Roots for Rivers

An Introduction to Floodplain Restoration & Steps For Implementing A Reforestation Project In Your Watershed

Presenters

Kimber Ray
Resource Service Coordinator
The Watershed Institute
609-737-3735
kray@thewatershed.org

Michelle DiBlasio
Watershed Restoration Coordinator
The Nature Conservancy
908-955-0342
michelle.diblasio@tnc.org

Kaitlyn Vollmer
Grants Program Coordinator,
Sustainable Jersey
609-771-3189
grants@sustainablejersey.com

Improving our Freshwater Resources in New Jersey

❖ Dense development in New Jersey directly affects our water supply.

❖ More than 85% of our rivers and streams are impaired due to factors like erosion and polluted stormwater runoff.

❖ One important way to help ensure we can continue to rely upon our precious natural water resources is to restore New Jersey's floodplains—the critical land near our rivers' banks.

❖ Throughout much of the state, our floodplains have been deforested and left without trees to help filter water, absorb flooding, or cool the river for fish.

Roots for Rivers Reforestation Initiative

❖ The Nature Conservancy (TNC) is eager to share lessons learned and to help catalyze restoration efforts across the state to achieve a goal of planting 100,000 trees in floodplains by 2020.

❖ This fall, Sustainable Jersey, The Watershed Institute and TNC will be partnering on a floodplain reforestation incentive program called "Roots for Rivers" throughout New Jersey's watersheds.

❖ From October through December, municipalities, school districts, conservation organizations and government agencies can apply to receive support in the form of funding to cover the material costs of floodplain reforestation projects.

❖ Selected applicants will be expected to implement tree planting projects and maintain sites through stewardship activities to ensure projects will be successful over time.

What You Will Learn Today

➢ Benefits of Floodplain Restoration

➢ How to Identify Restoration Project Sites in your watershed

➢ How to Develop and Implement a Reforestation Project Plan

➢ How to maintain project sites through stewardship activities

➢ How to Apply and Get Involved

What is Floodplain Restoration?

❖ **FLOODPLAINS** are low-lying areas next to rivers that can experience flooding during significant periods of rain. Forested floodplains naturally help slow and absorb floodwaters and are home to a diversity of native animals.

❖ **RESTORATION** refers to the action of returning something back to its historical or former conditions.

Floodplain Restoration by Reforestation is designed to restore degraded streamside (riparian) habitat, reduce stormwater runoff and improve water quality by reestablishing native tree and shrub species in the floodplain.

Benefits of Streamside Tree Plantings

Planting native tree and shrub species along previously deforested stream banks and adjacent land (riparian area) that drains to the stream will act as a forested buffer, helping to protect and enhance water resources from land-use impacts in the watershed.

Forested Streamside Buffers will...

❖ Provide canopy cover to cool the water and regulate in-stream temperatures for aquatic macroinvertebrate and fish species.

❖ Provide a root system to stabilize stream banks and filter out excess nutrients and pollutants from stormwater runoff.

❖ Provide extra storage for flood waters.

❖ Supply food and habitat for a variety of in-stream and riparian wildlife.

How to Identify Priority Sites for Restoration

❖ Eligible Lands: Municipal, school district, public land (preserved land, open space, etc.) owned by the county or state or non-profit organization owned land.

❖ Projects **cannot** be completed on Private Land.

