



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

\$200K Awarded to Massachusetts Bays Program Partners to Protect Coastal Water Quality and Habitats

The call for funding proposals under the first annual Massachusetts Bays Program (MBP) Research and Planning Grants was met with great enthusiasm. Indeed, 21 proposals were submitted by coastal communities, non-profits, and research institutions. In the end, eight projects from all along the coast of Massachusetts Bay and Cape Cod Bay were chosen for funding for a total award of \$200,000.

The eight selected projects target a wide range of issues that address the Priority Actions of MBP's [Comprehensive Conservation and Management Plan](#). On the south shore, the **Town of Kingston will identify and address sources of polluted stormwater runoff** to Kingston Bay, and the **Jones River Watershed Association will develop a restoration plan for the Stony Brook/Tussock Brook Salt Marsh complex**.

In the upper North Shore region, two funded projects aim to promote the conservation and management of the Great Marsh. The **Town of Ipswich will develop a Resource Management Plan for the Great Marsh Area of Critical Environmental Concern**, and the University of New Hampshire (UNH) will **investigate the causes of accelerated invasion of the Great Marsh by *Phragmites australis*** (common reed) and make recommendations for management actions. In the face of flooding and contamination issues, the **Town of Salisbury will develop a local storm water by-law**, which incorporates the principals of Low Impact Development, a set of practices that limit stormwater runoff by mimicking natural hydrologic conditions.

Shellfish reefs and beds have diminished in many areas along the coast due to overharvest, poor water quality, or other competing uses. The MBP Research and Planning Grants will provide funds to the Massachusetts Audubon Society to conduct ongoing **monitoring of restored oyster reef habitat** in the Town of Wellfleet, the first restoration effort of its kind in Massachusetts. In an effort to provide clear parameters for shellfish restoration efforts statewide, the Division of Marine Fisheries will soon publish a set of shellfish propagation guidelines. MBP awarded a grant to The **Nature Conservancy to refine the shellfish guidelines** by organizing a series of workshops that gather feedback on the guidelines and identify potential restoration opportunities.

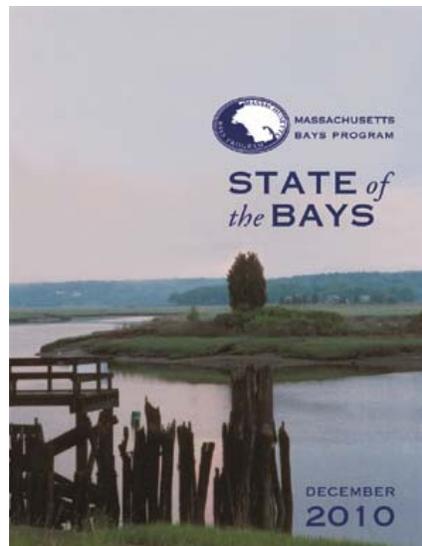
Herring must navigate many boundaries, both physical and political, as they migrate up rivers and streams in Massachusetts to their freshwater spawning grounds. Hence, sharing information among communities regarding herring run maintenance is an important step in successful resource management. With MBP

funding, the **Cape Cod Commercial Hook Fishermen's Association will build a River Herring Wardens network** on Cape Cod and in Southeastern Massachusetts. This network will promote sound decision-making and collaboration for the protection and sustainable management of river herring.

The MBP Research and Planning Grant program has been effective in bringing local natural resource protection priorities to light, and in promoting collaborative coastal management efforts that will serve to implement the goals of the MBP CCMP. The MBP will provide support for the successful implementation of these projects through participation of program staff and Regional Coordinators. As the work unfolds, the MBP will follow and report on the outcomes of these exciting endeavors in future newsletters.

2010 State of the Bays Issued

Just after the last 'printing' of the [Massachusetts Bays Window \(Fall/Winter 2010\)](#), the MBP released the 2010 [State of the Bays](#), a report that summarizes the status of 17 indicators of the health of Massachusetts and Cape Cod Bays under the categories of Water Quality, Living Resources, and Human Uses. The *State of the Bays* report includes sections on changes in the water chemistry of Boston Harbor due to improved wastewater management, causes of harmful algal blooms, trends in eelgrass beds throughout Massachusetts Bay, and acreage of land under permanent protection, to name just a few. This report serves as an update of the first State of the Bays publication, released in 2004, and represents the contributions of more than 25 experts in the field of coastal environmental management. Check out the 2010 report on the [MBP website](#) or request a hard copy from Lisa Engler at lisa.engler@state.ma.us.



