



October 2013

# RiverWatch

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

## 2013 Benchmarks of Progress Toward Protecting and Restoring Our Rivers

### Engaging Families with the rivers helps ensure their future

**W**e have reached two major benchmarks this year in engaging people, particularly families and children, with our rivers – reaching 10,000+ children in watershed area schools through our “Water All Around You Program.” The second is starting a “Science Fridays in the Shed” program to engage area families in the summer to explore different ecosystems within the watershed.

*continued on page 4*



*Children from Rockland participate in Science Fridays with Dr. Sara Grady, Watershed Ecologist and Mass Bays Regional Scientist.*

### Restoring First Herring Brook to its Headwater through Fish Ladder Improvements and Water Conservation

**T**he Association continues to make progress restoring herring to the First Herring Brook in Scituate. Our spring volunteer herring counts revealed a second year of returning herring, albeit in very small numbers. We leveraged over \$63,000 this year in two state grants – one from the state’s Division of Ecological Restoration and one from the Department of Environmental Protection to advance this project.

*continued on page 4*

*New sign installed on Rt 3A in Scituate to raise awareness about the need for water conservation.*



## 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

It is hard to believe that almost two years have passed since I was accorded the honor of serving as the President of the Board of Directors of the NSRWA. As my term ends I want first of all to thank everyone whose contributions of time, effort and funds allow us to be so successful—our members, our volunteers and our very dedicated staff. Your continuing support is deeply appreciated and your generosity paves the way to the fulfillment of our mission to “Protect, Educate and Restore.”

As I reflect on my time as a Director I am so impressed by the longevity of this organization. For 43 years the NSRWA has built a legacy of advocacy for our waterways. Many accomplishments unfolded over the long term, step by incremental step. A potent example of this is the expansion of shellfishing in the South River after two decades of bed closures. Years of water testing, monitoring, and advocacy from the NSRWA led to increased treatment of polluted runoff, upgraded septic systems and increased sewerage. The resulting improvement in water quality now allows for safe shellfishing seven months a year with the expectation that in the near future the beds will be open year round. Our current efforts to achieve stream restoration and improved fish passage in the First Herring Brook and Third Herring Brook are also projects with a long time horizon—it is a complicated process to reverse centuries of degradation.



Our ability to be successful over an extended time is contingent on maintaining a secure financial future. As we think over the long term with respect to our work, I ask you to think long term with respect to your support. You can give an inspiring gift that costs you nothing in your lifetime by making a bequest to the NSRWA. It is also possible to designate a tax-exempt organization as a beneficiary on your 401K or IRA.

Individuals 70 1/2 or older who have an IRA can also take advantage of the extended charitable IRA rollover until December 31, 2013. This allows the account owner to transfer up to \$100,000 to one or more charities;

any amount donated will count toward your required minimum distribution but will not be included in taxable income. Our Endowment Fund, established in 2008, has already received several legacy gifts, including one of appreciated securities. Please consider making the NSRWA a beneficiary in your estate planning; we have attorney advisors available who will discuss this with you free of charge.

You don't have to be a millionaire to leave a legacy. I hope that we all, when reflecting on the impact of the rivers on our lives, can find a way to give back to what is so important to us and to generations to come. Stewardship, the idea that we have a responsibility to pass our world along in an improved condition, is a founding principal of our nation. In 1822, in a letter to Constantine Samuel Rafinesque, Thomas Jefferson wrote “I thank you for the seeds . . . Too old to plant trees for my own gratification, I shall do it for my posterity.”

What will your legacy be?

It has been a privilege to serve as an officer of the NSRWA. See you on the Rivers!

Regards,  
*Craig Hannafin, President*



*Views from Norwell property off Masthead Lane on the North River. Norwell Town Meeting votes October 7th to acquire for open space.*

## **Town of Norwell to Vote October 7th on Open Space Acquisition On North River**

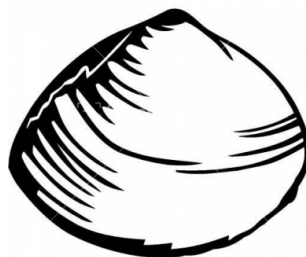
Norwell Town Meeting will vote whether or not to save 10 acres of undeveloped land with frontage on the North River at the October 7th Special Town Meeting for \$350,000. This property is located on Masthead Lane in Norwell and was identified as a high priority parcel for protection in our “Protecting What Matters” report which analyzed all properties along the North River. The potential for access to the North River at this site is high as there is an existing cart path, area for parking and part of the frontage on the North River could be accessed by boat without need of building a large dock as there is little salt marsh on the site.