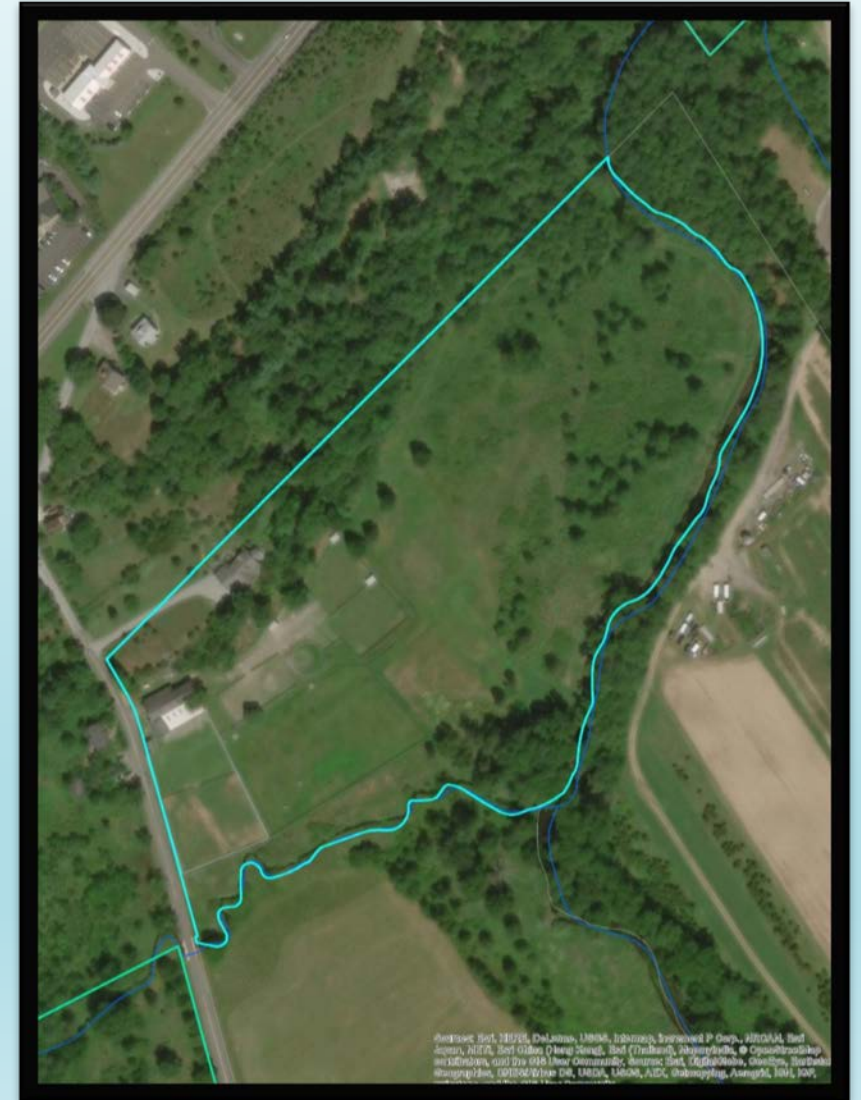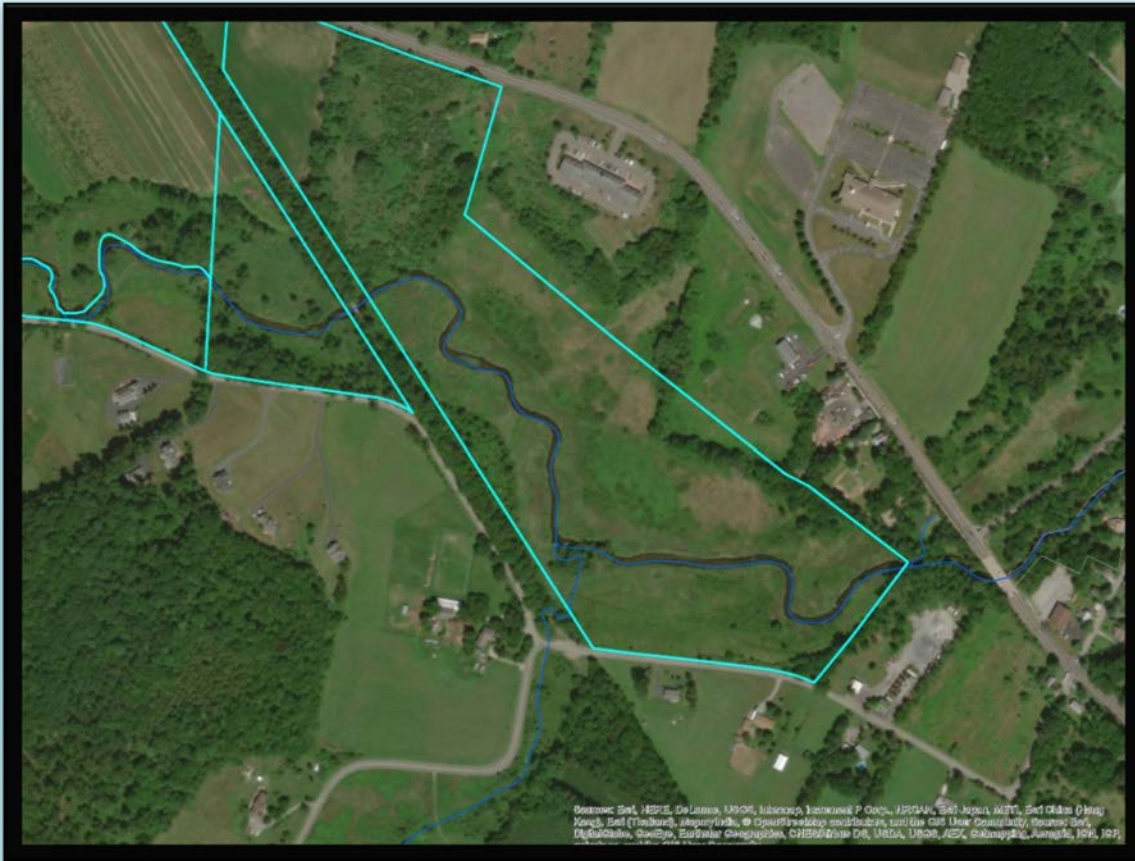❖ You will need to **obtain written permission** from the landowner before you can begin your project.