Lisa Engler Joins Mass Bays Program

MBP is very pleased to welcome Lisa Berry Engler to the Mass Bays team. Lisa will be serving as our Special Projects Coordinator, and will take on the lead role in outreach and communications for the Program. Lisa will also manage new and ongoing Metro Boston Region activities, such as the Digital Coastal Habitat Atlas (see Fall-Winter 2010), and will continue to work with individuals in this region to spearhead new initiatives. Lisa brings a strong track record of environmental leadership to the MBP, having served most recently as a Wetland Specialist with the Massachusetts Department of Transportation and previously as the Coastal Coordinator for the Department of Conservation and Recreation's Areas of Critical Environmental Concern Program. We are very happy to have Lisa on-board.

In the Regions: Upper North Shore

Legislators Get Involved in the Fight against *Phragmites*

Collaborators on the Upper North Shore are taking up arms against the indefatigable Common Reed (*Phragmites australis*). By outcompeting native vegetation and reducing the viability of salt marsh habitat, this invasive species is having devastating effects on the Great Marsh. At 25,000 acres, the Great Marsh is the largest salt marsh in New England, providing critical habitat for marine life in the area. This March, state legislators, in partnership with the Eight Towns and the Bay Committee, the Upper North Shore's arm of the MBP, brought together dozens of concerned individuals to begin developing a plan for the eradication of *Phragmites* from the Great Marsh.

Senators Bruce Tarr (R-Gloucester) and Steven Baddour (D-Methuen) led the meeting and launched the **Great Marsh Revitalization Legislative Task Force**, Representatives Michael Costello (D-Newburyport) and Harriett Stanley (D-West Newbury) will also lead the task force in achieving the dual goal of establishing a comprehensive approach to stop the spread of *Phragmites*, and developing short- and long-term plans to restore areas already suffering from infestation.



Phragmites australis on the North Shore

The first official [meeting](#) of the Task Force brought together stakeholders from local communities, area colleges, state and federal agencies and government officials, as well as private businesses and other concerned citizens. As a first step, the Task Force will conduct a mapping and control project in Salisbury. Led by MBP's Upper North Shore Regional Coordinator, the project includes GPS mapping of *Phragmites* stands in the 1,000 acres of Salisbury's coastal marsh and assessment of the density of *Phragmites* in the area. The project will also estimate the costs of control in the most heavily invaded areas. This effort will complement the MBP Research and Planning Grant funded research by UNH to identify conditions within the Great Marsh that are promoting the *Phragmites* invasion.

In the Regions: Salem Sound

First Ever Salem Sound State of the Bays Symposium

On March 25th and 26th, 2011, Salem Sound Coastwatch (SSCW), MBP's Salem Sound Regional Coordinator, held a two-day symposium called "What is the State of Salem Sound? Past, Present, and Future." The event reviewed the strides SSCW has made since 1991, when a group of concerned citizens, business leaders, and local officials came together to address the seriously polluted condition of Salem Sound. The Symposium left attendees with the following take-home points.

- **Water Quality is Improving.** The water in Salem Sound is much cleaner than it was 20 years ago. However, Marblehead, Salem, Beverly and Manchester harbors, as well as all the rivers that flow into Salem Sound, are still listed as impaired water bodies due to pathogens and other contaminants.
- **Wildlife is returning to Salem Sound.** Rainbow smelt and winter flounder are returning to Salem Sound, although not in great numbers. Also, within the past five years American oystercatchers have been found nesting on islands in Salem Sound.
- **Brownfield Redevelopment Presents an Opportunity.** Despite the region's long industrial past, many contaminated lands or "brownfields" have been turned into useful waterfront parks such as Salem's Peabody Street Park along the South River and Beverly's skateboard park on the Bass River.
- **Stormwater Pollution is a Major Polluter.**



Alan Young (SSCW President) and Barbara Warren (SSCW Executive Director) at the Symposium

Stormwater runoff is the major source of pollution in Salem Sound today. Cleanup efforts should address this major contaminant source.

- **Challenges Remain.** Upcoming challenges include addressing the impacts of climate change such as greater storm severity and sea level rise.

More than 100 people attended each day of the symposium, which was sponsored by MBP, Endicott College, and Salem State University. The talks presented at the symposium by SSCW staff, Salem State University professors and Mass Division of Marine Fisheries aquatic biologists will be made available on the SSCW website (www.salemsound.org).

In the Regions: South Shore

South River Shellfish Beds Reopen after 20 Years

On April 15th, the Massachusetts Division of Marine Fisheries (DMF) opened 313 acres of shellfish beds at the mouth of the South River for the first time in 20 years (Recent Boston Globe article [here](#)). Over the past decades, the North and South Rivers Watershed Association (NSRWA), host to MBP's South Shore Regional Coordinator, and the Towns of Marshfield and Scituate have systematically eliminated sources of bacteria to the river by reducing stormwater runoff, upgrading septic systems; and extending the sewer system in Marshfield. Additionally, in 2008 the area was designated a No Discharge Area, which prohibits release of boat waste into the system. Thanks to the Town of Marshfield Harbormaster, Michael DiMeo, who provided regular boat access, DMF has determined that water quality now meets safe shellfishing standards.



