

# Rainwater Harvesting in East Greenwich Township

## Situation



The Samuel J. Mickle Wild Site in East Greenwich is a school-yard habitat project that began in November 1992. The fifth grade students performed an initial site inventory to identify the essential elements of wildlife habitat. The students concluded that there were very few areas on the school grounds that were beneficial to wildlife. The students, teachers and community members, enlisted the expertise of the New Jersey Division of Fish, Game and Wildlife and Gloucester County Soil Conservation Service. Together they developed a safe, pleasant nature place, where children have the opportunity to observe, learn and become sensitive to the delicate balance of nature. It is a place where students can till, plant and take care of the environment and form a mental and emotional impression that could never be matched in a textbook. The school community shares in the responsibility of caring for the Wild Site and offers students a "hands-on" approach to environmental and cross-curricular education.

In the summer of 2009, several of the teacher's at the school indicated that the Project WILD site would benefit from a rainwater harvest system. East Greenwich Township has limited water resources and a growing population. Currently, the township is using the maximum allocation from the aquifer, and newer homes suffer from low water pressure. To help prevent wasteful over-watering, the township has imposed restrictions on water use.



Project WILD site at Samuel J. Mickle School in East Greenwich Township, NJ.



Newly installed sprinkler head at the Project WILD site at Samuel J. Mickle School.



Newly installed control system at the Samuel J. Mickle School

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## Action



Samuel Mickle School Rainwater Harvesting System

New Jersey Water Savers, along with the East Greenwich Township Board of Education, worked with Middletown Sprinkler Company and the Spring Irrigation Company to identify the proper location for the system. The irrigation contractors installed two 500 gallon rainwater-harvesting tanks, along with an irrigation system. The harvesting cistern is similar to a rain barrel, but it is much larger. The harvesting system is designed to capture the rainwater from a portion of the school's roof. The water is then pumped through the water efficient irrigation system and provides water to

the students' native plant gardens. This project was officially opened to the public at the Build-A-Rain-Barrel workshop held in May 2010, where participants toured the gardens and then built their own barrels to use at their own home gardens.

## Impact

The East Greenwich Master Plan requires all government owned streets and non-residential buildings to be irrigated, and all residential buffers must be landscaped. Towns that have similar Master Plans would benefit from this cost-effective solution. The cost varies depending on the chemical qualities of rain and the roof and how the water will be used. A complete system that does not filter or purify the water can cost as much as \$20,000. A simple system designed to water plants can be as little as \$200.

In areas not served by a municipal water supply, or in a drought prone area, installing a rainwater catchment system may actually be the most convenient economical option. Typically groundwater is much more vulnerable to environmental contamination than rainwater.

## New Jersey Water Savers Partnership

New Jersey Water Savers is a partnership between the Rutgers Cooperative Extension Water Resources Program, the New Jersey Department of Environmental Protection, and the United States Environmental Protection Agency. This partnership was created to provide leadership to promote water conservation throughout New Jersey. For more information on our partnership efforts, visit us at [www.water.rutgers.edu](http://www.water.rutgers.edu).