Criteria for Site Selection

✓ No woody vegetation or sparsely planted woody vegetation

✓ Mowed lawns or impermeable pavement

✓ Invasive or non-native grasses (reed canary grass, loosestrife, etc.)

✓ Signs of erosion

✓ Close proximity to paved roads

Tools for Identifying Project Sites

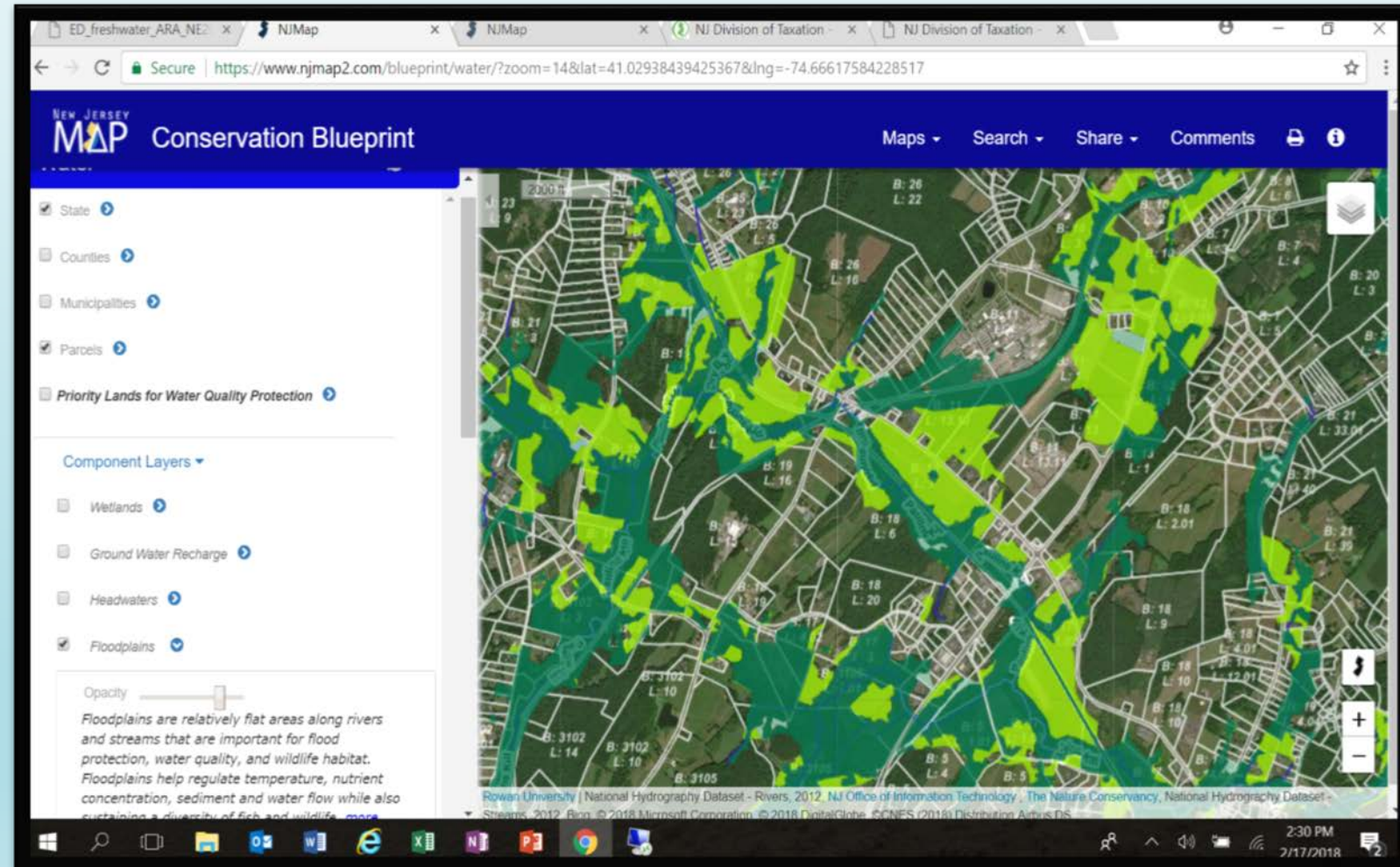❖ Google maps and the use of the satellite imagery can be helpful in located these types of sites.

