# **Rain Gardens**

# A Simple Way to Do Your Part – Facilitator's Guide

This Facilitator's Guide is intended for Green Infrastructure Champions that have completed the Green Infrastructure Champions Program. If you would like to learn more about the program, please visit the <u>Green Infrastructure Champions Program website</u>.

Hello Green Infrastructure Champion,

The Jersey Water Works' Green Infrastructure Committee, with permission from Dr. Christopher Obropta at the <u>Rutgers Cooperative Extension Water Resources Program</u>, developed this script to encourage you to present on green infrastructure confidently. This presentation and other materials can be found on the Green Infrastructure Champions Program website.

This script covers the important talking points connected to the *Rain Garden: A Simple Way to Do Your Part* presentation slide deck for presenters, available on the <u>Green Infrastructure</u> <u>Champions Program website</u>. As a presenter, consider adding your own personal experiences and expertise when possible. A personal connection to the material is always very helpful. Remember to engage the audience and cultivate a relationship with them by pausing, asking questions, and letting them share their experiences with the topic.

Thank you for your commitment and help in expanding New Jersey's Green Infrastructure initiatives. You are facilitating a conversation; you don't need to be an expert. Be yourself and be genuine. Remember that you can also provide additional resources later if you don't have answers to the participant's questions.

Jersey Water Works is working to transform New Jersey's inadequate water infrastructure through sustainable, cost-effective solutions that provide communities with clean water and waterways; healthier, safer neighborhoods; local jobs; flood and climate resilience; and economic growth.



The Green Infrastructure Committee's goal is to increase the number of communities that employ green infrastructure to maximize benefits including reduced flooding and improved water quality, local economies, community health, and long-term resiliency.



#### Formatting the first slide:

- Personalize the first slide by adding your name, email, and logo, if you have one.
- Please keep the Jersey Water Works and Rutgers Logo on the cover slide so participants are aware of where the information came from.
- · You may edit your subtitle to fit your topic.
- Consider adding the location or audience that you are presenting this to.

#### **Presentation Talking Points:**

- Begin your presentation by selecting an appropriate opening based on the audience.
- Feel free to add a little about yourself, your role in Jersey Water Works, and/or your role as a GI Champion!

# Slide 2

#### **Presentation Talking Points:**

- Today we are going to be talking about rain gardens.
- Rain gardens are just one of the numerous Green Infrastructure practices we can use to control the amount of rain runoff entering our streams and rivers.

OR – (bring the slide up as you mention the title)

<u>Note:</u> You may engage the audience by asking them, who has built a rain garden before? If you have time, you may ask them what type of rain garden.





# Rain Gardens: A Simple Way to Do Your Part

ENTER A SUBTITLE HERE

ENTER YOUR NAME HERE E-mail: ENTER YOUR EMAIL HERE

For More Information: www.water.rutgers.edu

# **Green Infrastructure Practices**

#### **Bioretention Systems**

- · Rain Gardens
- Bioswales
- Stormwater Planters
- · Curb Extensions
- · Tree Filter Boxes

#### Permeable Pavements

#### Rainwater Harvesting

- · Rain Barrels
- · Cisterns

#### **Dry Wells**

#### Rooftop Systems

- · Green Roofs
- Blue Roofs



<u>Note for the Speaker:</u> This slide has an animation. For each image here, you must click to advance each image and pace your talking points accordingly.

#### **Presentation Talking Points:**

n this case - As rain lands on the impervious rooftop surfaces,

(click slide) runoff flows down the gutters,

(click slide) out to the road,

(click slide) directly into the catch basin and out to the local stream.

(click slide) Without any interruption of flow between the impervious surface, the rooftop is directly connected to the stream and so are any contaminants carried along by the rainwater runoff.













#### **Presentation Talking Points:**

When you interrupt the connection between the impervious surface with a rain garden, you reduce the quantity of runoff entering the stormwater system. Every drop of water we prevent from entering our streams also prevents that drop from carrying harmful contaminants into our streams.

# Slide 5

#### **Presentation Talking Points:**

What is a rain garden? Rain gardens are a landscape feature that will capture, treat, and filter stormwater at its source, breaking the link between impervious surfaces and storm drains.

# Slide 6

<u>A Note for the Speaker:</u> This slide has an animation. For each image here you must click to advance each image and pace your talking points accordingly.

#### **Presentation Talking Points:**

Think of a rain garden as a container like a tub (click slide) with large holes at the bottom. (click slide) Fill the container with porous growing material, plants native to the area and put the container in a water collecting area that captures storm runoff.

(click slide) and allows it to seep through to the soil below.



# Green Infrastructure Practices Bioretention Systems Rain Gardens Bioswales Stormwater Planters Curb Extensions Tree Filter Boxes Permeable Pavements Rainwater Harvesting Rain Barrels Cisterns Dry Wells Rooftop Systems Green Roofs Blue Roofs







#### **Presentation Talking Points:**

Here we look at two examples of natural containers bordered by the existing soil that have been converted to rain gardens.

What are some important considerations when considering creating a rain garden?

- Landscaped areas that treat stormwater runoff
- Designed to merge two important goals: aesthetics and water quality
- Can be blended into the landscape and made to look natural
- Water is directed into them by pipes, swales, or curb openings

# **Rain Gardens**

- Landscaped areas that treat stormwater runoff
- Designed to merge two important goals: aesthetics and water quality
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- Water is directed into them by pipes, swales, or curb openings







# Slide 8

## **Presentation Talking Points:**

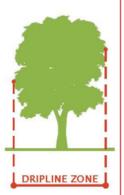
Placement of a rain garden is important to achieve the most efficient and beneficial use of the location. Here are some considerations.

