
CALUMET STORMWATER COLLABORATIVE

MEETING SUMMARY - November 7, 2014

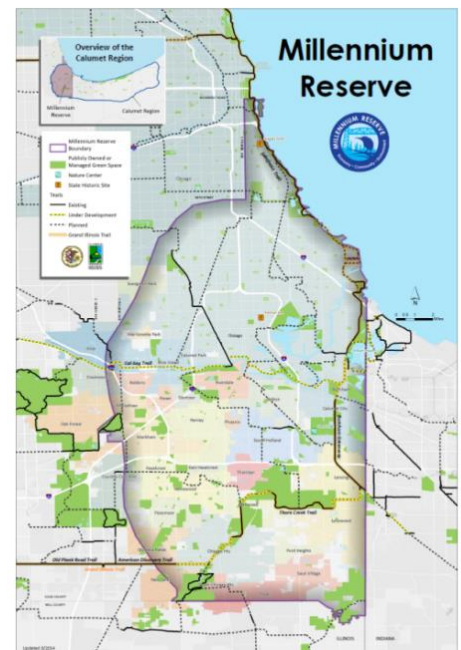
MWRD Calumet Water Reclamation Plant

400 E. 130th St., Chicago



Attendees

Emily Burns, Historic Chicago Bungalow Association
Cristina Negri, Argonne
Ryan Wilson, Center for Neighborhood Technology/Elevate Energy
Mason Throneburg, CH2M HILL
Nora Beck, Chicago Metropolitan Agency for Planning
Jason Berry, City of Blue Island
Aaron Koch, City of Chicago Department of Water Management
Amy Ellingson, Cook County – Office of Commissioner Gainer
Dominic Tocci, Cook County Department of Planning and Development
Alex Simmons, Cook County Land Bank Authority
Vanessa Roanhorse, Delta Institute
Jeff Edstrom, ECT
Eric Otto, Forest Preserve District of Cook County
Matt Bardol, Geosyntec
Jeff Wickenkamp, Hey & Associates
Mary Ellen Guest, Historic Chicago Bungalow Association
Lisa Cotner, Illinois Department of Natural Resources
Suelle Burns, Illinois Department of Natural Resources
Margaret Schneeman, Illinois-Indiana Sea Grant
Josh Ellis, Metropolitan Planning Council
Kate Calabra, Metropolitan Planning Council
Kevin Symcox, Metropolitan Planning Council
Joe Kratzer, MWRD
John Watson, MWRD
James Yurik, MWRD
John Murray, MWRD
Brent Shraiberg, MWRD, Office of Commissioner Debra Shore
Mollie Dowling, OAI
Emy Brawley, Openlands
Dennis Latto, South Suburban Mayors and Managers Association
Ed Paesel, South Suburban Mayors and Managers Association
Reggie Greenwood, South Suburban Mayors and Managers Association
Maira Zellner, Unvierity of Illinois Chicago
Mary Pat Mattson, University of Illinois Urbana-Champaign
Myke Griseta, University of Illinois Urbana-Champaign



Information Exchange: An examination of MWRD activities and priorities that intersect with Calumet Stormwater Collaborative priorities

Jim Yurik opened the information exchange with a brief history and introduction of the Metropolitan Water Reclamation District of Greater Chicago (MWRD). Prior to the 19th century, there was no wastewater treatment and waste was dumped into Lake Michigan – the city’s primary source of drinking water. Originally called the Chicago Sanitary District, MWRD was established to remedy this. The reversal of the Chicago River redirected waste and ultimately improved water quality. Treatment plants were later built to better optimize water quality. Today MWRD treats over 1.5 billion gallons of water per day during dry weather.

