

# Urban Stormwater Working Group (USWG)

## Education Subgroup

### Meeting Minutes

Thursday, July 18, 2024

9:00 – 10:00 A.M.

*Via Zoom*



## Meeting Summary

### **Welcome**

*Eliana Brown, University of Illinois Extension*

Eliana introduced the NLRs team and the charge of the USWG Education Subcommittee stating that this group is part of the Illinois Nutrient Loss Reduction Strategy and coordinates stormwater outreach and education efforts. She briefly went over the agenda, which includes an overview of the Rainscaping program, then some facilitated questions for the group.

### **Rainscaping Education Program History**

*Eliana Brown, University of Illinois Extension*

Eliana summarized the Rainscaping program history by sharing the adoption timeline, course contents, and details of implementation. She shared all relevant program details with meeting participants so they could meaningfully offer their feedback.

### **Rainscaping Education Program Revisions: Facilitated Questions**

*Eliana Brown, University of Illinois Extension*

Eliana provided context and asked a set of standard questions being asked at all Rainscaping focus group sessions. She ended by encouraging participants to check out the Rainscaping website, send in any other suggestions for improvement, and an invitation to join the USWG Education subcommittee for guests at this meeting. Find feedback given for each question in the full meeting minutes below.

The facilitated questions were:

1. What additional information should the Rainscaping Program cover? (Poll)
2. Are there other audiences or partners we should incorporate? (Discussion)
3. Are there certifications we should consider offering or tailoring training for these audiences? (Discussion)
4. Do you have a recommendation on the Rainscaping program format? (Poll)
5. How much time should participants spend on home learning assignments outside of the classroom instruction? (Poll)
6. Do you have suggestions for other models to incorporate a demonstration rain garden? (Discussion)
7. What additional comments do you have to share for the program update? (Discussion)

## Meeting Minutes

*In attendance: Cyatharine Alias, Center for Neighborhood Technology; Eliana Brown, University of Illinois Extension; Amanda Christenson, University of Illinois Extension; Joan Cox, University of Illinois Extension; Carmen Franks, City of Urbana; Raul Galvan, DuPage County Stormwater Management; Megan Jacobsen, Illinois Environmental Protection Agency; Shibu Kar, University of Illinois Extension; Layne Knoche, University of Illinois Extension; Lauren Oertling, USDA NRCS; Tommy Purdom, Kane-DuPage Soil and Water Conservation District; Trevor Sample, Illinois Environmental Protection Agency; Robert Stitt, Illinois Environmental Protection Agency; Holly Hudson, Chicago Metropolitan Agency for Planning; Deanna Doohaluk, The Conservation Foundation; Darren Graves, City of Peoria; Shelly Ray, Illinois Department of Agriculture; Colleen Ruhter, UIUC Facilities & Services Division of Safety and Compliance; Betsy Liggett Richardson, UIUC Facilities & Services Division of Safety and Compliance*

### **Welcome**

*Eliana Brown, University of Illinois Extension*

Eliana introduced the NLRs team and the charge of the USWG Education Subcommittee stating that this group is part of the Illinois Nutrient Loss Reduction Strategy and coordinates stormwater outreach and education efforts. She briefly went over the agenda, which includes an overview of the Rainscaping program, then some facilitated questions for the group.

### **Rainscaping Education Program History**

*Eliana Brown, University of Illinois Extension*

The Rainscaping Education Team from Purdue Extension, the University of Illinois Extension, and Illinois-Indiana Sea Grant are planning an update to the Rainscaping Education Program after 10 years of implementation in Indiana and 4 years in Illinois. In this meeting, Extension seeks your input as stormwater and conservation professionals.

Eliana started with acknowledgements for the teams who work on the Rainscaping Program from Purdue, including the team co-chairs, core team members, advisory team members, and program peer reviewers. Eliana Brown is the Rainscaping Coordinator for Illinois. Illinois Extension officially adopted the program in 2021 with pilots in 2017 and 2019. Extension Educators are trained to run programs. Illinois Extension, in partnership with local agencies, held 12 Rainscaping programs all over the state, educating more than 100 people and building 23 rain gardens, including a few in the NLRs Priority Watersheds at Rock Island and Effingham. Eliana then introduced the group to the revision team in Illinois, which included NLRs Stormwater Associate Layne Knoche and four Extension Educators throughout the state. The Illinois revision team and the Purdue revision team are really one team working together. Both Purdue and Illinois are asking the same questions of past participants, past hosts, and educators that have run programs. All this information will be combined to inform the revision.

