



October 2012

# RiverWatch

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

## EPA New England Chief Visits the Rivers - Highlights Our Science Based Approach

*"I am so pleased to be able to visit with your Association, one of our most important partners. Your science based advocacy, and your ability to build partnerships with communities, citizens and other nonprofits, has gotten great results for the North and South Rivers." - Curt Spalding, EPA New England Region Administrator*

On September 14th 2012 the US Environmental Protection Agency's (EPA) New England Region Administrator, Curt Spalding, visited our rivers. We were excited to welcome him as well as federal, state and local legislators, the press and others on a tour from Mary's Boat Landing downstream to view the mouth of the North and South Rivers. While on the tour we pointed out our successes, such as the recent opening of the shellfish beds in the South River and the return of herring into First Herring Brook. We also took the opportunity to introduce him to Dr. Sara Grady, NSRWA Watershed Ecolo-

gist and Massachusetts Bays Program Regional Coordinator for the South Shore who provides the scientific capacity to do our work. Funding for her position as "chief scientist" comes from the EPA with the NSRWA matching those dollars with our member and South Shore partner contributions.

*continued on page 4*



*From left to right Rep. Rhonda Nyman, Rep. Jim Cantwell, NSRWA and Mass Bays Program Ecologist Dr. Sara Grady, NSRWA Exec. Director Samantha Woods, EPA Regional Administrator Curt Spalding, Scituate Selectman Rick Murray.*

## Third Herring Brook Restoration Project Needs Your Support

### YMCA Faces Dam Removal Permitting Process

Our Third Herring Brook (3HB) restoration project was recently chosen by the State's Division of Ecological Restoration as a Priority Habitat Restoration Project. This status provides technical assistance, visibility and prestige, and the possibility of future state funding. The project also received \$22,000 from the Mass Environmental Trust (through environmental license plate sales) and \$15,000 from the Sheehan Family Foundation. The funding will be directed largely to the owners of the first two failing dams on 3HB mov-

ing upstream from the North River – the Cardinal Cushing and the YMCA – to help them with technical studies, permitting and actual deconstruction.

Most immediately, the YMCA needs to go through the very long and often contentious permitting process. We need your help to show public support this fall for this river restoration project in the permitting process. Please read on to find out more.

*continued on page 5*



*Cardinal Cushing dam at Tack Factory Pond showing deterioration of the right abutment to the spillway.*

## 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

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# Letter from the President

The beautiful summer of 2012 now lies behind us - how did that happen so quickly? I hope many of you took advantage of the all too fleeting weeks of great weather to get out and about on our waterways. The NSRWA sponsored many fun and well-attended events on the rivers - kayak paddling lessons, stand up paddling lessons (that looks so hard!), historic and scenic trips, camping at Couch Beach, Yoga at the Rivers Edge, fly fishing, and of course, the 22nd Annual Great River Race. One of our own, Director Peter Kelly-Detwiler, accompanied by several intrepid (or under-informed) friends, completed the 72-mile Wampanoag Canoe Passage, with a world class case of poison ivy to show for it! (Did I mention fun events?) It was a great summer to take advantage of the wonderful recreational opportunities we are so lucky to have at our disposal. Engaging people with our rivers through fishing, swimming, boating and increased public access is a central part of our mission.

However, the fun and games of recreation on the water is predicated on maintaining a healthy river system. The NSRWA's most significant strength is our ability to bring sound science to bear on the monitoring and protection of the watershed. This is the very core of our mission, and it is key to our ability to collaborate with our local partners and communities. We have thus far maintained a track record of success, thanks in large part to the generosity of our members and our committed volunteer cadre. Regrettably, the challenges to our scientific capabilities are potentially significant. Approximately 50% of our operating income is derived from grants, and half of that originates at the EPA. Given the current uncertainty in our political and economic climate, we must prudently consider these funding sources to be at risk. Compounding the problem is increased competition for the diminished resources

available; sadly, environmental causes are often assigned a low priority when the pie is sliced.

As we approach the year's end, I ask you to think hard about what really matters. Remember those perfect summer days on and around the water, and reflect on the legacy that will remain if the work of the NSRWA can continue and expand. Your children and grandchildren will thank you for your generosity, as do I. Your support is vital to our mission; we rely on it, we appreciate it, and we thank you for it!