Tools for Identifying Project Sites

❖ Online mapping tool
https://www.njmap2.com/

Applicable Layers
❖ Rivers/Streams
❖ Floodplains
❖ Priority Areas for Water Quality Protection
❖ Parcel & Municipal Boundaries
❖ Active River Area (ARA)

Field Verification

Develop a Plan for Planting & Implementing Reforestation Projects

❖ Developing a project plan is key to ensuring your project is successful over time.

❖ There are a number of questions you should ask yourself when beginning to develop your project plan.

Questions to Consider

- Who will plant?

- What will you plant?

- Where will you plant?

- When will you plant?

- How will you protect and maintain plantings?

How to Develop a Project Plan
Step 1 – Define your Planting Area

- ❖ Refer to the Active River Area (ARA) maps to estimate where you should install your streamside buffer. https://www.njmap2.com/blueprint/water/

- ❖ Maximize the benefits your project can achieve by planting the entire ARA zone, if possible.

- ❖ Plantings installed ≥ 10 feet from the stream bank and into the adjacent floodplain.

- ❖ Buffer widths can range from 10 to 500 feet or to the full extent of the floodplain.

- ❖ Site conditions, landowner preferences and/or staff capacities may limit availability of planting area.

- ❖ As a rule of thumb: The wider the buffer, the better!

How to Develop a Project Plan
Step 2 – Site Assessment

❖ Determine your planting conditions by conducting a simple and quick site assessment.

❖ Use site characteristics to identify planting conditions and appropriate species for your site.

Key Characteristics to Identify

✓ Soil Moisture/Soil Texture

✓ Depth to Water Table

✓ Known Areas Prone to Flooding

✓ Dominant Vegetation Type (tree, shrub, grass?)

✓ Species Diversity (Native or Non-Native?)

How to Develop a Project Plan
Step 3 - Developing a Planting Design

❖ **Species selection**

   - Wetland Indicator Status (USDA-NRCS)

   - Existing native species present

   - Reference conditions

❖ **Planting density**

   - Average between 220-320 stems/acre

   - For smaller sites < 1-acre estimate stems/acre by calculating # of rows plantable and estimated linear feet.

How to Develop a Project Plan
Step 4 – Site Prep, Protection & Maintenance

How to Develop a Project Plan
Step 5 – Implementation & Volunteers

❖ Find a local school, scouts, company to participate in the floodplain restoration project by helping to plant the trees in your project area.

❖ Connecting with local school and volunteer groups about future maintenance of project sites will ensure maximum survivability of species and allow you to achieve project success!

Completed Projects

Technical Assistance, Resources and Suppliers

❖ **Field Training –** upon request

❖ **Online Resources**

   Species ID and characteristics

   https://plants.usda.gov/wetinfo.html

   Landscape Project

   Existing Wildlife Habitat

   Mapping Tool

   https://www.njmap2.com/blueprint/water/

❖ **Nurseries –** Pinelands, NJ State Nursery or other Local Nurseries that carry <u>native</u> seed.

❖ **Protection** – Plantra, Tree Protection Supply

Application Sections

Basic Applicant Background Information & Contacts	
Eligibility Screening	
1. SPECIFIC TO APPLICATION PORTAL (SJ or TWI)	
Grant Proposal	
1. Grant Funding Requested	6. Current Photos of Project Site (2-3)
2. Project Title & Description	7. Stewardship Commitment
3. Information on Project Site	8. Project Team Members and Duties
4. Condition of Project Site	9. Action Plan and Timeline
5. Map of Project Site	
Attachments For Both Applications (Sustainable Jersey and The Watershed Institute)	
1. Project Budget	3. Optional Information
2. Landowner Support	

Use of Funding

A sample budget template is available for download on our websites and within the online grant application.
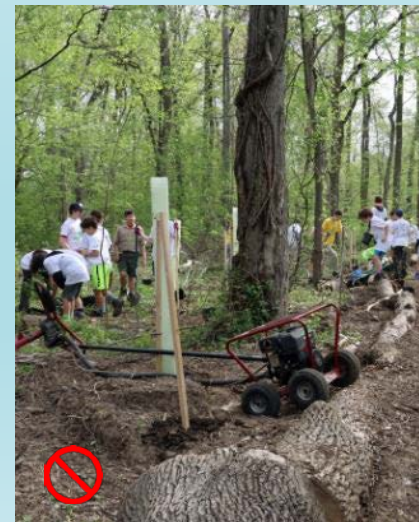
👍 Eligible Expenses
- Trees/shrubs, tree protection tubes, and stakes
- Up to two delivery fees associated with transportation of the above project materials

