

RiverVatch

THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION, INC.

Protecting And Restoring The Rivers Since 1970

Our Vision 2022 for the North and South Rivers

As we build on the extraordinary accomplishments of the past few years and move forward with our new Strategic Plan, it is important to keep in mind our realistic goals for the future.

This issue describes a plausible vision of what our rivers might look like, and how our citizens might experience them, ten years hence.

A Public That Is Informed and Engaged

his past October 14 over 80 runners participated in our first ever Run for the Rivers – South River 5k. Thank you to all our sponsors! And get ready for next year.

Many people commented on the beauty of the river, and that they had no idea it existed before then – and fostering this new awareness and engagement is the primary reason why we invest in these public events.

Ten years from now we anticipate that the South River 5k, like our Great River Race, our walks and paddles throughout the watershed that explore our natural and cultural history, our Shad Flyfishing and Extreme Clamming events will be integral to the culture and recreation of our region. We anticipate ever continued on page 3



The first-ever Run for the Rivers - South River 5K. Photo by Craig Murray

Rivers That Are Restored and Healthy

O12 saw the first herring to return to First Herring Brook in memory – but only past Scituate's lower reservoir dam at Old Oaken Bucket. The dams on First Herring Brook are necessary for Scituate's water supply and will not be removed, but we envision that in ten years' time, with continued improvements to management of Scituate's water supplies and with improvements to fish ladders, that the herring run will extend up past the second dam at the reservoir, thus restoring herring to over 88 acres of spawning habitat.

We will also continue steady progress in restoring more natural flows in Third Herring Brook,



Herring return to the rivers! Photo by Alex Mansfield.

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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.

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Address Correspondence to: NSRWA P.O. Box 43 Norwell, MA 02061 phone: 781-659-8168 www.nsrwa.org

Letter from the President

n December 2nd, in celebration of the opening day for clamming on the rivers, our Association sponsored a clamming trip to the South River Flats. Fortuitously the day was unseasonably warm, and everyone in attendance took home a bulging bucket of clams. The reopening of these shellfish beds is concrete (and delicious!) evidence of the impact of this organization over the long term.

As we approach year's end, we can reflect on some other notable achievements in 2012. Highlights include the return of herring to the First Herring Brook, the opening of the South River Park and the acquisition by the Town of Marshfield of the 38 acres Pratt property for the South River Greenway, the designation of the Third Herring Brook as a Priority Habitat Restoration Project by the state and progress on dam removal, and an outstanding season of monitoring both herring and water quality by over 70 trained and dedicated Riverwatch volunteers.

More importantly, the year end is a time to look forward and consider what we are really trying to achieve for our rivers as we build on these accomplishments. This issue of RiverWatch outlines a plausible vision for the rivers in ten years time, what we believe will be the results of your dedicated support and efforts.



We are excited to be moving forward on so many meaningful projects, and we anticipate the days ahead when many years of effort come to fruition, as they have already for the shellfish beds.

Thank you to our members and volunteers for all that you have done to support us in the past; you make our success possible. And thank you in advance for supporting the NSRWA's present and future.

Sincerely, Craig Hannafin NSRWA Board President

Thank you to New or Renewing River Guardian Circle Members

River Guardian Circle members are our most generous, making donations of \$500 or more. Their generosity is the foundation for making the NSRWA a strong and effective voice.

Individuals

Kezia Bacon
Mark & Joell Bianchi
Donna Burrell & Jane Eggerstedt
Herb and Pauline Emilson
Paul Coolidge
Alan & Janet Holbrook
Andrea Miller
Kim & Christine Peters
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Bruce Graham & Ann Buchanan Samantha Woods and Lanny Day

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A Public That Is Informed and Engaged continued from page 1

more and enthusiastic participants, who in turn will be ever more enthusiastic supporters of protecting and restoring our rivers.

But we also anticipate new opportunities for public access and enjoyment:

South River Trail and Greenway

During 2012, Marshfield both celebrated the opening of the new South River Park, and approved the purchase of a new 38 acre conservation area downstream and across the river from the park.

