



### Volunteer Needed to Organize Photographs

Do you enjoy making order out of chaos? NepRWA is looking for a volunteer to help organize our library of photographs. To find out more, please contact Ian Cooke at 781-575-0354 or [cooke@neponset.org](mailto:cooke@neponset.org).

### NepRWA Membership

If you aren't a NepRWA member, please consider joining. Member support helps to maintain and expand our conservation work throughout the communities of the Watershed. It's easy to become a member! Visit [www.neponset.org](http://www.neponset.org) or request an application at [rocklen@neponset.org](mailto:rocklen@neponset.org) or 781-575-0354.

### Unsubscribe

To be removed from our newsletter mailing list, please contact Carly at [rocklen@neponset.org](mailto:rocklen@neponset.org) or 781-575-0354.

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.

2173 Washington St., Canton, MA 02021  
p 781-575-0354, f 781-575-9971  
[staff@neponset.org](mailto:staff@neponset.org), [www.neponset.org](http://www.neponset.org)

#### Staff

Ian Cooke, *Executive Director*  
Bill Guenther, *Env. Scientist*  
Laura Hallowell, *CWMN Assist., Willett Pond Manager*  
Kristina LaFrance, *Admin. Assist.*  
Steve Pearlman, *Advocacy Dir.*  
Carly Rocklen, *Outreach Dir. & Restoration Manager*

#### Benefactors

Analog Devices  
Boston Scientific  
Boston Water & Sewer Com.  
Cabot, Cabot & Forbes  
Hollingsworth & Vose Co.  
NiSource Env'tl. Challenge Fund  
River Ridge Consulting Group  
Toll Bros.

#### Officers

Taber Keally, *President*  
Elise Brink, *Vice-President*  
Christine Grady, *Treasurer*  
Paul Lauenstein, *Secretary*

#### Patrons

CertainTeed Roofing  
Dedham Savings  
Kohler  
Kraft Group  
Walpole Cooperative Bank

#### Board Members

Robert Boushell  
Bob Chen  
John Glossa  
Anne Herbst  
Pat Hogan  
Peter Kane  
Rory McGregor  
Brendan McLaughlin  
Thomas Palmer  
William Wiseman  
Ethel Woodard

#### Sponsors

Bank of Canton  
Bay State Gas  
Emerson & Cuming Specialty  
Northeast Buffinton Group  
Polymer, Inc.  
VJ Properties

Non-Profit Org.  
U.S. Postage  
PAID  
Boston, MA  
Permit No. 54080

Neponset River Watershed Association  
2173 Washington Street  
Canton, MA 02021  
Address Service Requested

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

July - August 2007

### Protect the Neponset with a HET

Across Massachusetts, more and more rivers are being classified as hydrologically stressed. These rivers experience a reduction in natural streamflow levels due to a combination of water supply activities, wastewater disposal practices and loss of stormwater recharge. All drinking water and irrigation activities in MA — be they from town wells, private wells or even the Quabbin Reservoir system — ultimately impact water levels in a river.



We can help to reduce the problem of stressed rivers by conserving water at home and at work with High-Efficiency Toilets (HETs). HETs are a new generation of toilets that use 1.28 gallons of water or less to achieve a reliable flush. HETs go beyond today's 20-year-old plumbing code that allows toilets to use up to 1.6 gallons per flush. Many HET models use

as little as 1.1 or 1.0 gallons per flush, a water savings of up to 38%. For this reason, HETs are considered a river conservation opportunity.

Incorporating HETs into businesses and homes across the Watershed will allow for continued growth and economic development, both critical to the Commonwealth's economic future. Traditionally, growth meant increased water demand. In fact, the Metropolitan Area Planning Commission estimates that more than a dozen communities in eastern Massachusetts will literally run out of water within 23 years based on expected growth patterns. However, the Commission also estimates that a modest program of water conservation could allow almost all of these communities to grow without creating a water crisis. HET technology is one important tool to not only meet but exceed the Commission's water conservation scenario and ensure that the Commonwealth can enjoy continued growth without further damaging its rivers.

