



New Bedford Harbor Project Updates October 2015

Electrical component manufacturing resulted in the release of polychlorinated biphenyls (PCBs) and other hazardous materials into New Bedford Harbor over a period of 40 years. The New Bedford Harbor Trustee Council (Council) is comprised of representatives from the National Oceanic and Atmospheric Administration, Massachusetts Department of Environmental Protection, and US Fish and Wildlife Service. Using \$20.4 million of restoration settlement funds, the Council oversees the restoration of natural resources that were lost, injured, or destroyed by the contamination. The Council has implemented 37 restoration-related projects since 1998, and is in the process of planning and implementing many more. Representative projects are presented below.

Salt Marsh Restoration

To date, the Council has completed three salt marsh restoration projects totaling 17 acres and is planning several more that, when implemented, will result in up to 26 additional acres of restored salt marsh habitat.

- In Spring 2011, the Council completed the **West Island Beach Salt Marsh** restoration project in Fairhaven with \$397,949 in Council funds. Working with project partners, including the Town of Fairhaven, Massachusetts Division of Ecological Restoration, and the Bristol County Mosquito Control Project, the Council replaced a failing, undersized culvert beneath Fir Street at the entrance to the West Island Beach parking lot with a larger, properly-sized culvert. This larger culvert will enable the 6.5-acre upstream marsh to receive more tidal flow and to drain faster after storm events, increasing the ability of the marsh to support fish and other marsh animals and to stop the spread of invasive plant species.

- In November 2005, the Council completed the **Winsegansett Reserve East Marsh** salt marsh restoration project with \$15,700 in Council funds. This project, on Sciticut Neck in Fairhaven, consisted of cleaning and enhancing an old salt marsh drainage ditch to facilitate freshwater drainage from the marsh surface and tidal flows to the upper portions of the marsh, and restored approximately four acres of

salt marsh. This project was completed in association with the Bristol County Mosquito Control Project, Buzzards Bay Coalition, Fairhaven-Acushnet Land Preservation Trust, and the Vivieros Farm.

- In April 2003, The Town of Dartmouth completed the **Padanaram salt marsh** restoration project with \$54,885 in Council funds. This project replaced an undersized culvert with a larger, properly-sized culvert, connecting the 6.5-acre Padanaram salt marsh to Apponagansett Bay. The project results were almost immediate. Woody vegetation and invasive species that had encroached onto the marsh surface began to die off once tidal inundation and soil salinity were restored. In addition, fish that were unable to access the marsh surface prior to the restoration are now present in the thousands.

The Council has also funded the feasibility and design, and is further developing several other salt marsh restoration projects:

- At **Marsh Island** in Fairhaven, the Council has developed construction plans and received regulatory permits necessary to construct this 12-acre salt marsh restoration project adjacent to the Acushnet River/New Bedford Harbor. This project will restore the marsh by removing fill from the former marsh surface and planting native marsh species. A perimeter walking trail will also be constructed.



The West Island Beach salt marsh culvert before construction (above) and after construction (below).



The Council estimates construction will begin in early 2017.

- At the **Winsegansett Reserve West Marsh** site in Fairhaven, the Council has completed the design and obtained all regulatory permits to restore tidal exchange to and remove fill from approximately 1.5 acres of salt marsh and other coastal habitats.

- In 2008, the Council completed a feasibility study for the salt marsh restoration at **Round Hill Beach** in Dartmouth. In 2012, the Council set aside \$1.3 million to design, permit, and construct the restoration of up to 12 acres of filled salt marsh at this site. **The project is currently being designed and will apply for permits in 2016.**

New Bedford Harbor Wetlands Restoration Plan

In January 2003, the Massachusetts Wetlands Restoration Program completed the Council-funded **New Bedford Harbor Wetlands Restoration Plan**.

This Plan identified 69 potential wetland restoration sites in the New Bedford Harbor environment. Copies of the plan were distributed in the Greater New Bedford area to encourage use of these sites for potential restoration or mitigation projects. The Council has used this plan to identify and develop several salt marsh restoration projects.