Building on these achievements, we anticipate that within ten years there will be a 1.37 mile public walking trail loop along the South River, connecting existing open spaces from Veteran's Park to the Bridle Path (former railroad bed), crossing the South River and linking to the newly acquired 38 acres of conservation land on the north side of the river.

Third Herring Brook Trail and Conservation Land

In conjunction with restoration of more natural stream flows and fish runs in Third Herring Brook, we are advocating for the Cardinal Cushing Center and Town of Hanover to open a new conservation area on the brook, with substantial opportunity for new public education programs.

We anticipate the brook and its watershed to be further accessible by the creation of a new walking trail connecting the South Shore Natural Science Center to the South Shore YMCA.

Public education and awareness

Public education supports all of our efforts to protect and restore the rivers and watershed. We plausibly anticipate that in ten years time our "Water All Around You" fifth grade education program will reach all watershed and Mass Bays program communities. We will be paying particular attention to reaching students in Rockland, Abington, Hanson, Hingham, Hull, Duxbury, and Plymouth.

Our collaborations with the South Shore YMCA, the South Shore Natural Science Center, and the Mass Audubon's North River Sanctuary today include the Water Watch Lecture series and the River Adventures Camp. Over the next ten years, we will expand these collaborations with our local environmental partners offer science based watershed education programming to create the next generation of river stewards.

by Samantha Woods, Executive Director NSRWA



The South River Park – a piece of the South River Greenwayofficially opened on October 5th!



Water All Around You 5th Grade Program. Photo by Debbie Cook



River Adventures Camper finding an arrowhead on the Indian Head River.

Photo by Samantha Woods

Rivers That Are Restored and Healthy continued from page 1

including the recent completion of a feasibility study for removing the Tack Factory Dam reported in this newsletter. We envision that in ten years time migratory fish will have free run all the way from the ocean and up Third Herring Brook to the Jacobs Pond Dam. Removing dams on this system would lead to 10 miles of stream habitat being reconnected – allowing fish passage and spawning and a healthier river system.

The shellfishing season continues to lengthen on our Rivers and is a good indicator of the overall water quality. In ten years time, we envision that clam flats will be opened year-round. Through continued reduction of stormwater pollution and by working to grow shellfish from private docks or within the estuary we hope to improve water quality, restore shellfish habitat and engage people in caring for their rivers.

by Samantha Woods, Executive Director NSRWA



Above: Inly School Students Build a Rain Garden to treat polluted runoff. Plants generously donated by Kennedy's Country Gardens.

Below (both): Clamming on Opening Day

on the South River - December 2, 2012.

Photos by Samantha Woods





NSRWA's 2012 Annual Meeting Highlights

NSRWA's 42nd Annual Meeting was held November 2. Members elected several new directors – welcome to Sandra Moll of Hanover, Kathryn Robichau of Marshfield, Martha Twigg of Norwell and Peter Kelly-Detwiler of Scituate. We also recognized our 2012 Barbara Pearson Award winners, Jim Debarros, Rick Mosca and Al Bangert, of the Town of Scituate water supply staff for their work to restore herring to First Herring Brook. In addition, we honored our 2012 Volunteer of the Year John Zarrella of North River Marine for his 100's of hours of volunteer leadership effort in building the South River park boardwalk. *Thank you all!*



Volunteer of the Year John Zarella with NSRWA Executive Director Samantha Woods

Progress on the Rivers

New State Water Management Regs Proposed: But Will They Restore Streamflows?

Over the last 2 ½ years conservation groups, state environmental agencies and water suppliers have been working to change the permitting of water withdrawals to better protect streamflows. One result of this painful process is good science that identifies more than 300 streams, or 23% of all Massachusetts rivers, which are seriously impacted, including almost all of our own watershed's streams. However, while the science is good the state's proposed new regulations leave a lot to be desired. Much depends on how they are applied when towns request new water withdrawal permits. But this is a welcome step towards restoring balance between nature and people. For more information visit www.mass.gov/dep/water/resources/swmi.htm

Tack Factory Dam in Very Poor Condition Feasibility Study Supports Removal

The Cardinal Cushing Center in Hanover owns the Tack Factory Pond dam – the first dam from the ocean on the Third Herring Brook. Recently, with support from the NSRWA, the Center commissioned a study of the feasibility of removing the dam and reconnecting the Third Herring Brook to the North River.

