



**NSRWA**  
www.nsrwa.org

# RiverWatch

January 2015

THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION, INC.  
*Protecting And Restoring The Rivers Since 1970*



*Mill Pond Dam Removal on the Third Herring Brook, October 2014. Photos by Samantha Woods*

## Landmark Achievement in Stream Restoration

### Mill Pond Dam Removed from Third Herring Brook

**C**apping years of work with the South Shore YMCA and other partners, in October the Mill Pond Dam was the first ever removed from our watershed.

Restoring streams to more natural conditions requires success on several fronts: First, impediments, such as dams and culverts, which inhibit flow and fish passage must be removed or mitigated to allow for a river to behave like a river and provide river habitat to those creatures that depend upon it. The Mill Pond Dam was the first dam to be proactively removed in our watershed and we are confident that many others will follow.

And second, there must also be sufficient streamflow to allow normal fish passage and thriving ecological systems. The adjacent article on new Water Management Regulations explores new opportunities on this front.

### Next steps for the Mill Pond Site

With the Mill Pond Dam removed, the Third Herring Brook (3HB) is quickly establishing a natural streambed through fresh water marshes. Already within the first weeks of the dam removal we saw critters such as dragonfly larvae and a mother crayfish with eggs utilizing the newly establishing streambed. However,

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## New State Water Use Regulations Issued

### Specific Protections are Ambiguous, But All Towns Must Try Harder to Minimize Impacts to Stream Flows

**N**SRWA will work most closely at first with the towns of Norwell and Hanover to protect and restore stream flow on Third Herring Brook (3HB), attempting to replicate our successful partnership with Scituate on First Herring Brook (1HB).

This past summer's drought brought home to us how vulnerable our streams can be to drying up and how important it is for our communities to think proactively about

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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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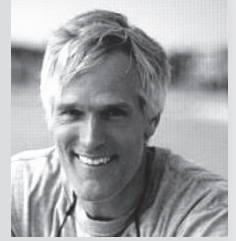
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# Letter from the President



I rowed the North River on a late November weekend at high tide, pushing my shell against the flow of falling water. It was a warm day for November, and there were many people out enjoying themselves: at Norris Reservation, at the dock on the Goggin Property in Marshfield, and walking on Couch Beach.

Whenever I see people out there, I wonder if they know about the NSRWA and our efforts. I am curious as to how much they take for granted that the beauty and health of the rivers they enjoy will always be there. I used to be like that and just kind of assumed things would take care of themselves. Once I joined the Board, that changed, and I underwent a surprising education.

I have learned a good deal over the last few years (with a good deal yet to learn), but one of the things I am most struck by at the NSRWA is the relatively long timeframe we use to judge success. Preservation of the watershed, and restoration of habitat, is a patient person's game.

The Mill Pond Dam removal project is a perfect example of that. This now completed undertaking – which opens up formerly impeded habitat – was over ten years in the making. It involved many fits and starts, triumphs and disappointments. Many might have given up, but your organization forged ahead, and now there's something tangible to show for it.

A key to succeeding in this effort to protect our environmental gems is patience and perseverance. It's keeping a steady eye on the prize, while focusing on each of the small steps necessary to get to success.

Along with patience, another critical element is to be working on multiple projects at the same time. Like investing, it pays to have a diversified portfolio. Dam removal might be considered our blue chip stocks, big-ticket expensive items that open up miles of habitat. However, one needs some potential high fliers too. Perhaps our project to re-populate the rivers with blue mussels fits the bill. It might be a long shot, but the payoff could be huge in terms of diversity and water quality. And you also need the long-term investments. Perhaps the NSRWA's education programs that have thus far touched over 15,000 school children address that need. Without the children, where will we recruit the future generation?

Then there's herring counting or invasive species removal. There is no shortage of projects or needs to be addressed.

Our watersheds are not simple places. The more we know about them, the more we are astounded and amazed by their complexity and beauty. And the more we know, the more we feel a visceral need to advocate for their preservation, to engage our communities, and to ensure we leave a valuable gift for the future. You all help us to do that, and in this season of reflection, we owe you our thanks for your continued strong support.