Calumet Water Reclamation Plant and TARP – Performance now and in the future

John Murray of MWRD shared that the Calumet Water Reclamation Plant (CWRP) treats over 300 million gallons per day which a maximum capacity around 430 gallons, making it the second largest plant in this region. The service area for the CWRP extends from 87th Street south toward the corporate limits of Cook County. These overflows can be triggered by rain events as little as a quarter-inch. The Thornton Reservoir is planned to capture overflows for 10 and 20 year rainfall events and has a capacity to store just under 8 billion gallons of water. Despite this increased storage capacity, MWRD still predicts issues with local sewer conveyance.

Collaborative members asked about the pipe network of the CWRP and how the distribution system works. There are about 150 miles of interceptors coming from all different directions that serve the CWRP. Local sewers, typically smaller lines that follow local streets, connect to interceptors which connect to the mains pipes that direct water to the treatment plant. He expressed that this system can be strained by heavy rainfall.

When asked about preparing for microclimate impacts, John explained that MWRD only has a certain amount of dollars to put toward achieving a certain level of protection. MWRD aspires to design for the 100 year storm. He also explained that with climate change, as the threats increase, the benefits of projects can increase. For this reason, he sees more money going toward some of MWRD’s efforts. Jim Yurik added that in terms of the waterways, MWRD make continuous efforts to oversee water levels. During storms, MWRD opens gates to create a gradual flow and to pull water so that it does not go into basements or back into Lake Michigan. He explained there are limits to how low MWRD can reduce the water levels. Barges and large craft, especially those belonging to the Coast Guard must be able to navigate the waters. Adjusting the water levels can take anywhere from a few hours to over a day, depending on the severity of the pending rain event.

Collaborative members asked if the canal has any maintenance issues, specifically shoreline walls, to which John explained that MWRD does not own the canal in its entirety. The walls of the canal are technically owned by the Army Corps of Engineers, which means it is their responsibility to inspect and maintain them.

Finally, a Collaborative member asked how the different components of TARP interact. John reiterated that Cook County is divided into three regions for TARP and that there are different tributary systems within these regions. The Thornton Reservoir, will primarily benefit the Calumet area.

Little Calumet Detailed Watershed Plan – Status and next steps

Joe Kratzer described the Little Calumet Detailed Watershed Plan, which was started in 2008 with a lot of hydraulic modeling and community engagement, and was completed in 2010. Over 42 projects were recommended as alternatives to overbank flooding. About seven or eight of these projects were originally selected, but four were found infeasible. The remaining projects are under design and working through regulatory issues, property ownership issues, and intergovernmental agreements. The development of these watershed plans constituted Phase I of MWRD's stormwater program.

In terms of metrics that decide who receives funding, there are diverse cost-benefit ratios and MWRD will see if there are alternatives that make proposals more feasible. For example, MWRD said that it is very helpful when a municipality or village can make up for finance gaps or match costs of a proposal. A Collaborative member commented on this, stated that many towns and municipalities cannot afford to match or fill finance gaps. Joe's response was that parameters for state funds are changing and MWRD can assist municipalities apply for that money.

Stormwater Management Program Phase II – Pilot planning projects, their goals and timelines

MWRD's Phase II program seeks to address flooding problems unrelated to overbank flooding and can address other problems recognized in Phase I. Currently, there are four live projects for Phase II in the Calumet area: Natalie Creek in Midlothian, Robbins 138th/Kedzie, Lansing, and Glenwood. MWRD is also helping on about twenty other smaller projects and will continue to take projects on a rolling basis for now.

Lisa Cotner, IDNR, asked how the Collaborative can be a value to Phase II or vice versa. Joe responded that when MWRD originally issued a call for projects, they received a 60-70% response rate. They were able to improve this response rate by reaching out directly to towns and are about to do another round of outreach. However, MWRD is stretched to their limits in terms of staffing, so the Collaborative can help by providing contacts and joining in the outreach effort to work toward a 100% response rate and ultimately get a better understanding of the region's needs.