Land Preservation

To date, land purchases supported by Trustee Council funds have resulted in the permanent preservation of approximately 693 acres of land in the New Bedford Harbor Environment. A variety of habitat, including wetlands, coastal ponds, beaches, and forested uplands have been preserved through purchase and/or conservation restriction. The preserved lands will be held by land trusts or other similar entities to be used and enjoyed by the public while preserving the natural resource values and diverse habitat of each property.

Please see the table on page four for a full list of land preservation projects.

Shellfish Restoration

A variety of **shellfish restoration** projects improved the shellfisheries of New Bedford Harbor. Conducted by the Regional Shellfish Restoration Committee, comprised of the local shellfish wardens from New Bedford, Dartmouth and

Fairhaven, with \$1,238,736 from the Council, activities included the purchase and planting of adult and seed quahogs; the purchase and spreading of bay scallop and soft shell clam seed; relays of contaminated adult quahogs to clean areas to allow depuration to take place; the development of a Regional Shellfish Management Plan; and monitoring and enforcement activities. The shellfish monitoring work included studying the effectiveness of shellfish seeding efforts to recommend techniques that may improve the efficacy of future shellfish seeding efforts.

Eelgrass Restoration

Conducted in partnership with the University of New Hampshire Jackson Laboratory and the Coalition for Buzzards Bay, the **eelgrass restoration** project involved surveying the distribution and condition of eelgrass throughout the New Bedford Harbor estuary, identifying priority areas for potential eelgrass habitat, and, with the assistance of numerous volunteers, transplanting eelgrass from established beds to the priority reestablishment areas. These transplants will improve the ability of the Harbor to provide habitat for a variety of finfish and shellfish resources. The eelgrass was planted in 1999 and 2000 and spread at several of the transplant locations. This Council-funded, \$459,487 project also included monitoring the effectiveness of the eelgrass transplantation.

Tern Restoration

Since 1999, the Council has provided \$3,132,894 to the Commonwealth of Massachusetts to monitor, manage and enhance nesting locations for Roseate Tern (a federally-listed endangered species) and Common Tern (a state-listed Species of Special Concern) in the New Bedford Harbor environment. The goal of the project is to rebuild and restore populations of Roseate and Common terns that were injured while feeding on PCB-contaminated fish in the New Bedford Harbor environment. This **tern restoration** project involves moving other



Tern colony at Bird Island. The stakes in the foreground mark nest locations.

species, such as gulls, off the nesting areas; daily monitoring of the seasonally nesting terns; and the enhancement of nesting habitat at the Bird, Ram, and Penikese Islands in Buzzards Bay. The project also involves filling and stabilizing portions of Bird and Ram Islands to provide greater tern nesting opportunities. **The Ram Island stabilization was completed in 2011. The contract to construct the Bird Island stabilization project was awarded in October 2015 and construction is expected to take 18 months.**

Migratory Fish Restoration

The Council, in association with the Massachusetts Division of Marine Fisheries (DMF), recently reestablished fish passage for herring and other fish species at three dams on the Acushnet River. In 2002, project partners installed a 265-foot long fishway at the uppermost dam forming the **New Bedford Reservoir**, allowing herring to access the 200-acre reservoir to spawn. In 2007, the partners installed fish passage structures at the two remaining blockages on the Acushnet River. At the **Sawmill Dam** site, the partners partially breached the dam and constructed a stone, nature-like step-pool fish passage system. At **Hamlin Street**, the partners installed a stone, nature-like step weir fish passage system. Together, these projects allow river herring and American

eel to better access the entire 8-mile length of the Acushnet River, the Reservoir, and other upstream habitats.

Council-funded monitoring of fish access to New Bedford Reservoir by DMF shows that these fish passage projects have been very successful. For the two years prior to construction, an average of 326 herring were able to access the New Bedford Reservoir. That number has steadily increased following construction and, in 2014, 10,144 herring entered the



The completed nature-like fishway that was constructed at the site of the former Sawmill Dam in Acushnet.