Recreation clammers with their South River Harvest

The MBP South Shore Region and NSRWA will continue to work with the Towns of Marshfield and Scituate to eliminate residual stormwater pollution so that the shellfish beds can be open for longer periods of time during the summer months and without the threat of conditional rainfall closures.

Volunteers Give Herring a Helping Hand in Pembroke

On April 20th, hundreds of herring made their annual return to their spawning grounds up the Herring Brook River. Once there, however, they came to an abrupt halt at the broken fish ladder at Upper Mill Pond (a.k.a. Glover Mill Pond). They were soon rescued from their predicament as officials of the North and South Rivers Watershed Association (NSRWA) and MBP South Shore Region put out a call for volunteers to help transfer the fish to the waters above the ladder. Forming a bucket brigade, dozens of volunteers, staff of the Town of Pembroke, and biologists from the Massachusetts Division of Marine Fisheries (DMF) scooped fish in nets and passed them up the steep banks to a DMF tank truck, which then released the fish further upstream. A similar effort was repeated on April 26. Thanks to this



Bucket Brigade at Herring Brook, Pembroke
(Samantha Woods)

effort, over 18,000 herring were moved upstream past the barrier, making possible the propagation that will yield another generation of herring.



Stony Brook Restoration Celebration

On April 25th, completion of the Brewster Stony Brook restoration project was celebrated at the Cape Cod Museum of Natural History. The Stony Brook restoration project, funded by a National Oceanic and Atmospheric Administration – American Recovery and Reinvestment Act (NOAA-ARRA) grant to the Town of Brewster, will restore full tidal flow to 20 acres of salt marsh and improve 386 acres of valuable river herring spawning habitat. The project replaced an undersized culvert beneath Route 6A with a larger one that will allow the full range of tidal water to once again flow freely. The restoration project was guided by a Project Team including Steve Block of NOAA’s Habitat Restoration Center; Jeremy Bell of the Division of Ecological Restoration; Chris Miller, Brewster Natural Resources Director; and Jo Ann Muramoto, the MBP Regional Coordinator for Cape Cod and Senior Scientist at the Association to Preserve Cape Cod.



Stony Brook Wayside, Brewster

Michael Lach of the Museum of Natural History, which owns the restored salt marsh, served as Master of Ceremonies. Speakers included: State Senator Dan Wolf (D-Harwich); Eric Schwaab, Assistant Administrator for NOAA Fisheries; Philip Griffiths, Undersecretary of the Executive Office of Energy and Environmental Affairs; Edward Lewis Chairman of the Brewster Board of Selectmen; and Donald Keeran, Assistant Director of the Association to Preserve Cape Cod. NOAA presented an Outstanding Leadership award to Mr. Chris Miller, Brewster Director of the Department of Natural Resources, for his role in the project’s successful completion.

Following the event, attendees visited the new marsh overlook and the herring run at Stony Brook Mill, which was alive with migrating herring. This event does not mark the end of the project; monitoring is expected to continue for at least another year, and other restoration activities are being planned for the area.

Volunteers Monitor Cape Cod Herring Runs

This spring, APCC, MBP’s Cape Cod Regional Coordinator, continued to expand their volunteer herring count program, adding new monitoring efforts in Bourne, Falmouth, Sandwich and two in Mashpee. Currently, 11 APCC established volunteer herring count programs occur in eight Cape Cod towns. Count programs are typically found at herring runs where restoration work is either planned, in progress, or completed. (The numbers in parentheses in the



table below indicate the year when a count program was initiated).

Planned Restoration:

Bourne: Red Brook run (new count program in 2011)

Falmouth: Coonamessett River (2004, joined APCC program in 2009)

Wellfleet: Herring River (2009)

Ongoing Restoration:

Brewster: Stony Brook (2007)

Falmouth: Cedar Lake run (new count program in 2011)

Mashpee: Quashnet River (new count program in 2011)

Completed Restoration:

Harwich: Herring River (2009)

Mashpee: Mashpee River (new count program in 2011)

Orleans: Pilgrim Lake run (2008)

Sandwich: Mill Creek and Upper Shawme Pond run (new count program in 2011)

APCC's herring count program is part of a larger Bays-wide initiative funded by the Massachusetts Environmental Trust (MET) to monitor the impacts of climate change on fish runs and changes in local herring populations. With the help of additional grants from NOAA, the North and South Rivers Watershed Association (NSRWA), with participation from the Cape Cod region, held a March workshop to provide training to herring count volunteers. The herring count data will be provided to state and federal fisheries managers for use in managing river herring stocks.