

## THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION, INC.

# NSRWA Launches 40th Anniversary Blue Communities Campaign

To our loyal members:

We would like to share with you our new **Blue Communities Campaign**. Over the past months, your Board and staff have been working to set priorities and focus our programs for maximum effectiveness. Our **Blue Communities Campaign** is the result of that work, and it coincides with our 2010 40<sup>th</sup> anniversary!

Despite great progress over the years, our North and South Rivers face important problems:

- Water demand is increasing. This reduces the volume and flow of our rivers. We must increase conservation to reduce the water taken from our aquifers and streams. More ground water = more river water.
- Paved surfaces are increasing. Paved surface runoff flushes pollutants directly into the rivers. This water is also prevented from helping maintain the aquifer. We must limit the construction of new paved surfaces and improve existing ones.
- Over the years, structures have been erected along and in the river. These structures (culverts, dams, tide gates) impede fish runs and hurt the general health of the river. We must replace and upgrade these structures.

NSRWA's **Blue Communities Campaign** builds on our core strategies of **education**, **advocacy**, and **monitoring** to address these problems. We outline on the next page our 3 year Campaign goals for each of these strategies. And as we describe in more detail in the following article, an immediate Campaign priority is to restore First Herring Brook.

With your help, the Blue Communities Campaign will move us closer to a truly healthy rivers system. Thank you for your support!

Sincerely, Samantha Woods

## Restoration of First Herring Brook an Immediate Priority of Blue Communities Campaign

Key decisions near in campaign to restore fish runs, mimic natural streamflows

The NSRWA has been working with many partners over the last 3 years to restore fish passage and more natural streamflow to the First Herring Brook – a tributary to the North River. With

important studies now completed, NSRWA and our partners will over the next few months work with Scituate as the town makes key decisions on the river's future.



Non-functioning fish ladder at First Herring Brook, Scituate.

#### Background: Advocacy Led to Permit Requirements

In 2006, the NSRWA, in partnership with the First Herring Brook Watershed Initiative, advocated for the inclusion of a condition to Scituate's water withdrawal permit that required the town to investigate development of minimum flow targets for fish passage at Old Oaken Bucket Pond and Scituate Reservoir, two man-made impoundments used for water supply on the First Herring Brook.

#### Partnerships for Monitoring and Modeling

In order to foster scientifically sound decision making, the NSRWA requested pro-bono modeling and technical expertise from the Nature Conservancy and the Stockholm Environment Institute. Because of our request, the First Herring Brook was chosen as one of two demonstrations projects to examine how to integrate water supply management with ecological flow requirements. Being chosen by the Nature Conservancy has brought an unbelievable amount of technical expertise to the discussion.

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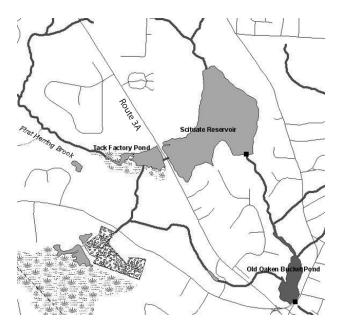
In addition, over the last two monitoring seasons, Sara Grady, through our partnership with the Mass Bays Program, Division of Marine Fisheries, and the Massachusetts Riverways Program, has led habitat monitoring assessments of the two reservoirs on the First Herring Brook to determine their suitability as fish habitat.

All of this advocacy and monitoring and partnership building has led to a report that will be issued in January 2010 that includes the results of the modeling of the past and current flows along with different potential restoration scenarios in the First Herring Brook. This modeling will provide the basis for decision making by Scituate for balancing water supply demands with the ecological needs of the First Herring Brook.