Ryan Wilson, CNT, expanded on how the Collaborative's potential role. First, it was stated that there is a need to identify overlapping efforts and target one entity or form a joint effort to take control. Second, it was noted that the group can add at the local level by helping people understand the technical language of stormwater and flooding problems. The theory behind this is that people do not differentiate between different types of flooding and do not understand where money is coming from or going to. Being more educated on the topic will give individuals, organizations, and municipalities better tools to apply for the right resources for their problems.

Consent Decree and Green Infrastructure – Developing a green infrastructure program, prioritization of projects

Jim Yurik explained MWRD's current green infrastructure initiatives. MWRD's Consent Decree was signed to try to eliminate sewer overflows and one component of that required green infrastructure. MWRD is doing projects that will hopefully mitigate flooding and combined sewer overflows. For example, MWRD worked with Chicago Public Schools and the City of Chicago Department of Water Management to rehabilitate elementary school playgrounds with green elements, such as permeable pavers. Also, MWRD is working on projects in Blue Island, Evanston, and Kenilworth.

Ed Paesel, SSMMA, asked if MWRD has reached out to suburban schools and, if not, whether the Collaborative can help to do that. Jim answered that MWRD is working on a green infrastructure program plan that will talk about how MWRD will form partnerships and this will include the suburbs. The reason why CPS got involved was because there was already money allocated to do these projects, MWRD simply expanded the effort. Also, due to the consent decree, MWRD has a timeline for project completion to abide by.

The next step is running five pilot studies throughout Cook County to understand how much green infrastructure is required and how best to allocate green infrastructure between public and private entities. The vision is that what is learned through the five pilot studies can be replicated throughout the county. Two of these plans are taking place within the Collaborative's geography of concern.

Work group in focus: Developing a stormwater management-focused property assessment and acquisition strategy for the Cook County Land Bank Authority

The Collaborative broke out into small groups to discuss strategies for identifying land and end users for the Cook County Land Bank Authority (CCLBA) in terms of neighborhood flooding, regional flooding, and existing habitats. Notes from this break out session are on the next page. Due to time constraints most groups only discussed CCLBA's work in reference to neighborhood flooding. We will use the feedback from this discussion to develop a questionnaire for further input and discuss at a future meeting.

Member Updates

Josh Ellis, MPC, shared the Collaborative has been invited to submit for funding, most immediately by IEPA. He has talked with the Collaborative work groups about putting together ideas for planning needs and green infrastructure projects consistent with existing Collaborative priorities. The final proposal should be complete by November 19th. Input from the work groups is due on November 14th.

Jason Berry update the group on green infrastructure projects in Blue Island. Both, MWRD and SSMMA are working in neighborhood in Blue Island to install green infrastructure. IEPA will fund bump outs and alleyway work.

Moira Zellner, UIC, noted that they have a visualization tool that can be used to make decisions on where to put permeable alleyways.

Next Meeting

Friday, December 3, 10:00am to 12:00pm

Metropolitan Planning Council

140 S. Dearborn, Suite 1400, Chicago

For more information contact:

Josh Ellis
Metropolitan Planning Council
312.863.6045
jellis@metroplanning.org

Summary – CSC November Meeting

Neighborhood Flooding, Regional Flooding and the Cook County Land Bank Authority

Why does it make sense to prioritize neighborhood flooding or regional flooding?

The groups debated the value in prioritizing neighborhood flooding. Those who supported this effort see the CCLBA as a potential leader in stormwater management. Supporters stated that individual property owners do not have the means to handle repeated flooding and the list of properties that face this issue is getting extensive. The benefit of a neighborhood level approach on behalf of CCLBA, would increase the existing capacity to manage stormwater, but also implement visible interventions that serve community-specific needs. To be effective in this approach, CCLBA should consider what type of spokesperson and outreach would be needed. Supporters also suggested looking toward other land banks for examples of best practices and suggested partnering with the South Suburban Land Bank and Development Authority.