Sincerely,  
*Peter Kelly-Detwiler*  
NSRWA Board President

# Pontoon Boat Donation Opens Up New Possibilities for River Education

This past fall Paul and Netta Vercollone donated to the Association a pontoon boat for us to use to engage people in being on and learning about the rivers! Engaging more people with our rivers is part of our Strategic Plan and we have been contemplating the purchase of a boat in order to fulfill that strategy.



*Pontoon boat generously donated by Paul & Netta Vercollone.*

As you can imagine with any boat comes expenses; we hope to offset some of these expenses through fee-based programming, but it will still require fundraising to maintain the boat.

We will be offering 2 hour historic and marine science exploration tours next year throughout the boating season and can take up to six people at a time. If you are interested in booking a tour please contact our office at 781-659-8168 and ask for Samantha. Stay tuned for announcements in April's newsletter for more information.

## Tribute to Mary Eliot

I am very sad to report that Mary Eliot, a long time champion of river conservation and multiple environmental causes, passed away on November 7, 2014 at the esteemed age of 91.

I first met Mary many years ago at her home off Corn Hill Lane – her lovely antique cape has one of the best views of the North



*Mary Eliot (at right) at Opening Dedication to Mary's Garden on Corn Hill Lane*

River and was framed by her exquisite gardens. Mary's age never stopped her. Even as she slowed down Mary has been a regular at our Annual Meetings and other events. She has been a generous supporter, and always ready to make the calls, sign the letters, attend the meetings, and generally do what's necessary to protect the beautiful places she loved.

It was a very special pleasure for us at the Association to honor Mary in late 2012 by naming one of the most beautiful places on the North River Mary's Garden. This garden, set at the end of Corn Hill Lane with the North River as its backdrop, will hopefully stay as a reminder to all of Mary's passion for all the lovely things nature provides.

We all will miss Mary. The community has lost a lovely person and the river a great champion.

## 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. Below are those who joined or rejoined since October 2014. Thank you!

### Individuals

- Anonymous
  - Kezia Bacon
  - Mark & Joell Bianchi
  - William & Susanne Bottiggi
  - Sally Caverly
  - Paul Coolidge
  - Mark DiRico
  - Donna Burrell & Jane Eggerstedt
  - Richard & Lois Hall
  - Danny & Craig Hannafin
  - Valmai Hilton
  - Alan & Janet Holbrook
  - Bruce & Marcia Humphrey
  - Paul & Elizabeth Jevne
  - Bruce & Debbie Lenahan
  - Rick & Holly Mayfield
  - Andrea Miller
  - Pieter & Susan Mimno – *In Memory of Mary Eliot*
  - Sandra & Peter Moll
  - Jeff & Tina Morris
  - Margery & Allan Parker
  - Kim & Christine Peters
  - William & Ann Shanley
  - Andrew & Jaime Sullivan
  - Al & Julie Uhler
  - Samantha Woods & Lanny Day
- ### Organizations and Businesses
- Black Pond Veterinary Service
  - Bond Printing
  - Cavanaro Consulting
  - Ivas Environmental
  - Mill Wharf
  - Scituate Federal Savings

# Water Regulations

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*First Herring Brook flow shut down over fish ladder in late September 2014, due to drought*

water conservation not reactively when water becomes scarce. Most of our communities are approaching the limits of their existing water supplies and there are no easy new water sources available: many of our streams are already depleted due to over pumping in the summertime.

Recently, new Water Management Regulations (WMR) have been enacted that we hope will be a positive step that assure stream flow must be considered in permitting of new water withdrawals, and existing impacts must be “minimized.”

But criteria are vague, and enforceability uncertain. Implementation will depend heavily on local education and political will. There will be a premium on working with communities to apply locally focused, science-based solutions. This strategy has long been a major strength of our Association.