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

Kevin Beggs & Stephanie Whiting  
Del & Ann Berrada  
Paul Coolidge  
Craig & Daniel Hannafin  
James Hughes  
Peter & Patty Hainer

Susan & Michael Wolfe

### Organizations and Businesses

Protectowire Company  
Scituate Federal Savings  
Sheehan Family Foundation

## South River Greenway and Trail



### South River Greenway Parcel to Be Decided at Marshfield's October 22nd Town Meeting

This fall the Town of Marshfield has a golden opportunity to acquire another piece of the puzzle to making a South River Greenway, this time on the other side of the South River from the new South River Park. The parcel is being offered to the town by a family committed to its long-term preservation for \$301,000 – less than the appraised value! The parcel has:

- 37.5 acres with 1700's house and barn. 2,860 ft of frontage on the South River and directly abuts the Bridle Trail (old railroad bed over the South River);
- 4 acres of upland contain the house and barn. Balance of the property contains approximately 8 acres of isolated upland, 12 acres of wetland, 3 acres of wetland upland mix and about 10.5 acres of saltmarsh;
- 2 driveway entrances off South River that would provide easy access and parking.

Please attend the **October 22nd Marshfield Town Meeting** and vote for this incredible opportunity to save a large portion of the banks of the South River.

### South River Park Opens

As we go to press the South River Park is set to open Friday October 5th! This long awaited happening is a testimony to the hard work of Marshfield town staff, the forethought of Marshfield Town Meeting and countless hours of volunteer labor. This project has reclaimed 1.7 acres along the South River and made it into a beautiful park with trails, rain gardens and permeable pavers, restored native vegetation and access to the South River through an overlook and boardwalk

### Volunteers Make the Difference

The building of the boardwalk at the South River Park has been a labor of love for NSRWA volunteer John Zarella. To make our dollars go further John Zarella – owner of North River Marine - worked tirelessly on this project with the help of his family, friends and other NSRWA volunteers to see this boardwalk completed.

In addition, the NSRWA secured a \$10,000 donation from the Sheehan Family Foundation for the boardwalk and for removal and control of Japanese Knotweed – an invasive plant that covers the banks of the river at this site. In order to remove the invasive Knotweed we are working with Kyle Grable, Marshfield Boy Scout from Troop 101. We still need volunteers to help as this is a long term management project! If interested please contact our office at 781-659-8168 or [Samantha@nsrwa.org](mailto:Samantha@nsrwa.org)



*The new South River Boardwalk at the South River Park.*



*Volunteers removing the invasive Japanese Knotweed from the South River Park.*

# EPA Chief Visits The Rivers *continued from page 1*

The South Shore region of the Massachusetts Bays Program (Mass Bays) includes the towns of Cohasset, Scituate, Norwell, Hanover, Marshfield, Pembroke, Duxbury, Kingston, and Plymouth. The primary objectives of concern for the South Shore are as follows:

- Expand time for harvest and acreage of open shellfish beds;
- Improve continuity and habitat quality in freshwater and estuarine systems;
- Restore and protect diadromous fish habitat to help rebuild threatened fish populations;
- Manage impacts of invasive species to intertidal habitats;
- Improve local understanding and acceptance of the potential impacts of climate change and sea level rise on ecosystems.

Mass Bays South Shore program is hosted by the North and South Rivers Watershed Association, providing a local contact for the program via a full-time regional coordinator funded through Mass. Bays and tasked with assisting South Shore communities through scientific outreach and technical assistance.

In the past five years, this seed funding provided to the NSRWA to host Dr. Grady has helped our local communities and other environmental nonprofits on the South Shore to:

- Leverage \$4,863,000 in cash for projects in the region, including:
  - \$1,865,000 for protection of land and water resources
  - \$1,533,000 for restoration of tidal wetland and instream habitat
  - \$1,116,000 for remediation of boat and stormwater pollution
  - \$208,000 for water quality and habitat monitoring
  - \$141,000 for outreach to local communities and their schools
- Protect and restore over 2,520 acres of coastal habitat and 23 miles of stream, including:
  - 2105 acres of tidal wetland through five different tidal hydrology restoration projects
  - 313 acres of shellfish beds in the South River



*EPA River Tour – Above photo of the Spit.*

*Below Board member Janet Fairbanks driving EPA's Doug Gutru, Editor of the Scituate Mariner Ruth Thompson and Danielle Hennessey of Representative Bill Keating's office.*

- 23 miles of reconnected and revitalized instream habitat
- Engage over 100 volunteers in projects monitoring stream flow, herring, wetlands, water quality, and invasive species.