If you are a Norwell Resident please attend Town Meeting on October 7th and vote to acquire protect this important property.

## **Get Your Clams for Thanksgiving - Shellfishing Open a Month Earlier!**

We are very pleased that both rivers will be opened one month earlier than usual for recreational shellfishing (November 1st instead of December 1st) due to continued good water quality testing conducted by the state and with support from the Town of Marshfield. With their continued support, we hope to see access to shellfishing continue to increase!

Come celebrate the earlier opening by signing up to learn to shellfish – Saturday, November 2, 2013. Registration is available online and is required. See event listings on page 7 for more information.



## **New Shellfish Gardening Project Has Potential to Enhance River Health**

This summer, with the assistance of an intern from Hamilton College, we examined the feasibility of restoring mussel populations to the rivers. Our goals are twofold –to improve water quality through the natural filtration of shellfish (mussels are one of the best filter feeders!) and to restore mussel reef habitat structure to the rivers for other sea creatures and to combat erosion. There are mussels currently growing in the rivers but not in the numbers that were once there.

Similar programs have been established along the Atlantic seaboard. Some shellfish restoration programs work to establish or re-establish mussel or oyster reefs in appropriate locations while other programs termed “Shellfish Gardening” focus on growing shellfish from docks.

Our summer survey identified potential sites for mussel reef building and where mussels could grow from private docks. Growing shellfish in our rivers requires a number of permits and additional work to determine the extent this once prolific species could be re-established. We hope to start the permitting process next year, and begin growing mussels in the rivers in the summer of 2014. If you have a dock downstream of the Rt 3A bridge on the North River or the Sea St. Bridge on the South River and are interested in potentially participating in the shellfish gardening project please contact our office.

## Engaging Families / Reaching Kids *continued from page 1*

### Science Fridays Overbooked in its First Year!

Science Friday was a new program we initiated this year to engage families to explore different unique natural habitats that can be found right here in our own backyards! It was so popular it was oversubscribed for two of the sessions and we were contacted to provide the program for 40 youth from Rockland!

Our staff scientists took small groups of young people ranging in age from 4 to 13 and their parents or grandparents to explore salt marshes, tidepools, barrier beaches, manmade ponds on our rivers, streams and freshwater tidal rivers. Over a 1.5 – 2 hour period we collected and identified the creatures that call these habitats home and took temperature, dissolved oxygen and salinity measurements. This “mini-watershed ecology course” provides an introduction to watershed hydrology and ecology. The kids had a great time splashing in the water, identifying creatures such as eel, crayfish, dragonfly larvae and other macroinvertebrates. Parents and grandparents told us they had indeed learned something new that they would reinforce when they returned home.

Programs that reach area families and engage people with the rivers will ultimately lead to more stewardship of these resources. I hope your child, your grandchild or you will be able participate in one of our many opportunities to learn about and love our rivers!



*Families explore the ecology of the Spit with NSRWA scientists this summer.*

## Restoring First Herring Brook *continued from page 1*

This funding allowed us to accomplish several goals in our quest to fully restore herring to the First Herring Brook:

- Educational signage was installed on Rt 3A and at the new Stockbridge Grist Mill Park to raise awareness about the need to conserve water and the connection to streamflow;
- We analyzed the decrease in water use by customers confirming that irrigation systems had the largest water conservation potential, and providing support for future policy decisions around conservation;
- Completed improvements to the fish ladder on Old Oaken Bucket Pond to improve outflows in the fall in support of fish outmigration; and
- Completed an engineering study to assess infrastructure improvements that would be needed to get herring up to and

back out of the upper reservoir where there is the potential for 70 acres of additional spawning habitat.

The engineering study was a big leap forward for our project. It provides a roadmap forward for allowing the upper reservoir to be restored as spawning habitat for herring. From past studies we know that the problem at the reservoir is a seasonal one – limited to the fall – when outmigration occurs. The fish ladder exit way is not low enough after summer water use to allow for outflow from the reservoir – thus potentially trapping fish and preventing them from returning to the sea to the complete their life cycle.

