

MASSACHUSETTS DEP-US EPA CWA 104(b)(3)
Water Quality and Wetlands Protection Program

a proposal for

A Comprehensive Watershed Plan for the Westport Rivers

prepared by the

Buzzards Bay Project,
a unit of Massachusetts Office of Coastal Zone Management

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Location: Westport River Watersheds which includes portions of Westport, Dartmouth, New Bedford, Lakeville, and Fall River, MA and Tiverton and Little Compton, RI

Key Partners: Westport Planning Board, Westport River Watershed Alliance, USDA/NRCS, EOEA Buzzards Bay Basin Team

Summary

The Buzzards Bay Project is proposing to develop a comprehensive watershed management plan for one of the Buzzards Bay coastal drainage basin's most productive and threatened subwatershed areas - the Westport Rivers. While considerable effort has been invested in investigating and addressing many of the water quality and habitat loss problems facing this estuary, the River's stakeholders continue to lack a coordinated strategy for protecting and restoring water quality and living resources. Recent actions by the town, farmers, local citizen groups, and state agencies have resulted in improvements and laid the groundwork necessary to reverse the decline in shellfish populations, reopen bacteria-related shellfish bed closures, and reduce nitrogen sources causing eutrophication, however this work has been slow or piecemeal.

The Buzzards Bay Project has played an important role in much of the work done in the Westport River watershed during the 1990s from funding successful bacteria and nutrient water quality monitoring programs to providing land use and open space planning assistance to town officials. In this initiative, we propose to act as a catalyst for action, coordinating town boards, state and federal officials, citizens and user groups, and the newly formed EOEA basin team in a National Estuary Program style "Management Conference" to develop the consensus necessary to move forward. Recent awareness and acceptance by local officials of the difficult steps necessary to manage non-points source pollution in the Westport Rivers watersheds present an important opportunity for state and federal agencies working to improve environmental conditions in this high priority watershed.

Introduction

The Buzzards Bay Project, part of the National Estuary Program and a unit of the Massachusetts Coastal Zone Management Office, was created by the US Environmental Protection Agency in 1987 to develop a Comprehensive Plan to restore and preserve the Bay's water quality and natural resources. Four years later the Buzzards Bay Comprehensive Conservation and Management Plan (CCMP), a blueprint for the protection of the Bay, was completed and approved by Governor Weld and US EPA Administrator Reilly. This plan was the first whole watershed approach to natural resource protection planning in Massachusetts and the first on the east coast. Today, the Buzzards Bay Project is working to make the recommended actions contained in the CCMP a reality by providing technical and funding assistance to watershed municipalities on a wide variety of nonpoint source and resource protection issues.

Implementation of the CCMP has involved the Buzzards Bay Project in high priority stormwater remediation, nitrogen planning, alternative septic system design, herring restoration, and land use planning projects around the Bay. Significant progress has been made in many areas, but it has become apparent that specific goals and tasks must be identified in each of the Bay's 30 major subembayments, particularly the drainage basin's larger, more complex systems. Indeed, subwatershed systems such as the Westport River and Weweantic River are nearly as large as some of the watersheds targeted under the Commonwealth's Watershed Initiative as separate planning units.

In order to address this gap in watershed planning, the Buzzards Bay Project is interested in applying its experience in coastal watershed planning to develop a Comprehensive Watershed Management and Restoration plan for one of Buzzards Bay's most important and threatened subbasins - the Westport River Estuary. This project would seek to bring together a wide range of interest groups that have often been at odds over solutions for the river's restoration - citizens, farmers, shellfishermen and business - together with state and federal agencies, to provide a clear direction for the protection of the Westport Rivers.

The Westport River Watershed

The Westport River Watershed is located in southeastern Massachusetts encompassing 49,514 acres and covering four municipalities - Westport, Dartmouth, Fall River, and Tiverton, RI. Land use along the river's two branches is dominated by agriculture while the upper reaches of the watershed remain forested, portions of which are protected as part of the DEM Freetown-Fall River State Forest and City of Fall River Water Supply Lands. Land, particularly along the rivers, has come under increasing residential development pressure in recent years.

