



Massachusetts Bays Window

The Newsletter of the Massachusetts Bays Program

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Welcome to the *Massachusetts Bays Window*, the newsletter of the Massachusetts Bays National Estuary Program. Our quarterly newsletter reviews the latest Massachusetts Bays Program (MBP) projects and accomplishments. For more information about the MBP, please visit www.massbays.org.



Program Highlights



Save the Date for these Upcoming Events

<u>EVENT</u>	<u>DATE</u>	<u>DETAILS</u>
NSRWA's 22 nd Annual Great River Race	August 18	More info here
SSCW's 7 th Annual Swim and Fin	August 18	More info here

Jay Baker Departs Mass Bays for Wetter Pastures

This month, the Massachusetts Bays Program (MBP) Executive Director and long-time CZMer, Jay Baker, departed for wetter pastures. For the last three years, Jay served as the MBP Executive Director, where he led MBP efforts on everything from water quality and habitat restoration to invasive species management and climate change adaptation. Although Jay is leaving the MBP/CZM family, he will remain close to the coast he helped preserve, enhance, and restore as he pursues his aquaculture interests in New Hampshire. MBP and CZM bid a fond farewell to Jay and thank him for his leadership, guidance, and hard work.

CONGRATULATIONS! Mass Bays Partners Receive Gulf of Maine Council Awards



J. Grady & M. Thomas receive award

On June 6th the Gulf of Maine Council (GOMC) on the Marine Environment presented its annual awards at a ceremony in Fredericton, New Brunswick, Canada. Three awards were presented to partners within the MBP region. The **Sustainable Communities** award recognizes communities for their work in achieving sustainable outcomes related to the environment and economy. The Water Division of the Town of Scituate received this award for their efforts in restoring streamflow to the ecologically and economically important watershed of First Herring Brook, without compromising the

Town of Scituate's water needs. Read more about this project later on in this newsletter.

The GOMC **Visionary Award** is given to individuals who demonstrate innovation, creativity, and commitment to marine environmental protection. This award was presented to Joe Grady and Maureen Thomas, Conservation Agents for the towns of Duxbury and Kingston, respectively, for their efforts in eliminating non-point source pollution to Duxbury and Kingston Bays. Their close collaboration exemplifies how communities can work together to achieve common goals to protect and improve the marine environment.

In addition, Kerry Mackin, long-time Director of the Ipswich River Watershed Association (IRWA), received a **Visionary Award** for her tireless work which has raised nationwide awareness of low-flow threats to rivers. This work has driven regulators and communities to adopt conservation strategies to restore and maintain healthy streamflow. In 2011, under Kerry's direction, the IRWA launched the Parker-Ipswich-Essex Rivers Restoration Partnership which focuses on habitat restoration and streamflow protection. Congratulations to all awardees and thank you for your great work!

MBP Research and Planning Grants 2011 PRODUCTS



Projects funded by the 2011 MBP Research and Planning Grant Program are completed and the results are impressive. As with previous newsletters, the *Window* will provide information on these projects' results and products, which are highlighted with the MBP logo in the articles below. We are thrilled to be a part of these innovative and exciting initiatives.



Like Diamonds, Plastics are Forever

This spring, Salem Sound Coastwatch (SSCW) brought focus to on the troubling issue of plastics in the ocean. Researchers around the world are reporting alarming levels of plastic pollution in the oceans, but do the residents of Salem Sound know about this problem? SSCW put together a series of three events to educate the community.



SSCW, with the Endicott College Environmental Society, invited Karen Ristuben, a Gloucester-based artist and activist, to narrate her video, "Just, one word...", which explores the complex issue of marine plastic pollution and public health. Ristuben, who spent several weeks on a research vessel studying the North Pacific Gyre,



SSCW volunteer Penny Buckley at the Peabody Essex Museum

convinced the 200 attendees that "That plastic, like diamonds, is forever." SSCW also participated in Salem State University's Earth Days Week "Sustaining Our Oceans: Key to the Earth's Future." The week culminated in a lecture by Captain Charles Moore who is known as the discoverer of the Great Pacific Garbage Patch. To a packed audience, Moore vividly described the worldwide plastic contamination tragedy. Last, SSCW took the marine debris show on the road. They spent two days at the Peabody Essex Museum (PEM) with their "From Drain to Shore" exhibit. Using a coastal watershed model and jars of beach sand full of cigarette butts, the exhibit depicted how pollution can be carried to streams, oceans and beaches. Visitors learned how they may unknowingly contribute to

marine debris and how they can help clean up our beaches and oceans.