#### **Key Findings**

The study confirmed that the last siting of a herring in the system was 1996 – and that was

downstream of the Old Oaken Bucket dam. There has been no herring seen in this system since. One of the key discoveries of the monitoring and modeling is that the fish ladders in the Old Oaken Bucket system are not properly designed to pass fish, so replacement of the existing fish ladders with new ladders will be essential to restoring this system. The other crucial part of this restoration will be to ensure that enough water is available for habitat and passage during the most important seasons or "bioperiods" - enough water for upstream migration during the spring is typically not a problem, but adequate in-



 ${\it Map\ of\ First\ Herring\ Brook\ impoundments\ and\ fish\ ladders}.$ 

stream water and wetted habitat during the summer (when water demand and subsequent withdrawal from the system is highest) and enough water during the late summer and early fall for outmigration can be an issue.

The results of the monitoring and modeling have demonstrated that there is definitely restoration potential for the First Herring Brook, especially in typical years (i.e. not "drought" years). One major modeling result was that a new source of water should be considered to reduce pressure on the town water system enough to allow regular release of water from the Reservoir to maintain flow throughout the drier parts of the year. The town of Scituate has maximized their existing water withdrawal permits and most likely will be seeking additional sources. An additional potential "new" source of water that has not been thoroughly assessed is how much could be gained through water conservation efforts.

The next step in the project will be for the NSRWA and its partners to work with the town to plan the next restoration steps and seek funding to initiate fish ladder improvements. A public presentation will be made in January or February 2010 to the Scituate Selectmen, we encourage you to come and voice your support to put the herring back into the First Herring Brook! **Please get on our Rivernet email list to be notified about this important meeting** – you can sign up on our homepage.

The NSRWA and Mass. Bays would like to thank all of the project partners for their time and expertise: First Herring Brook Watershed Initiative, MA CZM, MassDEP, MassWildlife, MA DMF, Mass. Riverways Program, The Nature Conservancy, NOAA Restoration, Scituate Water Department, Scituate Water Resources Committee, Stockholm Environment Institute, Tufts University, US FWS.

## Blue Communities Campaign

## Specific 3-Year Goals

### Monitoring and Testing Our Natural Water Systems

- Expand monitoring to identify the pollution sources that have closed the South River for recreational shellfishing.
- Assess and inventory impediments (tide gates, culverts, dams) and increase monitoring of streamflow in our watershed.
- Work with Scituate to manage their water system to improve streamflow, and upgrade infrastructure to enable fish passage for herring in the First Herring Brook.

#### Educating the Next Generation of River Stewards

- Expand and institutionalize our 5<sup>th</sup> grade science program to educate youth about our watershed, how we impact it and how we can conserve and protect our water resources.
- Maintain our community based Greenscapes Program which focuses on the need to conserve and recycle water on our own properties.

#### Advocating for Municipal Action

- Pass stormwater bylaws to reduce future pollution and assist our communities to find funds to reduce pollution from existing stormwater infrastructure.
- Sponsor workshops for municipal officials on financing stormwater solutions.
- Keep Community Preservation strong in order to continue to protect land critical to our watershed, in particular to create a Greenway along the South River.

## Blue Communties Campaign Progress

#### South River Gets Federal Stimulus To Open Shellfish Beds!

Our goal--to open shellfish beds year round in our rivers. How are we trying to attain that goal? By monitoring to identify the pollution sources and advocating (and finding resources) for them to be fixed! For years the South River has been plagued with high bacteria counts after rain events that have resulted in the closure of shellfishing beds. The NSRWA and the Massachusetts Bays program partnered with the Town of Marshfield to obtain a federal stimulus grant for \$49,430 to identify and prioritize the areas contributing the biggest sources of bacterial pollution. The grant will allow the NSRWA to hire interns to conduct intensive bacterial testing. The sample data will be used to prioritize areas for remediation and develop conceptual plans to remove the bacteria from the river.

#### NSRWA Advocacy Results in 17 Acres Saved on the North River and South River Greenway & Park One Step Closer

Thank you to Marshfield NSRWA members for voting to use CPA funds preserve an absolute jewel of a parcel on the North River. The newly protected 17 acres abuts the North River marshes and the Trustees of Reservation's Two Mile Farm—further extending existing open space along the North River corridor. This property has been pursued by the NSRWA for years—finally the right opportunity to preserve it happened before it was developed! At the NSRWA's urging Marshfield NSRWA members also voted to fund the design of a South River park and walking trail along the river—thank you for your support on this! The town is seeking input on the park design through a series of public meetings and through an online questionnaire that can be found on the town's website. Please provide your input into what we hope will be a park that highlights the South River, a hidden jewel and valuable asset.