The engineering study revealed that the only way to remedy the situation was to either lower the fish ladder exitway or raise

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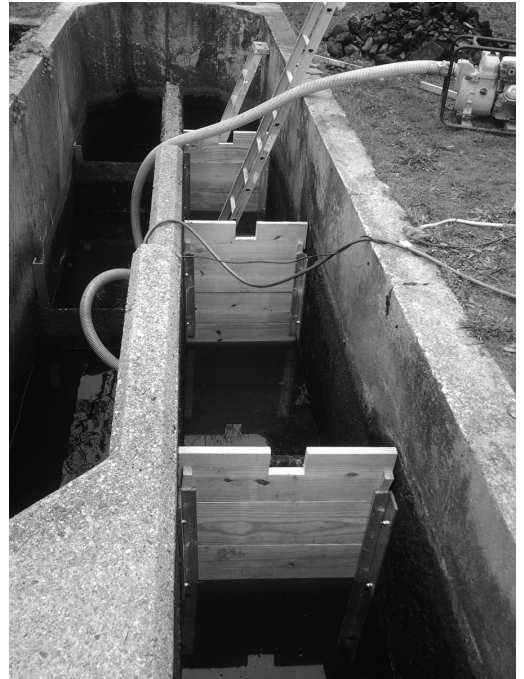
## Restoring First Herring Brook *continued*

the reservoir or some combination of these two. Working in partnership with the town of Scituate's Water Resource Committee, we modeled different reservoir levels and fish ladder exitway elevations which allowed us to test which scenarios would be the most successful at passing fish out in the fall, while at the same time minimizing impacts to surrounding existing infrastructure.

The most promising scenario was raising the water level in the reservoir by 1 foot in elevation and lowering the fish exit by 3.5 feet, which provided a 95% success rate in the fall or outmigration at the reservoir. This scenario is estimated to cost \$1.35 million. The study also revealed that raising the reservoir provided the town more drought resiliency – something many communities are concerned with particularly with precipitation patterns changing due to climate change.

This fall we will have another opportunity to partner with the town to seek additional grant funding to take this project to the next phase – community involvement, design and permitting. Stay tuned!

*by Samantha Woods, Executive Director NSRWA*



*Weirs installed in Old Oaken Bucket Pond*

## Progress on Third Herring Brook Dams and South River

### NSRWA Obtains Funds for Dam Removals on Third Herring Brook

This year we obtained more financial assistance for the removal of the YMCA's Mill Pond Dam. With a recent award of \$50,000 from the federal government, we bring the total dollars we have raised to help the Y remove this dam to \$110,000. In addition, we recently assisted Y staff in completing an application for a low interest state loan focused on dam removal. With this financial assistance the Y intends to complete the removal of the Mill Pond Dam in September of 2014. This will be the first dam to be removed in our watershed ever!



*NSRWA summer interns Alexandra Rozen and Emily Pitman inventory the invasive Purple Loosestrife in Mill Pond on the Third Herring Brook*

We have also made progress on the Cardinal Cushing Center's dam – the first one on the Third Herring Brook from the ocean. We have recently obtained \$65,000 from a combination of sources including Trout Unlimited, Cardinal Cushing Center, the Sheehan Family Foundation, and the state's Division of Ecological Restoration. This funding will be used to complete engineering designs and permitting for the removal of their dam and the restoration of the Third Herring Brook. We hope to begin the permitting process over the winter and will be looking for member support for during the public review process – Stay tuned!

*continued, next page*

## Progress on Third Herring Brook Dams and South River, continued

### South River Restoration

This summer we also assisted both the Town of Duxbury and the owner of Chandler Pond dam with applications for funding for design and permitting related to removal of two dams and three cranberry bog water control structures that are no longer needed. The removal of these structures would potentially open 6 miles of South River as free flowing river and access to 6.5 acres of open water habitat for spawning alewives.

The NSRWA continues to do battle with the invasive plant Japanese Knotweed at the South River Park and now at the new Stockbridge Grist Mill Park on the First Herring Brook in Scituate. The South River Park Japanese Knotweed removal we did last year made a significant reduction in this year's growth reducing the knotweed at the park by 65-70%. This year our interns helped by cutting the knotweed in June and removing it from both sites. In September Japanese Knotweed will be sprayed with herbicide at the South River Park by MassAudubon biologists and we continued to remove by hand with volunteer help the knotweed at the new Grist Mill Park. We will continue to need help twice a year to cut and remove this plant from the banks of the rivers at these sites. Please contact our office if you are interested in volunteering.

*NSRWA summer intern Margo Ballenas removing Japanese Knotweed from the banks of the First Herring Brook at the Grist Mill Park Scituate.*



### Town Managers Tour Rivers

Town managers from Norwell, Scituate, Marshfield and Duxbury took a tour of the North and South Rivers this past summer with Association staff and the Town of Marshfield's Harbormaster, Michael Dimeo. Both Scituate and Marshfield were supportive and interested in piloting a shellfish restoration program using mussels, their support is key to successfully permitting the project.