The Rainscaping Program's objectives are to use sustainable landscape design and management practices that prevent polluted runoff, at both the household and community scales, from reaching water bodies by directing stormwater to be absorbed by plants and soils. The program also provides training and resources on Rainscaping practices that can be installed in residential settings or small-scale public spaces projects. The textbook is the Blue Thumb Guide to Rain Gardens. The program consists of 15 hours of training in a workshop setting taught by Extension Educators and staff featuring flipped classroom instruction, online learning opportunities, experiential

training activities, field techniques, and field trips to community rain gardens. Participants also gain hands-on experience by creating a demonstration rain garden project with community members in a public space.

Program Modules are three hours each and include an introduction to rain gardens and other Rainscaping practices (permeable pavement, rain barrels), siting and sizing rain gardens, plant selection and rain garden design, installing and maintaining rain gardens, plus Rainscaping and community engagement. The program provides advanced training in rain garden planning, installation, and maintenance for a few target audiences, including, Master Gardeners and Master Naturalists, conservation agencies and organizations, stormwater professionals, landscape companies and consultants, and community members interested in rain gardens. We tend to ask that people that attend the program have some knowledge of gardening. Master gardeners or master naturalists and folks that have experience or a natural resources background can come into the classroom easily, because they already know gardening basics. This program really focuses on the stormwater aspects it does not teach basic gardening. Participants from many different backgrounds have taken the course. Participants are encouraged to attend as a community team to support the implementation of public education programs and provide technical assistance to homeowners upon completion of the training. This helps to solidify the team and make sure that that team has that same baseline knowledge of how to work with Rain Gardens for the best project success. Extension hosts acquire the funding and conduct the pre-design work with partners for the demonstration rain garden. The cost of the gardens is typically \$5-\$10 per sq ft and vary in size.

### ***Rainscaping Education Program Revisions: Facilitated Questions***

*Eliana Brown, University of Illinois Extension*

Facilitated questions were a mix of zoom polls and discussion prompts.

1. What additional information should the Rainscaping Program cover? (Poll, can select more than one answer)

- 9/14 participants selected rain barrels
- 3/14 participants selected permeable pavement
- 6/14 participants selected downspout planters
- 8/14 participants selected bioswales
- 0/14 participants selected only focus on rain gardens

2. Are there other audiences or partners we should incorporate?

Discussion:

- Holly Hudson: I was just thinking more about the community members, perhaps targeting maybe some local watershed groups. Sometimes they're looking for projects they can really get their hands around. For example, in Elgin we have the Tyler Creek Watershed Coalition. I happened to be on the Tyler Creek Watershed Board and other board members have gotten involved with Wild Ones Chapter in Kane County. They have been making more native gardens, but I think there is some synergy there. They've been doing gardens along stream corridors as a buffer. In a nutshell I suggest small watershed groups partnering with other chapters of organizations like Wild Ones around the state.
- Lauren Oertling: Non-profit organizations.
- Cyatharine Alias: Targeting park district or municipal staff as an introduction so they can gain support and share information for residents.

- Carmen Franks: Seconding Cyatharine's comment, especially if these are going to be built in public space.
- Eliana Brown: We have had some partnering with the Cook County Forest Preserve.
- Shelly Ray: Community colleges/universities
- Cyatharine Alias: Landscape companies - has there been focus on local, smaller firms to help them build their portfolios to manage native plants
- Layne Knoche: I think we're all too familiar with the need for managing these kinds of infrastructure.
- Darren Graves: Religious groups; often these facilities are on larger sites and at times must adapt to control stormwater and reduce mowing.
- Holly Hudson: Agreed! Church campuses are a good option. Also here is the information about Wild One's chapters <https://wildones.org/>.
- Layne Knoche: We have done that in Champaign. Courses took place at a religious group site.