#### NSRWA Advocacy Helps Keep Water in Rivers!

In early October the state, through the MassDEP, issued a policy that would have made it legal to withdraw 100% of a rivers flow for water supply! That policy was abruptly overturned, thanks to the quick action of 55 river and watershed groups, including the NSRWA. The NSRWA signed onto a letter demanding that the state rescind this backward policy and that the state work with stakeholders to develop policies that take ecological protection into account and leave some water in the stream for the fish! Thankfully the force of our request was heard and the state quickly back pedaled and agreed to our requests. We will continue to be vigilant on this issue and keep you updated.

## NSRWA River Guardian Circle Matching Challenge Fund

n order to jump-start our new River Guardian Circle and encourage NSRWA members to join the Circle with dues or contributions totaling \$500 or more, or to increase their support if they are already at the \$500 level, an Anonymous member and the Sheehan Family Foundation have joined to offer members a \$20,000 matching challenge fund.

Using 2009 as a baseline, the fund will match in full all NEW support of \$500 or more. Thus, if a member's total support in 2009 was \$250, and the member increased his or her support in 2010 to \$500, the fund will match the entire \$500. If the member's total dues and contributions in 2009 totaled \$500 or over, the fund will match any INCREASE in that member's support.

The pressure is on us! If the \$20,000 is fully matched by June 30, 2010, then we qualify for another \$20,000 challenge extending over the following 12 months. If the current \$20,000 is not matched, we forfeit the 2nd year's challenge, and any of the current \$20,000 that hasn't been matched.

## Founding Members of the River Guardian Circle – 2009

Kezia Bacon-Bernstein John and Linda Bodenmann **Bond Printing** Paul Coolidge Peter Kelly-Detwiler Herb and Pauline Emilson Daniel and Craig Hannafin Val Hilton Alan and Janet Holbrook HorsleyWitten Group James Hughes Pam Kohlberg Bruce and Deborah Lenahan Doug and Sarah Lowry Mill Wharf Restaurant Andrea Miller Rockland Federal Credit Union Scituate Federal Savings Sheehan Family Foundation Bill Stanton and Lisa Lenon Carol Sullivan Sylvester Fund Peter and Paula Tyack Alan and Julie Uhler Paul and Netta Vercollone Cap Vinal Samantha Woods and Lanny Day Michael and Susan Wolfe anonymous-2

## THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION

The mission of the North & South Rivers Watershed Association is to preserve, restore, maintain and conserve in their natural state, the waters and related natural resources within the watershed.

Our goals are to:

- Restore the water quality of the rivers by identifying and correcting adverse impacts;
- Encourage stewardship of the watershed through public education, outreach and recreation programs; and
- Promote responsible growth by working in partnerships to preserve open space, scenic vistas and sensitive natural resources.

**OFFICERS** 

President: Russ Haskell Vice President: Craig Hannafin Treasurer: Richard Leach Secretary: Barbara Carney

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Lance VanLenten
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Assistant Director
Paula Christie

Watershed Ecologist & Massachusetts Bays Program South Shore Regional Coordinator Sara Grady

Marketing & Communications Director Debbie Cook

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## **NSRWA EVENTS**

## **NSRWA's 39th Annual Meeting**

ollege student, Nik Tyack, was recognized as our 2009 Volunteer of the Year for his volunteer contributions and his Wampanoag Canoe Passage paddle that raised over \$7,000 for the organization. Nik accepted the award via Skype from his dorm room in California!

