



Of Note

Be a Water Sampler

Come take water samples with NepRWA! Volunteers participate in six sampling events on designated Wednesday mornings between 6AM and 7:30AM, April through October. Contact Environmental Scientist Bill Guenther at 781-575-0354 x302 or guenther@neponset.org.

Be a NepRWA Member

Join NepRWA if you aren't already a member! Help support environmental projects around the Neponset Watershed. Join NepRWA at www.neponset.org or request a membership application from Kristina at 781-575-0354 x301 or lafrance@neponset.org.

wat • er • shed (n): 1. the area of land draining into a particular body of water

Neponset River Watershed Association

NepRWA is a nonprofit conservation group founded in 1967 to protect and restore the Neponset River, its tributaries and their watershed lands. *News from the Neponset* is published six times each year. Printing by Blue Hill Press, Canton.

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2. a crucial turning point, 3. communities connected by water

News from the Neponset

September-October 2010

Director's Corner: Partnerships Get Things Done!

NepRWA's core goal—a healthy river with clean, naturally flowing water and natural habitats for fish, wildlife and people to enjoy—is only achievable with a strong framework of state and federal environmental laws. Over the decades, NepRWA has been an advocate of creating a strong legal foundation for environmental protection, and we continue to play that important role today.

But, the most eloquent laws won't protect the river unless they are implemented effectively at the local level where the vast majority of decisions affecting the river are made. There are a thousand reasons why local implementation can fall short, and in most cases, seeking legal enforcement would be frustrating or impractical.

With this in mind, NepRWA's Board of Directors made a strategic decision several years ago to focus most of our efforts not on enforcement, but on working with communities in cooperative partnerships to devise the best possible strategies for improving their waterways, then helping to win public support for those strategies, and even helping with implementation.

Our lead articles in this newsletter focus on the most important of these partnerships:

- Conserving water to maintain stream flow and drinking water during times of drought,
- Curbing polluted runoff to keep our river clean and get more rain water back into the ground,
- Joining forces with local parkland managers and volunteers to restore wildlife habitat.

We are proud of the results we have achieved and how these efforts are expanding across the watershed.

Sincerely,

Ian Cooke
Executive Director

Water Conservation Expands to Stoughton & Canton

This summer provided another vivid demonstration of the stream flow problems along the Neponset River and its tributaries. The river was parched by high temperatures and scant rainfall. Many Neponset communities imposed water bans, and the river itself reached a miserable 88% below normal (monthly mean) in August.

The strange weather pattern highlighted a larger set of problems in the watershed: heavy withdrawals for drinking water and irrigation, thousands of acres of pavement which reduce

groundwater recharge, and aging sewer pipes into which clean water leaks. These diversions leave the river with unnaturally low stream flows every year, but it becomes especially conspicuous

during drought years when the combination of natural and manmade impacts creates a double whammy.

Water conservation—reducing the amount of water withdrawn by increasing the efficiency of household and business water use—is a key strategy for restoring the river.

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NepRWA forges partnerships to increase efficiency of water-use.

NepRWA Innovates with Paperless Stormwater Inventory

One of the biggest challenges to achieving clean water and natural stream flow levels in the Neponset River is the thousands of acres of existing pavement across the watershed. When rainwater washes over surfaces such as roadways and parking lots, it gathers pollutants like nutrients, bacteria, oil and sand, and becomes polluted runoff (stormwater).

The traditional approach to handling this stormwater is to transport it, untreated, to a local waterway, as quickly as

possible. However, this method creates water pollution, contributes to flooding, and prevents water from recharging the groundwater reserves that sustain the river during the hottest months of the year.

As a first step toward fixing our "existing pavement" problem, NepRWA is partnering with Canton, Sharon, Stoughton, Walpole, and soon Dedham, to perform "Stormwater Retrofit Opportunity Surveys," using grant

...Continued, Page 3



New software streamlines stormwater surveys.

Beetles Help Prepare a Home for Return of Native Wetland Plants & Wildlife

Volunteers trained? Check. Beetles raised? Check. Beetles released? Check!

As we go to press, the 2010 season of Purple loosestrife biocontrol and beetle-ranching has almost wrapped up. This is our third year of the five-year wetland restoration project NepRWA is implementing with project partner the Massachusetts Department of Conservation and Recreation. The Fowl Meadow Purple Loosestrife Biocontrol Project uses biological control beetles (*Neogalerucella californiensis* and *N. pusilla*) to reduce exotic, invasive Purple loosestrife plants in local wetlands and to encourage the return of native wetland plants and animals.

Project sites include the northern Fowl Meadow wetlands in Hyde Park and Milton, and Brookwood Farm on the Milton/Canton boundary. Both sites are in the Blue Hills Reservation and the Neponset River Watershed.

For five consecutive summers, we release beetles at the treatment sites to establish a self-sustaining beetle population to keep Purple loosestrife in check, year after year. The beetles and their offspring will feed on Purple loosestrife every growing season, helping to inhibit flowering and therefore seed production and the spread of the exotic, invasive plants. The expected end result – based on results from such projects around New

England and beyond – is that Purple loosestrife will decrease in area, density and numbers, and native wetland plants and their associated wildlife will increase.

If and when the Purple loosestrife at our treatment sites drops below the beetles' needs, the beetles will migrate up to a couple of miles away to search for more Purple loosestrife on which to feed and lay eggs. If the beetles do not find sufficient Purple loosestrife, they will die.

