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

2. a crucial turning point 3. communities connected by 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 a year. Printing by Blue Hill Press, Canton.

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Thank You!

To all the businesses and individuals who so generously donated to the Fall Fest 2003 auction:
Abba Sports & Memorabilia; Allison Associates; Appalachia Mt. Club - Ponkapoag Camp; Barbara Foley; Phillip Barske; Bay State Gas; The Birmingham Family; Tom Birmingham; Blue Hill Press; Boston Professional Hockey Association; Boston Red Sox; Café Bella; Fran and John Carleton; Charles River Recreation; Charles Riverboat Co.; Children's Museum in Easton; Paul Cooperstein; Dancing Deer Baking Co.; Steven and Nancy Davis; DeCordova Museum; Jeff Delovey; Jim Doogan, Advantage Elevated Photography, LLC; Eagle Eye Crafts; Ecotarium; Equal Exchange Coffee; Esprit du Vin; Tyler Estlinbaum; Gretje Ferguson; Colleen Gaffney; Gizella Betak, Harmony Design; Christine Grady; Patricia Hamm; Hearts and Stars Bookshop; Helen's Hair Styling; Jim Henderson; Heritage Museum and Gardens; Hilliards Candy; Holiday Inn, Dedham; Institute of Contemporary Art; Peter F. Jackson, ASLA; Janet M. Flanagan; Jenny Nourse Photography; JFK Museum & Library; Pat Johansen; Marilyn Z. Kahn; Taber and Mary Keally; Taber and Mary Keally; Amy Killeen; Milt Lauenstein; Fritz Lauenstein; Bruce Lewis; Gail Martin; Moose Hill Wildlife Sanctuary; National Amusements; New England Aquarium; New England Spinal Care; New Pond Kennels; North Shore Music Theatre at Dunham Woods; Bobby Orr; Tom Palmer; Louise and Jim Patane; Lea Paul; Peabody Essex Museum; Poirier's Appliances; Preservation Society of Newport County; Jo Remillard, Interior Design Consultant; Roger Williams Park Zoo; Kevin Schofield; Sharon Inn; Sky Restaurant; Spoleto's; Stony Brook Wildlife Sanctuary, MAS; TaxSense; The Corporate Press; The Discovery Museums, Acton; The Village Toy Shop; Mary and Charlie Truslow; Tweeter Center; Vanderbilt Club; Ward's Berry Farm; Water Country; Watson's Candy; Leslie and Tony Will; Jan Wilson; Tammy Yost; and Zoo New England.

Survey Says: We Like Clean Water and We're Willing to Conserve

Eighty-two percent of local people surveyed by NepRWA indicated that protecting wildlife in area streams is very or extremely important. Ninety-five percent said that maintaining clean water in their streams is very or extremely important, and seventy-five percent indicated that it is very or extremely important to conserve water in the home. These are just a few of the findings of the Community Assessment report, recently completed by Jessica Stephens, NepRWA's Water Resource Analyst.

The Community Assessment evaluates the opinions and perceptions of municipal officials and residents in Canton, Sharon and Stoughton. It was conducted to determine if communities, town governments and residents have an understanding of the issues related to stream flow, aquatic habitat, and water use within their towns and the Neponset River Watershed. The decision to study human attitudes toward water-related issues within these communities was based largely on the fact that any recommendations NepRWA puts forth to protect biological health and water resources within the watershed would need to be well received by the local audience in order to yield positive, long-term results. Therefore, NepRWA concluded that the most effective way to assess the potential audience for water conservation initiatives within the watershed would be to conduct a multi-phased survey of local residents and key decision-makers within the study area.

The first phase of the Community Assessment consisted of interviews with local municipal officials. This phase was completed in August 2000, and yielded important information about the attitudes, knowledge and opinions of a range of municipal officials. The second phase of the Community Assessment was completed in June 2003, and involved a public opinion survey focused on the opinions and knowledge base of the study area residents. Based on the outcome of Phase I interviews and the results of the Phase II public opinion survey, NepRWA hopes to offer a recommended plan of action to the communities to bring about watershed protection and water conservation.

The findings of the Community Assess-

Continued, Page 3

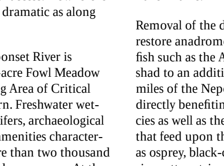
Fall Fest 2003 Auction - A Night to Remember!

Thanks to the hard work and generosity of dozens of people, NepRWA's first annual Fall Fest Event on October 4 was a magical evening. The auction committee transformed the Sharon Community Center overlooking Lake Massapoag into a warm and inviting oasis on a cold stormy night with hay bales, pumpkins, mums and white lights. Over 150 members and friends attended the event, and more than 90 auction items donated by local businesses and individuals generated feverish bidding during both the live and silent auctions. The evening concluded with traditional New England folk dancing led by caller Sarah Smith and the Salem Country Orchestra, while a small clutch of Red Sox fans huddled around the big screen TV in the foyer catching the final moments of that night's playoff game. Thank you to all of our members, friends and businesses who attended, donated items, or volunteered, making NepRWA's Fall Fest 2003 a wonderful success! The event netted more than $10,000 in donations to support efforts to monitor water quality, educate residents and municipalities about water conservation, and restore historic anadromous fish runs.