Reservoir—a significant improvement that the Council anticipates will only get better. Monitoring indicates that these fish passage projects also benefited American eels, whose numbers have significantly increased upstream of the dams.

Parks and Recreation

The Council has funded the construction of portions of two recreational parks in the City of New Bedford. The Council provided \$2,037,513 to New Bedford for the construction of **Riverside Park** at the former site of the Pierce Mill on Bellevue Avenue. Completed in late 2005, Riverside Park provides passive recreational opportunities and will eventually provide harbor access.

At **Fort Taber Park**, the Council provided

\$2,404,887 to the City to construct a community center, bathhouse, restroom facilities, and reconstruct a stone fishing pier. The Council-funded work at Fort Taber Park was completed in 2004. The park provides access to—and recreational use of—the Harbor.

Habitat Enhancements

In 2012, the Council awarded the City of New Bedford with \$2,908,340 to design and construct the **Upland Riparian (Riverwalk)** project. This project will preserve a 25-foot wide corridor of land along 2.2 miles of the Acushnet River and create a walking path in this area. It will be planted with native vegetation. **The conceptual design for the Riverwalk project is currently being finalized.**

In 2012, the Council also provided the City with an additional \$100,000 in funding for habitat enhancements at **Palmer's Island**. **Currently, invasive vegetation on the island is being controlled, and additional plantings, a walking path, and other amenities are being planned.**

A Council-funded study, conducted by the Buzzards Bay Coalition in 2008, evaluated the feasibility of removing pavement and other impervious features and restoring natural habitats to the 19-acre **Acushnet Sawmill** site. In 2012, the Council awarded the Buzzards Bay Coalition a \$1,197,493 grant to design, permit, and construct this habitat restoration project. **Construction of the project was completed in 2015.**

Studies

The Council completed three additional feasibility studies. For the **Artificial Reef** and **Sconticut Neck** water quality projects, the Council decided not to proceed further with the projects following the feasibility studies due to the limited benefits to the injured natural resources. Similarly, after reviewing the results of the Council-funded study examining the feasibility of installing one or more additional openings in the **New Bedford Harbor Hurricane Barrier** to increase tidal flushing and water quality in the Inner New Bedford Harbor,

For More Information

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the Council decided that the benefits of the project were too limited to proceed any further.

New Bedford Harbor Trustee Council-Funded Land Preservation Projects

Date	Location	Acres	Cost	Recipient
Dec. 1998	Sconticut Neck (North) , Fairhaven	160	\$394,000	Fairhaven-Acushnet Land Preservation Trust
Feb. 2003	Popes Beach , Fairhaven	2.6	\$869,000	Town of Fairhaven
Nov. 2003	Marsh Island (North) , Fairhaven	14	\$50,000	Fairhaven-Acushnet Land Preservation Trust
Dec. 2003	Acushnet River Valley , Acushnet	208	\$968,000	Fairhaven-Acushnet Land Preservation Trust
Jan. 2004	Popes Beach (South) , Fairhaven	3.6	\$757,000	Town of Fairhaven
Jun. 2006	Vivieros Farm , Fairhaven	119.6	\$1,200,000	Fairhaven-Acushnet Land Preservation Trust
Feb. 2007	Marsh Island (South) , Fairhaven	7.7	\$300,000	Buzzards Bay Coalition
Mar. 2007	Acushnet Sawmill , Acushnet	18.8	\$1,750,000	Buzzards Bay Coalition
Mar. 2007	Acushnet River North , Freetown	84.8	\$775,000	Fairhaven-Acushnet Land Preservation Trust
Dec. 2008	Winsegansett Pond , Fairhaven	13	\$175,000	Fairhaven-Acushnet Land Preservation Trust
July 2012	La Palme Farm , Acushnet	46.6	\$600,000	Buzzards Bay Coalition
July 2012	Acushnet Estuary Reserve , Acushnet	14.5*	\$346,000	Buzzards Bay Coalition
TOTAL		693.2	\$8,184,000	

* This project is ongoing and is likely to result in the protection of additional land along the Acushnet River.