You may wonder, "Why the focus on Purple loosestrife?" Purple loosestrife is of particular interest because of the rapidity with which it establishes a foothold in a wetland, reproduces and spreads, eventually coming to dominate the area, having outcompeted the native plants and displaced wildlife that depend on them. A Purple loosestrife-dominated wetland does not provide the same benefits as a wetland of native species.

The displacement of native plants and wildlife is a particular concern in the northern Fowl Meadow wetlands—part of an Area of Critical Environmental Concern (ACEC)—because of the area's ecological importance and because state-listed endangered, threatened, and special concern species have been recorded there. Already, at least one of these listed species is missing in action; this bird will not nest in Purple loosestrife.

"Biological control," or using a living organism to control a species, has proven effective at significantly reducing Purple loosestrife and thereby improving wetland wildlife habitat and native



Volunteers Alexa McKenzie and Stephanie Radner measure cattails in a study plot during a September monitoring session.

species diversity. The appropriateness of the *Neogalerucella* species as biocontrol agents was extensively tested, starting in the mid-1980s, prior to being permitted. Since 2000, these beetles have been used for Purple loosestrife biocontrol in Massachusetts, under supervision of the MA Wetlands Restoration Program. The beetles also are used throughout New England and beyond.

Support for this wetland restoration project has come from several funders, including the Wildlife Habitat Incentives Program of the Natural Resources Conservation Service, the Norcross Wildlife Foundation, The Corporate Wetlands Restoration Partnership, the MA Department of Conservation and Recreation Partnerships Matching Funds program, The NLT Foundation, and the William P. Wharton Trust. The project also has benefited extensively from the in-kind donation of staff time by the MA Department of Conservation and Recreation and the hands-on assistance of volunteers.

View project pictures at: <http://www.flickr.com/photos/nepRWA>. Learn more about the project and get involved at neponset.org or by contacting Restoration Manager Carly Rocklen at 781-575-0354 x303 or rocklen@neponset.org.



Volunteer John Guio returns from releasing beetles into the Fowl Meadow wetlands during a July beetle release session.



NepRWA Board Member Paul Lauenstein demonstrates faucet aerators, and children learn how water pollution travels through the landscape, at the September 25 Sharon Energy Water Fair, organized by the Sharon Energy Advisory Committee and Sharon Water Conservation Program.

Water Conservation: Forging Ahead, from page 1

With a 25% reduction in water use being a realistic goal in most Neponset communities, the potential for environmental benefits and ratepayer cost savings is substantial.

For several years now, the Neponset Watershed Association has been partnering with the Sharon Department of Public Works on water conservation. This past summer, we renewed our partnership, continuing our traditional strategies, and launching several innovative initiatives such as the sale of drought-tolerant grass seed that doesn't need watering and new rebates to encourage steps like "decommissioning" in-ground sprinkler systems. This summer, we also met with

Paperless Mapping for Stormwater Opportunities, from page 1

funds provided in part by the MA Department of Environmental Protection (MassDEP) and the U.S. Environmental Protection Agency (USEPA).

The goal is to identify and prioritize existing roads, parking lots and other impervious areas that could be retrofitted with modern stormwater controls.

Bill Guenther, NepRWA Environmental Scientist, is set to travel the streets of these five towns to identify spots suitable for constructing rain gardens, tree boxes, artificial wetlands and dozens of other stormwater treatment structures.

Traditionally, NepRWA would perform this survey with pencil and paper in hand, then transcribe the information into maps and spreadsheets. Now, NepRWA is turning

each of the Neponset communities that supplies its own water to discuss how they might encourage water efficiency. Canton and Stoughton both agreed to partner with NepRWA to create water conservation programs. Now, we await decisions on state grant funding to help launch these programs. We also are continuing discussions with Medfield, Walpole, Dedham-Westwood, and Milton about how we might work together or how the towns might implement conservation measures on their own.

For more information, contact Water Conservation Coordinator Nancy Fyler at 781-575-0354 x307 or fyler@neponset.org.

to an innovative digital approach to cover more ground. Instead of a clipboard, Bill will hit the streets with a handheld computer outfitted with a GPS (Global Positioning System), an integrated camera and special mobile mapping software donated by ESRI. After a day in the field, Bill will simply upload the data to his office computer, allowing for faster, more accurate and more thorough surveying. To the best of our knowledge, NepRWA is the only organization performing this sort of survey, and we hope it will serve as a model for other communities across the watershed and the state.

Learn more by contacting Bill Guenther, Environmental Scientist, at 781-575-0354 x302 or guenther@neponset.org.

Thank you to Neponset Society Members!

The Neponset Society is a special group of NepRWA's most generous donors, those making annual gifts totalling \$500 or more. The support of our Neponset Society members has a critical impact on efforts to protect and restore the Neponset, and is greatly appreciated. Thank you to the individuals and organizations below who have recently become members of the Neponset Society or renewed their support!

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Matthew & Sarah Begg
David & Jeanne-Marie Brookfield
CertainTeed Roofing
The CHT Foundation
The Copeland Family Foundation
Paul & Christine Grady
Douglas & Barbara Holdridge
Hollingsworth & Vose Company
Gerard O'Neill
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Poirier Appliance
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Michael Saad

Challenge Grant Update

NepRWA is working on matching two challenge grants totaling \$30,000 before the end of 2010! One, provided by The Copeland Family Foundation, will double all donations from members who join the Neponset Society for the first time during 2010 and will match any increase in donations made by existing Neponset Society Members. The second, provided by the Sharpe Family, will double gifts from any new or lapsed member and match any increase by a current member. We made good progress toward meeting these challenge grants during our 2010 spring appeal, but we still have a long way to go before December 31! Please keep an eye out for our fall appeal in late October, and help support clean and healthy habitats!