

Donor Recognition

This rain garden was installed on May 2, 2005 as part of the University of Rhode Island Cooperative Extension (URI CE) Healthy Landscapes Program. The garden is a result of generous donations by local businesses. Most notably, David Renzi, owner of Out in Front Horticulture and a URI Master Gardener, assisted with the planning and design of the garden. David also donated his services and crew to install the garden.

Special thanks to:

David Renzi and crew, Out in Front Horticulture
Dr. Michael E. Dietz, NEMO, University of Connecticut CE system
Town of North Kingstown
Holly Ridge Nursery
Little Tree Farm and Gardens
Morningstar Nurseries
Rose Shack
Schartner Farms
Taylor Rental Center
The Farmer's Daughter
Wickford Lumber Co.
Wildwood Nurseries

URI Master Gardener volunteers who helped install the rain garden, and who will monitor and maintain it over the next two years include:

David Renzi, Valerie Harvey, Dori Gerhardt,
Joy Gerstenblatt, Evelyn Quinn and Hilary Sowa

www.healthylandscapes.org or (401) 874-5398



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Demonstration Rain Garden The North Kingstown Town Hall

The new garden that adorns the North Kingstown Town Hall's front lawn provides more than a pleasing array of ornamental shrubs and plants. It protects the environment and serves as a demonstration rain garden. A rain garden is a natural or dug shallow depression designed to capture and soak up stormwater runoff.



rain garden

a beautiful way to protect
Narragansett Bay and replenish
your water supply



How the garden works

Stormwater runoff from a roof gutter downspout is directed to the rain garden through an underground plastic pipe. We hand dug the garden to form a depression, using the excavated soil to make a berm around the low side of the garden. The garden is designed so that water does not pool for more than four to six hours after a storm event due to both plant and mosquito concerns.

Why the garden was installed

Before the rain garden was installed, runoff from the Town Hall's southwest corner downspout emptied onto Reynolds Street through an underground pipe. The runoff flowed over Reynolds Street and into a storm drain, eventually making its way to nearby Narragansett Bay.

The rain garden provides the following benefits:

- Enhances landscape beauty and attracts wildlife
- Conserves landscape watering needs
- Reduces runoff leaving the property
- Reduces potential water pollution to nearby Narragansett Bay
- Replenishes valuable groundwater resources

These are important benefits to a community such as North Kingstown that has 31 miles of coastline, enjoys an abundance of fresh water resources, and relies solely on groundwater resources for its drinking water supply.



Design features

At approximately 10 feet by 16 feet (160 square feet) and six inches deep, the garden is sized to handle the first one inch of runoff from the roof gutter downspout and the surrounding lawn area that drains naturally into the garden. The first one inch of runoff typically contains the greatest amount of pollutants.

In planning and locating the garden, we took several factors into consideration including:

- Proximity to buildings, septic systems, wells, and underground utilities
- Soil type and slope
- Potential rain garden overflow
- Frequent pedestrian traffic

There are several methods and important factors to consider when planning, locating and sizing a rain garden. For more information including details and photos of this demonstration rain garden, visit the URI Healthy Landscapes website at www.healthylandscapes.org or call (401) 874-5398.

Costs

Materials for the rain garden have an approximate retail value of \$1,075. Hiring a landscape contractor to install the rain garden (including materials and rental equipment) would cost approximately \$2,400. The demonstration garden is a result of generous donations by local businesses. (See the back panel for donor recognition.)

This demonstration rain garden has a few features that raise the costs compared to an average rain garden installed at a private residence.

- The garden inlet relies on underground pipe to accommodate pedestrian traffic.
- The garden demonstrates a variety of large shrubs.

A rain garden can contain an elaborate mix of plants that provide year-round seasonal interest and attract butterflies and hummingbirds, or it can be simple and functional, planted to a few shrubs or a native tree. Suitable plants can also be transplanted from other gardens as long as they have a well-established root system.

Materials	Approximate retail cost
Plants	\$741
Compost and mulch, 2 cubic yards of each, delivered	\$189
Sod cutter rental, 1/2 day	\$78
Pipe and fittings, 50ft, free local delivery	\$50
* Crushed stone, 0.5 cubic yard, pick-up	\$17
Total	\$1,075

* Crushed stone can be used in place of field stone used in this garden.



Choosing plants and garden maintenance

The rain garden contains mostly native perennial shrubs and herbaceous plants that can tolerate both temporary pooling and dry periods. We selected suitable plants based on a combination of aesthetic beauty, wildlife value and the need for low maintenance. We also chose a wide variety of suitable plants in order to monitor their performance. Container plants or plants with a well-established root system are important when starting a rain garden in order to guard against soil erosion and plant wash-out.



The garden currently contains the following plants:

- Wild Columbine, *Aquilegia Canadensis*
- Sweet Pepperbush 'Hummingbird', *Clethra alnifolia*
- Red Twig Dogwood 'Ivory Halo', *Cornus sericea*
- Joe-Pye Weed, *Eupatorium purpureum*
- Inkberry 'Shamrock', *Ilex glabra*
- Winterberry Holly, *Ilex verticillata*
- Highbush Blueberry, *Vaccinium corymbosum*

The installation crew mixed compost into the natural soil and spread it over the entire garden upon planting. They applied mulch to conserve soil moisture, reduce weeds and protect against soil erosion. URI Master Gardener volunteers water the plants periodically, especially during dry spells. The plants are otherwise low maintenance plants and should not require added fertilizer, pesticides or water. Other periodic maintenance includes monitoring during and after storms, weeding, mulching, plant thinning and pruning.

Rain gardens conserve and protect water quality while also adding beauty to our landscape. Consider whether this is an option for your yard. As each of us takes steps to reduce stormwater runoff and increase groundwater recharge, the benefits to our community and the quality of our water can add up and make a big difference.

Visit our website at www.healthylandscapes.org