NSRWA Executive Director, Samantha Woods, and Gabriela Silva, Wildlands Trust Assistant Director made a presentation on the significant lands preserved during the last five years through collaboration with the NSRWA, and with the support of the Sheehan Family Foundation, and presented the Barbara Pearson Award



to Susan Caron, Chair of the Marshfield Open Space Committee. Susan was recognized for her outstanding contribution to the local environment for her work to save land critical to the rivers by negotiating open space acquisitions in Marshfield and moving forward the South River Greenway project – a plan to preserve land and create walking paths along the South River.

The third award presented was the new **Blue Community Award** given to the town of Pembroke for their proactive efforts to remove stormwater pollution that runs into a headwater of the North River (Oldham Pond) and at the Pembroke Town Hall. The NSRWA and Mass Bays Program have worked with the town of Pembroke and community groups, including the Pem-



broke Watershed Association, to install innovative practices that treat polluted runoff, including rain gardens, permeable pavers and porous pavement.

Special thanks to Curtis Liquor Stores for generously donating wine and beer for the reception.

Photos: (top) Susan Caron accepts Barbara Pearson Award from Samantha Woods and Gabriela Silva • (at left) Town of Pembroke Officials accepts Blue Community Award

# NSRWA Thanks Outgoing Board Members and Welcome New Board Member

The NSRWA would like to thank Mark Norton, Carolyn Sones, and Buck Hayes for their service as board members to the watershed. Mark has been a board member of the watershed since 1993, is a past President and Vice President and has been the chairman of our River Clean Up Day for just about ever! Carolyn Sones has been a board member since 1989, also a Past President and instrumental in developing and leading fundraising events for the organization such as the House Tour and Auction, and leads many walks for us – including everyone's favorite tradition – the New Year's Day walk. While of shorter tenor, Buck Hayes contributions were no less important in helping us develop the Food For Thought event and always providing a ride on the river in his boat! We look forward to continuing to work with all of these past board members in a new capacity.

Please welcome Richard Krause as a new director to the NSRWA. Richard lives on Bartletts Island, Marshfield and is a retired manager from Hammond Publishing. Richard currently serves on the steering committee for the North River Arts Society and has served on the Cliff Rogers Library board. Welcome Richard!

## **NSRWA EVENTS**

## Food For Thought – Another Delicious Success!

ould we improve on last year's "Food for Thought" fundraiser hosted again by Mill Wharf Restaurant on Scituate Harbor on September 28th? Yes, with perfect warm weather and a clear sky allowing people to overflow onto the deck under the moonlight and an even larger variety of dishes prepared by the best local restaurants and food purveyors showcasing the freshest local products from the land and the sea. Add to the mix, the Lance VanLenten Jazz Trio, and we had a perfect evening.

Thanks to the generous support of the following local food businesses, and of course, Bob Warner, owner of Mill Wharf Restaurant, the NSRWA raised over \$6,000.

Thai Fruit & Vegetable
5 South Main
The Tinker's Son
Brant Rock Fish Market
French Memories
Hola
Island Creek Oysters
Mill Wharf
Mt. Vikos
Mullaney's Seafood
Orta
P.J.'s Country House



Jeff O'Brien, owner of P.J.'s Country House of Sciutate, serves up their famous clam chowder.



Island Creek Oysters present freshly shucked oysters in their ice filled dory.

Panera Bread Riva Silent Chef White's Pastry Yankee Trader Seafood Harpoon Brewing Co. Classic Wines Commonwealth Wines



## 2010 Water Watch Series Begins January 13!

Kathy Bartlett, Branch Manager and Mark Skalla, Rockland Federal Credit Union CFO, present a sponsorship check for the Water Watch Lecture Series. Rockland Federal Crdit Union has continued to support the Water Watch Lecture Series every year.

See page 7 for details.

Save The Date!

## NSRWA's 8th Annual Kayak and Outdoor Adventure Expo

April 10, 2010

The NSRWA 8th Annual Kayak and Outdoor Adventure Expo will be held on Saturday, April 10th at the Marshfield High School in Marshfield, from 10 am – 4 pm. This is a new venue for us, with very high visibility, about 1.5 miles from the highway on Route 139 (Exit 12 on Route 3). The gymnasium is over 16,000 square feet which will be packed with the best vendors, tour companies and clubs.

