



"Protecting Public Health and the Environment"



# GREEN INFRASTRUCTURE MUNICIPAL OUTREACH & TECHNICAL ASSISTANCE PROGRAM

Passaic Valley Sewerage Commission & Rutgers Cooperative Extension Water Resources Program

May 2016

## 22 Municipalities and counting

The Green Infrastructure Municipal Outreach and Technical Assistance Program is now in its third year! Since the initial start of the pilot program in 2013, the Passaic Valley Sewerage Commission (PVSC) and the Rutgers Cooperative Extension (RCE) Water Resources Program have provided guidance and direction regarding the benefits of and opportunities for implementing green infrastructure practices throughout the 48 municipalities in the PVSC service area.

Today, over 10 municipalities have entered into cost-sharing agreements with PVSC and received municipal-wide green infrastructure feasibility plans. These plans outline actions for alleviating localized flooding and improving water quality in each community. The partners continue into the third year targeting nine (9) municipalities for a grand total of 22 municipal-wide green infrastructure feasibility plans! These plans lay the foundation needed to provide municipalities with information they can use to make practical, science-based, and cost-effective decisions about stormwater management and improve the quality of life for their residents.

To view published green infrastructure feasibility plans and the full list of municipalities the partners have focused on over the past three years, please visit: [www.water.rutgers.edu/PVSC/PVSC.html](http://www.water.rutgers.edu/PVSC/PVSC.html)!

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PVSC assists the City of Newark and Essex County Parks with a rain garden project

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Ribbon cutting of Lincoln Middle School's Green Courtyard in 2015

## Horace Mann School's Cleaner and Greener students engage in stormwater management

The Cleaner and Greener Club at Horace Mann School (HMS) in Bayonne has been busy since September 2015! Students had the opportunity to work with PVSC and the RCE Water Resources Program to install a rain garden in front of the school building disconnecting rooftop runoff from the storm sewer system.

Learning from experts, the students devised a plan to educate the student body about the impacts of stormwater runoff and how systems like rain gardens are so important. Not only has the rain garden and cistern together kept thousands of gallons of stormwater out of the storm sewer, it has also lead to engaging HMS students in environmental stewardship, community action, and caring for water quality.

## Redesigning a school's courtyard into a green oasis for STEM

Committed to help communities better manage their existing water infrastructure, PVSC has funded several demonstration green infrastructure projects throughout the PVSC service area to reduce stormwater runoff volumes. These projects showcase the positive impact green infrastructure can have on local flooding issues and combined sewer overflow (CSO) events. Lincoln Middle School in Kearny was selected as a site for an educational green infrastructure design. This project serves as an example for the community at-large demonstrating methods to reduce flooding and prevent pollution from entering our waterways, while also serving as a hands-on STEM experience for students.

The interior courtyard, sponsored by PVSC, was a redesign and rebuild project that not only integrates the functional needs of a classroom, but also includes green infrastructure to prevent stormwater runoff from entering the combined sewer system in Kearny. Dedicated on Monday, September 21, 2015, the project included a rain garden designed to intercept runoff from the surrounding impervious pavement surfaces. A multitude of seasonally attractive native plants and trees were planted in the courtyard to provide pollinator habitat and food sources.

The school science curriculum will be engaged and enhanced by the addition of handicap accessible raised garden beds, a greenhouse and water harvesting system, and classroom seating built out of trees removed from the Passaic River. The Lincoln Middle School students are engaging in several STEM activities including a gardening initiative, a Project WET day showcasing the rain garden and learning about the importance of managing stormwater, and calculating nutritional values of home gardens and urban agriculture.



PVSC & students install a rain garden

## Contact Us

Give us a call or email us for more information about our program!

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Visit us on the web at  
[www.water.rutgers.edu/  
PVSC/PVSC.html](http://www.water.rutgers.edu/PVSC/PVSC.html)



Art students at School 5 show case community and sustainability through water

## Paterson School 5 students begin harvesting stormwater

As part of the first year of the pilot program, Greater Newark Conservancy in Newark and Public School 5 in Paterson were the first demonstration green infrastructure projects sponsored by PVSC. In Newark, PVSC installed an 800 gallon cistern at the Greater Newark Conservancy's urban environmental center to manage rooftop stormwater runoff that was causing basement flooding and provided a sustainable source of water to the gardens located around the center. In Paterson, a 2,500 gallon cistern was installed to provide a local water source to the Elysian Fields Community Garden managed by School 5.

Green infrastructure projects, like rainwater harvesting systems, help reduce the burden on a city's sewer system by reducing the volume of stormwater entering the system. At School 5, the cistern provides a water source for roughly 30 families that use the community garden for fresh vegetables. The project also serves as a learning opportunity for Paterson students in bringing a global issue into a real-world experience to illustrate how the city is managing stormwater as well as providing strategies and tools that are sustainable and environmentally friendly to improve water quality in New Jersey.



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