3. Are there certifications we should consider offering or tailoring training for these audiences?

Discussion:

- Cyatharine Alias: I don't know of what certifications are in this space, so harder to answer this question.
- Eliana Brown: We are considering utilizing even tailoring some University of Illinois academic class where a certificate could be offered. I am wondering if, within your professional work, that would be something that would be attractive as professional development.
- Holly Hudson: Is there a sign that completed rain gardens can place at their garden?
- Eliana Brown: That is a great question. We have a sample template as part of the program. It's been graphically designed, and the individual educator needs to put in the details of the particular plants that they are highlighting. So yes, we have a nice template that the educator and host would be responsible for purchasing and putting in the garden for education.
- Holly Hudson: FYI: the Greater Kane Co chapter of Wild Ones has a "Start in your Yard" initiative <https://startinyouryard.com/>
- Lauren Oertling: Are the classes ensuring that designed rain gardens meet engineering design standards and specs? (USDA-NRCS for example)
- Eliana Brown: We talk about the Illinois Urban Manual when we are teaching the course. It's not specifically discussed in there, but I think that is a very good point. I think there's a distinction that is specified in this course, since it is more for residential settings rather than community settings. Some of the projects are larger and those would need to be encouraged to meet those specs, but that is something that we will note as a recommendation.
- Lauren Oertling: As a note, if the projects meet standards and specs, they may be eligible for financial assistance through the Partners for Conservation program administered by SWCDs. (Including and specifically the small residential projects)
- Holly Hudson: Are there office hours offered so folks follow up with the educators if they experience issues like, its holding water or they have an insect issue?
- Eliana Brown: Excellent question. We have been meeting with our educators that are doing the demonstration rain gardens periodically to consult and ask questions. Cook County ran an innovative program where, instead of having one demonstration Rain Garden with the forest preserve, they had stipends for participants that completed the program successfully.

- Participants went to coaching sessions on tailoring a rain garden for their own property hosted by the educators and if they finished, they got a \$200 stipend to build the rain garden. I don't know that they're holding office hours, but all those residents built that relationship with the educators and can come back to them with questions if they have them.
- Holly Hudson: I wasn't necessarily saying you had office hours, but just some sort of contact information. Somewhere they know that they can call to get more technical assistance.
  - Eliana Brown: Our Extension Educators are well educated on conservation practices and can provide technical assistance to residents along with the support of our team.
  - Eliana Brown: That's a good segue into a later question. But first:
4. Do you have a recommendation on the Rainscaping program format? (Poll, can select more than one answer)
- 4/14 selected online
  - 11/14 selected hybrid
  - 6/14 selected in person
5. How much time should participants spend on home learning assignments outside of the classroom instruction? (Poll, can only select one answer)
- 1/14 selected less than 1-2 hours
  - 11/14 selected keep it the same as now at 1-2 hours
  - 2/14 selected more than 1-2 hours
  - 0/14 selected much more than 1-2 hours

Discussion:

- Holly Hudson: You're trying to balance. You don't want to overburden people, but you want them to be engaged enough, and you know, understand the material. What about incorporating quizzes? Just some simple questions.
  - Eliana Brown: That's a great suggestion. We'll note it. Thank you, Holly.
6. Do you have suggestions for other models to incorporate a demonstration rain garden?
- Eliana Brown: This next question is the one I wanted to circle back to. As I mentioned, the hosts are extension educators partnering with agencies oftentimes to conduct the pre-design work. They're now doing the pre-design work with Layne and me assisting, but the funding sometimes comes from partners, and sometimes comes from other grants that they're able to acquire. Cost and time can be prohibitive for the host, and that's something that has been brought up. It can be that they are not sure how to acquire this funding. So, some are not even running programs yet as it's been a barrier. The question that I have is, do you have any suggestions for other models to incorporate in this program? Lauren, we have noted yours already that if the gardens meet those USDA-NRCS specs that they can qualify, and that is helpful. Lauren. I'm wondering if you have a link for that program.

The following discussion centers on the multifaceted approaches to promoting and implementing rain gardens that meet NRCS standards, encompassing classes, demonstration sites, online educational resources, garden shows, tours, and municipal programs.

