

Eagle Scout Project Aims to Reduce Dirty Water Polluting the Bay

By Elise Burroughs
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“Rain garden” is a rather poetic name for something designed to handle a very prosaic problem: stormwater that gushes off roofs, driveways and other impervious surfaces and washes dirt and pollutants directly into storm drains that deposit the gunk in waterways. Rain gardens, as defined by the University of Rhode Island [Healthy Landscapes web site](#), are designed to capture that water and gradually percolate it through the ground, providing nourishment for plants and reducing erosion and pollution.

Saunderstown Life Scout Ryan McNaughton, 17, and fellow Boy Scouts started work at 9 a.m. Saturday, July 9, building a rain garden alongside the [North Kingstown Chamber of Commerce](#) at 8045 Post Road.

The new garden should prevent gutter runoff from washing across the gravel driveway pell-mell into storm drains that empty into Narragansett Bay.

And it should also help earn the [Eagle Scout rank](#) for McNaughton, a member of Troop 1 in Kingston.

McNaughton, who will be a senior at Bishop Hendricken High School this fall, said he considered several possible Eagle Scout projects before consulting environmental experts at URI. They put him in contact with Dave Renzi, proprietor of [Out in Front Horticulture](#) of Exeter and a rain garden proponent.

A few years ago, Renzi helped create the rain garden in front of Town Hall. “I’m not much interested in planting in my own yard,” said McNaughton, who runs track and cross-country for his high school. But the science that underlies rain gardens intrigued him.

Working with Renzi, he spent the winter finding a site, planning the garden and assembling donated plants, compost and mulch.

Renzi explained that rain gardens are depressed, rather than raised, to capture water. The rain garden design at the Chamber includes two shallow areas with layers of gravel and soil that will hold water from gutter drains temporarily and let it soak in.

McNaughton said that if one garden “bowl” fills, the water will spill over into the second, slightly lower, one, but in either case the water will pool for less than 24 hours to avoid mosquito breeding.

Renzi noted that rain gardens are usually situated at least 10 feet from buildings so the filtering water does not leak into basements or undermine foundations. But because the Chamber building rests on a concrete slab, the water from an adjacent garden should not affect it, he said.

“Rain garden plants must tolerate alternating wet and dry conditions,” Renzi explained. Native plants generally fit that description and the perennials used for the Chamber site include grasses, a button bush and Joe-Pye weed.

The URI Rain Garden site also recommends native trees, shrubs, native ferns, and perennials including Jack-in-the-pulpit, wild Columbine, Bushy Aster, Heath Aster, New England Aster, and Grass-leaved Goldenrod for rain gardens.

Renzi said the Chamber donated the funds to buy many of the rain garden plants, and others were donated by the Rhody Native project, an initiative to make indigenous plants available to gardeners involved in restoring habitats.

The [Rhode Island Natural History Survey](#), [URI’s Outreach Center](#), the [Master Gardeners Association](#) and the [Rhode Island Wild Plant Society](#) are working together on the Rhody Native project. It aims to find sources of native plant material from Rhode Island wild stock through seed collection and stem cuttings. Those stocks will then be grown and sold by local nurseries.

By 3 p.m. the garden was dug, raked, and dotted with plants. They will need water and weeding until they are established, but according to the Healthy Landscapes site, “Once the rain garden has become established maintenance is minimal and will generally only include periodic mulching, pruning and thinning, and plant replacement.” With that proper maintenance, Renzi said, “It should last forever.”