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## School 5 students get 2,500-gallon rainwater harvesting cistern for community garden

May 19, 2015 by Jayed Rahman



The Passaic Valley Sewerage Commission (PVSC) completed a green infrastructure demonstration project behind School 5 on Monday morning installing a 2,500-gallon cistern that will collect rainwater from a nearby roof for use in watering vegetation at the Elysian Fields Community Garden.

Workers connected the large green water storage tank to the roof of an industrial building that sits in front of the community garden to harvest rainwater that would otherwise run into the city's combined sewer system. The building's gutter flow into the cistern which has inbuilt filters to exclude debris, leaves, and other particles.

The project costs roughly \$10,000 and is funded by the PVSC to demonstrate to local communities the viability of green infrastructure in flood mitigation and nonpoint source pollution reduction. "The goals are to reach communities and municipal officials about low impact storm water management through green infrastructure techniques," said PVSC scientist Ashley Slagle.

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Slagle explained that containing 2,500-gallon of water in the cistern results in reduced burden on the city's sewer system. Although one cistern may not make a large difference, officials acknowledged, a number of them can have an impact.

"This is our first demonstration project in this area," said Jeremiah Bergstrom, senior research project manager with Rutgers' water resources program, which has partnered with PVSC. "We want to see other folks doing these same kinds of practices."

Bergstrom said the cistern in the city will serve to demonstrate to anyone wishing to learn how to reduce flooding and pollution in local waterways. He said it also helps in extending the life of aging water infrastructure.

"We can hold water back from overflowing and flooding our combined sewer systems so we can extend the life of our aging infrastructure," said Bergstrom.



***Elysian Fields Community Garden behind School 5.***

The demonstration project also helps a community garden that has been providing roughly 30 families with fresh vegetables, said Gilman Choudhury, parent coordinator at School 5. He said to water the tomato, eggplant, and other vegetation at the garden volunteers often had to carry water from the Totowa Avenue school to the garden.

To address this issue, he accidentally called the PVSC, thinking it was the Passaic Valley Water Commission to obtain a water connection for the garden. The person at the other end of the phone informed him he had called the sewerage commission, but they sought additional details about his garden which was setup in April 2014 with assistance from the Passaic County Freeholder Board and urban farming outfit City Green.

Choudhury provided details, emails were exchanged, and few weeks later he heard back from the PVSC, which was seeking to do two demonstration projects in urban areas. His garden was selected as one of the demonstration sites.

"Everything lined up," said Choudhury. "The water commission was going to charge us for water." He said the garden serves mostly low-income families on Food Stamp and could ill afford to add an additional bill for water.

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"I can't believe we got this," he said. "This solves our water problem, but also helps us to be sustainable project." He said 2,500 gallons is enough to water the community garden three times over.

"This rooftop will give them 600 gallons of water in an one-inch storm," said Slagle. She said 90-percent of rain events in New Jersey happen to drop one-inch of water.

Choudhury said recently the garden was expanded from 37 boxes to 60 boxes and 19 more will be added soon.

Monday's installation was watched by more than two-dozen students from School 5's environmental club. Fifth grade science teacher Patrick Cecala said his class has been learning about water system and water management by reading articles.

"This bring a real world experience to that in their own hometown," said Cecala. "Understanding a global problem, which is managing water systems, and how their city is attacking global issues such as managing the water system."

Cecala said the event also showed students they can make a difference in their community and the broader world by creating a garden out of a vacant lot.

"We're making a system so that when it rains instead of it going down to the ocean, we grab the water from the roof and put it in the tank, that way we can use the water to water the plants," explained Fiona Sanchez, 6th grader. "The rain will probably give more nutrients to the plants."

"We can show everybody else in urban cities that Paterson has one of the first sustainable projects and it's part of a school," said Choudhury.

The PVSC will install another cistern at the Greater Newark Conservancy in Newark on Tuesday. Together the two projects have the potential to collect approximately 110,400 gallons of rain water annually, according to PVSC.