## Water Permits Up for Renewal on South Shore

Municipal water withdrawal permits for many of the towns in our watershed must be renewed during

2015, presenting a new opportunity to address, and mitigate, impacts to stream flow in our system. Assuring a sufficient flow of water in rivers and streams is important for fish and healthy river ecology, as is removal or management of impediments (see related article on removal of the Mill Pond Dam).

NSRWA’s long and successful partnership with the Town of Scituate to manage stream flow has demonstrated that fish can be returned even to the long-dammed First Herring Brook (1HB). The approach we took with Scituate included public education about the benefits of better water management, thoughtful science-based analysis of local problems and opportunities on 1HB, and very close working relationships with Scituate water managers and other town leaders. We are confident that this approach can be replicated elsewhere.

## Study of 3HB Streamflow Hoped for this Spring

We consider the greatest opportunity for progress under the WMR to be with the towns of Norwell and Hanover in the Third Herring Brook watershed where both towns have water supply withdrawals. The town of Norwell has taken the lead in applying for a grant to study stream flow management on 3HB, with Hanover and our Association as partners. Funds under this grant will support our science-based analysis of low flow issues on 3HB, and the development of options for minimizing impacts as these two towns determine their future water needs.

With only a few months to study and work with the towns, it is not likely that final solutions can be identified and built into permits that must be issued before August. But we do expect that the permits can be drafted as “living” documents, requiring adjustments in water management as more information becomes available.

Marshfield and Pembroke also play critical roles in flow management

While our Association will work most closely with Norwell and Hanover over the next few months, we understand that Marshfield and Pembroke also play important roles in helping to maintain necessary stream flows in the North and South Rivers.

Both Marshfield and Pembroke are part of our Greenscapes program, the educational program we manage, and they are partners in our 5th grade education program, “Water All Around You.” We hope that over time, and with more public education, we will also be able to work with those towns to address specific stream flow issues in their communities.

# Stream Restoration

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the brook will require some human intervention to manage invasive species, such as the Purple Loosestrife, from taking over the freshwater wetlands. This coming spring, the NSRWA and Massachusetts Bays program will introduce Gallarucella beetles which eat the Purple Loosestrife, and will carefully monitor vegetation, fighting invasives to the extent possible. If you would like to assist us in growing and releasing these beetles please contact our office.

And Mill Pond Dam is only one of four dams on the Third Herring Brook that require work to restore the river and access for herring to spawn.

Engineering for removal of the **Tack Factory Pond Dam**, lowest on the 3HB and owned by the Cardinal Cushing Center, is completed, and the Norwell and Hanover Conservation Commissions have begun consideration of the project as we write. Opening hearings will be in January. If you are interested in attending please contact our office. Stay tuned to our Rivernet emails for updates and ways you can lend your support through the permitting process.

The Cardinal Cushing Center is committed to removal of this dam, and while funds must be raised, we are confident it is only time before this impediment is removed as well.

# Celebrating Dam Removal, Volunteers: Scenes from the NSRWA's 44th Annual Meeting



## Scituate Teen's Research Aids Mussel Project

Calli Bianchi, an eighth grader from Scituate who lives on the North River, captivated the audience with findings from her blue mussel/green crab study with the support of Dr. Sara Grady.

Currently, the NSRWA has a "mussel head start program," in conjunction with the Mass Bays program, which aims to increase the mussel population in the North River. However, no one was sure at which size mussels could effectively fight off green crabs, and Calli's research yielded the potential answer.

**"Our experiment used twelve containers submerged in the river. There were three different sized mussels contained for 26 days with a green crab ranging in 43-47mm in length as well as controls. We were able to determine that the mussels sized 25-30mm were best able to survive among the green crabs."**

*at left: Calli receives Certificate of Recognition from Samantha Woods*



## Jencie Stewart Honored As Volunteer of the Year for a Decade of Keeping Us on the 'Straight and Narrow'

For more than ten years Jencie Stewart has come to the NSRWA to reconcile our accounts and keep our financial house in order. Her behind-the-scenes work has been essential in the smooth functioning of the NSRWA.

