



AUGUST 2021

WATER PAGES eNEWSLETTER

Monitoring Outfalls for Illicit Connections in Hamilton Township, Mercer County, NJ



This year marks the sixth year that the Water Resources Program has worked with Hamilton Township to monitor the condition of their storm sewer outfalls. All New Jersey municipalities must inspect and maintain their stormwater infrastructure facilities as part of meeting MS4 (municipal separate storm sewer system) permit requirements, and thus, outfalls must be monitored. In the past six years of monitoring, the Water Resources Program has helped Hamilton Township create and maintain a database of geographic information containing the location and condition of all the known outfalls in the township. Known outfalls? That's right; there may be outfalls that are not known to the township, and these are known as illicit connections in the stormwater sewer system. This year, the Water Resources Program reviewed previously

collected data on outfalls, selected 25 outfalls that had conditions indicative of an illicit connection, and inspected these 25 outfalls. While in the field, Water Resources Program staff used New Jersey Department of Environmental Protection (NJDEP) guidance documents for evaluating outfalls for illicit connections. If the outfall was found to have water flowing from it after 72 hours of dry weather, the discharge was sampled and subject to a series of chemical analyses to determine the source of the dry weather flow (e.g., sanitary wastewater source, sanitary wash water source, cooling water from an industrial source, or natural groundwater infiltration into the outfall pipe). The Water Resources Program conducted these analyses in the field, analyzing the samples for concentrations of detergent, ammonia, potassium, and fluoride. Based on preliminary results, there may be eight illicit connections within the group of 25 outfalls evaluated! The data are currently under evaluation to determine the likely source of these eight dry weather flows. Often simple explanations can be found; for instance, there is always the possibility that someone nearby was simply washing their car and let the soapy water run into the storm drain! This is why we recommend taking your vehicles to a commercial car wash where the water gets recycled and treated.

Upper Pittsgrove Municipal Complex Rain Garden Project a Great Success!



What started out as a hesitant township committee of farmers having their doubts about rain gardens, ended with a very successful project that gained the support of local farmers in Upper Pittsgrove Township, Salem County, NJ!

During the week of August 2nd, the Water Resources Program and ANJEC (Association of New Jersey Environmental Commissions), along with the Upper Pittsgrove Department of Public Works (DPW), installed a 700-square foot rain garden. This rain garden is located behind the Upper Pittsgrove Municipal Complex storage facility. The overall construction and planting took four days to complete, with excavation by an Upper Pittsgrove DPW employee and planting and mulching by Water Resources Program staff and student interns.

ANJEC staff noted during the installation that the rain garden is “protecting drinking water and water resources in the Upper Salem River Watershed from toxins and sediment carried in stormwater runoff and provides a pollinator habitat supporting surrounding agriculture.”

After stopping by to see the progress of the rain garden, a township committee member expressed how there was little support for the project, but after seeing it come to life, the rain garden changed their mindset on how to help attract pollinators, manage stormwater runoff, and filter toxins through the diverse native plant species included in the garden. This was a successful project, and we hope to see this garden "grow" on all residents of the Upper Pittsgrove community!



Before installation



During installation



After installation

50 Rain Gardens for the 50th Anniversary of Earth Day - Featured Rain Gardens for August 2021

The Water Resources Program worked with our partners to install over 50 rain gardens in 2020, while following social distancing guidelines, as part of our *50 Rain Gardens for the 50th Anniversary of Earth Day Initiative*. This month we highlight rain gardens #19, #20 & #21, #30, #31, & #32, and #33.

#19

Grace Breckwedel Middle School 13 Augusta Street, Jamesburg, NJ

The Water Resources Program was awarded a 319(h) grant from the New Jersey Department of Environmental Protection to implement green infrastructure projects in the Raritan River watershed. Funds from the grant were used to design and install the rain garden at the Grace Breckwedel Middle School in July 2020. Wogisch Landscape Contractors, Inc. excavated the rain garden area, added bioretention media, and spread a 3-inch layer of mulch. Students and staff from the school assisted the Water Resources Program with planting. The managed drainage area of the rain garden is 6,030 square feet. The rain garden is 1,200 square feet in size and will serve as a demonstration project to residents of how they may incorporate green infrastructure on their property. Most importantly, the rain garden will be used as an educational tool for teachers to include in lesson plans. The rain garden will capture, treat, and infiltrate approximately 104,000 gallons of stormwater runoff per year!