We'd like to extend an extra special thank you to the members of the Fall Fest Organizing Committee who meticulously planned every detail of the event over a period of six months, including: Tom Birmingham, Nancy and Steven Davis, Jayne DiCandio, Maggie Estlinbaum, Christine Grady, Mary and Taber Keally, Amy Killeen, Paul Lauenstein and Susan Lehto. A bevy of volunteers helped turn plans into reality, including: the National Charity League, Elise Brink, Casey Butler, Sue Butler, Catherine Casey, Glenna Collett, Ian Cooke, Erin Donnelly, Janet Donnelly, Laura Hallowell, Pat Hamm, Kim Krezwick, Amanda Northrop, Wendy Parisi, Laura Raymond, Jessica Stephens, Tracy Videtta, Brittany Whalen and Cheryl Whalen.

Realizing a Vision for a Restored Neponset River

Thanks to funding from the Riverways Programs of the Massachusetts Department of Fish and Game, the Neponset River Watershed Association (NepRWA) is continuing to build community support for river restoration along the lower Neponset. NepRWA has been organizing educational events and producing informational materials for watershed residents concerning the removal of dams and polluted sediments. The goal of this outreach is to get residents excited about this unique restoration opportunity and help them provide more effective input on decisions made by the Army Corps of Engineers, the Mass. Department of Fish and Game and the Mass. Department of Conservation and Recreation, concerning local river restoration.



The dam at Lower Mills, today.

The removal of obsolete dams and polluted river-bottom sediments from the Neponset will complement decades of work by citizen volunteers, nonprofit organizations, and state, federal and municipal officials. Through hard work and perseverance, these efforts have vastly improved the Neponset River's quality of water, wildlife habitat and recreational access. Nowhere is this transformation so dramatic as along the River's lower half.

The middle of the Neponset River is bordered by the 8,000-acre Fowl Meadow and the Ponkapoag Bog Area of Critical Environmental Concern. Freshwater wetlands, floodplains, aquifers, archaeological sites and recreational amenities characterize this area, as do more than two thousand acres of publicly owned open space. At the downstream end of the Neponset River is the Neponset Estuary, which encompasses more than one thousand acres of salt marsh, floodplain, creeks, open water and clam-flats, and hosts one of the state's strongest rainbow smelt runs, as well as some of Boston's largest intact salt marshes. The Neponset River Greenway trail and Pope John Paul II Park also grace this area, as do joggers, walkers, boaters and striped bass fishermen, and more than 200 species of birds.

However, despite a connected shoreline, the Neponset Estuary and the freshwater Neponset River are fragmented by two dams — the Tileston and Hollingsworth Dam (T&H) in Hyde Park and the Baker Dam in Lower Mills. Both dams were built in the 1950s and are quickly approaching the end of their intended lifespans. Neither dam provides important industrial uses or flood control benefits, yet both prevent fish, wildlife and people from traveling freely and safely between the Estuary and Fowl Meadow.

This scenario occurs across Massachusetts, with the great majority of the state's 5,000+ dams blocking travel routes for wildlife and humans. Amazingly, some 85% of the state's dams have surpassed their intended lifespans, are deteriorating, and no longer satisfy their original purpose. These dams are often more of a liability than a benefit to adjacent communities, posing a threat of washing-out during significant rain events and absorbing tax money for their repair and maintenance. One of the major elements of restoring the Lower Neponset is the complete or partial removal of the T&H and Baker Dams.

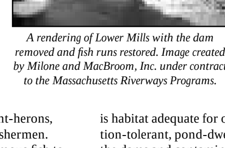
Removal of the dams would restore anadromous sport fish such as the American shad to an additional 17 miles of the Neponset River, directly benefiting these species as well as the organisms that feed upon the fish, such as osprey, black-crowned night-herons, river otter, striped bass and fishermen. Overall, the return of anadromous fish to a greater stretch of the river would help to restore balance within the local food web.

Dam removal would also eliminate a hazard and annoyance for canoeists and kayakers who now must pull their boats out of the water at each dam and lug them up to 1/4-mile to the next launch.

Dam removal would also reduce the water level on land currently flooded by the Baker and T&H impoundments, thereby restoring the freshwater wetlands and shoreline vistas that were destroyed during the first half of the 20th century, when the river was channelized.

Besides restoring mobility for humans and fish, maintaining a high-quality food web, and restoring wetlands and riparian areas, dam removal would result in the excavation and proper disposal of toxin-laden river-bottom sediments. Preliminary results from a study by the U.S. Geological Survey indicate high levels of polychlorinated biphenyls (PCBs) in the sediment behind both the Baker and T&H Dams. Rather than being safely sequestered in the sediments, these PCBs can be absorbed by wildlife and vegetation along the river and build up to significant levels in these organisms' tissues, later to be ingested by humans and other wildlife. Exposure to PCBs interferes with immune, hormone, nervous and enzyme systems, increasing the risk of developing illnesses such as cancer. Dam removal would include the clean-up of these contaminated sediments.