The study concluded that the 300 ft long, 10 ft high dam was in poor/failing condition. It examined the quality of the sediments behind the dam in the impoundment, which if contaminated could be a major impediment to dam removal, and found they were relatively clean. The study concluded that to repair the dam would cost \$920,000, compared to removal costs of \$300,000. The removal option also eliminates ongoing liability issues for the owner.

The Center is planning a public information session in March of 2013 – please sign up to our Rivernet email for announcements on the date and time.

State Permit Granted to Remove Mill Pond Dam on Third Herring Brook

Local Permits Needed Next - Please sign up to help

Recently we emailed our members to support the YMCA's request for a waiver from a state permit to remove what remains of the Mill Pond dam - upstream of the Tack Factory pond dam. Over 170 area residents responded immediately, and as a result the waiver was granted! The next step is a permit from the local conservation commissions in Norwell and Hanover, and we will need your help to show public support for the restoration of the brook. Stay in touch by signing up to our Rivernet email on our website for timely updates on upcoming permit hearings.

Marshfield Votes to Protect 38 Acres on South River!

Marshfield's October Town Meeting voted to expend over \$300,000 to save permanently 38 acres and 2,860 ft of frontage along the South River! This parcel is key to the South River Greenway and Trail as we move forward. Thank you!

Sign up for our e-news to be notified to pre-register for the 2013 NSRWA/YMCA River Adventures Camp and other upcoming events.



Tack Factory Pond dam - the first dam on the Third Herring Brook from the ocean.

Photo by Gomez and Sullivan Engineers.



Longtime NSRWA member and friend of the rivers Eleanor Norris passed away on December 5th - her generous gift of the 100 acre Norris Reservation on the North River will always be remembered. Thank you Eleanor. *Photo by David Whitemyer*.









2013 Water Watch Lecture Series

January 16 - April 3 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 10 free Wednesday evening lectures, January 16 – April 3, 2013.

This fascinating series offers something for everyone. Except where noted, 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 16 - The 2011 Gulf Stream Shift off New England

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Glen Gawarkiewicz, Oceanographer, Woods Hole Oceanograhic Institute

In late 2011 three New England commercial fishermen alerted physical oceanographers at Woods Hole Oceanographic Institute of unusually high surface water temperatures and strong currents on the outer continental shelf of southern New England. Oceanographers investigated and found that the Gulf Stream had temporarily shifted well north of its normal path and ocean water masses were found to be unusually warm and salty. Come find out what scientists are learning from this unusual event and the biological implications of a changing ocean.

January 23 - Protecting Nesting Shorebirds in the Arctic

Brad Winn, Manomet Center for Conservation Science

Brad Winn, Conservation Specialist for the Shorebird Recovery Project at the Manomet Center for Conservation Sciences, will share stories, successes, and challenges from the long-running Arctic shorebird research program. Winn's work helps to determine potential impacts of oil development on nesting shorebirds in the Arctic National Wildlife Refuge by providing critical data on shorebird abundance and nesting success in the most threatened arctic landscape.

JANUARY 30 - The Mortal Sea - Fishing the Atlantic in the Age of Sail

Jeff Bolster, Author & Professor of History, University of New Hampshire

Since the Viking ascendancy in the Middle Ages, the Atlantic has shaped the lives of people who depend upon it for survival, and people have shaped

the Atlantic. Jeffrey Bolster, a historian and professional seafarer, will take us through a millennium-long environmental history of our impact on one of the largest ecosystems in the world stretching from Cape Cod to Newfoundland.