🚫 Ineligible Expenses
- Supplies such as gloves, shovels, etc.
- Equipment such as mower, auger, etc.
- Protection against deer and invasive species such as fencing, weedmats, etc.
- Labor/contractor costs
- Additional trees/shrubs, tubes, stakes for future plantings
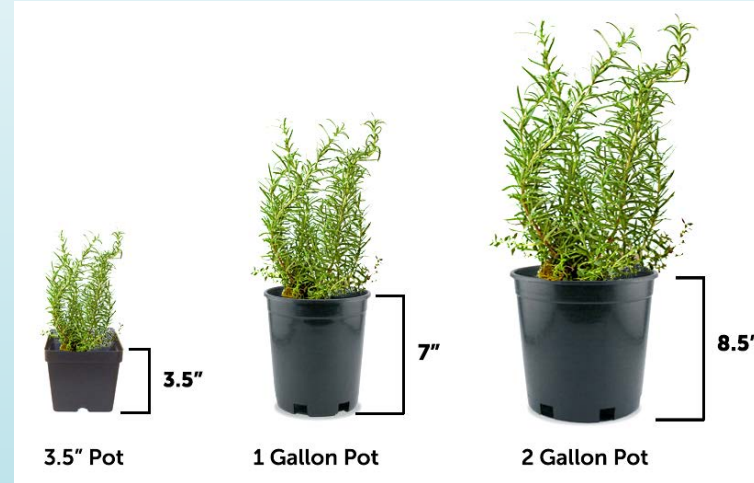
Requirements for Planting Materials

- Trees and shrubs can only include:

Bare root stock

Tublings

3.5" Pot — 3.5"
1 Gallon Pot — 7"
2 Gallon Pot — 8.5"

1-gallon containers

2-gallon containers

- Trees/shrubs available through partnerships with Pinelands and State Nursey
    - Reserve list available in each Application Information Packet (includes availability and pricing)

- Tubes and stakes through Plantra
    - $5.50 for each tube and stake

- The total number of trees/shrubs, tubes, and stakes should be the same
    - Average cost of tree/shrub, tube, and stake **should be $12 or less**

Required Attachments

- Project budget
    - Information on pricing of materials and in-kind available in the Use of Funding section of each Application Information Packet

- Evidence of landowner support
    - If the land is owned by a government unit other than the municipality, school district, or a partner non-profit organization, written permission is **required**

- Action Plan and Timeline
    - Outline the specific steps your team will take to complete the proposed. An action plan template is available in Appendix 1 of each Application Information Packet.

Selection Process

Proposals are evaluated based on…

- Project budget being consistent with use of funding guidelines

- Accuracy and completeness of project tracking and location table. Map and photos of site are used to enhance reviewers' understanding of project.

- The relative impact of the proposed project on restoring floodplains and protecting water resources

- Likelihood of success as demonstrated the strength of the project team and action plan.

Timeline

- Applications due **Friday, December 14, 2018**

- Program participants will be announced **Tuesday, January 29, 2019**

- 50% of the grant funds will be disbursed at the start of the project. The remainder will be paid upon satisfactory completion of the project and approval of the final fiscal and project report

- Plantings must be completed by **July 1**

- Final Reports due by **August 1, 2019**

- Recipients are responsible for routine site stewardship **at least once a year** to inspect plant survivability and damage to tree protection materials

- Tree/shrubs will no longer need their rubes or stakes **within 4-5 years**

Municipalities and School Districts

Sustainable Jersey

Sustainable Jersey is a certification program with designed specifically for municipalities and public schools in New Jersey.

