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A Note from the Director

Coastal Habitat restoration efforts are at the very heart of the National Estuary Program, and the Massachusetts Bays Program (MBP) is certainly no exception. Currently, MBP staff and our regional coordinators are leading or playing key roles in almost two dozen habitat restoration and rehabilitation projects. These projects, which are regularly featured in the Mass Bays Window newsletter, include removing invasive species in the Great Marsh system, restoring hydrologic connections for fish passage on the South Shore, rehabilitating parks along the North River in Salem Sound, and reducing stormwater inputs to important shellfish growing areas on Cape Cod, to name just a few.

There are untold numbers of potential restoration projects and needs within Massachusetts and Cape Cod Bays. Our state and federal partners have provided a variety of natural resource inventories and planning documents that provide a starting point for identifying restoration opportunities, and there are many GIS based planning tools that can help us zoom in on degraded coastal resources in need of attention. However, it is clear that the restoration projects with the highest likelihood of success are those that have the strong support of local officials and citizens within the 50 coastal communities that make up the MBP planning area.

The importance of communities, local non-profit organizations, and volunteers at every phase of restoration cannot be overstated. Local support and services such as pre-restoration monitoring, project management, financial contributions, and long term stewardship are all vital components of restoration initiatives. It is local interest that often moves these projects from concept to completion.

The MBP would like to take this opportunity to thank the communities along Massachusetts and Cape Cod Bays for their essential role in a long track record of restoration successes, and we look forward to continuing progress in restoring coastal habitats over the coming years.

-- Jay Baker, *MBP Executive Director*



Great Marsh Team Seeks Support for Water Resources Restoration Project

The MBP regional local governance committee for the Upper North Shore, the [Eight Towns and the Great Marsh](#), has been in discussions with the Natural Resources Conservation

Service (NRCS) and other partners about initiating a comprehensive watershed restoration plan for the Great Marsh. The NRCS's Small Watershed Program targets

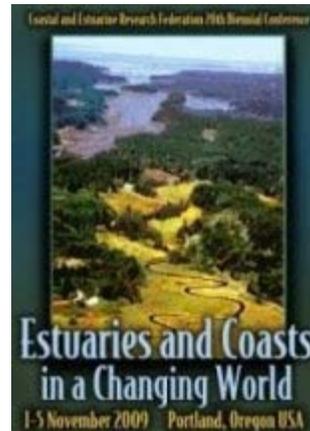
watersheds of less than 250,000 acres, and uses comprehensive planning as well as technical and federal cost-share assistance to improve water quality in the watershed. Currently NRCS is the technical assistance lead on a similar effort currently taking place on Cape Cod (see next article), funding for which is currently before Congress for consideration. Aspired benefits to the Great Marsh include healthier shellfish habitat and the restoration of fish passages and coastal wetlands. Currently underway, first steps for 8TB are to convene a steering committee of municipalities and other partners, define the parameters of the study area, and to explore potential sources of funding to complete the project's planning phase.

Priority Coastal Restoration Projects Identified by Towns on Cape Cod

The Barnstable County Coastal Resources Committee (CRC), the local governance committee for MBP's Cape Cod region, is currently updating its list of priority restoration projects. Creation of the list of projects will be used for prioritizing restoration work under the NRCS's proposed [Cape Cod Water Resources Restoration Project](#). The updated list so far includes projects that aim to remediate stormwater discharges to shellfish areas, restore tidally restricted salt marshes, improve fish passage, restore coastal salt ponds, and other projects deemed important by towns on Cape Cod. The CRC is Barnstable County's advisory committee on coastal issues, and is composed of one representative from each of the 15 towns as well as representatives from regional, state and federal agencies on Cape Cod with interests in natural resource issues. The Committee plans to update the list as projects are completed or new ones arise. For more information, contact [Jo Ann Muramoto](#), MBP Regional Coordinator for Cape Cod and Senior Scientist at the [Association to Preserve Cape Cod](#), at (508) 362-4226.

Research Presented at National Conference

The MBP South Shore Coordinator, Sara Grady of the [North and South Rivers Watershed Association](#), recently presented a poster at the [Coastal and Estuarine Research Federation's \(CERF\)](#) biennial conference in Portland, Oregon. The poster featured results from a study on water quality, the biological community of Cohasset's Little Inner Harbor, and implications for tide gate management (for more information, see the Mass Bays Window for [Autumn 2008](#) and [Summer 2009](#)). With the help of MBP, the town is exploring tide gate management strategies that will minimize algal blooms and other adverse environmental impacts. The poster was co-authored by MBP's Marine Scientist, Christian Krahforst, and Jason Burtner of the Massachusetts Office of Coastal Zone Management.