*From left to right: Mike Dimeo, Marshfield Harbormaster; Jim Boudreau, Norwell Town Administrator; Sara Grady, Mass Bays South Shore; Rene Read, Duxbury Town Manager; Samantha Woods, NSRWA Exec. Director; Patricia Vinchesi, Scituate Town Manager; and Rocco Longo, Marshfield Town Administrator.*

### 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

William Earley  
Peter & Pattie Hainer  
Patty Jackson  
Peter & Julie Kelly-Detwiler  
Adele Milani  
Sally Moore  
Jeff & Tina Morris  
Karen & Bert O'Donnell  
Susan & Michael Wolfe  
Samantha Woods & Lanny Day

#### Organizations and Businesses

Dancing Crow Yoga  
Scituate Federal Savings

# NSRWA Fall 2013 Events



## Second Annual Run for the Rivers: South River 5k

*Sponsored by Scituate Federal Savings Bank  
Sunday October 20, 2012 at 9 am  
Starts at Rexhame Beach, Marshfield*

Get out your running shoes and join us for the Run for the Rivers – South River 5k! Enjoy the beauty of the South River and help raise funds for the NSRWA to continue our mission to protect and restore our river resources.

This 5k loop will traverse up and down the beautiful South River, going over two bridges and starting and ending at Rexhame Beach. Families and walkers also welcome! *Preregistration is \$20 online at [nsrwa.org](http://nsrwa.org). Day of registration is \$25. Free eco-friendly reusable shopping bags for first 250 race registrants!*



## NSRWA 2013 Walk Series

Exploring New or Improved  
Conservation Areas in the Watershed

*These walks are free for NSRWA members,  
\$5 for non-members.*

*Pre-registration is required – go to [nsrwa.org](http://nsrwa.org) to sign up.*

Last Walk Of The Series!

## Cuffee Lane Walk in Norwell

*Sunday, October 27th, 1pm*

Cuffee Lane is the latest open space acquisition in Norwell and is adjacent to the Black Pond Bog. Come and explore it and find out the rich history of a former slave named Cuffee who once owned this 25 acres in Norwell.

## Shellfishing on the South River

*Saturday, November 2nd  
at 3pm*

Celebrate the shellfish beds opening one month earlier! What better way to spend a November day than to harvest your own clams to make a nice work bowl of clam chowder to eat while you watch football or maybe offer something you harvested yourself for Thanksgiving? Limited space available on the boat please reserve your spot and sign up online.



## NSRWA's 20th Annual New Year's Day Walk

*Wednesday January 1, 2014 at 1 pm • Forge Pond Park, Hanover*

Join the NSRWA for its 20th year of ringing in the New Year together by exploring conservation lands in our watershed. This year's walk will be located at Hanover's new Forge Pond Park – located next to Forge Pond on the Indian Head River this new open space complex combines active athletic fields with passive recreation and trails that run along Forge Pond. No registration needed this event is free and open to the public. Forge Pond Park is located on King Street in Hanover.



# RiverWatch

THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION, INC.  
P.O. BOX 43 NORWELL, MA 02061  
www.nsrwa.org • 781-659-8168

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- 2013 Benchmarks of Progress
- Annual Meeting – Friday, November 1
- Fall Events



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## NSRWA's 43rd Annual Meeting

Friday, November 1, 2013 7 pm • South Shore Natural Science Center

Join us for our 43rd Annual Meeting. Meet new friends, reconnect with old friends, hear more about our exciting work to restore our watershed and help us honor those in the community who protect our local environment. Our keynote speaker will be Alex Mansfield, Ecologist with the Jones River Watershed Association. Alex will provide an overview and video of the removal of the Wapping Road dam and the successful migration of fish back to the Jones River!

- *Wine, cheese and clam chowder reception*
- *Business meeting to elect and re-elect board members*
- *New Board Member Nomination: Dorie Read*
- *Renewing Board Members: Sally Moore, Deb Lenahan, Richard Leach, Peter Hainer, and Janet Fairbanks*
- *Thank you to retiring board members for their service - Jean Christensen, Mark Moore, and Russ Haskell*
- *Volunteer of the Year Award - Kathy Harrington*
- *Barbara Pearson Award – Gary Thomas*



Wapping Road Dam, prior to removal.