- Identifies actions to help towns and schools become more sustainable

- Provides tools, resources, and guidance to make progress

- *Provides access to grants and funding for municipalities and schools*
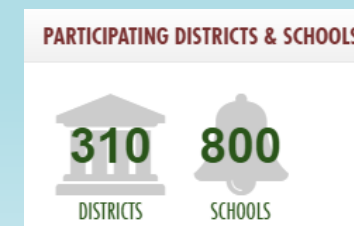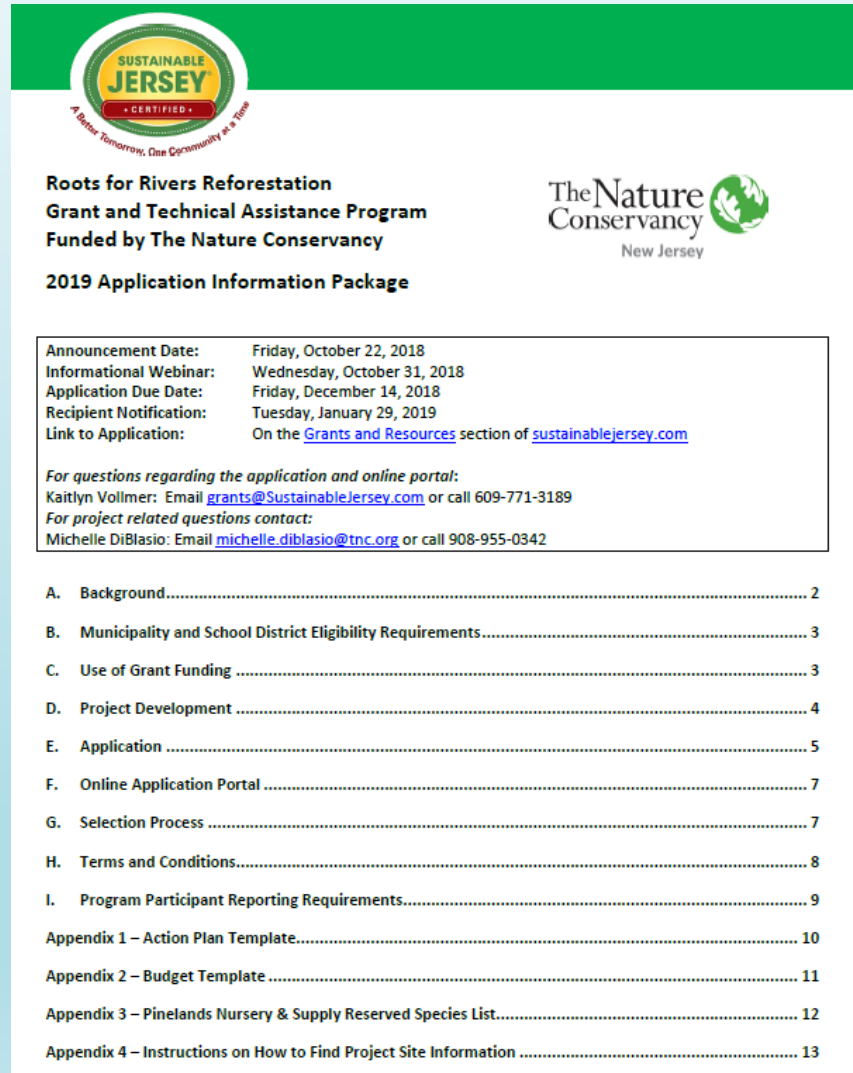

Learn more at:

SustainableJersey.com

SustainableJerseySchools.com

SUSTAINABLE JERSEY MUNICIPAL CERTIFICATION PROGRAM

448 TOTAL PARTICIPATING   **210** CURRENTLY CERTIFIED

159 BRONZE   **51** SILVER   **0** GOLD STARS

PARTICIPATING DISTRICTS & SCHOOLS

310 DISTRICTS   **800** SCHOOLS

SUSTAINABLE JERSEY CERTIFIED SCHOOLS

242 CURRENTLY CERTIFIED   **227** BRONZE   **15** SILVER   BECOME CERTIFIED →

Application Information Packet

The application information packet can be downloaded from the Resource Opportunities Page of the Sustainable Jersey or Sustainable Jersey for Schools website

Questions:

Kaitlyn Vollmer

609-771-3189
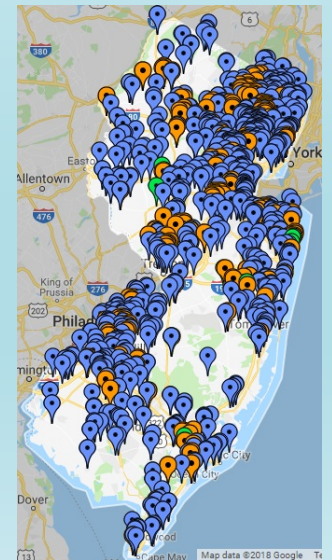
grants@sustainablejersey.com

Eligibility Requirements

- Be a New Jersey municipal government or school district. Funding may be passed through to a nonprofit, partner organization, or contractor, but the municipality or school district must be the applicant and will be responsible for the reporting requirements. Checks will be made payable to the municipality or school district and sent to its fiscal agent.

- Be registered or certified with Sustainable Jersey or Sustainable Jersey for Schools certification program.

You can apply for this opportunity even if you have an open Sustainable Jersey grant!

Participating Communities

Participating Schools

Additional Required Attachments

Municipal and School District applicants applying through Sustainable Jersey will also have to provide…

- Documentation that the municipality or district/school is authorized to apply for the grant.
  - Examples: Municipal/School Board resolution, letter from mayor, superintendent, B.A., or other designated authority

Resolution of Support from Local Governing Body Authorizing the Sustainable Jersey Grant Application

Some municipalities have requested a sample of the resolution that must accompany their Sustainable Jersey Small Grants Program application. The purpose of the resolution is to affirm that the governing body approves of the proposed grant project/activities. A signed and certified resolution should be included with the grant application. Any standard resolution in support of applying for a grant will suffice. We do not require that you use this format.