The watershed suffers from a variety of nonpoint source water quality problems. Large portions of the East Branch of the River are permanently closed to shellfishing due to elevated fecal coliform bacteria levels as are the upper reaches of the West Branch. Compounding the bacterial closure problems, shellfish habitat and overall

river water quality is suffering from the effects of excessive nitrogen loading from the surrounding watershed. Both the bacteria and nutrient problems are the subject of extensive monitoring and documentation both by the Town of Westport and local environmental organizations, the Westport River Watershed Alliance and Coalition for Buzzards Bay.

While town and private actions have resulted in minor improvements, a game plan that addresses the big picture of restoring the resources of the Westport River is lacking and desperately needed. In the past, major divisions have erupted between shellfishermen, dairy farmers, environmental organizations, and municipal boards that have hindered the development of a consensus on restoring and protecting the Westport River.

Watershed Management Conference membership

The greater Westport area boasts a wide variety of community organizations representing environmental, agricultural, and fishing interests. In addition, the region is well represented by local land conservation trusts and coastal research groups. These groups together with the towns and interested citizens would make up the membership Westport River Community Council staffed and supported by the Buzzards Bay Project. This Council will serve as a sounding board for individual landowners, business interests, and citizens to hear the communities concerns and define the goals and objectives of a Comprehensive Westport River Watershed Management Plan. Participants in the Council would include: Municipalities (appropriate boards from the Towns of Westport and Dartmouth, City of Fall River, and Town of Tiverton, Rhode Island), Watershed User Groups (Coastal Growers Association, Westport Farmers Association, Westport Fisherman's Association), land conservation organizations (Westport Land Conservation Trust, Dartmouth Natural Resources Trust, Greater Fall River Land Conservancy), and Education/Research/Advocacy groups: (Westport River Watershed Alliance, WaterWorks Group, Lloyd Center for Environmental Studies, Friends of Freetown/Fall River State Forest). The Management Committee will also contain state and federal agency members on EOEAs Buzzards Bay Basin Team and USDA NRCS. The Buzzards Bay Project will work closely and coordinate the Basin Team, and use this new state structure as the mechanism for insuring coordination of state activities.

Foundation for a Watershed Plan

The Buzzards Bay Project, Town of Westport, and various community organizations have and continue to lay the foundation for the creation of a comprehensive watershed management plan for the Westport Rivers. Valuable water quality and resource data have been collected and important land use tools acquired or under development. The following activities and programs will contribute greatly toward the development of the plan.

! Coastal Resource and Watershed GIS Mapping Project: The Town of Westport with funding and technical assistance from the Buzzards Bay Project is in the process of developing a town-wide Geographic Information System (GIS) database of parcel level information regarding watershed and river natural resources. A town computer and mapping system was recently purchased for the sole purpose of developing GIS capability in Westport. This system would be an invaluable tool in the development of a comprehensive watershed plan.

! Westport Open Space Plan Update: The Buzzards Bay Project is working with the Westport Conservation Commission and Westport Open Space Committee to update the town's Open Space Plan. This work will inventory and map all existing conservation lands and identify the most sensitive areas for future acquisition.

! Fall River Open Space Plan: The Buzzards Bay Project is working with the City of Fall River to develop their first-ever inventory of conservation land and assessment of future acquisition priorities. This work will focus on the eastern portion of the City which is largely undeveloped and constitutes the majority of the upper Westport - East Branch watershed.

! Herring Restoration: The Buzzards Bay Project funded the construction of an improved herring ladder on the West Branch of the Westport at Adamsville Pond. The East Branch of the River continues to pose serious obstacles to anadromous fish runs.

! Bacteria Monitoring Program: Originally funded by the Buzzards Bay Project, the Westport Board of Health in conjunction with the Westport River Watershed Alliance conducts weekly fecal coliform monitoring at sites throughout the Rivers to identify hot spots contributing to shellfish beds closures and public health threats. A (4) year database of intensive monitoring now exists to compliment Division of Marine Fisheries data.