Meeting with the EPA Administrator gave us an opportunity to showcase the need for EPA to continue to support and enable the NSRWA to provide scientific support to protect and restore our local waterways.

*by Samantha Woods, Executive Director NSRWA*

# Third Herring Brook *continued from page 1*

While the recent funding and technical assistance awards are certainly helpful, this funding is not enough to actually remove the dams. Ultimately, it is estimated to cost \$250,000 to remove the dam at the YMCA and to restore the natural river channel properly. The Cardinal Cushing, though not at the removal stage yet, would potentially be in the same cost range. But while this may seem expensive, it is barely half what it would cost to restore the dams to today's standards.

## Why Dam Removal?

Removing dams can be controversial...as can building them. The question we as local stewards must weigh is: What are the public benefits to restoring a river which is a public resource vs. rebuilding a dam?

## Ecosystem Impacts from Dams

There are more than 3,000 dams in the state of Massachusetts, most of which are leftover remnants from our industrial revolution. This "dam" legacy has left most rivers fragmented into a series of impoundments rather than free flowing streams, and having negative impacts on river species that depend on free flowing systems to thrive. Free flowing freshwater rivers are one the most endangered ecosystems both locally and globally.

One of the most well-known local impacts has been to the herring, which require access to coastal streams to spawn. The damming of our rivers has led to steep declines in this species, also affecting many other species that depend on herring for food. In fact,

river herring are being reviewed for listing under the Federal Endangered Species Act. And there are many other species that live in rivers that are impacted by dams: native brook trout, shad, eels, shiners, and white sucker to name a few.

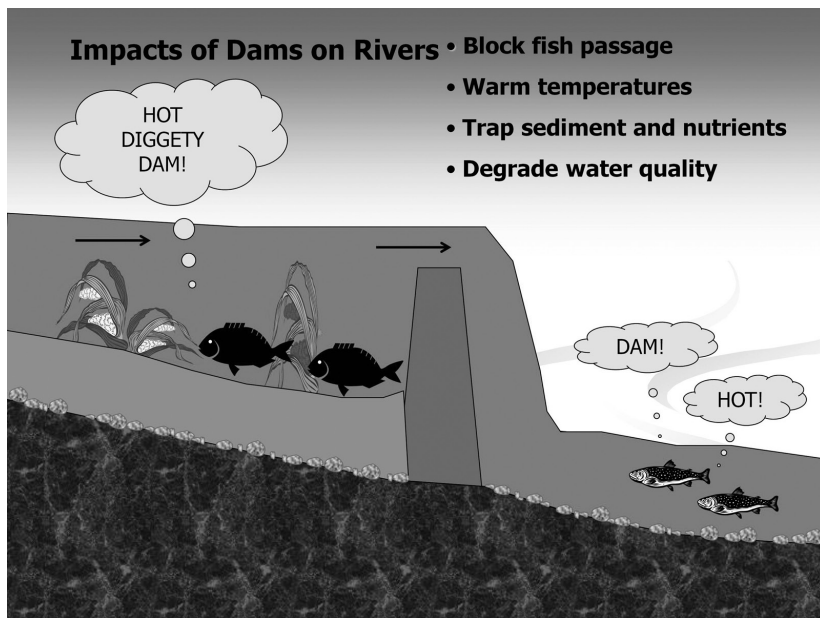
In addition to direct adverse impacts on many fish species, there are other impacts: the impoundments behind the dams themselves often become filled in with sediments, depriving downstream marshes and streams of sediment; the water behind a dam becomes much warmer, making the oxygen in the pond much reduced and creating thermal pollution; dams without proper management can also result in dewatering the downstream river in order to keep the pond at a certain elevation; and often the impoundment becomes a haven for nonnative invasive species. All of these are negative ecological impacts of damming a river.

From a society's point of view, the public benefits of keeping a river dammed usually include things like water supply, flood control or public recreation. Most of our rivers however were not dammed for these purposes, nor have they evolved to provide these functions. Most as mentioned are remnants of our earlier industrial era when we relied upon water wheels for powering sawmills and the like. Now many are privately owned, relatively small, earthen dams that have not been maintained and are falling down in the woods.