SAMPLE RESOLUTION
[Municipality]

*NOTE: This is **NOT** the same as the resolution to register with Sustainable Jersey or Sustainable Jersey for Schools*

Resolution of Support Authorizing the Submission of a Sustainable Jersey for Schools Grant Application

Some school districts have requested a sample of the resolution that must accompany their Sustainable Jersey for Schools Small Grants Program application. The purpose of the resolution is to affirm that the Board of Education approves of the proposed grant project/activities. A signed and certified resolution should be uploaded through the online grant application. Any standard resolution in support of applying for a grant will suffice. We do not require that you use this format.

SAMPLE RESOLUTION
[Insert Name of School Board]

Online Application

The online application is available here:
https://app.wizehive.com/appform/login/2019TNCApp

Non-Profit Organizations, Conservation Groups, and NJ State and County Government Agencies

Overview: Roots for Rivers Grant Program through The Watershed Institute

- About Our Organization:
  - The Watershed Institute
  - The Resource Service Center at The Watershed Institute

- Overview of Our Roots for Rivers Web Application Portal
  - Eligibility
  - Required Information
  - Grant Program Dates

Kimber Ray
Resource Service Center Coordinator
kray@thewatershed.org
www.thewatershed.org/resources
609.737.3735 x27

The Watershed Institute's Resource Service Center

Strengthening, connecting and mobilizing NJ's watershed and conservation organizations to protect and restore the State's watersheds

- Grant Center
  - Small Grants Program
  - Roots for Rivers Grant Program
- Environmental Jobs Board
- Watershed Group Locator
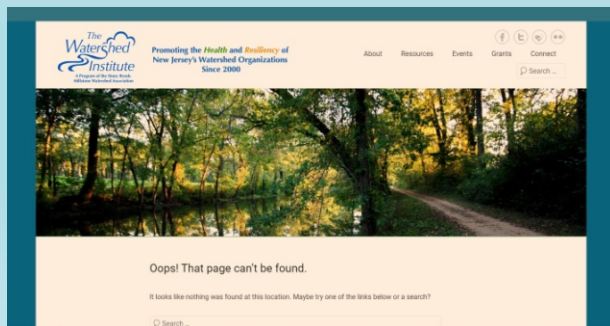- Capacity Building Resources

A Few Housekeeping Items:
Our Name and Program Site

- Name Change: April 23rd, 2018
  - 1949-2018: The Stony Brook-Millstone Watershed Association
    NOW: **The Watershed Institute**
  - 2000-2018: The Watershed Institute Program at SBMWA
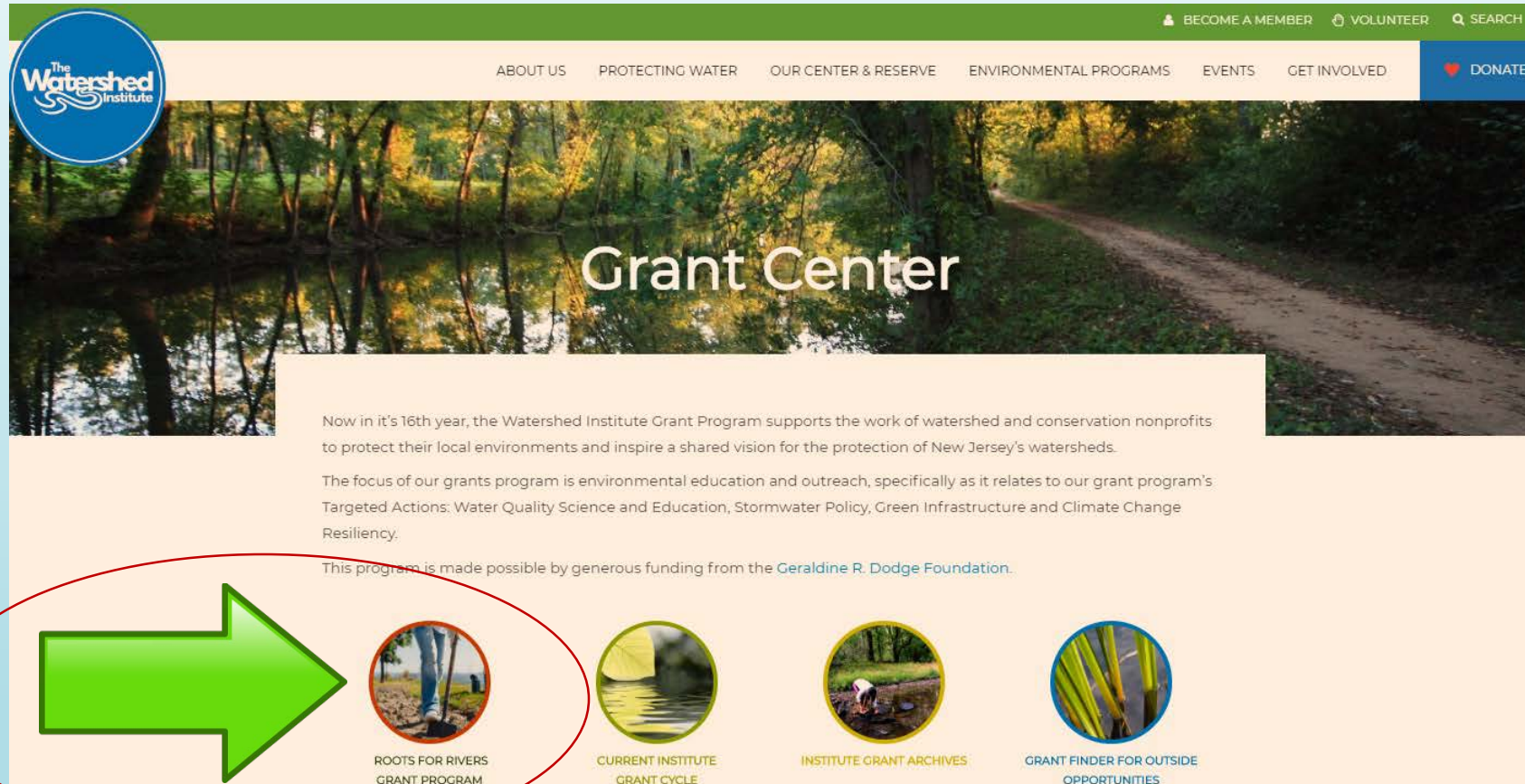   NOW: **Resource Service Center** at TWI