Manchester Coastal Stream Team Sawmill Brook Shoreline Survey

Recently, 17 enthusiastic volunteers walked the shorelines of Sawmill Brook and its tributaries, Cat Brook and Causeway Brook in Manchester-by-the-Sea to complete shoreline surveys. Using the [Adopt A Stream](#) protocol of the Department of Fish & Game's Riverways Program, the team's visual survey involved documenting features such as stream bottom, stream vegetation,



water quality, land use, as well as riparian habitats and species to evaluate the health of the stream system. One participant commented, "I never knew how beautiful parts of the stream

are. There were spots that were almost magical and to think that it's right in our backyard." Others were amazed to find torn and discarded bags of insecticides from an old nursery just 10 feet from the stream. An action plan for volunteers will be developed and implemented with support from MBP regional coordinator [Salem Sound Coastwatch](#).

Wellfleet Reviews Proposals for Modeling Restoration Options at Mayo Creek

Mayo Creek is part of the Wellfleet Harbor estuary which, at the turn of the last century, contained an estimated 50 acres of salt marsh. At this time, the creek experienced full tidal exchange with Cape Cod Bay, unimpeded by a bridge crossing at Shirttail Point. In



1909, the deteriorating bridge was replaced with a tide gate and one-way flapper valve that prevented incoming tides, which resulted in decreased tidal flow and subsequent conversion of the salt marsh to brackish and shrub swamp conditions. Old photographs show that by the 1920s and 1930s, salt marsh hay and cordgrass were being replaced by woody vegetation. Today there are extensive stands of invasive Phragmites and stagnant water, filling the flood plain and resulting in water quality impacts such as low dissolved oxygen. The uni-directional tide gate is still in place.

During restoration planning for the adjacent Herring River salt marsh, it was estimated that a minimum of 20 to 25 acres of salt marsh along Mayo Creek could also be improved by restoring tidal flow. This summer, MBP's Cape Cod regional service provider, the [Association to Preserve Cape Cod](#), worked with the state's Division of Ecological Restoration to help the town secure a \$40,000 grant from the [Gulf of Maine Council](#) and [National Oceanic and Atmospheric Administration's Restoration Center](#) to investigate the feasibility of restoring the Mayo Creek salt marsh. Now the town is reviewing proposals for modeling restoration options in Mayo Creek. This study will determine whether restoration of the salt marsh is feasible; evaluate different restoration options, impacts, and benefits; and provide recommendations related to restoration, mitigation of impacts, and implementation costs. The town and its partners will use the study to inform planning in the project's subsequent phases, including project design, permitting, construction, and

pre- and post-construction monitoring.



Greenscapes Program at the Topsfield Fair

As part of the North Shore Greenscapes Coalition, [Salem Sound Coastwatch](#) and the [Eight Towns and the Bay Committee](#) hosted a [Greenscapes](#) booth in the Green Pavilion at the Topsfield Fair. Fair-goers were treated to demonstrations on how to make compost tea ("nature's perfect plant food"), which is activated by the billions of beneficial micro-organisms in the compost. Also on hand were professional organic landscapers who donated their time to answer questions. American Beauties donated native plants to dress up the booth, and Greenscapes calendars and other materials were distributed to educate homeowners about environmentally-friendly yard care practices.

Stream Continuity Training Workshop Held

The MBP South Shore regional program and its host, the [North and South Rivers Watershed Association](#), recently hosted a Stream Continuity Training Workshop at the Plymouth Town Hall. The aim of stream continuity assessment is to determine where barriers to fish and wildlife movement exist and may be causing habitat fragmentation. The inventory includes documenting the characteristics and conditions of stream crossings or flow impediments such as roads, railways, culverts, dams, and footbridges. Attended by municipal officials and volunteers, participants benefited from a presentation by Carrie Banks of the Division of Ecological Restoration's Riverways Program, followed by a field visit allowing hands-on practice and testing of new knowledge and skills. Improved understanding of stream continuity issues gained from this training will enhance the MBP's South Shore program's ability to prioritize stream improvement and restoration opportunities.

Presentation by Roz Savage - Ocean Rower, Environmentalist, and Author

On October 16, [Salem Sound Coastwatch](#) offered its members the opportunity to hear a presentation by ocean rower [Roz Savage](#). Roz, a 42-year-old British woman, is attempting to be the first woman to row solo across the Pacific. She is doing this in three stages, each with a different environmental message. Last year, when she rowed from San Francisco to Hawaii, her message was about ocean debris and plastics. In September she completed the second stage of her journey, rowing from Hawaii to Kiribati in the Central Pacific; this time her message has been about climate change. Next year she plans to finish this challenge by rowing from Kiribati to Australia. During the most recent phase, she rowed 3,100 miles in 104 days, communicating by satellite phone and blogging all the way. Roz has also rowed across the Atlantic, and was the first woman to compete solo in the 3,000-mile Atlantic Rowing Race.



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