

# Measuring the Effectiveness of Green Stormwater Infrastructure in your Watershed with Citizen Science Programs



PINELANDS  
PRESERVATION  
ALLIANCE

Stephen Elliott  
Water Outreach Specialist  
[stephen@pinelandsalliance.org](mailto:stephen@pinelandsalliance.org)







# **Goals of Green Stormwater Infrastructure**

- 1. Limit non-point source pollution from entering local water bodies**
- 2. Reduce flooding by capturing rainfall where it lands**
- 3. Increase native habitat**





# Goals of Green Stormwater Infrastructure

1. Limit non-point source pollution from entering local water bodies
2. Reduce flooding by capturing rainfall where it lands
3. Increase native habitat





# **Citizen Science Opportunities**

- **Water quality monitoring**
  - Watershed organizations
  - Americorps Watershed Ambassador Program
  - Establishing your own program
- **Biodiversity**
  - Using iNaturalist and other free apps/software



# What is the state of your local watershed?

- Designated uses and water quality standards
- Reviewing the integrated report
- Is anyone else collecting data?





# What is the state of your local watershed?

- Designated uses and associated quality standards
- Reviewing the integrated report
- Is anyone else collecting data







## **What resources are available?**

- **Is there a local watershed organization or other non-profit?**
- **Americorps Watershed Ambassadors**
  - Fall under the DEP's QAPP
- **Training**
  - The Watershed Institute
  - Barnegat Bay Partnership
  - The American Littoral Society
  - Pinelands Preservation Alliance...coming soon?



# Building your team

- **EC/Green Team**
- **Local watershed organization**
- **Americorps NJ Watershed Ambassador**
- **School programs**
- **Local experts**
- **Concerned citizens**





## **Building your team**

- **EC/Green Team**

# **Who is driving the bus?**

- **School programs**
- **Local experts**
- **Concerned citizens**





# iNaturalist

- **Online database for collecting biodiversity data**
  - Website
  - Phone App
- **Artificial Intelligence to help identify species**
- **Online community of amateurs and experts**
- **Other apps can help identify, but only some make data publicly available for use in research**





# iNaturalist

- **An observation is:**
  - Picture or sound recording of living organism
  - Time/date
  - Location







# **New Jersey Landscape Makeover Program Pollinator Project**

- **Provide tutorials for anyone interested**
- **Encourage homeowners who have installed rain gardens to add observations**
- **Partners and others add observations from municipal projects**





**Questions?**

**Stephen Elliott**

**Water Outreach Specialist**

**[Stephen@pinelandsalliance.org](mailto:Stephen@pinelandsalliance.org)**

**[https://www.dep.nj.gov/wms/bears/amerikorps  
-nj-watershed-ambassadors/](https://www.dep.nj.gov/wms/bears/amerikorps-nj-watershed-ambassadors/)**

**iNaturalist.org**