns, transportation, open space, water, energy, greenhouse gas emissions, local food, housing, arts and education. This partnership spurred a lot of additional projects, and was received awards by APA and Congress for New Urbanism (CNU). The second example was South Elgin's bicycle and pedestrian plan, which builds on their recently completed comprehensive plan. This project also received a CNU award. Additionally, the LTA program has worked with various communities to look at parking as well as formed based codes.

The second call for proposals is through the Regional Transportation Authority's (RTA) Community Planning Program. Eligible applicants are service boards and local governments in RTA's six-county region – Cook, DuPage, Kane, Lake, McHenry and Will Counties. Eligible projects can include planning that aligns with GO TO 2040 as well as current implementation projects. Planning projects could include transit-oriented development, transit access improvement, transit service improvement or corridors plans. Implementation projects can include ordinances, developer panels, pedestrian access plans or other innovative projects.

The third call for projects is through Healthy HotSpot. This has emerged out of a CDC grant fund received by Cook County. Active transportation Alliance is the subcontractor charged with increasing opportunities for physical activity. Cook County is looking for project that support active transportation and complete streets plans. All suburban Cook County communities can apply, however, there are 33 Healthy HotSpot priority communities that will be favored. Both RTA and the LTA grants have a match but this one does not.

Applications can be found on the RTA [website](#). All three organization will get together to review projects. Application are due June 25, 2015 at 12pm (Central Time). The application process will also include one-on-one phone calls, and possible site visits. Once applications are received, most of the leg work (e.g. demographics, past projects, etc.) will be researched by the grantee organizations.

After Aleman's presentation, Jason Navota, CMAP, gave a few remarks regarding the potential LTA projects in relationship to stormwater. He recalled that CMAP was fortunate to secure funding to do stormwater management – in part due to the efforts put forth by many members of the Collaborative as well as the federal government. CMAP wants to share these resources with communities and municipalities, particularly cases where urban flooding is an issue. They would like to find projects through the LTA program with specific stormwater and/or urban flooding needs, either before or after the development of a comprehensive plan. Ideally, CMAP would like to do stormwater project in conjunction with LTA awarded communities. CMAP works with water in three ways – wastewater, stormwater and water supply; however, the focus of this the funding will be toward stormwater management.

CMAP staff, whose work is focused on stormwater, has been generating data layers built on SSMMA's interface. The team has also been developing an approach to address land use and land surface solutions to stormwater management; this includes identifying problems in frequently inundated areas such as parks. CMAP's team is starting to talk about how to represent this information, and what will make the most sense at the community and local level.

Edith Makra, Metropolitan Mayors Caucus, had a question about scale. When talking about modeling, what is the geographic scope of preference for the applications? Navota replied that the scope is urban flooding challenges in any community with low capacity to address and manage flooding issues by themselves. CMAP would even work with community groups if necessary. In general, what CMAP provides is 1,400 hours worth of staff resources or approximately \$100,000. Often times 12-15 months are spent for comprehensive plans. Ellis asked Navota if CMAP would be doing any hard engineering as part of its work. Navota responded that CMAP would be more focused on land use interventions and policy changes and/or modifications rather than engineering solutions. Navota also explained that the match would not allow in-kind services. It needs to be a hard match of funding in order to ensure an appropriate level of commitment from the community.

Danielle Gallet, MPC, asked if CMAP has received any applications regarding stormwater thus far. CMAP staff said they do not look at applications in advance. Gallet remarked that at the forefront, the application should be clear about what kinds of specific projects CMAP is looking to do, or not do so potential applicants have a clear understanding of the potential resources CMAP is offering.

## **Upcoming Grant Opportunities – let's get coordinated**

Josh Ellis stated that in advance of July's meeting, there were several people that emailed him about grant opportunities. Ellis decided that the Collaborative should go over them to begin thinking about how we coordinate the grants and perhaps there are opportunities to work together to move the Collaborative work plan projects forward. However, Ellis' stated that his fear is that one of the Collaborative's success measures is "reduced reliance on grant funding for green infrastructure installation." If grant funding is to be a topic for July's meeting, then Ellis would like to see the Collaborative think about how funding could be used for planning and building planning tools, or building out modeling tools. These types of projects would likely be more consistent with the rest of the 2015-2016 Work Plan of the Collaborative. Following are the various grant opportunities presented to the Collaborative:

### USEPA Section 319

Ellis mentioned that one thing the Collaborative is already working toward is amending or adding appendices to MWRD's detailed watershed plans in the Calumet to make them Section 319 plans. However, Ellis told the group that they need to be aware that the amendments still need to be

written. Through this grant application cycle, the Collaborative should see if there planning might be a potential funding prospect; for example, a CDGB opportunity could be turned into funding for the amending of the 319 plans in the Calumet. Grant applications are due in August.