Overall, dam removal would improve water and habitat quality within the Neponset River. Currently, the impounded water is characterized by excessive heat, insufficient oxygen, PCB contamination and a high rate of sediment accumulation. Sparse dam maintenance has intensified these conditions, as well as induced the growth of algae. The result is habitat adequate for only a few pollution-tolerant, pond-dwelling species. Once the dams and contaminated sediments are removed, the river's natural diversity of organisms will begin to re-appear, and canoe trips, sport fishing, educational programs and bird watching will be just a few of the activities that will thrive as the river ecosystem regenerates.



A rendering of Lower Mills with the dam removed and fish runs restored. Image created by Milone and MacBroom, Inc. under contract to the Massachusetts Riverways Programs.

To find out more about the prospect of dam removal along the Neponset River, or to receive notification of upcoming, related programs and events, please contact NepRWA at 781-575-0354 or rocklen@neponset.org.

Community Assessment, from page 1

ment reveal that most residents are aware of water quality and quantity issues, particularly as it affects their indoor and outdoor water use. Residents are also concerned about the amount of water available to meet the needs of fish and wildlife as well as to meet minimum instream flow levels. Of particular interest to NepRWA are results indicating that residents want to see local streams and wildlife protected – and they are willing to change their water use habits to see that this objective is met.

The findings from the interviews with municipal officials also showed that most of the town leaders within the study area are aware of the issues affecting local water resources. However, these individuals did not demonstrate significant concern about impacts on the local environment from human use. There was also much discussion about the need to find additional water supplies within the towns. The interviewees tended to focus more on their own towns' water needs than on the collective resources within the watershed, indicating that impacts of water use and wastewater are not being considered on a watershed-wide level.

The municipal leaders did not accurately account for the extent to which their citizenry values local streams and wildlife. Most town officials did not think their residents would conserve water to protect local water supplies, an attitude contradicted by the survey results.

The findings of the Community Assessment indicate the need for greater levels of communication within towns about how to meet the water use needs of people within the larger context of the natural community. The knowledge gained about residents' and municipal officials' perspectives on water use will greatly aid NepRWA in its work to protect and preserve local water resources.

The Community Assessment will be disseminated to town planners, conservation commissions, and water suppliers and managers, as well as to other key decision-makers in Canton, Sharon and Stoughton. The information within the Assessment will assist these towns in their work to provide clean and plentiful drinking water to residents and ensure adequate streamflow and aquatic habitat. NepRWA recommends that at every juncture in which decisions are made about water use and demand, municipal officials peruse the Assessment's content concerning residents' high valuation of clean streams, abundant wildlife, scenic areas and adequate water supply, as well as residents' willingness to follow guidelines to protect the Neponset River for current and future use.

A limited number of hard copies of the report are available. Please contact the NepRWA office at 781-575-0354 or stephens@neponset.org to receive a copy. The report will also soon be available at www.neponset.org.

Raising Resources for the River

The first thin layers of ice have formed over the river as December's chill moves into the Neponset Valley, and that means NepRWA's annual "Riverfund" appeal can't be far behind. In a few days, you'll be receiving a colorful request for year-end donations as we start planning for next spring's programs.

Funds raised through the River Fund enable NepRWA to perform its most essential functions. Individual donations, considered "unrestricted" in the sense that they are not targeted toward the completion of specific projects, fund diverse tasks that do not fall under the umbrella of grant-funded programs. Without these donations, NepRWA's ability to respond quickly to urgent problems and unforeseeable watershed issues would be severely compromised.

Foundations and government agencies also frequently weigh the strength of our donor base when making the decision to fund NepRWA projects. Thus, your gift to NepRWA helps leverage additional support from other philanthropic organizations.

Please consider making a year-end donation to NepRWA. Your gift will protect open spaces, restore habitats, clean-up pollution, open access to the riverfront and help spread the word about watershed protection in 2004. To learn more about opportunities to participate in planned giving, or to inquire about arranging a gift of securities, please contact Ian Cooke, Executive Director, at 781-575-0354 or cooke@neponset.org.

Communities Connected by Water
NepRWA
Neponset River Watershed Association
To Protect, Restore and Enhance
www.neponset.org

As a thank you for your support, this year NepRWA is offering packages of colorful greeting cards and canvas totebags to interested donors of $30 and $50 gifts, respectively. The totebag design appears at left, and the greeting card images appear below.

A Changing of the Guard at NepRWA

Maggie Estlinbaum has left her position as NepRWA's Outreach Coordinator to pursue a career as a high school science teacher in the Syracuse, New York area. We miss Maggie and wish her all the best in her new career and home state.

Carly Rocklen has joined the NepRWA staff in Maggie's stead. Carly recently completed a Master of Science degree in Natural Resources and Environment at the School of Natural Resources and the Environment, University of Michigan-Ann Arbor. Carly brings to NepRWA work experience in municipal government and in nonprofit arts and environmental organizations. She has worked in the fields of public education, fundraising, program coordination, biological fieldwork and land management. Carly looks forward to getting to know NepRWA's many volunteers and friends as she gets up to speed on projects such as educating the public about their role in preventing nonpoint source pollution.