Record Volunteers: Adopt a Beach Update

SSCW is practicing what they preach about marine debris through their [Adopt a Beach Program](#). This spring, another 32 beachkeepers were trained to join the 165 trained in years past. These volunteers will clean 40 area beaches marking the program's third year. Contact SSCW by [email](#) for more information.

Banner Year for Rainbow Smelt



It's a banner year for rainbow smelt in the Salem - Peabody North River! The Division of Marine Fisheries (DMF) documented a record number of just over 100 rainbow smelt this year. According to Matt Ayer, the North River is performing as well as the stocked Crane River in Danvers. Joining in

the fish finding fun this year were 58 4th graders from Salem's Bowditch School. The students, studying life cycles, came to find some real world examples. Besides the rainbow smelt, they also saw and touched eels, sticklebacks, mummichogs, and two sunfish. DMF joins SSCW each spring to call attention to the return of rainbow smelt spawning in the once contaminated North River, one of the oldest industrial rivers in America.



Bowditch students with SSCW's B. Warren

In the Regions: South Shore

Going with the Flow: Success at Old Oaken Bucket Pond & Herring Brook



Fish ladder at Old Oaken Bucket Pond (NSRWA)

The First Herring Brook Restoration Project has been in the planning and modeling stages for over five years, but within the past year project partners, including the North and South Rivers Watershed Association (NRSWA), MBP's south shore regional coordinator; the Town of Scituate Water Division; and the Massachusetts Division of Ecological Restoration (DER), have seen great success. Last summer, the NSRWA helped the town implement a lawn irrigation restriction which resulted in savings of over 300,000 gallons per day. This water remained in the watershed. The water savings supported the effort by Scituate this spring to maintain flows over the fish ladder at Old Oaken Bucket Pond, where water is withdrawn for municipal use. Despite widespread regional drought, the flows attracted river herring

back to the system! This is the first time in decades that river herring have migrated to Old Oaken Bucket Pond. Volunteers documented 12 fish passing the ladder in late April, and reported 20 or more in the resting pool in early May.

Other tributaries and fish ladders within the North and South Rivers system are also seeing fish return, with counts of up to 700 fish per 10 minutes at the Herring Brook fish ladder in Pembroke. This fish ladder was

upgraded in late summer of 2011. The improvements may have helped spawn a marked increase in successful fish passage. Watch a [video of fish passing](#) the Pembroke ladder. Thanks to the help of over 70 fish monitoring volunteers trained by the MBP South Shore regional coordinator, Sara Grady, MBP is documenting trends and successes such as those at Old Oaken Bucket Pond and the Herring Brook. Read about fish counting on the South Shore in this [Boston Globe article](#).

A Plan for Stony & Tussock Brooks



The Jones River estuary is threatened by innumerable impairments - roads and railways crisscrossing the marsh, restricting flows and disconnecting wildlife corridors; invasive species such as *Phragmites*; and the discharge of pollutants resulting in severely impaired water quality. To begin to address some of these issues, the Jones River Watershed Association

(JRWA) embarked on a restoration, management, and maintenance plan for two tributaries of the Jones River: Tussock Brook and Stony Brook.

The final plan has three restoration goals:

- (1) Improve habitat quality;
- (2) Improve anadromous fish runs; and
- (3) Improve water quality.

Restoring connectivity along local tributaries, halting the spread of *Phragmites*, restoring natural plant communities, providing access to suitable spawning habitat, reducing pollutant discharge, and improving tidal exchange and flushing are some of the activities that will attain these restoration goals. Through a detailed assessment and evaluation, JRWA prioritized two specific restoration efforts to undertake: the removal of the tide gate at Tussock Brook



Upstream of Tussock Brook tidegate (JRWA)

and the development of a preliminary sediment management plan for the Stony Brook Dam.



Stony Brook Dam sluiceway (JRWA)

Complementing these efforts by the JRWA, the town of Kingston is looking to improve stormwater treatment at Tussock and Stony Brooks as part of the effort to open and/or improve shellfish growing areas in Kingston Bay (See previous [Mass Bays Window](#)). MBP applauds these tremendous efforts to improve habitat, water quality and anadromous fish runs on the South Shore.