There are two basic types of HETs: pressure-assist and dual-flush. Pressure-assist models harness the pressure in your water pipes to provide a smaller but more forceful flush. Dual-flush models work with gravity, just like most typical residential toilets. However, dual-flush models offer the user a choice of two flush levels, a full 1.6-gallon flush (like standard toilets) and a "short-flush" of 1.2 to 0.8 gallons. The user then chooses the appropriate flush for his or her needs. Over the course of a day, a 1.6/0.8 dual flush HET will use an average of less than 1.1 gallons per flush.

...Continued, Page 2

### Celebrating 40 Years *In Style*



On the evening of Thursday, June 14, over 115 NepRWA Friends gathered at the Reebok Headquarters in Canton to celebrate NepRWA's 40th Anniversary.

We enjoyed special presentations, drinks and hors d'oeuvres, awards and a high-energy raffle for a kayak from Canton EMS and a High-Efficiency Toilet

from Kohler. Featured speakers included local historian Anthony Sammarco who explored the Neponset River's industrial past, and Boston's Chief of Environmental and Energy Services Jim Hunt who discussed Boston's environmental issues and the Neponset River corridor's future.



Thank you to everyone who made this event possible! It was the perfect celebration of 40 years of Neponset conservation. NepRWA is very grateful to all who helped to organize the event, who made donations or attended.

Awards were presented to the following NepRWA Friends: Project Partners the Milton Department of Public Works and the Pine Tree Brook Neighborhood Association; Volunteer Extraordinaire Hugh Stringer; NepRWA Founding Members Marty Curtis and Betty Cottrell; and retired CWMN Volunteers Ben and Mary Ray, Lea and Melanie Paul, Andrew Basney, Sue Emery, Ed and Christy Salting, Adam Lindquist, Andrew McBrearty, and Nigel Pickering.

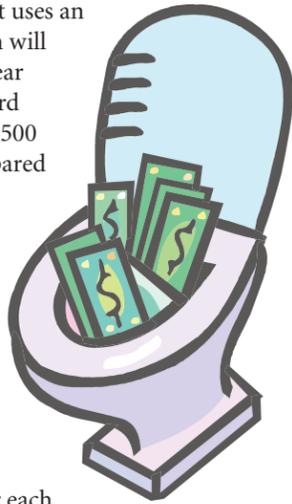
...Continued, Page 2

## High-Efficiency Toilets, from page 1

There are a variety of HETs from which to choose. In fact, 47 models built by nine manufacturers have been approved for use in the state. Dual-flush HETs provide flushing power equal to or better than a standard toilet and are generally less expensive than pressure-assist HETs. Pressure-assist HETs generally provide a more powerful flush than a standard toilet, but are also generally more expensive and louder.

Some HETs also use more water than others. For the biggest benefit, look for HETs that use an average of 1.1 gallons per flush. Whatever model you're considering, research before you buy. Check [www.terrylove.com/crtoilet.htm](http://www.terrylove.com/crtoilet.htm) for grassroots reviews of toilets by other consumers. View their "waste removal efficiency rating" at [www.bewaterwise.com/HET.pdf](http://www.bewaterwise.com/HET.pdf) or [www.cuwcc.org/uploads/product/MaPNinthEditionCondensed07-03-19.pdf](http://www.cuwcc.org/uploads/product/MaPNinthEditionCondensed07-03-19.pdf).

Concerning how much water you're likely to save with an HET, an HET that uses an average of 1.1 gallons per flush will save about 1,000 gallons per year per user compared to a standard 1.6-gallon toilet, and almost 4,500 gallons per year per user compared to a 3.5-gallon toilet. A family of four with two bathrooms would save 2,000 gallons per year for each 1.6-gallon standard toilet they replace. Using 2006 water and sewer rates for the town of Milton, that family of four would save \$157 per year for each 3.5-gallon toilet replaced or \$32.68 per year for each 1.6-gallon toilet replaced.