*at left: NSRWA President Peter Kelly-Detwiler presents Jencie with a book of his images of the North River.*

## Celebration of the Removal of YMCA's Mill Pond Dam on the Third Herring Brook!

The Annual Meeting concluded with a trio of videos showcasing the dam's removal through time lapse photography - and the quick response from Mother Nature to bring life back into the area. The third video gave a unique perspective of the finished project from high in the sky. These video's can be viewed on the North and South Rivers YouTube channel.



## South Shore YMCA Receives Barbara Pearson Award for Removing the Mill Pond Dam

Saying that the SSYMCA had travelled a long, costly road to remove the dam, including having to pay twice to go through the permitting process due to the long, convoluted journey, Executive Director Samantha Woods praised the SSYMCA for their perseverance and commitment to remove the dam throughout a span of ten years.

She noted that there were many partners along the way who also contributed to the dam's removal providing financing and advocacy, including our own NSRWA members, but the bottom line was that the dam could not have been removed without the South Shore YMCA's commitment of time and finances.

*At left: Bruce Netherwood, vice-president of Camping and Social Responsibility, accepts the Barbara Pearson Award on behalf of the SSYMCA.*



# 2015 Water Watch Lecture Series

January 14 – March 18

Wednesdays at 7 pm • FREE ADMISSION!  
at the South Shore Natural Science Center, Norwell

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## JANUARY 14 - Hit and Run History: The Columbia Expedition

Andrew Buckley, PBS Documentary Filmmaker

Cape Cod filmmaker Andrew Buckley's films have captured the imagination of followers of public television to the tune of two Emmy nominations. And for residents of the South Shore, he is telling a local story. *Hit and Run History: The Columbia Expedition* follows the first 'round-the-world' journey of an American ship, one which was built in Scituate at the mouth of the North River. Join Buckley for a screening of the next episode and a discussion of the project, as he transports one and all to the Falkland Islands and the turn around Cape Horn.

## JANUARY 21 - Project SnowStorm

Norman Smith, Director Blue Hills Trailside Museum, Mass Audubon

This past winter's large increase of the Snowy Owl population captured the public's attention but since 1981, Norman Smith has spent countless days and nights, in every imaginable weather condition, observing, capturing, banding and color marking Snowy Owls at Logan International Airport. Recently, scientists have been able to put satellite transmitters on the owls and track their movements. Come learn about this exciting new research and uncover the mysteries of the beautiful arctic Snowy Owl.

## **JANUARY 28 - The Coast Guard: A Century of Service on the South Shore**

speaker TBD

On January 29, 1915 – one hundred years ago – the United States Life-Saving Service and the Revenue Cutter Service merged to form the United States Coast Guard, forever changing life along the South Shore. For the past century, the Coast Guard has played myriad roles on our coastline, chasing rumrunners, patrolling our beaches in World War II, rescuing the crew of the stranded Italian freighter *Etrusco* off Scituate in 1956, and more. Join the Coast Guard in celebrating this centenary with a discussion of the service's local history and current missions.

## **FEBRUARY 4 - Watching the Weather**

**Danielle Vollmar, WCVB Channel 5 Meteorologist**

Certain basic principles of weather watching have become staples in our lives: the clashing of high pressure and low pressure systems, the constant movement of fronts, the swirl of a tropical storm system moving up the coast towards New England, but what are we missing? Danielle Vollmar of Boston's WCVB Channel 5 will discuss the sun's uneven heating of the surface of the earth, the water cycle and more in this meteorologist's-eye view of the weather we encounter every day.

## **FEBRUARY 11 - Cashes Ledge - Taking a Closer Look**

**Priscilla Brooks, VP and Director of Ocean Conservation, Conservation Law Foundation**

Just 80 miles off the coast, Cashes Ledge, is one of the region's most distinct and beautiful marine habitats. Documented through underwater video and photos by famous National Geographic photographer Brian Skerry, this "undersea garden" rich in kelps, corals and fish – has been off limits to commercial fishing for 12 years. But now the Cashes Ledge area is being considered for reopening to bottom trawling fishing placing this spectacular place at risk. Come take a "closer look" at the largest continuous kelp forest on the east coast of the U.S.