### **Rain Gardens meeting NRCS standards and specs**

- Lauren Oertling: The Partners for Conservation program is an IDOA program, but it's administered through the individual Soil and Water Conservation Districts which are in each county across the state. It's kind of a complex thing. There probably isn't one good solid link. Your best bet would be to reach out to the Soil and Water Conservation District in the county where you would like to build the project. Brian Rennecker would be a great contact person.
- Shelly Ray: Brian is my boss's boss, so if you have any questions, I can try and help too. I'm the Region 2 representative. So that includes all Northern Illinois, including Cook County.
- Eliana Brown: Thank you, both.
- Shelly Ray: One caveat with rain garden cost-share through the PFC program is that the project needs to be designed by an NRCS staff member with engineering job approval authority or by a professional engineer.
- Lauren Oertling: Or by an SWCD employee and the design approved by an NRCS person.
- Joan Cox: The Partners for Conservation practice code where they report rain gardens for the nutrient loss Reduction Strategy is 570. It's not actually called Rain Gardens; it's called Storm Water runoff control. You can look up Conservation Practice 570 at <https://efotg.sc.egov.usda.gov/#/state/IL/documents/section=4&folder=-219>
- Holly Hudson: GIGO grant program through Illinois EPA can be a funding source. And some counties have grant programs, such as Lake Co. Stormwater Management Commission, DuPage Co. Stormwater management, MWRD in Cook Co.
- Holly Hudson: Is there a partnering opportunity there? Can they design rain gardens, is that part of what they do?
- Lauren Oertling: If you can find one that has the time to design one outside of one of their cost share programs, then hypothetically, yes. In general, there are staffing shortages within our SWCDs, and they tend to have pretty long wait lists. If you can get an SWCD to partner in the project. You may have better luck getting a soil and water conservation district employee to design it, and then one of the engineers with that job authority can approve the design. Other than the State engineer, there are only a handful of them that have the job authority for rain gardens and stormwater practices, just because their normal work is more focused on the agricultural side of things. If you want to do that kind of a project, you may want to start that as early as possible, just because there's a chance that it'll take a while to get that through the approval process.
- Shelly Ray: Yeah, you're right, Lauren. They just started requiring this job approval in the past year or so there's not a whole lot of people that are approved to do them.

### **Classes and physical demonstration sites**

- Cyatharine Alias: Sounds like maybe some relationship building between Extension, schools, and potential other smaller sites that are at public sites where the school would host the class, but the site visit or demo rain garden would be at a municipal or park site?

### **Online education supplements to demo sites**

- Megan Jacobsen: Would a website of other demonstration rain gardens used for other groups be reasonable to make? Something with pictures, an explanation of why the design choices for each one were made, and a list of plants for the gardens?
- Lauren Oertling: A website would be amazing for that, with a story map, using ArcGIS. So, you could see ones that are in your region.
- Layne Knoche: Yeah, Eliana. I think that there is one. It might be Indiana specific, you know, on the Purdue side. We've chatted about something like this before. I'm not sure how far we've gone with that.
- Eliana Brown: Our boss, Dr. Shibu Kar, who runs Natural Resources Environment and Energy program is here. He is a Co-Pi for the Illinois Nutrient Loss Reduction Strategy initiative here at Illinois Extension. I know he has been talking about some story maps. So perhaps we could build one with rain gardens as well.
- Shibu Kar: Yes, I think that'd be very useful. I think for our Master Naturalist programs we have about 900 volunteers throughout the State. I've been trying to kind of visualize their activities and impacts they're making toward the state and in different you know counties. I think along those lines, having a visual map of the rain gardens would be useful.
- Amanda Christenson: There is an extension garden map, so we have a website where we're already tracking all the gardens that are supported by extension and our rain gardens are already on it. Perhaps we can add some more and try to get some of that detail incorporated into something that's already been started. <https://extension.illinois.edu/community-gardens/extension-supported-gardens>
- Eliana Brown: Having a map that showcases some of the rain gardens that are beyond extension would also be helpful. Something to think about. There is a program that Layne and I worked on called Illinois Groundwork. That has a story map with case studies of rain gardens and larger projects that municipalities have done. To give a shout out to that as well.
- Shibu Kar: How about partnering with local homeowner associations? Creating short videos/visuals on water movement before and after rain garden establishment- showing the impacts.

#### **Garden shows and tours**

- Holly Hudson: Anyone ever do a rain garden build at a "Rain and Garden Show"? Similar to a home show or garden show but with a highlight on rain gardens! Think I've seen that in the City of Westlake, Ohio. Another idea for communities. <https://www.cityofwestlake.org/168/Go-Green-Program>
- Raul Galvan: DuPage County is doing a self-guided tour of 21 Conservation@Home certified properties at the end of July, over 150 registrants so far! Not specifically rain gardens but many of the properties have them.
- Cyatharine Alias: With the focus on residents, is there any content on how they might educate their neighbors who might be interested in learning about the garden that's at their home? (Like main pointers, etc.)?
- Holly Hudson: How about a rain garden walk, like how some municipalities have historical home walks, just with rain gardens instead.
- Eliana Brown: Ten or 15 years ago we held a rain garden party for a particular neighborhood that had a lot of flooding, which was well attended. That is a good idea. In Portland, Oregon they have a bicycle map of some highlighted rain gardens.

