



April 2018

WATER PAGES eNEWSLETTER

Delaware River Watershed Initiative (DRWI) Builds on Conservation Successes

On April 4th, The William Penn Foundation announced more than \$40 million in new funding for the DRWI,

which is among the country's largest non-governmental conservation efforts to protect and restore clean water. The DRWI is a first-of-its-kind collaboration involving 65 non-governmental organizations working together to protect and restore the Delaware River and its tributaries, which provide drinking water for 15 million people in New Jersey, Pennsylvania, Delaware, and New York.



At a time when the federal government is redefining its role in environmental protection, leadership by public agencies and NGOs at the state and local levels is more important than ever to keep our water clean. Federal policies over the past several decades, such as the Clean Water Act, have successfully reduced pollution in waterways nationwide, yet recent rollbacks of protections, and budget cuts for the federal Environmental Protection Agency, threaten to slow or reverse progress. The DRWI's bottom-up approach represents a strategic path forward for the Delaware River basin. It is a nationally significant model that demonstrates the power of an organized, independent, non-profit-driven approach that encourages partnership between communities and the philanthropic sector.

At its 2014 launch, the DRWI catalyzed local and regional groups to accelerate conservation efforts. The DRWI stands out as a basin-scale program driven by non-profits and guided by science. In just over three years DRWI partners have strategically:

- initiated projects that will protect 19,604 acres and restore an additional 8,331 acres, and
- monitored and sampled water quality at more than 500 sites across four states.

This additional \$42 million, three-year investment builds on initial successes to protect and restore an estimated 43,484 additional acres and continue science-driven, data-informed efforts to secure clean, abundant water in the basin. The Initiative provides a replicable model that can be used to improve water health across the country.

Threats to the Delaware River basin are significant, demanding a concerted response from private landowners and local officials to protect our natural resources. The DRWI is tackling widespread pollution sources that harm clean water in our rivers and streams: erosion and runoff from deforested acres in headwaters; polluted runoff from agricultural

fields; flooding and polluted stormwater from cities and suburbs; and a depleted aquifer in southern New Jersey. These growing problems will threaten drinking water for millions of people every day if left unaddressed.

“By design, the Delaware River Watershed Initiative aligns the work of 65 organizations in the watershed to accelerate conservation,” said Andrew Johnson, program director for Watershed Protection at the William Penn Foundation. “The Initiative is rooted in the strength of these organizations individually and in their ability to collaborate using science to target the most important places for conservation. Together they are protecting and restoring those places, measuring the impact of their efforts on local streams, and learning collectively to improve their work.”

About the Delaware River Watershed Initiative and the Role of the RCE Water Resources Program

The Delaware River Watershed Initiative is a collaboration of 65 leading nonprofit organizations that have developed shared action plans to reduce four priority threats to clean water. Informed by science, the Initiative is working in eight targeted areas, where analysis indicated that interventions could significantly safeguard or improve clean water. Together, these eight areas constitute 25 percent of the river basin and include portions of New Jersey, Delaware, Pennsylvania, and New York. For more information, including a list of all participating organizations, visit www.4states1source.org.

The Rutgers Cooperative Extension Water Resources Program is one of the 65 non-governmental organizations participating in the DRWI, working specifically in the Kirkwood-Cohansey Cluster! For Phase 2 of the Kirkwood-Cohansey Cluster initiative, the focus areas have been refined, thereby reducing the size of the proposed management area. The refined focus areas (also known as priority catchments) include portions of 32 municipalities in the Lower Delaware River Watershed. As part of Phase 1, Rutgers developed impervious cover assessments (ICAs), impervious cover reduction actions plans (RAPs), and green infrastructure feasibility studies for 12 of these 32 municipalities. Each plan identifies 10 to 15 sites where green infrastructure can be installed to reduce the impact of stormwater runoff on the Delaware River and its tributaries as well as promote groundwater recharge to the Kirkwood-Cohansey Aquifer.

For Phase 2, the first objective is for Rutgers to prepare ICAs, RAPs, and green infrastructure feasibility studies for the 20 remaining municipalities in the refined focus areas. For each of these studies, 10 to 15 green infrastructure sites will be identified in each municipality. The majority of the sites identified will be in the priority catchment areas within each municipality. The second objective is to identify additional sites in the 12 municipalities that have been completed in Phase 1. These newly identified sites will be in the priority catchment areas of these 12 municipalities. The third objective is to prepare designs for 15 to 20 green infrastructure projects in the priority catchment areas. The development of these designs will be coordinated with the other cluster partners to ensure the installation of as many projects as possible. The last objective is to work with the cluster partners to educate government officials on the importance of green infrastructure and work with these groups to install green infrastructure projects by leveraging other funding resources and local in-kind contributions.

