

# Urban Stormwater Working Group

June 9, 2020 2pm

*In attendance:* Trevor Sample, Illinois EPA; Eliana Brown, Illinois Extension; Holly Hudson, Chicago Metropolitan Agency for Planning; Mary Beth Falsey, DuPage County Stormwater; Mary Mitros, DuPage County Stormwater; Jeff Edstrom, IDNR Illinois Coastal Program; Lisa Krause, IDNR Illinois Coastal Program; Kelly Thompson, Illinois Environmental Regulatory Group; Kate Gardiner, Illinois Extension; Layne Knoche, Illinois Extension; Lisa Merrifield, Illinois Extension; and Tony Heath, Illinois Extension; Raelynn Parmely, Illinois Farm Bureau; Donna Twickler, Sierra Club; and Reid Christianson, University of Illinois

## **Summary:**

### **Welcome and Introductions**

Eliana Brown welcomed everyone to the meeting.

### **Member Updates**

Mary Mitros shared that DuPage County has hosted multiple webinars for residents and will share information on the upcoming webinars.\* Kate Gardiner shared that she is working with Joan Cox on a curriculum on the Illinois Nutrient Loss Reduction Strategy. If anyone has any resources to share, please email them to Kate.

\*These DuPage Co. links were sent to the group in a follow up email:

[Facility Pollution Prevention for MS4 Communities Webinar](#)– Wed, June 10 from Noon-1:30pm

[Field Program Pollution Prevention for MS4 Communities Webinar](#) – Wed, June 17 from Noon-1:30pm

### **Lessons Learned from the Community Listening Sessions - Tony Heath, PE**

This study was needed because cities across the US are turning to green infrastructure (GI) to update aging systems and as GI becomes widespread, the number of related jobs will continue to grow. The co-benefits of GI can be a tool for social justice, so they wanted to use this to speak to communities directly. The listening sessions covered three main themes: how communities are using GI to address equity issues, how communities are using GI as a means for workforce development, and what other barriers exist for communities to implement successful GI and how we can help address them.

Stormwater management is an equity issue, as residents in flood-prone areas are often marginalized in other ways. Green infrastructure has the unique potential to not only address flooding, but also long-standing social inequities such as pollution and lack of access to green space through derived co-benefits. It also helps to look at GI in terms of co-benefits, as it is a tool for community improvement, not just stormwater management. Funding can be tight, so it's impactful to deliver multiple solutions with one project.

The top five lessons we learned were to keep projects simple, emphasize the co-benefits, the need for GI careers, the need education at every level, and the importance of building relationships and establishing partnerships.

### **Equitable Green Infrastructure Summit - Lisa Merrifield**

The purpose of the Equitable Green Infrastructure Summit was to provide an overview of equity and

workforce issues related to green infrastructure (GI), and to identify and prioritize common needs and themes that can be addressed through Extension and Sea Grant programming. There were over 100 attendees.

The attendees were broken up into discussion groups on workforce; diversity, equity, and inclusion; community planning; and network development and tools. Within the groups, facilitators posed some questions, which resulted in recommendations for Extension and Sea Grant programming. These recommendations include to formalize and fund an Extension Sea Grant Network, to develop “Green Infrastructure 201” programs for local government officials, further workforce development research and education focusing on GI careers, not jobs, and to develop decision support tools for communities on cost-benefits, lifecycle cost analysis, and planning tools that help decision-makers pick locations and practices.

### **Next Steps**

The next USWG meeting is scheduled for July 14, 2020. Information will be on the Illinois EPA webpage at [go.illinois.edu/nlrs](http://go.illinois.edu/nlrs).

### **Meeting Minutes:**

#### **Welcome and Introductions**

Eliana Brown welcomed everyone to the meeting.

#### **Member Updates**

Mary Mitros shared that DuPage County has hosted several webinars geared towards residents. She will share the information for upcoming webinars. Kate Gardiner shared that she is working with Joan Cox at Illinois-Indiana Sea Grant on a curriculum about the Illinois Nutrient Loss Reduction Strategy. They are still in the early stages, so if anyone has information or resources they would like to share, please send them to Kate at [kgardin2@Illinois.edu](mailto:kgardin2@Illinois.edu).

#### **Key Lessons from Studying Communities and Organizations that Incorporate Equity into Green Infrastructure – Lisa Merrifield and Tony Heath**

*Lessons Learned from the Community Listening Sessions - Tony Heath, PE*

Tony earned a Bachelor of Engineering from Vanderbilt in 2013 and a Master of Urban Planning from the University of Illinois in 2019. He has seven years of experience with green infrastructure and LID site design and joined Illinois Extension in 2019 as part of the Red Oak Rain Garden project.