- Next to a building with a basement, rain garden should be located at a minimum of 10' from building; no basement, 2' from building
- 2. Do not place rain garden within 25' of a septic system
- Do not situate rain garden in soggy places where water already ponds
- 4. Avoid seasonably-high water tables within 2' of rain garden depth
- 5. Consider flat areas first easier digging
- Avoid placing rain garden within dripline of trees
- 7. Provide adequate space for rain garden

<u>Note</u>: you may want to pause and consider questions.

# Site Selection

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#### **Presentation Talking Points:**

It is also important to plant a rain garden with native plants. These plants are acclimated to our local environment, and they also provide a habitat beneficial to the local insects and birds.

# Slide 10

#### **Presentation Talking Points:**

Here is a great example of keeping the rain out of the drain. Not only does this rain garden add an attractive feature and increase the curb appeal of the house. It also is keeping stormwater on the property.

# Slide 11

#### **Presentation Talking Points:**

Here we see a crew of volunteers building a rain garden at an elementary school in Cranford, NJ. Creating rain gardens have proven to be great community projects that help educate citizens about how beautiful and effective green infrastructure projects can be.

# Slide 12

#### **Presentation Talking Points:**

Here we see an example of a rain garden built at the Fanwood library. Rain gardens are often located at libraries, town halls, and other public facilities.











View where other Union County rain gardens are found at

#### **Presentation Talking Points:**

This rain garden at the Woodbridge Health
Department demonstrates the variations of shapes
and sizes a rain garden can take. Stormwater
enters this rain garden near the front door and
moves through the garden to the rocks at bottom.



# Slide 14

#### **Presentation Talking Points:**

Rain gardens can be planned for sunny or shady areas. This one is in a shady area. Sun or shade, the rain garden absorbs and filters rainwater. This slide shows how the size of the plants can vary in a rain garden.



# Slide 15

#### **Presentation Talking Points:**

Here are examples of more native plants that are well adapted to the local growing conditions and the local wildlife.



# Slide 16

#### **Presentation Talking Points:**

The benefits include attracting pollinators, friendly wildlife, improving drainage and recharge or filter the groundwater supply. This is another site. Here the local soil was incorporated into the design to provide attractive contours.



#### **Presentation Talking Points:**

Another advantage of a rain garden is to make more conventional detention basins more attractive as in this example.



#### **Presentation Talking Points:**

Here we see the rain garden being incorporated into the home's landscaping. This design reduces mowing, use of fertilizers, pesticides and decreases water pollution.



# **Presentation Talking Points:**

This addition to the parking lot not only controls the runoff from the impervious lot, the decorative vegetation can also attract birds.



# **Presentation Talking Points:**

Here at the Hillsborough Municipal Building we see a great example of how a municipality may implement Green Infrastructure to control stormwater runoff.









#### **Presentation Talking Points:**

There are many resources available for those who want to explore rain gardens in more detail. Many are available to download from water.rutgers.edu.

This rain garden manual covers, in more detail, everything you need to know about rain gardens but most importantly it provides you with a step by step instruction for building your own rain garden! I challenge you to leave today and plan to build a rain garden.

A Note to the Speaker: The image is hyperlinked to the manual when downloaded.

# Slide 22

# **Presentation Talking Points:**

A rain garden app is also available for New Jersey. The app is free and allows the user to see native plant species. This is a helpful tool to use in the planning and implementation phrases of rain garden construction.

# Slide 23

#### **Presentation Talking Points:**

How do rain gardens fit into the Stormwater Management regulations for New Jersey? As of 2022, the New Jersey Department of Environmental Protection requires new 'Major' development projects to manage stormwater runoff and is required to use green infrastructure to maintain groundwater recharge and reduce total suspended solids.



Here is the website for the rain garden manual: http://www.water.rutgers.edu/Rain\_Gardens/RGWebsite/RainGardenManualofNJ.html



# **New Jersey Stormwater Regs**

NJDEP requires new "Major" Development projects to manage stormwater runoff (N.J.A.C. 7:8)

New "Major" Development is required to use GI to maintain groundwater recharge and reduce Total Suspended Solids (TSS) from runoff



#### **Presentation Talking Points:**

There are so many resources available to you today to learn more about how to manage stormwater. Here are just a few.

# Slide 25

#### **Presentation Talking Points:**

Personalize this slide by adding your contact information.

Thank the participants for attending and consider leaving time for questions/answers.

# Improve Your Stormwater Management

There are so many resources available to you today to learn more about how to manage stormwater. Here are just a few:

- NJ Green Infrastructure Municipal Toolkit
- Stormwater Management in Your Backyard
- How to Develop and Implement Green
  Infrastructure Maintenance Strategy One
  Pager
- Become a GI Champion!







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The Jersey Water Works Green Infrastructure Committee's Municipal Engagement Subcommittee spearheaded this project. The following members contributed to this project along with support from the full subcommittee: Rosana Pedra Nobre (Co-chair), Chris Obropta (Co-chair), Allen Swanson, Tricia Dunkak (backbone staff), Cassie Bolinger (Formatting).