For more information, please contact Christopher Obropta at obropta@envsci.rutgers.edu or visit us at www.water.rutgers.edu.



Rain garden installations in Tabernacle Township School District

Rain garden installation season has begun! Two bioswales (3,600 square feet) were installed at Kenneth R. Olson Middle School the week of April 8th.

A bioswale is a vegetated bioretention system designed to manage stormwater runoff. The plant species were researched

and selected by Tabernacle students for pollinator habitat, wetland indicator status, and species diversity. Native plant species such as Orange Coneflower, Blue Mist Flower, and Sweet Pepperbush were planted by students and volunteers on April 13, 2018.

This project was installed through a partnership between Tabernacle Township School District, Pinelands Preservation Alliance, Burlington County Soil Conservation District, and Rutgers Cooperative Extension Water Resources Program. The volunteer and classroom outreach components of the project were organized by Isabella Castiglioni, AmeriCorps NJ Watershed Ambassador for the Rancocas Creek Watershed Management Area.

A rain garden (750 square feet) is also planned for Tabernacle Elementary School. Stay tuned for more rain gardens and green infrastructure projects coming soon!

Earth Day and the Rutgers Environmental Stewards

April 22nd was Earth Day, and the environmental movement continues to be strong. Since Washington DC's support of environmental initiatives seem to be declining and New Jersey's State budget seems to be strained, more than ever, the environmental movement needs to be driven at the local level. If waterways are going to become healthy and flooding is going to decrease, the local community groups will need to step up and take action. For this to happen, we need environmental leaders, which is exactly what the Rutgers Environmental Stewards program produces. Since 2005 the Rutgers Environmental Steward program has trained volunteers in important environmental issues affecting New Jersey so they can help solve environmental problems in their communities. Every year the RCE Water Resources Program strives to support this program by providing talks on green infrastructure and offering to help the Environmental Stewards implement internship projects. The program runs 20 weeks with a 3-hour class once a week. To achieve certification, the participants must complete a 60-hour internship of their choosing. This program is creating environmental leaders throughout New Jersey. Please go to their web site at <http://envirostewards.rutgers.edu/> to learn more about the program. The Water Resources Program congratulates all those involved in the Rutgers Environmental Stewards Program on their success, and we hope the program continues for many years to come!



Municipal Action Teams' Green Infrastructure Initiative Updates

Camden SMART (Stormwater Management and Resource Training) partners are making final arrangements for the June 6th Environmental Summit at Rutgers-Camden Campus Center. Registration is now open! Implementation of green infrastructure projects and improvements in Gateway Park are now underway. The transfer of properties from the Port Authority to the County have begun, and community leaders are working to open this park to the public. Over the past year, over 100 rain barrels have been installed for residents of the City in the latest initiative, and work will continue in the coming months. Partners are beginning spring maintenance of many green infrastructure projects in partnership with the Camden PowerCorps Program and community businesses. Register for the Camden Environmental Summit!

Gloucester City Green Team continues to meet monthly. The first community-based green infrastructure projects funded through a NJDEP 319(h) grant are being installed. The first program included renovations and a tree planting led by the New Jersey Tree Foundation at the Washington Street Playlot on Saturday, April 22nd. Seeding and planting of native wildflowers was done in the right-of-way at Johnson Park. In May, construction of a rain garden at the water treatment plant will begin.

Harrison TIDE (Transforming, Infrastructure and Defending our Environment) met at City Hall on April 19th. Members are working in partnership with the Americorps NJ Watershed Ambassador and PVSC to construct and distribute rain barrels to community residents. Initial workshops with youth from the High School were held, and additional programs are being scheduled for May. Efforts are ongoing to get more participation from the community and to inform residents of the Long Term Control Plan. The City is working with the RCE Water Resources Program to develop plans for another green infrastructure demonstration project and hopes to install it later this year.

Jersey City START (Stormwater Treatment and Resiliency Team) partners met on April 12th at the offices of the Jersey City MUA. Tom Gibbons, Jersey City Environmental Commission, and Kate Lawrence, Jersey City Planning Department, have agreed to take over as co-chairs of this municipal action team. The Rutgers

Municipal action teams have been formed to foster collaboration and collective action that helps the municipality speak with a common voice and achieve a common goal while advocating for green infrastructure. Updates on the various municipal action teams across the stated are listed in this newsletter.