## Substantial Liability for Dam Owners

Controversy over dam removal often begins when homeowners who have built along the impoundment are "surprised" when the owner of the dam decides he doesn't want the liability associated with dam ownership. This liability can be substantial – dam owners are saddled with responsibility for any harm that comes as a result of their dam; they are responsible for maintaining and operating it in accordance with keeping water downstream; and if the dam fails they are solely responsible for any associated damage.

Liability insurance for dams is not easy to get nor cheap even if available. Often the homeowners who live along the pond are not willing to take over the dam because the liability is just too great and the cost to fix the dam to today's dam safety standards too exorbitant – never mind the long term costs associated with maintenance and dredging.



## Make Your Voice Heard

Over the next few months we anticipate these issues will be raised during the permitting of the removal of the mostly already breached dam owned by the YMCA. We will be seeking public comment in favor of dam removal and river restoration at this site. Please sign up for our e-news to receive notice of the public comment period for this project and make your voice heard on behalf of the rivers. They need your support.

*by Samantha Woods, Executive Director NSRWA*

# Water Testing Results, Herring Data ... Thanks to Volunteers!

Every summer we test the water quality of our rivers with the help of many volunteers. This year was no different. This spring we also recruited and trained over 70 volunteers to count herring at 4 different sites in our watershed – South River at Veteran’s Park Fish Ladder, First Herring Brook at Old Oaken



2012 RiverWatch Volunteers Kathy Karrington, Jim Lathrop, Ralph Butler, Cindy Cvarch, Simone Zimmerman and daughter.

Bucket Pond Fish ladder, Herring Brook at Gorham Mill Pond Fish ladder and the Third Herring Brook at River St. The dedication and importance of gathering this data cannot be underestimated – these data help us advocate intelligently for our natural resources. The below charts summarize the results for both of these volunteer programs.

This year the bacteria levels were substantially less and consistently less – with only one incidence of bacteria above the standard for swimming at the Washington St Bridge testing location. Historically, Willow St Bridge on the South River and Washington St Bridge on the North River have the highest counts for bacteria – but this year these were much lower. We have noted high bacteria at these sites in the past but levels stayed low in dry weather as well as after two rain events close to 0.5 inch of rain when we would have expected to see elevated levels due to stormwater pollution. Let’s hope it is a trend! To view the complete results of this past summer’s water quality monitoring visit [nsrwa.org](http://nsrwa.org) or contact our office.

## Herring Population Estimates

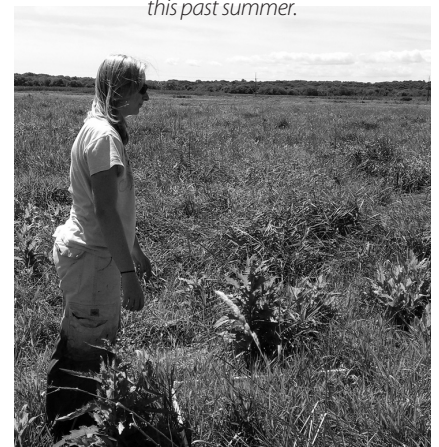
This past spring we had over 70 volunteers helping us to count herring at 4 different sites throughout the watershed. The results help us prioritize and assess our efforts to help this species. The Pembroke herring run on the Herring Brook, with a population estimated to be just under 100,000 fish, is the largest within our watershed. At the First Herring Brook, where we are just re-establishing suitable conditions for fish passage, we were thrilled to count nine fish returning to what has been a locally extinct run to our knowledge. The South River ladder at Veteran’s Park has only recently been fixed and correctly operated this spring. There was a relatively low number of fish seen actually passing the ladder -- 80 were counted. Downstream of the ladder we believe that a larger population of herring spawns within the South River. We were unable to estimate the population in the Third Herring Brook because the method requires volunteers see the fish pass a ladder, but volunteers counted ~675 fish just downstream of the first dam on the Third Herring Brook. We believe in both of these systems the majority of fish were blueback herring that prefer free running streams to spawn in.