If you are remodeling a bathroom (or building new) and will be buying a toilet anyway, your payback from upgrading to an HET will be just a year or two depending on the model. If you have an existing 3.5-gallon toilet, replacing it with an HET will generate profit in one to two years. If you have a 1.6-gallon toilet and aren't planning to remodel, the payback period may be six or seven years with two users.

Also consider that water rates in many communities are rising faster than inflation, and, water conservation can offset increased water demand from new development, helping to slow the rate of increase in water rates.

Come test a 1.1-gallon per flush Kohler HET at NepRWA's office (2173 Washington Street, Canton), and also pick-up a list of HET models approved for use in MA, a list of plumbing distributors knowledgeable about HETs, and a list of sites at which HETs have been installed. Please call (781-575-0354) before you come by to make sure we're here!

## NepRWA Turns 40, from page 1

Presenting sponsors Reebok and Kohler made this very enjoyable 40<sup>th</sup> Anniversary Celebration possible, as did the generous contributions of these NepRWA Friends:



Raymond Allison  
Nina & David Barros  
Best Western Adams Inn - Quincy  
Big Y Supermarkets

Hank & Lisa Birkdale  
Thomas Birmingham & Amy Killeen  
Boston Children's Museum  
Boston Red Sox  
David & Jeanne-Marie Brookfield  
BSB Network Solutions, Inc.  
Build-A-Bear Workshop  
Jocelyn Noyes Burke  
Donald William Carow  
Charles Riverboat Co.



Comedy Connection  
Bettina Cottrell  
Martha Curtis  
DeCordova Museum  
Lawrence Driscoll  
Eastern Mountain Sports-Canton  
ETC Development Corporation  
Discovery Museums  
Robert Forsberg  
Michael & Karen Fortin  
Fritz Glass, Dennisport  
Glossa Engineering, East Walpole

We would also like to thank Doug Wynn for lending us his collection of historical Neponset River postcards, Jill Cowie of the Watershed Action Alliance for providing the herring interactive computer display, Tom Palmer and Alex Budnitz for taking photographs, NepRWA Friends for suggesting new Board Members, Featured Speakers, and Awardees, and last but not least, Wendy Ingram for organizing the most successful and enjoyable Annual Meeting, yet! Thank you to everyone for your efforts.

Paul & Christine Grady  
Patricia Hogan  
Doug & Barb Holdridge  
Shirley Howard  
Joseph Emmanuel Ingoldsby  
Institute of Contemporary Art/Boston  
John F. Kennedy Presidential Library & Museum  
Ernest & Marilyn Kahn



Taber & Mary Keally  
Robert Kormis & Gretje Ferguson  
Paul Lauenstein & Lonnie Friedman  
Enid Lubarsky  
Doug MacLean  
John & Sheri McChesney  
New England Aquarium  
New England Spinal Care  
Anna Nosal  
Dan & Janet O'Connell  
Peabody Essex Museum  
Barbara Phinney  
Poirier Sales & Service  
Dr. & Mrs. John C. Robinson  
Kevin & Regina Schofield  
Peter L. Sheridan  
Alice Smith  
William Wenstrom



## Welcome, New Board Members

NepRWA has had a changing of the guard; four valued Board Members have retired and five new people have joined the Board.

Jayne DiCandio of Canton, Doug Holdridge of Westwood, Thomas Birmingham of Canton and Pete Jackson of Milton all stepped down. Jayne and Tom had both been long-time Board Members, each serving more than four two-year terms — Jayne as Vice-President for several years and Tom as Treasurer. Tom and Jayne took on a variety of responsibilities, from Jayne's Chairmanship of the Fall Fest Committee, to Tom's leadership role in preparing NepRWA's Strategic Plan. Doug and Pete had shorter but equally active tenures, with Doug helping on special events, water testing and dam surveying, among other activities and Pete heading up the Development Committee. NepRWA is grateful for the many contributions that Jayne, Doug and Tom made.