Technical assistance provided to these municipal action teams by the RCE Water Resources Program is funded in part by the Surdna Foundation, the Passaic Valley Sewerage Commission with support from the New Jersey Department of Environmental Protection (NJDEP) and our local partners.

Camden SMART

Gloucester City Green Team

Harrison TIDE

Jersey City START

Newark DIG

Paterson SMART

Perth Amboy SWIM

Trenton Green Infrastructure Partners

Operative Extension Water Resources Program will continue to provide technical support to Jersey City START. The Jersey City MUA is preparing to move forward with a second green infrastructure project that will include a stormwater tree trench and permeable pavers. Multiple Jersey City departments are beginning discussions to develop city-wide green infrastructure standards and integrate green infrastructure strategies into future capital improvement projects. PVSC is leading efforts to develop plans for a right-of-way bioswale project near Columbia Park. This project, when approved, will provide an additional demonstration of green infrastructure practices for Jersey City and other CSO communities in the region. Jersey City hosted the Regional CSO Supplemental Team meeting on April 17th at City Hall. Learn more about the “Clean Waterways, Healthy Neighborhoods” program on Twitter @NJWaterways or on Facebook @NJCleanWaterways.

Newark DIG (Doing Infrastructure Green) partners met in City Hall on April 24th. Partners are working with the Victoria Foundation to identify resources and funding opportunities to support the initiative. Partners are also coordinating to direct tours of innovative projects and programs in Newark in late May for members of the Urban Waters Funding Network. A new plan identifying over seventy potential green infrastructure projects in the City of Newark has been completed and is available at NewarkDIG.org.

Paterson SMART (Stormwater Management and Resource Training) partners met March 28th and are eagerly anticipating the installation of several cisterns at community gardens. Additional work is planned to collaborate with youth at the public schools and conduct a spring cleanup and planting of the recently constructed rain gardens. Partners participated in the Paterson Great Falls Clean Up led by PVSC on April 13th. Displays and programs about the City’s combined sewer system were shared with hundreds of school children. Partners are scheduled to meet again in late May.

Perth Amboy SWIM (Stormwater Infrastructure Management) has continued their efforts toward promoting green infrastructure throughout the city of Perth Amboy. Most recently, the group hosted a green infrastructure maintenance training program in partnership with the Perth Amboy Department of Public Works. The event included an in-class learning session, coupled with a hands-on workshop at Washington Park. Overall, the event was well attended and was a success at promoting the sustainability of maintaining these systems in years to come. The partners recently met on April 19th for their monthly meeting; they continue to meet regularly on the 3rd

Thursday of the month.

Trenton Green Infrastructure Partners conducted a community tree planting on North Clinton Avenue on April 19th and 20th. The partners are scheduled to meet again on May 3rd.

Receive \$450 for Garden Supplies

Hamilton Township Residential Rain Garden Rebate Program

What is a Rain Garden?

Rain Gardens are landscaped features that are designed to capture, treat, and infiltrate stormwater runoff. These systems can easily be incorporated into existing landscapes, improving aesthetics and creating wildlife habitat while managing stormwater runoff.

Rain Garden Education Workshop

May 22, 2018 @ 6-7 p.m.

Rain Garden Design Session

May 31, 2018

5-8 p.m. by appointment **ONLY**



Location:

Hamilton Township Library
Basement Meeting Room
1 Justice Samuel A. Alito, Jr. Way
Hamilton, NJ 08619

To register go to: www.water.rutgers.edu

Note: To be eligible for a rebate you **need** to attend Education workshop.

- Set up a **free consultation** with Rutgers design professionals to plan and lay out your garden.
- Install your garden.
- Get up to **\$450 back!**



RUTGERS
New Jersey Agricultural
Experiment Station



The 2018 Camden Environmental Summit is just seven weeks away.
Don't wait- register today!

**WEDNESDAY
June 6th**

**2018 Camden
Environmental Summit**

**Resilient
Camden**

**@ Rutgers-Camden Campus Center
326 Penn Street, Camden, NJ 08102**

8:30 AM - 2:00 PM
Explore equitable and creative solutions
to climate change in the Camden region

To register, please visit www.camdencollaborative.com or call
(856) 757-9154.
\$25 registration fee. FREE for Camden residents.
To sponsor or exhibit, please contact Caroline Gray of Cooper's Ferry Partnership at
cgray@coopersferry.com or (856) 757-9154

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WWW.CAMDENCOLLABORATIVE.COM

Click [here](http://www.camdencollaborative.com) to register now!

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Rutgers Cooperative Extension Water Resources Program
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