*Automatic sprinkler in use at Grace Breckwedel Middle School
following the installation of plants, August 1, 2020*

#20 & #21

Monroe Senior Center 12 Halsey Reed Road, Monroe Township, NJ

On July 29, 2020, the Water Resources Program completed the installation of two rain gardens at the Monroe Senior Center. The Water Resources Program was awarded a 319(h) grant from the New Jersey Department of Environmental Protection to implement green infrastructure projects in the Raritan River watershed; funds from this grant were

used to install these rain gardens. Wogisch Landscape Contractors, Inc. excavated for the rain gardens, added bioretention media, spread a 3-inch layer of mulch, and installed the plants. The managed drainage area for the two rain gardens is 6,780 square feet. One rain garden is 910 square feet, and the other is 770 square feet. They will enhance the aesthetics at the entrance of the Senior Center while attracting and nurturing pollinators. The rain gardens will capture, treat, and infiltrate approximately 109,680 gallons of stormwater runoff per year.

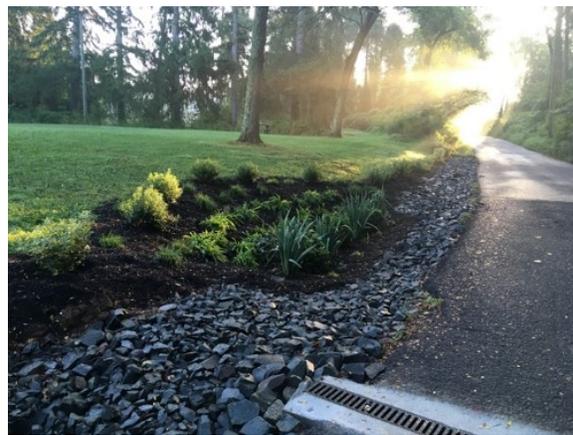


Monroe Senior Center rain garden, September 16, 2020

#30, #31, & #32

Watchung Reservation Trailside Nature & Science Center 452 New Providence Road, Mountainside, NJ

On September 2, 2020 the installation of three rain gardens at the Watchung Reservation Trailside Nature & Science Center was completed. The Water Resources Program was awarded a 319(h) grant from the New Jersey Department of Environmental Protection to implement green infrastructure projects in the Raritan River watershed; funding from this grant supported the design and installation of these rain gardens. The combined efforts of the Union County Parks staff, the Trailside Nature Center staff and interns, and the New Jersey Watershed Ambassador from Watershed Management Area 9 excavated the rain gardens, added bioretention media, spread a 3-inch layer of mulch, and installed the plants. The managed drainage area for the three rain gardens is 3,720 square feet. Each rain garden is approximately 250 square feet in size, and will enhance the aesthetics at the Trailside Nature & Science Center while attracting and nurturing pollinators. The rain gardens will also serve as a demonstration project to residents of how they may incorporate green infrastructure on their property. The rain gardens will capture, treat, and infiltrate approximately 64,200 gallons of stormwater runoff per year.



Teamwork makes design plans come to life!

#33

**Watchung Rescue Squad
10 Stirling Road, Watchung, NJ**

On September 3, 2020, the installation of a rain garden at the Watchung Rescue Squad was completed. The Water Resources Program was awarded a 319(h) grant from the New Jersey Department of Environmental Protection to implement green infrastructure projects in the Raritan River watershed; funds from the grant were used to design and install this rain garden. Wogisch Landscape Contractors, Inc. excavated the rain garden area, added bioretention media, spread a 3-inch layer of mulch, and installed the plants. The managed drainage area of the rain garden is 2,500 square feet. The rain garden is 400 square feet in size and will serve as a perfect example for residents wanting to install rain gardens at their homes. The rain garden will also enhance the aesthetics at the Watchung Rescue Squad while attracting and nurturing pollinators. The rain garden will capture, treat, and infiltrate approximately 45,140 gallons of stormwater runoff per year.