Those who were not in support of prioritizing neighborhood flooding worry that the neighborhood approach introduces problems beyond traditional land management. Acquiring the land and then transforming that land is an extensive process. Some who opposed said that the CCLBA needs to consider long-term feasibility versus short term priorities and how the neighborhood approach achieves these goals. Finally, one concern was that one neighborhood's water management might result in another neighborhood's flooding, which calls for coordination between neighborhood flooding efforts and at the point, it's really a regional approach. The only table who discussed regional flooding thought it was a bad policy for the land bank. They did, however, note that property would be easier to find because they are located in a flood plain.

Does scattered site acquisition or aggregation make more sense?

The groups saw advantages to both scattered site acquisition and site aggregation, depending on the circumstances. Some said scattered sites make more sense for neighborhood flooding and aggregated sites make sense for overbank flooding, depending on the type of flood risk. For example, scattered site makes sense in Blue Island while aggregation would work best in Midlothian. Some suggested creating a cost-benefit diagram to evaluate the maintenance and viability of specific uses to inform whether scattered sites or aggregated sites make more sense.

Supporters of scattered sites said residents might feel that they can do something at that level and be more inclined to get involved. However, if one entity, such as the CCLBA, were charged with maintaining scattered sites, those who opposed scattered sites said there could be a strain on resources.

Supporters of aggregating sites suggested that impacts increase at scale, such as neighborhood greening. Supporters of aggregating sites suggested that cost also becomes economic at scale. Though, one concern for aggregated sites is the long-term end use. The groups questioned whether the deeds for the aggregated sites would remain separate or would be consolidated and how each scenario would affect repurposing the property in the future.

What variables should be considered when assessing a parcel of land to prevent neighborhood flooding?

- Flood risk, especially repeated flooding
- Topography and elevation

- Vacancy and ownership
- Zoning
- Soil and vegetation types
- Development potential
- Community perception and backing
- Contamination / pollution
- Land use history
- Liability deeds
- Potential for development
- Proximity to MWRD land

Are there existing GIS shapefiles that CCLBA could use?

- Green infrastructure mapping by SSMMA and Chicago Wilderness
- Data from Thornton Creek sanitary district
- MWRD Watershed plans
- Distance to existing parks to find 'park deserts' (this data needed)
- Cook County topography
- Flowpath data, which can be found in detailed watershed plans
- MWRD and SSMMA have damage and risk information for residential areas in flood plains – would be helpful to overlay with foreclosed and tax delinquent properties
- Any method of quantifying risk so that effective cost / benefit analysis can be run
- Open space connectivity

What problems do you see from CCLBA prioritizing neighborhood flooding?

The biggest problem is that redevelopment takes precedence in the eyes of the public and elected officials. People want to see development and anything else is a harder sell. To ease this, some suggested setting realistic expectations for the community through public outreach to help people understand that the goal of acquiring these sites would be stormwater management.

There is also a risk that a lot of properties have issues with pollution and contamination. CCLBA needs to be aware of hazardous waste, what type of clean up strategy would be appropriate, and the associated costs. CCLBA also needs to be aware of maintenance costs, even for properties that do not have issues with pollution.

What entities in Cook County seem most likely willing to take over long term ownership and management of land when prioritizing neighborhood flood prevention?

- South Suburban Land Bank and Development Authority
- Residents
- Private sector and private property owners
- Land trusts
- Park districts – possibly schools or libraries
- Cook County should be entrepreneurial – it could create a new financing authority to hold properties, much like a land trust
- Long term conservation easements for aggregated properties, but this requires large parcels. Only Open Lands and the State of Illinois hold big parcels for habitat.

What would end use look like?

For scattered site properties, the groups suggested uses such as small scale green space that could serve as food gardens, rain gardens, or side yards. For large aggregated sites, the group suggested uses such as recreational areas, animal and wildlife habitats, and detention ponds. One suggestion envisioned a network of wetlands that could serve all of these uses.