## **FEBRUARY 18 - Lost Art of Finding Our Way**

**John Huth, Donner Professor of Science, Harvard University**

Long before GPS, Google Earth, and global transit, humans traveled vast distances using only environmental clues and simple instruments. John Huth asks what is lost when modern technology substitutes for our innate capacity to find our way. Weaving together astronomy, meteorology, oceanography, and ethnography, *The Lost Art of Finding Our Way* puts us in the shoes, ships, and sleds of early navigators for whom paying close attention to the environment around them was, quite literally, a matter of life and death.

## **FEBRUARY 25 - The Seasons of Cranberries**

**Sarah Garretson-Lowry, Cranberry Farmer, Garretson Cranberry Farms, Marshfield**

Everyone associates cranberries with the fall harvest but growing cranberries is an all year affair. The Garretson Cranberry Farm with over 40 acres of bogs is the largest farm in Marshfield and has been in the Garretson family for 3 generations. Sarah Garretson Lowry will provide us an in depth discussion on the techniques and practices used to grow cranberries throughout the year.

## **MARCH 4 - Rising Seal Populations**

**Dr. Gordon Waring and Stephanie Wood, NOAA Fisheries Science Center**

After being severely depleted by bounty programs in the early 1900s, gray and harbor seal populations are growing in New England. This increase in seals has resulted in worries over increased shark interactions and competition for fish while others enjoy "seal watching" and view these increases as positive. Through aerial and tagging surveys scientists studying their populations and behaviors will show us where their populations are increasing.

## **MARCH 11 - The Quest for the Golden Trout**

**Douglas M. Thompson, Author and Director of the Goodwin-Niering Center for the Environment at Connecticut College**

Americans' love of trout has reached a level of fervor that borders on the religious. Federal and state agencies, as well as nonprofits, invest billions of dollars on river restoration projects and fish-stocking programs. Thompson will share his thoughts on how these investments may risk destroying species they are tasked with protecting. The Quest for the Golden Trout is about looking at our nation's rivers with a more critical eye—and asking questions about both historic and current practices in fisheries management.

## **MARCH 18 - The Mystery of Eels**

**James Prosek, Artist, Author and Activist, Yale University**

Eels have been a source of fascination to award winning writer, artist and conservationist James Prosek since childhood. His quest to find out more about these mysterious creatures that live in our rivers and return to the Sargasso Sea off Bermuda to mate took him from Maine, where New England fishermen reap the benefits of a multibillion-dollar eel business; to Japan, where more than 130,000 tons of eel is consumed each year. His acclaimed book, artwork and journey became the subject of a PBS Nature show in 2014 entitled the Mystery of Eels. Come find out more about these fascinating creatures through Mr. Prosek's writing, film and art.



# RiverWatch

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## Inside This Issue:

- **Third Herring Brook Restoration Moves Forward with First Dam Removed!**
- **New Water Management Regulations to Help Streamflow**
- **2015 Water Watch Series**
- **2014 Annual Meeting Highlights**



Connect with us on Facebook

### *Conservation requires eternal vigilance.*

We fight to make the North and South Rivers healthy, beautiful, and fun, not only for ourselves, but for our children and grandchildren and those who will come after.

To help assure that NSRWA will be strong and effective into the future, a group of benefactors is leaving bequests to our Association in their wills. These generous individuals will be recognized as the first group of our Legacy Circle.

#### **Legacy Circle Founding Members**

Herb and Pauline Emilson  
 Betsey and Robert Detwiler  
 Peter and Julie Kelly-Detwiler  
 Craig and Danny Hannafin  
 Richard and Jackie Leach  
 Michael and Susan Wolfe

*We encourage other members to consider leaving bequests to NSRWA, and those who do so through 2015 will forever be recognized as Legacy Society Founding Members. To join or find out more about the program please contact Samantha Woods at 781-659-8168.*

## **New Legacy Circle Created to Recognize Those Who Provide for NSRWA in Their Estate Plans**

*We Welcome new Legacy Circle Founding Members through 2015*



*Photo by Gail Jardim*