In the Regions: Cape Cod

35 Years Later, Upper Shawme Pond Welcomes Back the Herring

MBP is excited to report that herring have returned to Upper Shawme Pond in Sandwich, after more than 35 years! In 2009, a fish ladder was installed as part of the reconstruction of the Upper Shawme Pond Dam, a restoration project assisted by MBP's Cape Cod regional partner, the Association to Preserve Cape Cod (APCC) and other restoration agencies (See previous [Mass Bays Window](#)). This year, more than 500 herring used the fish ladder to return to Upper Shawme Pond, as recorded by an electronic counter installed at the top of the fish ladder. APCC and local volunteers will



Fish Ladder at Upper Shawme Pond (APCC)

monitor the pond for juvenile herring beginning in mid-summer. The appearance of juvenile herring will be proof that the restoration project has succeeded in allowing river herring to return to Upper Shawme Pond.

The Results Are In!



Volunteer monitoring of the annual herring migration is a popular spring activity on Cape Cod! In 2007, APCC began promoting volunteer herring counts as a way to support coastal restoration projects and build public support for stewardship and restoration. Up from a total of three herring count programs before 2007, there are 14 volunteer count programs in 10 towns on Cape Cod this year. Thirteen of these count programs are either led by APCC or by partners trained and supported by APCC. Four of the 14 count programs are located on Cape Cod Bay. They include: Mill Creek in

Sandwich, Bound Brook/Quivett Creek in Dennis, Stony Brook in Brewster, and Herring River in Wellfleet. These four programs alone account for about 100 volunteers or about half the volunteers cape-wide. Despite all this volunteering activity, including 40 active herring runs on Cape Cod and 13 on Cape Cod Bay, there are some runs that are not monitored. APCC hopes to expand monitoring efforts in the future.

Many partners work with APCC to monitor herring. They include: Friends of Herring River in Wellfleet, Orleans Shellfish and Waterways Advisory Committee, Harwich Conservation Trust, Brewster Alewife Committee, Quivet Neck Homeowners Association, herring wardens and natural resource directors in towns, and many, many more. People are interested in monitoring herring because the spring migration is exciting to watch, monitoring is easy, and many people recall



Herring Count Volunteers (APCC)

how numerous the herring once were. One volunteer remarked that the sandy bottom of Mill Creek in Sandwich used to run silver with the loose scales of herring. Anyone interested in helping monitor herring should contact MBP's Cape Cod regional coordinator, [Jo Ann Muramoto](#) at APCC.

In the Regions: Upper North Shore

Looking for a little history in the Great Marsh

The Eight Towns and the Great Marsh Committee, the MBP's Upper North Shore local governance committee, will take on a new initiative this year entitled, "Identifying and Preserving Traditional Marsh Uses." This exciting project will have two main components: identification of traditional uses of the Great Marsh; and mapping the current extent of the resources associated with these uses. Geographically, the project area will include the Great Marsh and the pocket marshes of east Gloucester and Rockport. So far, seven resources associated with traditional uses have been identified including oyster beds, eel fisheries, herring runs, smelt runs, cranberry bogs, beach plums, and salt marsh haying locations.



Great Marsh clam shack (8T&GM)

The Committee has begun the process of reaching out to municipal shellfish/herring wardens, harbor masters, local clammers, sportsmen, and other local habitat historians to begin to gather information about these once abundant resources. Concurrent with identifying sources of written and local knowledge, these resources will be mapped. Sites will be geolocated, photographed, and catalogued based on a measure of robustness and resource quality. Information gathered as part of this exciting project will be used to better protect and enhance the resources, as well as to educate and preserve the traditional use. If you're interested in providing information to the project, please contact MBP's Upper North Shore regional coordinator, [Peter Phippen](#).

Salisbury Preparing for the Storm – A Step Ahead in Stormwater Planning



The low-lying town of Salisbury, with its many acres of salt marsh and shellfish beds, is developing a way to protect the critical resources within its bounds from stormwater runoff. With funding from MBP's Research and Planning Grant Program, the town launched a capacity building effort with the three goals of reducing regulatory barriers precluding adequate stormwater management, educating permitting officials, and promoting the use of LID techniques. Early this spring, the town held a series of public information meetings to initiate informed discussions, reviewed existing town bylaws, and developed a new stormwater management bylaw that incorporated LID components. The stormwater management bylaw establishes a decision-making process for land development reviews, requires erosion control measures, and lays the foundation for development of a stormwater management plan for the town. An LID component was also created under the zoning bylaw to protect, maintain, and enhance environmental and public safety by controlling development related discharge. The town will be implementing these innovative regulatory updates in stages over the next few years based on the requirements for compliance with the National Pollutant Discharge Elimination System (NPDES) Phase II program.