This study was needed because cities across the US are turning to green infrastructure (GI) to update aging systems and as GI becomes widespread, the number of related jobs will continue to grow. The co-benefits of GI can be a tool for social justice, so they wanted to use this to speak to communities directly. However, lack of institutional knowledge and formal guidance have led to a highly localized approach. The listening sessions covered three main themes: how communities are using GI to address equity issues, how communities are using GI as a means for workforce development, and what other barriers exist for communities to implement successful GI and how we can help address them.

We hosted 18 listening sessions across 9 states, representing more than 30 communities. They covered three main themes: how communities are using GI to address equity issues, how communities are using

GI as a means for workforce development, and what other barriers exist for communities to implement successful GI and how we can help address them. Discussion questions included telling us about GI in their community, other goals or benefits they hope to come from their GI projects beyond stormwater management, factors that determine where GI is installed in their community, considerations for design and maintenance when incorporating GI and potential for workforce development, and whether there been any other equity programs that they have implemented or other major challenges that they've faced when incorporating GI in their community.

Stormwater management is an equity issue. When we think about it as an equity issue, we were able to have more success. Residents in flood-prone areas are often marginalized in other ways. GI has the unique potential to not only address flooding, but also long-standing social inequities such as pollution and lack of access to green space through derived co-benefits.

There is a co-benefit mindset. Lisa Sasso at Milwaukee MSD said, "we never want to do anything for just one reason, we always look at the triple or quadruple bottom line." GI is a tool for community improvement, not just stormwater management. Funding can be tight, so asking what else this project can do helps get more for your money. Despite this potential, communities preferred technical approaches to avoid the appearance of bias, but technical approaches are not neutral. Institutional biases mean that if equity is not an explicit part of the decision-making process, projects will continue to deepen existing inequities. We need to ask what we are hoping to achieve with this project and who is going to benefit.

We looked at several case studies, one of which involved the City of Minneapolis and Metro Blooms. The City of Minneapolis partnered with Metro Blooms to engage residents and administer boulevard retrofits as part of an ash tree replacement program in North Minneapolis. Metro Blooms partnered with local organizations to establish relationships with community leaders and give residents power in the decision-making process. However, city values and community values don't always align, so to ask people to care for these improvements, we need to ensure that they are tangibly benefitting them. This ensures a sense of ownership and care down the line. Building the necessary trust took "lots of time and lots of talking." Multi-level relationships helped shape the project from the beginning.

Communities employ both incidental and deliberate approaches to workforce development (WD). Incidental WD is the natural diffusion of skills as practices become more widespread. Deliberate WD is when communities take a programmatic approach to growing the industry. There are three main approaches: training and cert programs (e.g. NGICP), pathway to employment programs (e.g. PeoriaCorps in Peoria, IL), and GI incubators (e.g. Green Stewards Program, Kansas City, MO). Challenges include that existing programs have had mixed results, programs successfully disseminate skills, but fail to provide pathways to long-term GI careers, lack of demand, seasonality, and low wages make GI installation an unattractive career path, and WD programs need to move away from GI jobs and focus on GI careers. Water Resources sector is not very representative of community diversity.

Another case study was Rainwise in Seattle, WA. Seattle Public Utilities (SPU) and King County partnered to produce more than 1,700 installations since 2010. Small, private contractors provide the installations, the owner maintains it, and SPU acts as a facilitator. SPU holds two 8-hour trainings each year, which focus on technical skills and are required for partners, but no certification is offered. Arguments for certifications standardizing skills, but Rainwise thought a certification could make their program be seen

as a barrier to overcome. Rainwise is also launching a GI incubator program in 2021, which is aimed at under-represented communities. It will offer 0-100 training with attention to both hard and soft skills.

The next steps for WD include how to create GI careers rather than just “jobs” and how to reach underserved communities and grow the pool of GI contractors.