Grant website: <http://water.epa.gov/polwaste/nps/cwact.cfm#apply>

#### Great Lakes Restoration Initiative

The grant is approximately \$300,000. Allocated funding is primarily used to do ecosystem, nutrient and/or watershed type of work. However, this year there will be a green infrastructure focus. This could be a potential opportunity to work with the Green Schools initiative.

Grant website: <http://greatlakesrestoration.us/>

#### Chi-Cal Rivers Fund

John Watson, MWRD, explained to the Collaborative that the Chi-Cal Rivers Fund is a collaboration between MWRD and other large corporate sponsors, like Wrigley and Donnelly. Three project categories include water access, waterside parks and water ecological restoration. In prior years the funding was only applicable to main stems of the rivers; however, this year the funds are expanded to include contributing streams. Projects can be located anywhere in MWRD's jurisdictional boundary, which includes anywhere in the CSC as well as parts of Indiana. Grant applications are due the end of July.

Grant website: <http://www.nfwf.org/chi-cal/Pages/home.aspx#.VXiyEPIVhBc>

#### USDA's Regional Conservation Partnership Program

Historically, this program does not have a presence in the City. It does have a focus on agriculture. However, the Collaborative could look into the program for stewardship opportunities related to ecological restoration and forestry – particularly because forestry can count as agriculture. Edith Makra added that the program came out of the second farm bill and has an emphasis on regional partnership with written agreements to work together. Another Collaborative member suggested this could be an opportunity to fund a more comprehensive soil analysis, which would then provide an inventory for stormwater and agriculture in the region.

Grant website: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmland/rcpp/>

#### NOAA's new Regional Coastal Resilience Grants Program

NOAA has issued a call for proposals under the first federal funding opportunity for the new Regional Coastal Resilience Grants Program. The coastal resilience grants program will support regional approaches to activities that build resilience of coastal regions, communities, and economic sectors to the negative impacts from extreme weather events, climate hazards, and changing ocean conditions. Each proposal may request \$500,000 to \$1 million in federal funds, and requires a 2:1 federal to non-federal funding cost share in either cash or in-kind matches. Eligible funding applicants include nonprofit organizations, institutions of higher education, regional organizations, private (for profit) entities and state, local, and tribal governments. Applications are due by July 24, 2015.

Grant website: <http://www.coast.noaa.gov/resilience-grant>

#### Others

Jason Berry, City of Blue Island, mentioned that there is a FEMA Hazard Mitigation grant due at the end of August. They are looking for locally based projects; and the state will then submit the applications. Jane Hornstein, Cook County Department of Planning & Development, reiterated that if the County is chosen for the second phase of the NDRC grant, they only have 120 days to compile the second (full) proposal. She emphasized that knowing who is doing what will be critical

and encouraged Collaborative members to apply so the second proposal can be a robust document.

## Final Remarks

Ellis pointed out the July's Collaborative meeting will be structured around the coordination and support of these grant opportunities. He asked the Collaborative to come to the July CSC meeting with ideas about how the Collaborative might support grants or simply apply – we will want to hear various pitch's about potential applications rather than just brainstorming at the meeting.

Jason Berry announced that if anyone wants an opportunity to work on a grant, he, on behalf of Blue Island, is soliciting quotes from engineering firms. Pervious alleyways, native vegetation, as well as other green infrastructure construction projects are included in this work. Berry has over \$1 million to allocate toward these projects and is looking for help.

Ellis also informed the Collaborative that IEPA and MPC will be conducting a four-year assessment of the IGIG program later this year, particularly looking at how projects got off the ground.

MPC staff announced that July's meeting would be on July 10<sup>th</sup> (to skip the July 4<sup>th</sup> holiday timeframe) and will be held in the Calumet Regions at the SSMMA. The meeting time is 10:15am to accommodate those arriving by the Metra train.

## Next Meeting

Friday, July 10, 10:15am to 12:15pm

South Suburban Mayors and Managers Association

1904 174th St, E. Hazel Crest

**For more information contact:**

Josh Ellis  
Metropolitan Planning Council  
312.863.6045  
[jellis@metroplanning.org](mailto:jellis@metroplanning.org)

Danielle Gallet  
Metropolitan Planning Council  
312.863.6016  
[dgallet@metroplanning.org](mailto:dgallet@metroplanning.org)