FEBRUARY 6 - Was There Water on Mars? - News from the Mars Rover

Ralph Milliken, Geologist, Brown University

The rover Curiosity landed on Mars in the Gale Crater this past August as part of a 2 year mission to determine whether the planet ever had a climate that could have supported life The rover has already found signs that the planet may have once harbored more habitable environments. In September, the rover found evidence of a "vigorous" thousand year flow on the surface of Mars. Join Ralph Milliken, a member of the Mars Rover science team, as he shares the latest images and data coming from Mars.

FEBRUARY 13 - JFK and the Sea

Maura Porter, Archivist, JFK Library

2013 culminates three years of marking the 50th anniversary of President John F. Kennedy's presidency. From creating the Cape Cod National Seashore to sailing on his own beloved Victura, John F. Kennedy had an intimate and lasting love of the sea. Kennedy Library Archivist, Maura Porter will share images and stories rarely seen about this aspect of John F. Kennedy's life.

FEBRUARY 20 - Kraken: The Curious, Exciting & Slightly Disturbing Science of Squid

Wendy Williams, Author

Kraken is the traditional name for gigantic sea monsters, and this book introduces one of the most charismatic, enigmatic, and curious inhabitants of the sea: the squid. In addition to squid, both giant and otherwise, Kraken examines other equally enthralling cephalopods, including the octopus and the cuttlefish, and explores their otherworldly abilities, such as camouflage and bioluminescence.

FEBRUARY 27 - Sustainable Aquaculture: It's Hard to Know What To Eat

Andy Danylchuk, Asst. Professor of Fish Conservation, UMass Amherst

Our hunger for seafood grows and grows, but the seas are running out of fish. Almost half of the fish the world eats comes from fish farms. But where does it come from, and how is it made? Dr. Andy Danylchuk, will pull back the cover on modern fish farming and use the documentary 'Fish Meat' as a catalyse for discussion about what sustainable aquaculture really is.

MARCH 6 - Native Brook Trout Tagging Tales

Steve Hurley, Southeast District Fisheries Manager, Mass Fish and Wildlife

Discover the Eastern Brook Trout, renowned with sport fishermen and whose populations have been much diminished from habitat alteration. Steve Hurley will share his knowledge of the natural history of the native brook trout, local restoration efforts and how researchers are using DNA and fish tagging to track their recovery.

MARCH 13 - River Otters Locally

Luanne Johnson and Liz Baldwin, Biodiversity Works

River otters are making a strong comeback in Massachusetts waters after having been nearly wiped out many years ago due to water pollution and habitat loss. In 2009, Luanne Johnson and Liz Baldwin conducted a river otter mapping and monitoring project on Cape Cod. Come find out more about the behavior and diet of this charismatic and photogenic species.

MARCH 20 - Beside Still Waters: Getting Our Feet Wet with Vernal Pools

John Twining, Eastern Nazarene College

Through a multimedia presentation, wander through the New England forest to the edge of a vernal pool with Professor Jonathan Twining, and experience the seasons of trial, triumph, and transformation in the lives of the species that call them home. Experience these remarkable wetland habitats and why it is important that we preserve them.

MARCH 27 - Maritime Military History of the South Shore

John Galluzzo, Director of Education and Camping, South Shore Natural Science Center

Standing at the gateway to one of the New World's most important early cities, the South Shore has always played an important defensive military role. Local historian John Galluzzo carries us from the earthwork forts of the American Revolution to Cold War-defining Nike missile tracking sites in a four-century study of the defense of our coastline.

APRIL 3 - Special Guest Lecture at the Inly School Richard Louv, Author of The Last Child in the Woods and The Nature Principle



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Inside This Issue:

- Our vision for the rivers
- Progress on Third Herring Brook, South River Greenway and more ...
- 2013 Water Watch Lecture Series Schedule





Working with generous neighbors and the town of Marshfield, NSRWA has installed a garden with a bench to view the North River at the end of Corn Hill Lane in Marshfield – one of the most scenic vistas in the state! On December 2nd we dedicated the garden in honor of one of our very own special members, Mary Eliot, a Corn Hill neighbor and dear friend to the rivers. Please visit Mary's Garden and enjoy. Volunteers are needed to help us maintain this special place – please contact us if you can help.