! Nutrient Monitoring Program: With citizen volunteer coordination by the Coalition for Buzzards Bay and Westport River Watershed Alliance and funding from the Buzzards Bay Project, sample locations throughout the rivers are monitored weekly for dissolved oxygen and four times a summer for nitrogen analyses at the Woods Hole Oceanographic Institution. The results of this effort will be published this month and provide the basis for understanding eutrophication related problems in the rivers.

! Westport Build-Out Analyses: The Westport Planning Board completed a preliminary parcel-level build-out analyses of the entire town in 1995. This data will be refined and used to calculate both existing and future nitrogen loading to the rivers. Such an exercise is meant to provide the basis for zoning and other techniques to control nitrogen inputs.

! Bay Scallop Restoration Program: Conducted by a private organization, the WaterWorks Group, this program works with Westport Schools to encourage the return of the river's once productive bay scallop fishery through research and shellfish culture activities.

! Adopt-A-Watershed: The Westport River Watershed Alliance's Adopt-A-Watershed program involves citizens in water quality and resource monitoring within the river's -- subwatershed brook systems.

! Numerous other town departments and local organizations such as the Westport Fishermen's Association, Farmers Association, Westport Land Conservation Trust, and Lloyd Center for Environmental Studies conduct ongoing programs related to natural resource protection and management and would contribute their knowledge to the compilation of a community-based watershed plan.

Comprehensive Approach

A number of issues would clearly be a part of any comprehensive approach to restoring and preserving the Westport Rivers. In addition, other issues of most importance to the watershed will undoubtedly be added through community involvement. Below is a preliminary grouping of some of the issues and potential strategies to explore in creating a Westport River Watershed Management Plan:

I. The Bacteria Problem. Reopening shellfish beds will be accomplished through implementation of Agricultural best management practices, septic system upgrades, and stormwater runoff control.

II. Eutrophication. Reversing degradation of impaired areas and controlling future inputs can be accomplished through zoning and density strategies, land conservation, alternative and community septic system strategies, agricultural best management practices, among others.

III. Water Quality Monitoring. Water quality monitoring is necessary to continue evaluation of long-term trends, establish or refine priorities for remediation of pollution sources, and evaluate the effective of specific management actions.

IV. Restoration of Shellfish Habitat, Anadromous Fish Runs, and Wetlands. Options that will be assessed include eelgrass assessment and restoration plan, the Bay Scallop Restoration Project, Herring Run needs assessment and design, Protection and enhancement of watershed wetlands.

V. Coastal Public Access and Waterway Usage. This category will be addressed by meeting the needs of harbor and river users, and to improve public access to the river and beaches

Budget and Matching Funds

The Buzzards Bay Project proposes to coordinate the development of a Comprehensive Westport River Watershed Restoration and Management Plan for \$75,000 of funds from 104(b)(3). This work would involve a variety of water quality monitoring costs, subcontractual services (i.e. planners, eelgrass surveys, support for shellfish restoration), natural resource mapping, and an intern, and non-permanent contractual staff the Town of Westport in working on various aspects of the Plan.

The Buzzards Bay Project will use a cash match from the Mass Environmental Trust which will be given to the town as a grant. This will fund specific monitoring tasks, outreach, and demonstration projects necessary to support this initiative.

Part time intern detailed to Town Hall	\$10,000
Contractual planner	\$39,000
WQ monitoring (nitrogen, fecal)--MET Match	\$10,000
Outreach materials- MET Match	\$3,000
Stormwater BMP demo- MET match	\$12,000
Agricultural BMP demos	\$26,000
Total	\$100,000

Buzzards Bay Project Staff

The staff and resources of the Buzzards Bay Project make our organization uniquely suited to addressing the broad spectrum of natural resource issues facing the Westport River Watershed. In addition, our position within the Coastal Zone Management Office, and the detail of a stormwater specialist from USDA/NRCS allows for easy coordination with technical staff in coastal geology, dredging issues, agricultural issues and harbor planning.