Sign Up Now!

## River Adventures Camp

Interested in having your child learn paddling skills and the natural history of our rivers? Co-sponsored by the NSRWA and the South Shore YMCA this one-week camp session for children grades 6 – 8 will be held on the following weeks this year:

July 5 - 9 July 12 - 16 July 19 - 23 July 26 - 30 August 2 - 6 August 9 - 13

Traditionally, River Adventures has filled within a couple hours of open registration. NSRWA members will have the first opportunity to register prior to the open registration. Registration forms are available at the NSRWA office. Registration will open to YMCA members in mid-February, therefore NSRWA members must register prior to February 6th, 2010 to be assured a space. Proof of NSRWA membership is required to register early. Kayaking equipment is provided. For more information contact the NSRWA office at 781-659-8168 or email Samantha@ nsrwa.org



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## 2010 Water Watch Lecture Series

January 13 - March 24
Wednesdays at 7 pm
at the South Shore
Natural Science Center

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The North & South Rivers Watershed Association, the South Shore Natural Science Center and Mass Audubon South Shore Regional Headquarters are pleased to announce their partnership in presenting a series of 11 free Wednesday evening lectures, January 13 – March 24, 2010.

This fascinating series offers something for everyone. All lectures will begin at 7pm and take place at the South Shore Natural Science Center, Jacobs Lane, Norwell. Members and the general public are encouraged to attend. Admission is free of charge!

For more information, or to be notified by email about this series and other NSRWA events via Rivernet, visit www.nsrwa.org or contact North & South Rivers Watershed Association 781-659-8168; South Shore Natural Science Center 781-659-2559; or Mass Audubon South Shore Regional Headquarters 781-837-9400.

## JANUARY 13 - Hit and Run History: The Columbia Expedition

Gumshoe historian Andrew Buckley will take us on a journey following the Columbia Expedition, the first American circumnavigation of the globe. The ship Columbia was built in 1773 at Hobart's Landing, on the Scituate side of the North River, and the Columbia River in Washington State was named after this ship that discovered it. Buckley is the foremost authority on the Columbia Expedition and its commander, John Kendrick. He's been on the trail of this story since 1995, beginning with research for his novel *The Bostoner*. The talk includes a screening of a short documentary film intended to be a pilot for 13 part series on the subject.

#### JANUARY 20 - Extreme Sailing

Brian Hancock believes in "Extreme Sailing!" He has competed in three Whitbread "Round the World" Races and has logged over a quarter of a million offshore miles racing boats both fully crewed as well as solo. Find out what it's like to sail at 40 knots on a maxi catamaran and how it feels to be solo and trying to sleep with a spinnaker set and sailing at 20 knots. Brian is one of the most experienced of world sailors, the founder of the Portimao Global Race, and the author of several books, including The Risk in Being Alive, which will be available for sale. Come be inspired!

## JANUARY 27 - The Sudden & Unexpected Decline of Massachusetts Bats

Dr. Tom French of the Massachusetts Natural Heritage and Endangered Species Program will discuss the dramatic decline of some species of Massachusetts bats as a result of the new fungus, White-nose Syndrome (WNS). This condition was first observed in bats hibernating in a cave near Albany, NY in 2006. White-nose Syndrome has spread rapidly and has caused the catastrophic mortality of bats that over winter in New England caves and mines, causing the death of over a half a million bats in the Northeast. The program will include a summary of what scientists know about the problem and how much harm it may eventually cause.

### FEBRUARY 3 - Talking Trash

Ever wonder where our trash goes? Or if it is safe to throw away those light bulbs or used batteries? And can make better use of the trash we do generate? Join Claire Sullivan of South Shore Recycling Cooperative and Patti Howard of Covanta SEMASS as they explain to us the intricate pathways our trash travels through once it leaves our hands. Their talk will also touch upon some unique programs to make trash useful and reduce pollution of our water such as the Fishing for Energy program, the Keep Mercury From Rising program and an update on the latest Bottle Bill campaign to take water bottles out of the waste stream.

