Rain Garden at Brainerd Lake in Village Park Fact Sheet

What is a Rain Garden?

A rain garden is a landscaped, shallow depression that allows precipitation to be collected and infiltrated into the ground. By capturing stormwater, rain gardens reduce the polluted runoff (or nonpoint source pollution) that enters local waterways. Pollutants may include road sediment/salt, fertilizers, pesticides, bacteria from pet waste, eroded soil, grass clippings or litter. The Village Park rain garden prevents pollution from reaching Brainerd Lake, and therefore, Cranbury Brook.

Rain gardens are designed to manage stormwater runoff from rooftops as well as from driveways, lawns, roads, and parking lots. During a storm, a rain garden fills with water, allowing the water to slowly filter into the ground rather than running into storm sewers and streams. Rain gardens are planted as perennial gardens, but they are much more. Rain gardens add beauty to neighborhoods and, with the use of native plants, provide habitat for wildlife including butterflies and songbirds.

Project History

The Village Park demonstration rain garden project was funded by a generous grant from the New Jersey American Water Company. The Environmental Commission partnered with the Rutgers Cooperative Extension (RCE) Water Resources Program to design and install the rain garden. On September 26 & 27, 2014, Cranbury's Environmental and Parks commissioners, RCE staff members and several other township volunteers completed the installation of the rain garden. The donation of equipment from two local business owners helped support the volunteer efforts.

Rain Garden Description

The rain garden in Village Park is approximately 600 square feet in size and includes a 6 to 8 inch depression to intercept and collect stormwater runoff before it enters Brainerd Lake. The design also incorporates a 70 foot long grass swale (shallow channel) to direct runoff to a stone lined inlet at the rain garden entrance. The base of the rain garden is constructed of a 3-inch sand/soil mix covered by a 3-inch mulch layer. Several stone filled wicks were installed 18 to 20 inches deep into the base of the garden to improve infiltration. The perimeter berm is approximately 4 to 6 inches high. A stoned lined overflow and buried drain pipe prevents excess ponding during heavy rainfall events.

The drainage area which contributes runoff to the rain garden is approximately 3,000 square feet and captures 2,400 gallons of water for a New Jersey design rainfall event of 1.25 inches. This equates to an overall volume of 67,320 gallons of water treated annually.

Plant Layout

Over 150 plants line the base and sides of the rain garden. The Village Park rain garden plants are native perennial species. Native plants are usually chosen for rain gardens because they do not require substantial fertilization, adapt well to both dry and wet conditions, establish root systems that absorb water more efficiently than grass and require less annual maintenance than non-native plants.

The native plants in this rain garden were also selected for aesthetic appeal ---targeting different heights, shapes, textures, and blooming schedule. The plants include blue flag iris, turtlehead, spotted Joe-Pye weed, spotted horsemint, cinnamon fern, royal fern, sweet pepperbush and meadowsweet.

Detailed fact sheets for these native plants and design details are provided on the following Cranbury Environmental Commission webpage.

[http://www.cranburytownship.org/vp-raingarden]