

NEW NEIGHBORS MAY SPARK A TREND: RAIN GARDENS TO PROTECT GREAT BAY

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Karen and Fred Mason weren't aiming to become trend setters, but after hosting a "Rain Garden Party" on their expansive Tidewater Farm Road property in Greenland, that's just what they might become. The Great Bay Stewards, led by the Executive Director, Peter Wellenberger, teamed with the NH Department of Environmental Services (NHDES) to install the first Soak Up the Rain Great Bay Do-It-Yourself Stormwater Solution on the Mason's property. The result is beautiful, functional, and a hot neighborhood topic.



View of Great Bay from the Mason's yard

ASSESSING THE SITUATION

The Mason's home sits atop their sloped property with an impressive view of Great Bay. A small man-made duck pond sits on a low spot near Tidewater Farm Road. The pond drains to a second pond, opposite the road, and then to the bay. Near the top of the Mason's property, stormwater runoff drains from the upper portion of Tidewater Farm Road and an adjacent wooded area, through a small culvert, and onto the Mason's property. The volume of runoff is often so great that it washes across their driveway and erodes



Excavating and adding compost to the garden



Rain garden plants are ready to install

areas of their lawn. Overgrowth of algae in the pond indicates that the runoff is likely carrying sediment and nutrients, some of which could be reaching Great Bay. In order to protect the duck pond, and ultimately the bay, NHDES and the Soak Up the Rain (SOAK) Great Bay team developed a plan to intercept the stormwater runoff and treat it before reaching the pond.

BUILDING A RAIN GARDEN

I he plan for the Mason's property included installing a rain garden to capture the runoff coming through the culvert as close to the source as possible. Following the SOAK sizing guide, the New Hampshire Homeowner's Guide to Stormwater Management's Rain Garden Fact Sheet, and a planting design created by the University of New Hampshire's Cooperative Extension, NHDES and the SOAK Great Bay team went to work digging, hauling, and planting. Water tolerant plants such as





SOAK team with completed rain garden

blue flag iris (*Iris versicolor*) and cardinal flower (*Lobelia cardinalis*) were used in the wettest part of the garden while plants such as barrenwort (Epimedium) and Pennsylvania sedge (*Carex pennsylvanica*) were used in dryer areas. Due to the large volume of stormwater reaching the garden in a big storm event, a stone-line outlet channel was built above the ponding depth to direct any overflow toward an adjacent wooded area. After several substantial late summer rain events, Fred and Karen reported the rain garden was functioning as it should and looked fantastic!

GETTING TRENDY

In September, the Masons hosted a "Rain Garden Party" for friends, neighbors, and the SOAK team. Nearly 40 people attended to learn about the rain garden and how it benefits the health of the bay. These benefits are estimated to include capturing 1197 cubic feet of stormwater runoff per year, which prevents 11.02 lbs/yr of sediment, 0.05 lbs/yr of phosphorus, and 0.22 lbs/yr of nitrogen from reaching the bay. While these numbers are small, this installation is important in that it plants the seed for increased awareness and action

in this community. As a result of the party, several neighbors expressed interest in having the SOAK Great Bay team visit their properties to see if a rain garden or similar practice to soak up the rain is right for them. SOAK Great Bay will continue their work with interested property owners in the Great Bay watershed to identify potential stormwater issues and install stormwater solutions to help protect and restore the bay.

Soak up the Rain (SOAK) Great Bay is a pilot, residential stormwater management program under NHDES's voluntary SOAK NH program. SOAK Great Bay is focused on providing assistance to property owners in the Great Bay watershed to reduce stormwater runoff and pollution to the bay. In August 2013, the Great Bay Stewards partnered with NHDES to expand their knowledge of residential stormwater management, receive hands on training to identify potential stormwater issues, and assist homeowners with installing solutions.

The Stewards are currently searching for additional homeowners willing to have their property considered for a SOAK project.

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