#### FEBRUARY 10 - The Whale

The Whale, is an award winning non-fiction book that delves into literature, history, science, anecdote, anthropology and art to explore our long and often difficult relationship with whales. Inspired by Herman Melville's Moby Dick, author Philip Hoare manages to dive between poetic lyrical writing and the harshest of scientific facts. Yet within these pages is so much information, from the size of sperm whale's brain (bigger than ours) to the size of a right whale's balls (far, far bigger than ours) to the myriad ways we have used the flesh, bone and blubber. At its heart, though, this is a prayer for the whales' survival.

#### FEBRUARY 17 - Basking Sharks

The basking shark, Cetorhinus maximus, is one of the largest fish in the world, second only in size to the whale shark. Although giants in size - reaching lengths of 38 feet and weighing up to 8,500 pounds - basking sharks feed on zooplankton, which are tiny organisms that drift in the



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ocean. Join Carol "Krill" Carson as she regales us with stories of these gentle giants and how citizen scientists are being trained to provide sighting information on basking sharks and ocean sunfish observed from a beach or from a vessel offshore.

## FEBRUARY 24 - The Big Melt - Pulling the Plug on Glacier Lakes in Greenland

Join Woods Hole scientist, Sarah Das, as she recounts her latest expedition to Greenland in July of 2008. Dr. Das, along with National Geographic photographers, witnessed a never before seen phenomenon-the sudden draining of a glacier lake. Highlighted in a recent NOVA special entitled Extreme Ice, this expedition found that as glacial lakes grow, large cracks can open suddenly in the lakes' bottoms, allowing water to drain in a dramatic waterfall more than a half-mile down to the bedrock beneath the ice sheet. The water lubricates the base of the glacier, like grease on a railroad track, allowing glaciers to flow faster. As global temperatures rise, more lakes and cracks may form, accelerating the flow of ice to the sea.

#### MARCH 3 - Marine Invasives in Massachusetts Bay

Acres of organisms covering Georges Bank like pancake batter, crabs that degrade creek banks, and seaweeds that tear apart oyster reefs and choke out mussels, are just a few of the potential impacts from invasive species found or predicted to arrive in our coastal waters. Join Dr. Sara Grady, as she explains how these species arrive here, what their status is in Massachusetts Bays waters and specifically on the South Shore coast. Results will be presented from volunteer surveys on the South Shore as well as from state and region wide efforts to detect and monitor the introduction and spread of these invaders.

## MARCH 10 - Jaws Revisited: The Great White Shark in New England

Remember last summer's great white sitings off Chatham? Dr. Gregory Skomal, head of the Massachusetts Shark Research program, will present the latest efforts of the Massachusetts Shark Research Program to study the ecology and life history of the great white shark. He will discuss the recent occurrence of this highly elusive species in Massachusetts waters and the first time use of advanced technology to examine its behavior and movements in the Atlantic. Dr. Gregory Skomal lives on Martha's Vineyard and is an accomplished marine biologist, underwater explorer, photographer, aquarist, and author.

#### MAR. 17 - Restoring Rivers & Salt Marshes on the S. Shore

Our rivers and salt marshes have been altered and degraded over the years by various impediments such as tide gates and dams but there are opportunities to restore and revive these precious habitats. Come find out about ongoing salt marsh and river restoration projects right here on the South Shore. From Town Brook in Plymouth where dam removals have led to a restored river and herring runs, to Straits Pond in Hull where increased tidal flushing of this impaired coastal pond are bringing back to life water quality and habitats that had been degraded since the colonists first altered them.

#### MARCH 24 - Harvard Yard's Grass is Greener

Harvard Yard is trampled by 6,000 people everyday, yet the grass continues to thrive, thanks to Harvard's new organic lawn care program. Wayne Carbone, Harvard's Manager of Landscape Services, will describe how he became convinced of the benefits of 'going organic' and how he transitioned Harvard Yard away from chemicals to an all-natural program with such great success, that the little pilot program of 1 acre will now grow to 80 acres.