BRIALLIA CIRCLE RAIN GARDEN BRINGS COMMUNITY TOGETHER

Houses, driveways, and roads – oh my! All these hard surfaces on Briallia Circle and surrounding areas in Newmarket send rain water runoff, melting snow, and associated pollutants to the Piscassic River and eventually to Great Bay. The Soak Up the Rain (SOAK) Great Bay program is in its third year of teaching homeowners how to install Do-It-Yourself treatment practices, such as rain gardens, to help them reduce the amount of stormwater running off their own properties. SOAK Great Bay found an ideal candidate for a rain garden at the Arcieris' home on Briallia Circle in Newmarket where rain water from the gutter system was reaching the catch basin down the street.

Bill and Liz Arcieri's rain garden captures rain from the garage and house roofs, reducing the amount of stormwater and associated pollutants picked up by the catch basin system and delivered to the Piscassic River and eventually to Great Bay.

"…you can't understate the aesthetic – it is great to have a vibrant garden of continually blooming and colorful plants…well worth the investment"
– Bill Arcieri

BUILDING THE RAIN GARDEN

It can be quite a challenge to dig out a rain garden area deep enough to install a planting bed and create a ponding depth (the space above the planting bed where the stormwater collects, ponds up, and slowly sinks in). At this particular rain garden site, the test pit revealed large boulders and bony soil, so a backhoe was needed to excavate the rain garden area.

The work crew installing shrubs and perennials in the rain garden. The earthen berm and rock-lined outlet can be seen in the foreground. The pots are overturned on the plants to protect them when the mulch is added.

Once the hole was dug out, the work crew began to construct the rain garden. The first step was to build an earthen berm of overturned sod. Because the garden is located on the sloped front yard, the berm was needed on the lower sides to make the garden level all the way around the edges. Meanwhile the planting bed, made up of a mixture of soil that was dug out and loam that was purchased, was added. Then rain garden plants were installed. Rain garden plants can tolerate being in ponded water for a day or so while the water soaks in. Next, a layer of mulch was added to help retain moisture and to suppress weeds. Rock-lined inlets and an outlet were built to stabilize the places where water flows in when it rains and out when large storms result in overflowing water.

BRINGING THE COMMUNITY TOGETHER

This simple rain garden brought the community at large together in a number of ways. Laura Byergo, of the Great Bay Stewards and SOAK Great Bay, designed the rain garden and coordinated the installation. Volunteers from both the Natural Resource Stewards and the Great Bay Stewards contributed their labor to help build the garden, and the Lamprey River Advisory Committee donated grant money for the backhoe services. The homeowners, Bill and Liz Arcieri, hosted a lively neighborhood get-together where friends and neighbors gathered to hear about the rain garden and other types of Do-It-Yourself stormwater practices and to have a chance to win a rain barrel donated by the Newmarket Conservation Commission. To top it all off, the Arcieris were interviewed by NH Public Television, which will air a segment about the rain garden in late winter 2016 or early spring 2017.

At a neighborhood event hosted by Bill and Liz Arcieri in Newmarket, Laura Byergo of the Great Bay Stewards and Soak Up the Rain Great Bay, explains how rain gardens work.

REDUCING WATER POLLUTANTS

The Arcieri's rain garden captures an estimated 16,569 gallons (or 2,215 cubic feet) of runoff each year, potentially preventing 2.96 pounds of sediment, 0.01 pounds of phosphorus, and 0.17 pounds nitrogen from reaching the Piscassic River each year. Although the nutrient reductions sound small, every time someone installs a practice like this, the reductions, and the awareness, multiplies.

For a list of plants suitable for rain gardens,
visit SOAKNH.org
and search for
"rain garden plant list."