~~thewatershedinstitute.org~~

✓ thewatershed.org/resources

thewatershed.org/grant-center

Or access directly at:
thewatershed.org/grant-center/roots-for-rivers

APPLICATION INFORMATION

Eligiblity

Eligibility requirements to participate in this program through The Watershed Institute include:

- Applicant must be a New Jersey county or state government agency; a 501(c)(3) tax-exempt organization; or a conservation group *
- Project work must be conducted in New Jersey
- Submissions by private individuals, as well as project sites on private land, are not eligible for funds

* Applicants representing municipalities and school districts should apply via Sustainable Jersey.

Grant Program Dates

Application Deadline | Dec. 14, 2018 at 11:59 p.m.
Recipient Announcement | Jan. 29, 2019
Project Completion | July 1, 2019
Final Reports Due | August 1, 2019

Application Portal

Carefully review the 2019 Application Information Packet for Nonprofits before you begin your application
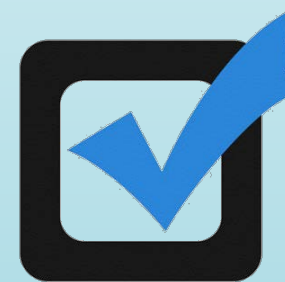
>> Begin Your Application <<

PLEASE NOTE: This application form is only for nonprofit organizations, conservation groups, and government agencies.

Applying Through The Watershed Institute

- Submittable web link:
  https://thewatershedinstitute.submittable.com/submit/e295023a-9d87-4e35-a53d-120916fc212f/2019-roots-for-rivers

- Eligibility requirements to participate in this program through The Watershed Institute include:
  - Eligible applicants:
    - New Jersey county or state government agencies
    - 501(c)(3) tax-exempt organizations
    - Conservation groups
  - Project work must be conducted in New Jersey
  - Submissions by private individuals, as well as project sites on private land, are not eligible for funds

Required Information

- (A) Applicant Information
  - Name of applicant organization and principal contact
  - Federal Tax ID Number
  - **Scanned copy of the IRS determination letter that confirms 501(c)(3) tax-exempt status (if applicable)**
- (B) Grant Funding Request
- (C) Project Title and Description
- (D) Project Site Information
- (E) Condition of Project Site
- (F) Map of Project Site
- (G) Photos of Project Site
- (H) Stewardship Commitment
- (I) Project Team Members and Duties
- (J) Action Plan and Timeline
- (K) Project Budget
- (L) Landowner Support
- (M) Optional Information

Required File Uploads

- Scanned copy of the IRS determination letter that confirms your organization's 501(c)(3) tax-exempt status (if applicable)

- Map of Project Site (use Google maps or NJMap)

- Current Photos of Project Site

- List of Project Team Members and Duties

- Action Plan and Timeline
  (template available in Section E, pg 6: https://thewatershed.org/wp-content/uploads/2018/10/2019-Application-Information-Package-1.pdf)

- Project Budget
  (template available in Section E, pg 6: https://thewatershed.org/wp-content/uploads/2018/10/2019-Application-Information-Package-1.pdf)