The top five lessons we learned were to keep projects simple, emphasize the co-benefits, the need for GI careers, the need education at every level, and the importance of building relationships and establishing partnerships. “KISS” or “Keep it Simple, Stupid” is a good way to remember to keep projects simple. We found that communities often made their first project too complicated and didn’t have resources or skills to take care of it, resulting in a failure. Successful communities took that as a lesson, then scaled back the number and diversity of plants to be more easily managed and maintained. As the community develops skills, then increase diversity of the project. Emphasizing the other benefits opens projects to other grant opportunities and the ability to find new partnerships that may have other goals, so you can connect the GI to another project and can connect with residents more. We need to create opportunities that create a family-sustaining living wage with opportunities for advancement, not just seasonal labor jobs. There are programs targeted towards residents, which is important, but there is a need for education at the decision-maker and practitioner levels. Community members need materials for a village trustee or a mayor who understand the basics of GI but need more information, specifically for support in decision-making. GI has many aspects, so it is inherently trans-disciplinary and needs partnerships in various departments. We need to build relationships with members of the community. As you establish a relationship in the community, it builds upon itself.

Tony provided special thanks to Lisa Merrifield, the listening session facilitators (Kathie Brown, Kara Salazar, Karina Heim, Lissa Radke, Martha Gerig, Meaghan Gass, and Shahram Missaghi), and everyone who participated. If you would like to contact Tony, you can reach him at [acheath3@illinois.edu](mailto:acheath3@illinois.edu) or (815) 954-9480.

### *Discussion*

Leslie Heath: Can you explain what a GI job is?

Tony Heath: Groups we spoke with were looking at the installation and maintenance of practices as the focus. These are entry-level labor jobs.

Leslie Heath: When do you need a loan for the equipment or these projects smaller scale?

Tony Heath: It varies. The cities work with contractors who may apply for bridge loans. Other existing programs are for people to be employed by larger, existing construction firms or within public works departments. Focus has generally been on the physical labor aspect of GI. Need jobs in planning and design of GI as well.

Eliana Brown: Regarding the “GI 201,” what would that look like?

Lisa Merrifield: That’s one of the questions going forward. I don’t know if we have identified what that would look like, but know we need it.

Eliana Brown: John Bilotta in MN would give training to state legislators about stormwater and GI.

Lisa M: Takeaway is that we're talking about how to do an economic analysis and what co-benefits are and how they contribute to the project, as opposed to where and how to build it.

Tony Heath: It was the difference between engineering and planning. Another level up in the design and planning process.

Lisa Merrifield: Another slice of it for City Council members and those who contribute to local government but who may not have technical expertise in this area.

#### *Equitable Green Infrastructure Summit - Lisa Merrifield*

The purpose of the Equitable Green Infrastructure Summit was to provide an overview of equity and workforce issues related to green infrastructure (GI), and to identify and prioritize common needs and themes that can be addressed through Extension and Sea Grant programming. 110 people joined, mostly from the Midwest, and about 60 remained for the breakout and discussion. Hosting it virtually made it more accessible, as 40 people originally registered to attend in person.

The attendees were broken up into discussion groups on workforce; diversity, equity, and inclusion; community planning; and network development and tools. Within the groups, facilitators posed some questions. The Equitable GI Network Development group was asked about tools and trainings needed to do our jobs better and ideally, how the network should be structured. The other groups were asked about the most critical workforce challenges, potential tools or resources that would help solve these challenges, the players that need to be involved to make this happen, and funding sources that we should consider.

The recommendations for Extension and Sea Grant programming include to formalize and fund an Extension Sea Grant Network, to develop "Green Infrastructure 201" programs for local government officials, further workforce development research and education focusing on GI careers, not jobs, and to develop decision support tools for communities on cost-benefits, lifecycle cost analysis, and planning tools that help decision-makers pick locations and practices.

#### *Discussion:*

Leslie Heath: What is the ultimate goal?

Lisa Merrifield: This was an Extension project, so our goal was to come away with guidance for Extension professionals on how to help communities do GI in more comprehensive and successful ways. This was a needs assessment of sorts to determine what Extension can provide to communities.

Holly Hudson: When we are looking at diversity and equity in GI, so many of these suburban Chicago communities would fit into that. While there are certainly lots of players in Chicagoland, I think that shouldn't mean Extension shouldn't consider some of those communities.

Tony Heath: That's consistent with my experience. Bigger communities usually had more resources, but the need was still there. There is a large diversity of experiences across the state.

Lisa Merrifield: We partnered with Calumet Stormwater Collaborative. We would certainly partner with more people upstate and offer programs once we get them developed.

Holly Hudson: Did you talk to DC Water? They're hosting a webinar on Thursday.

Lisa Merrifield: Tony and I talked to Duane Jones. Part of our committee was Heidi Leuszler, who is an NGICP trainer.

**Next Steps:**

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