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February-March 2012

Neponset News

Protecting Our Water From Headwaters to Harbor

Two-Pronged Streamflow Effort Expands to 6 Towns



A tree-filter box is installed curb-side to filter pollutants from road runoff and to protect the health of a local stream.

Water Conservation and Polluted Runoff Partnerships at Work in Milton, Canton, Sharon, Stoughton, Dedham and Westwood

The Watershed Association's two-pronged approach to addressing the problem of decreasing summer streamflow has expanded to six towns, with the Dedham-Westwood Water District joining our existing efforts with Sharon, Stoughton, Milton and Canton.

Development causes profound changes to streamflow patterns in a river—increasing water levels during rainstorms and flooding events,

and reducing levels during the dry summer months. While streamflow problems are less intuitive than water pollution issues, they are just as important, if the river is to be a recreational amenity, drinking water source, and valued wildlife habitat.

Our Water Conservation Program is designed to help address the summer low-flow problem. Almost 160,000 people get some or all of their drinking water from underground aquifers connected to the river. However, because of the way we handle wastewater, very little water ever is returned. The result is a 60-80% reduction in August streamflow in much of the watershed, according to research by the US Geological Survey.

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Start Planning for a Water-Efficient Garden!

Late winter is a great time to draw up your garden plans. Planning ahead allows you to make smart decisions about the variety and placement of your plants, in the context of their care and watering needs, as well as their environmental benefits.

Design your garden based on the zones in your yard; choose plants appropriate for the hot/sunny, cool/shady, moist, or dry areas.

Consider the environmental effects your plant choices will have. Native plants can provide food and shelter for small wildlife like birds and butterflies. Some exotic plants, on the other hand, can escape your garden to the detriment of local natural landscapes.

Add organic matter to the soil—such as compost, manure, and grass clip-

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Asters are native to New England, popular with pollinators, have low water needs, and offer delicate blooms in late summer.

Call for Water Quality Monitors!

Volunteer positions are available with the Citizen Water Monitoring Network (CWMN), in Foxboro, Walpole, Norwood, Milton, and Canton.

We seek new CWMN volunteers to: take water samples, monitor dissolved oxygen levels, coordinate sample drop-off, and transport samples.

CWMN volunteers participate in six sampling events, April through October, between 6AM and 7:30AM (this schedule complements the work day).

To sign up or to learn more, contact Environmental Scientist Bill Guenther at guenther@neponset.org or 781-575-0354. E-mails should include name, address, e-mail and phone number.

Call for Beetle Ranchers!

Participate in the final year of Beetle Ranching! Take advantage of this unique opportunity to restore wetland biodiversity by raising beetles in your own backyard.

Beetle Ranching requirements:

- Very sunny yard, with access to a nearby garden hose and space for a kiddie pool,
- Availability and desire to care for plants & beetles,
- Availability to participate in activities, March-August.

Learn more at www.neponset.org.

Space is limited. To sign up, contact Restoration Manager Carly Rocklen at rocklen@neponset.org or 781-575-0354.

Before you recycle this newsletter...REUSE it, by sharing it with a friend!



Neponset River Watershed Association

The Watershed Association is a nonprofit conservation group founded in 1967 to protect and restore the Neponset River, its tributaries and watershed lands.

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Director's Corner

Rising to the Challenge

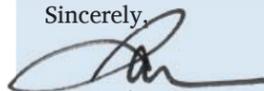
In the late 1960s, when the Watershed Association was created, it was a matter of local individuals—concerned about their neighborhood, their river, their parks, and their water—coming together to get things done.

The big issue at the time was trying to keep a mile of the Neponset, hundreds of acres of parkland, and several neighborhoods from being obliterated by Route 95, which was originally supposed to go straight into Boston, instead of turning west in Canton to go around the City, as it does today.

A lot has changed in the Neponset Watershed, since the 1960s, much of it for the better, but our members are still the heart of our organization—gathering data, raising funds, spreading the word, volunteering, and advocating for a healthy, accessible river.

That's why we are so excited that this fall, 184 formerly lapsed members and 56 brand new members joined forces to not just meet but shatter our year-end challenge grant goal! That translates into more than 22,000 extra dollars to support programs and projects from the headwaters to the estuary. Just as importantly, it almost has returned our membership numbers to pre-recession levels, laying the groundwork for a very productive 2012.

Thank you!

Sincerely,

Ian Cooke
Executive Director

Two-Pronged Streamflow Effort Expands to Six Towns

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By partnering with towns and water districts to help encourage residents to take advantage of opportunities to use water more efficiently, we reduce the impact on the river while also lowering water bills and saving energy for years to come.

The second prong in our streamflow strategy is to address polluted runoff. Without a doubt, polluted runoff is our most serious water quality problem, but it also is a key part of our *streamflow* problem.

When we turn a forest or a meadow into a parking lot, three things happen: 1) We prevent rain from soaking into the ground to recharge the aquifers that feed the river and our drinking water supplies; 2) We increase the amount of water that runs to the river by reducing both recharge and evapotranspiration; and 3) We accelerate the speed at which that runoff reaches the river.

