

# Students take classroom lessons outside to help keep water supply clean

By **ARLINE A. FLEMING**  
Valley Breeze & Observer  
Correspondent

**SCITUATE** – On a brilliantly clear but cool Earth Day Monday, several Schiatae High School students marked the environmental tribute date by digging into the rich dirt opposite the foundation of their own 1840 Town Hall on Danielson Pike.

Their intention wasn't to see what they could find, but to find out how they could help keep the state's water supply clean by installing a rain garden.

So on their first day back after spring vacation, several members of leader Shannon Donovan's environmental science class shovelled out a triangular trench opposite the entrance to Town Hall with the intention of installing native flowers – such as Joe-Pye Weed and winterberry – which are able to tolerate sometimes soaking conditions.

And while looking attractive, the plants will be working daily "for cleaner Rhode Island waters," said Gina DeMarco, district manager of the Northern Rhode Island Conservation District, a major collaborator in the project.

"Rain gardens help in keeping water supplies clean by catching storm water runoff from parking lots, driveways and roofs. Soil and plant roots filter out pollutants and cleaner water continues down into the ground-water," she explained.

The lesson is particularly important in Schiatae where the reservoir is so central to the town's geography. But it is also important to the entire state, DeMarco said.

"Sixty percent of Rhode Islanders rely upon the reservoir for their water," she said.

So the high school students, after spending the winter studying forestry, soils, aquatics, plants, and other related topics, applied some of their lessons on Monday with the help of their teachers, as well as their student teacher Louis Chrelo, and representatives from a host of other collaborating agencies, among them, Betsy Duke of Rhode Island's Department of Environmental Management, office of water resources; Christopher Rely of Providence Water; and Paul Dolan of Rhode Island Resource Conservation and Development.

The participation of the high school students, DeMarco says, helps to increase awareness, understanding and interest in water resources within the Schiatae Reservoir Watershed. The project is part of a larger project called Get Well, which stands for Groundwater Education Through Water Evaluation and Testing and has involved other town students.

The installation of the rain garden is one of several projects in the planning stages, she said, but might be among the highest paid given the location.

DeMarco has overseen a similar Schiatae rain garden on

Route 6 behind Famous Pizzeria's Tavern, and is planning a series of gatherings to further spread the word about how rain gardens intercept rainwater coming from roof downspouts and flowing off paved driveways, carrying with it pollutants which eventually enter rivers, brooks, ponds and storm drains.

DeMarco says that while public water supplies are required by law to be tested regularly, private well owners are only required to test upon the transfer of property. So unless the homeowner has their well water analyzed by a certified laboratory, they may not know of the potential health threats and the contaminants in their water.

But on this symbolic Monday,

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Volunteers from **SCITUATE HIGH SCHOOL** and the **NORTHERN RHODE ISLAND CONSERVATION COMMISSION** work together on Monday, to build a rain garden located in front of the Schiatae Town Hall.

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a day designed in 1970 to generate public awareness of air and water pollution, the students, and their student teacher Chrelo, a senior at Rhode Island College, devoted much of the day at the Town Hall location, and after-school hours as well.

"I feel really good about this get-your-hands-dirty-type of learning," said Chrelo, dressed for the classroom in a shirt and tie, but readily digging in the dirt.

DeMarco said the cost of installing a rain garden is about \$3,000 with all collaborators making a contribution of time or tools, with DEM providing much of the cost by way of an EPA grant.

Duke, DEM's senior environmental planner, said in addition to the Clean Water Act grant, the town itself "is donating a lot of the work for this project," town engineer David Provostil helped with the design, she said.

"We'd love to have these all over the state," Duke said, pointing out that the installation of rain gardens is something the average person could tackle in their own yard with directions easy to find online.

"Rain gardens help keep unwanted things from going into the storm drains," Duke said. Pollutants can be caught in the ground, where they are removed before traveling off to water sources.

"We're all working together as stewards," said Providence Water forest supervisor Christopher Rely of the various agencies overseeing the "high visibility project so close to the Schiatae Reservoir." He described the rain garden as being "a low-impact develop-



A variety of native Rhode Island plants will be planted in the rain garden in front of the Schiatae Town Hall.

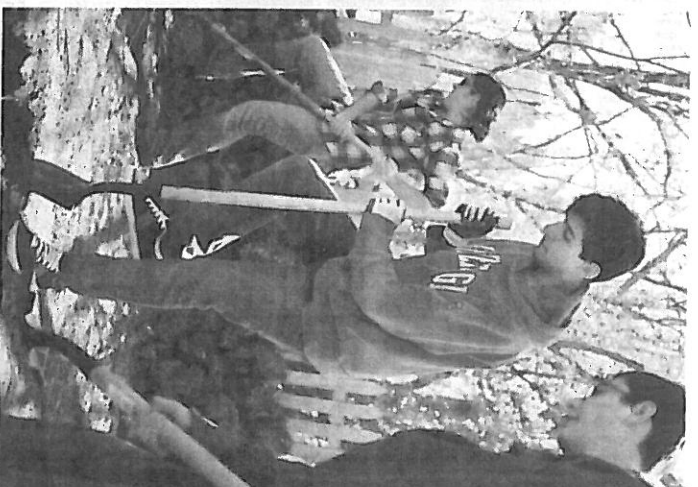
ment feature that can help minimize stormwater runoff.

"The nutrients and chemicals in stormwater are harmful when they enter the water supply,"

Paul C. Dolan of Rhode Island Resource Conservation and Development Area Council Inc., said his agency has been working for years encouraging hand and water conservation and management. "We've done unrepentant different projects," and he spoke of upcoming Arbor Day tree plantings planned for around the town and state.

But at this particular spot on Monday, DeMarco coordinated all the contributors, helping with the installation of cinnamon fern, cardinal flower and winterberry among other native plants that don't need insecticides and fertilizers, which add to water pollution.

"We did a little of the design and talked about the plant-



VALLEY BREEZE & OBSERVER PHOTOS BY ELISE MANAHAN  
**BECCA BUCKLER** of the Northern Rhode Island Conservation Commission, left, and Schiatae High School 12th-graders **JOSH CARON**, center, and **ZACK HALL**, right, work on digging up the dirt to make the rain garden in front of the Schiatae Town Hall on Monday.

placement, did a little reading about plant requirements," said Donovan about pre-digging preparation, noting that the selected plants are also easy to care for and maintain "and look nice at all times of the year for the most part."

Schiatae High School seniors Zack Hall, 18, and Josh Caron, 18, said they'd consider putting in just such a garden in their own yards someday, but in the meantime, plan to check up on

this one they helped establish with their teachers.

Noted Donovan: "My class wants to help teach people about this issue in the hopes that landowners will realize their roles in protecting our watersheds and about some of the options for helping the situation."

To contact the Northern Rhode Island Conservation district, call 401-934-0840 or check [www.rinrcd.org](http://www.rinrcd.org).

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