NepRWA added five new Board Members, this past spring: John Glossa of Walpole, a civil engineer at Glossa Engineering and neighbor of Willett Pond; Ethel Woodard of Mattapan, an employee of the Office of Public Private Partnerships within the Executive Office of Energy and Environmental Affairs; Brendan McLaughlin, a member of Milton's Warrant Committee and owner of Westglow Technology Consulting; Peter Kane of Westwood, a mechanical engineer for Evergreen Solar; and William Wiseman, a member of the Walpole Pond Committee and homeowner abutting the river near Bird Pond.

## NepRWA Publishes Municipal "I/I" Handbook

This past June, NepRWA published a handbook for municipal officials entitled *Minimizing Municipal Costs for Infiltration & Inflow Remediation*, under contract with the Massachusetts Executive Office of Energy and Environmental Affairs.

"Infiltration" refers to groundwater that enters a sewer system through cracked, crushed or leaky pipes, joints and manholes. Fully 44% of the water in MWRA sewer pipes today is not sewage at all, but infiltration. "Inflow" refers to rain or surface water that enters the sewer system generally through the illegal connection of sump pumps, roof drains, etc. It represents an additional 8% of total MWRA sewer flow. Because inflow can introduce tremendous amounts of water into sewer pipes in a very short time during big rainstorms, towns with a lot of inflow often suffer from sanitary sewer overflows (SSO) of raw sewage into streets, houses, and wetlands.

Because infiltration and inflow (also known as "I/I") pose grave threats to human health and the environment, steal precious groundwater resources, and cost municipalities big money in unnecessary sewage treatment costs, most communities are anxious to stop it. This can be costly, however, and NepRWA's *Handbook* offers tips on minimizing the cost. The *Handbook* provides assistance in setting cost-effective I/I goals; in adopting sewer use regulations that give adequate authority to reduce present and future I/I on both public and private property; in obtaining grants and loans from non-municipal sources; and, where legally permissible, in establishing an I/I Bank which makes new and expanding development, rather than ratepayers, finance most I/I remediation work. View the *I/I Handbook* at [www.neponset.org](http://www.neponset.org). For more information, contact Steve Pearlman at 781-575-0354.

## NepRWA & Developer Reach Agreement on Westwood Station Project

In the time since the "Westwood Station Could Harm Neponset Streamflows" article was written in the previous NepRWA newsletter, NepRWA and Westwood Station developer Cabot, Cabot & Forbes (CC&F) have agreed to changes in the project that will increase water conservation as well as groundwater recharge.



In a joint letter to Environment & Energy Secretary Ian Bowles, Ian Cooke and a CC&F representative stated that they, "have agreed on a program of additional enhancements to the stormwater and plumbing systems which, if fully implemented, would give us both confidence that the proposed development would not cause a negative impact on Neponset River baseflows." These enhancements include:

- Creation of rain gardens preceded by oil-water separators that will treat and recharge rainwater coming from the top level of most structured parking facilities;
- Design of pedestrian and bicycle areas to recharge stormwater by directing it to adjacent unpaved surfaces through grading, incorporating tree filter boxes or other simple Low Impact Development features into landscaped areas or by using pervious materials;
- Use of waterless urinals and/or High-Efficiency Toilets (dual-flush and/or pressure-assist) in restrooms under CC&F's control (some large tenants and purchasers opt to install their own restrooms). In restrooms not under their control, CC&F will offer such fixtures, generally at cost, to tenants or purchasers and inform them of the associated long-term cost savings and environmental benefits;
- If CC&F installs washing machines in the residences it plans to build, it will use water-efficient front-loading washing machines. If it does not install them, CC&F will make such equipment available for purchase at time of sale.

Even before these additional concessions were made, CC&F had proposed major improvements in stormwater management (especially regarding water quality) and committed itself to financing trail connections to Blue Hills Reservation as well as rehabilitation of a canoe launching area. As noted in our last newsletter, Westwood Station is a "smart growth" project due to its proximity to public transportation and its integration of residential, shopping and office components at a single location (which should reduce automobile use). NepRWA is therefore very pleased to have been able to work with Cabot, Cabot & Forbes to make the project even more environmentally friendly.