Watchung Rescue Squad rain garden, September 21, 2020



Check out our calendar of events to see what we're up to!



Don't miss out on all the fun!

<http://water.rutgers.edu/UpcomingEvents.html>

Municipal Action Team Green Infrastructure Initiative Updates

Camden Collaborative Initiative Water

The Camden Collaborative Initiative Water group met on August 20 via Zoom. There was a special presentation by Don Baugh, President of Upstream Alliance, which talked about how to create educational opportunities on the Delaware River. The group reviewed how *Camden Reports* has not been used as much and more social media posts have been about flooding instead, so the tool may

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

need to be re-energized to renew interest in using it. Ideas for activities for *Imagine a Day Without Water* were discussed, which is on October 21 and focuses on how essential water is to our lives. The next regular meeting will be on September 8 at 2PM via Zoom. Please go to the following to get added to the email list (<http://www.camdencollaborative.com/meetings.html>).

Gloucester City Green Team

The Gloucester City Green Team meeting scheduled for August 11 was cancelled. The next regular meeting will be on September 8 at 1:30PM via Zoom.

Jersey City START

There was no meeting held in August. The next meeting is scheduled for September 16 at 2PM via Zoom. Contact lsigmund@jcnj.org to be added to the email list.

Newark DIG

Newark DIG met on July 27 to discuss the project initiatives of the Green Infrastructure subcommittee and Newark Department of Water and Sewer. Also discussed were updates to the Newark Office of Sustainability's tree canopy tree analysis and the Climate Justice Youth Ambassadors program. Project partners also discussed the PVSC regional component of the Combined Sewer Overflow (CSO) Long Term Control Plan. Public meetings for the NJDEP Resilient NJ initiative were held on July 28, and all were encouraged to attend. Newark DIG Zoom meetings are on the fourth Tuesday of the month at 11AM. Please contact newarkdig@gmail.com to attend.

Paterson Green Team

Green team members did not hold a meeting in August, but members are continuing to distribute Adopt-A-Catch-Basin kits to residents who sign up to adopt a catch basin in their neighborhood. There will be a Green Fair in Paterson on September 18 from 10-2PM (location TBD). To join the green team mailing list please contact marthaaren333@yahoo.com.

Perth Amboy SWIM

Perth Amboy SWIM members met virtually again this month in conjunction with the Perth Amboy Green Team on Tuesday, August 17 at 6PM. Members discussed upcoming events such as clean-ups with the Department of Public Works, in-person meetings and presentations, and where to plant small trees which were secured from a grant by members of the Royal Garden Club. The trees will be delivered in mid to late September. The group also discussed their efforts to bolster community outreach by developing social media campaigns and implementing more traditional methods to engage community

infrastructure. Updates on the various municipal action teams across the state are listed in this newsletter.

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

Camden Collaborative
Initiative Water

Gloucester City Green Team

Jersey City START

Newark DIG

Paterson Green Team

Perth Amboy SWIM

Trenton Green Infrastructure
Partners

members. On August 11, a separate group of SWIM members met virtually to generate comments relating to public participation on the NJDEP Long-Term Control Plan (LTCP), to be sent to the NJDEP. The next meeting will be on September 21st at 6PM. Please contact epyshnik@envsci.rutgers.edu to be added to the email list.

Trenton Green Team

Trenton GIP met virtually on Tuesday, August 17 at 3PM and finalized plans for the upcoming Open House that will be held virtually on Wednesday, September 29. TGIP members are working on marketing materials which will be handed out during two upcoming events in September to generate interest in the Open House. The upcoming events, being hosted by TGIP and Trenton Green Team partners Tri-State Transportation Campaign and The Watershed Institute, are Trenton Ciclovía/Art All Day on September 18 and Trenton River Days on September 19. There will be a discussion about the new Draft Zoning Ordinance at the September 9 planning meeting, and public input is needed. Please join the meeting to learn and make a comment! The next meeting will be on September 21 at 3PM via Zoom; please contact atabas@njfuture.org to be added to the mailing list for the group.



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