- Shelly Ray: I think it'd be nice to have a bundle of information that the homeowner can give to their friends and neighbors. An educational pamphlet or even just a QR code.
- Carmen Franks: Question about the [Rainscaping] program: Will any reuse materials from the training be made public, such as basic design and construction procedures for
- Eliana Brown: That's a great question, and that's something that we can note. We'll share the link at the end to the Rainscaping page created by Purdue that includes some fact sheets and more information on that website answering some of those questions, but I'd be curious, Carmen, what are the kinds of things from the Urbana perspective that you would find helpful for this program to be to make available?

7. What additional comments do you have to share for the program update?

Discussion:

**Municipal programs**

- Holly Hudson: I'm thinking about municipal capital improvement plans. Opportunity for incorporation of green infrastructure when retrofitting and in new development, including possibly rain gardens.
- Darren Graves: Peoria has the same stormwater utility program, some residents are taking advantage of the credits, you see more private locations. I think a lot of the challenge is for folks to understand the process between impervious surface calculations, how they can lower their fees and how the added maintenance is as bad as they think.
- Carmen Franks: We are updating our credit and manual for our stormwater fee right now and want to include some basic rain garden design and construction procedures to make it as simple as possible for a resident. If possible, I would like to direct people to this Rainscaping training program. I would want to make sure what we're putting in our manual is in line with what the training program covers. That's what I was thinking.
- Eliana Brown: That's fantastic. Carmen, have I introduced you to Karla Griesbaum yet? She is the relatively new NREE Extension in Champaign County. I'll circle back around in an email and introduce you two. She's very interested in running this program and she is good.
- Carmen Franks: I don't think so. Good.
- Holly Hudson: Does City of Urbana have a stormwater utility fee.
- Carmen Franks: We do. Yes, we've had it since 2012 and we recently changed the structure. Starting the beginning of this year we changed it so that residents are not paying a flat fee anymore, they're paying based on their impervious area, just like larger properties, like the university and the city, county, and large commercial businesses. We have changed our manual to allow residents to get credit for their fees. Previously, it was just incentives where they could just get some money back for buying a rain barrel or installing a rain garden. You could get up to \$250, but now we're allowing them to take a portion off their fee. No one is really taking advantage of our credit incentives, at least in the last 5 years. So, we're revamping it to try to incentivize people to use it and install things like rain gardens.
- Eliana Brown: Do you know if Champaign is going to do that too?
- Carmen Franks: I don't think they're changing their credit manual right now. They changed their structure some years back, but they have a tiered system. They still have the flat fee, but it's based on the amount of impervious area just broken into buckets, like 3 different tiers of higher



- fees for more impervious area on residential properties. I think their credit incentive manual is the same as what our original one was. It's very similar to a lot of stormwater manuals across the state of Illinois.
- Holly Hudson: I think the American Planning Association's Illinois chapter is having their annual meeting in September in Champaign. I'm just wondering if anyone from Champaign or Urbana is on the agenda to talk about these stormwater programs or host field tours. The City of Champaign has done a whole bunch of work revamping stream corridors into playground areas and open space. I hope they're on the agenda in September.
  - Carmen Franks: Our planning division is a little light right now, but I'll check in with the two planners to see if either of them are attending or presenting.
  - Holly Hudson: I think we have a great opportunity there.
  - Eliana Brown: I have presented to the APA when it's been in Champaign before, so I know that they have included those topics in the past.
  - Holly Hudson: Good. Another thought I had was about municipal capital improvement plans. They often do 5-year plans, and it would be great if they could proactively think about opportunities to incorporate green infrastructure when they are retrofitting streets and parking lots. We're working with a municipality on a grant readiness program to help them think about incorporating green infrastructure. They didn't know what green infrastructure was, which woke me up to the fact that not everybody knows what green infrastructure is, even in urban areas. There are still opportunities for education out there.
  - Eliana Brown: There is no follow-up needed to this meeting but if you are interested in learning more about the Rainscaping program, [here is the link](#). We don't have time for our round robin today, but you can email updates if you'd like. This has just been an incredible conversation. If you're interested in this working group or if you happen to have any other ideas that come to mind, please email [NLRS@illinois.edu](mailto:NLRS@illinois.edu). Thank you. I hope you all have a great rest of your day.