Whereas forested land sends zero gallons of surface runoff to the river during an average year (all the rain soaks into the ground or is evaporated by plants), an acre of unmanaged pavement sends about 1 million gallons of surface runoff to the river. That runoff arrives at the river within minutes of rainfall, causing water levels to rise much higher than normal for a few



Sue attaches a decal to a catchbasin to indicate that street runoff flows directly to a nearby brook.



Water Conservation Coordinator Nancy Fyler teaches students. Photo by: Ann-Marie Ford.

hours and then drop suddenly below natural levels—scouring out stream-bottom habitats with a flood of hot, dirty water, and sometimes damaging nearby property.

For the river, the difference between forest and parking lot is not unlike the difference between the slow, steady energy our bodies get from a healthy, whole-grain snack versus the spike and crash in our blood sugar from a candy bar.

Our polluted runoff program aims to reduce this spike and crash streamflow pattern by working with communities to ensure that development projects intercept the rush of water, clean it, and allow it to soak into the ground. We also work with communities to retrofit runoff controls on town-owned pavement.

We are excited to work with the six communities on both parts of the streamflow problem, and we hope to see more watershed towns take a comprehensive approach in the coming months. Although general policies tend to be set at the state or federal level, implementation occurs at the local level, and so strong leadership in our cities and towns is critical.

Questions? Contact Executive Director Ian Cooke at 781-575-0354 or cooke@neponset.org.

Volunteer Spotlight: Andrea Stuart

How and when did you first get involved? I saw Carly Rocklen mailing beetle boxes at the Canton Post Office and was really intrigued at what she was doing. As a science teacher, I wanted to know about the Beetle Ranching project and if it was something I could do with my students. I became a Beetle Rancher that year, and introduced the Beetle Ranching project to my students. I crafted my curriculum around the *Galerucella* beetle and Purple loosestrife. I still do that project today!



Andrea (left) and other Beetle Ranchers prepare potting soil.

In which activities have you participated? Your favorite? I really enjoyed pulling rootballs at Pequitside Farm, with other volunteers. It was a beautiful day and everyone had fun getting dirty and getting rootballs for their beetles.

What activity would you like to do in the future? Canoeing! I also want to learn more about how the rivers connect in Canton, and the effect that dams and ponds have on the river.

What is your favorite natural spot to visit in the Neponset Watershed? Why? I love going to the Canton Audubon center, and using the trails to get to the river. I enjoy hiking and taking pictures during all seasons.



Beetle Ranchers Andrea Stuart (left) & Mary Noble (right).

Plan Your Garden

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pings—to enhance its moisture-retaining capabilities. Incorporate the organic matter 12-18" deep.

To reduce water evaporation and inhibit weed growth, you can place mulch around flowers, shrubs and trees, and hay or newspaper (no color pages) around vegetables. Plant groundcover around shrubs and trees to retain moisture.

For optimum irrigation, use rain barrels, drip irrigation systems, and soaker hoses, instead of sprinklers. (Much of the water dispersed through sprinklers evaporates before ever reaching the plant roots.) Use rain barrels to treat nearby, smaller gardens that don't require a lot of water, and use drip irrigation or soaker hose systems for larger gardens and shrubs. In general, moisten the top 3-4" of soil.

Help for selecting native, low-water plants:

- www.wildflower.org/collections/
- www.greenscapes.org/Plants
- www.enature.com/native_invasive/

Questions? Contact Water Conservation Coordinator Nancy Fyler at 781-575-0354 or fyler@neponset.org.

Curious George Meets the Beetles!

Mark your calendars! On February 22-23, children's television show *Curious George* will feature young Neponset Beetle Ranchers on the "Feeling Antsy" episode, on PBS. For the viewing schedule, visit: www.wgbh.org/programs/Curious-George-61. Thank you to the Slocum and Emery families for participating in the filming!

2012 marks the fifth and final season of our Purple loosestrife biocontrol program. We encourage you to participate! For volunteering details, see the following page.

The beetles that we raise help to reduce the prevalence of exotic, invasive Purple loosestrife in the Fowl Meadow wetlands and at Brookwood Farm in the Blue Hills Reservation. By feeding on the Purple loosestrife plants and thereby reducing the weeds' vigor and ability to set seed, the beetles help to stem the spread of

Purple loosestrife. In doing so, the beetles allow diverse native plants to flourish, resulting in better wetland wildlife habitat.

Each project year, our beetles have strengthened local populations of biocontrol beetles (these beetles originated from prior releases and migrations). Together, the beetles reproduce and over-winter, to feed on Purple loosestrife again, the next spring. This combined beetle force should control Purple loosestrife over the long-term, both at our sites and beyond.

Our goal—to establish a self-sustaining beetle population at our treatment sites—appears to have been met; each spring, the beetles re-appear. We look forward to seeing the Purple loosestrife diminish further over time! Questions? Contact Restoration Manager Carly Rocklen at rocklen@neponset.org or 781-575-0354.