## Interns

This summer we had three wonderful college interns, Adrienne Lohe of Scituate, a senior at Santa Clara College studying Environmental Science, Laura McPherson of Norwell, a junior at UMass Amherst, who is pursuing an Environmental Science degree and Pamela Woods, of Abington, who is a freshman at Endicott College. Adrienne and Laura worked with our own Sara Grady this past summer gathering scientific data for our habitat restoration projects, while Pamela worked on a survey of recreational use of our rivers which we hope to share with you soon! Each of these competent young women gained valuable work experience while helping the rivers. Thank you Adrienne, Laura and Pam!



Interns Adrienne Lohe (above) and Laura McPherson (below) learning skills and gathering data for habitat restoration projects this past summer.



# 22nd Annual Great River Race

Despite the on and off rain and threat of thunderstorms on Saturday August 18 we had over 100 racers for our 2012 Great River Race. One of our racers even had made his own kayak out of duct tape and PVC pipe! Chad and Craig Wolf came in first overall with a time of 0:54:12 in a rowing sliding seat double. This is the sixth time that Craig Wolfe (sometimes with Chad) has come in first place since 1996. Peter Kelly-Detwiler came in a close second overall rowing a single sliding seat with a time of 0:55:14. Deb McCarthy won the women's kayak with a time of 1:07:08 and in the men's kayak Jack LaMarre placed first (and first senior) with a time of 1:02:51. The men's canoe single division was very competitive with the top three times within 30 seconds of each other.

All race results and photos are online at [www.nsrwa.org](http://www.nsrwa.org) and on our Facebook page. We commemorated the discovery of the endangered Atlantic Sturgeon in the North River on our race t-shirt this year! Thank you to all our sponsors, volunteers and racers!



Nick DelPrete getting wet but having fun!



## NSRWA's Fall 2012 Events

### First Annual Run for the Rivers - South River 5k

Sunday October 14, 2012 at 9 am  
Starts at Rexhame Beach, Marshfield

Get out your running shoes and join us for the first ever 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! Pre-registration is \$20 and \$25 day of. Pre-register online at [nsrwa.org](http://nsrwa.org).

### Halloween Paddle Tour of the North River

Sunday October 28th 11 am - 2 pm  
Union St Canoe Launch Marshfield

Meet ghosts of those who built the ships on the North River and take in the beautiful fall foliage on the North River. Reserve your spot online!

### Extreme Shellfishing on the South River

Sunday December 2nd at 8 am

Celebrate the opening day of the shellfish harvest! What better way to spend a December day than to harvest your own clams to eat as warm clam chowder later this winter? Limited space on the boat please reserve your spot and sign up online.

### Run for the Rivers - South River 5k

Sunday, October 14 9:00 am



### NSRWA 42<sup>nd</sup> Annual Meeting

November 2, 2012 7 pm  
South Shore Natural Science Center  
Wine, cheese and clam chowder reception  
Business meeting to elect and re-elect board members.  
Prospective board members will be announced via email  
- please sign up for our Rivernet Enews online.

#### PRESENTATIONS

"Restoring Herring to the First Herring Brook"  
Margaret Kearns and Sara Grady

**Volunteer of the Year Award**  
John Zarrella for his volunteer effort to build a new boardwalk at the South River Park

**Barbara Pearson Award**  
Scituate Water Department Superintendent Jim DeBarros, Water Operations Manager, Rick Mosca and Al Bangert, Director, Scituate DPW for their efforts to restore flows and herring to the First Herring Brook.



# RiverWatch

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## Inside This Issue:

- NSRWA's Annual Meeting • 7pm Friday Nov. 2
- Saving 37.5 acres on the South River this Marshfield Town Meeting
- Lend your support to Restoring the Third Herring Brook



Connect with us on Facebook

## Celebrating Our Anniversary and Benefiting the Association Peter and Roberta Fairbanks

Peter and Roberta Fairbanks recently celebrated their 40<sup>th</sup> wedding anniversary – in honor of that milestone they asked their friends and families to make a donation to the work of the NSRWA. Thank you Peter and Roberta for your unwavering support of our rivers!



*"We lived on Cornhill Lane for 33 years with a partial view of the river and dreamed of living on it. Now the dream has come true! We never tire of the beauty of the river, and are so glad for the work of the NSRWA in preserving it. The educational aspect of your work is great - we are always learning something new - this weekend we were amazed by the jelly fish flotilla riding on the tide. We support the NSRWA because it is protecting a wonderful asset. The organization has done amazing things, and stays squarely in the public eye. For us the river is ever changing, nurturing, and inspirational. We love the river!"*