

A Report of Habitat Protected and Restored  
and Priority Actions Taken  
in support of the Implementation of the  
Buzzards Bay  
Comprehensive Conservation and Management Plan  
in accordance with the  
Government Performance and Results Act

for the period  
October 1, 2003 to September 30, 2004.

prepared by the  
Buzzards Bay Project National Estuary Program  
August 31, 2004



## **Background**

The US Environmental Protection Agency (EPA) is required to conform to the Government Performance and Results Act (GPRA), which measure performance or progress towards established goals. The following goal and objective adopted by EPA relates to National Estuary Programs, including the Buzzards Bay Project:

Goal #2 is Clean and Safe Water.

Objective #2 under that goal is as follows: By 2005, conserve and enhance the ecological health of the nation's (state, interstate and tribal) waters and aquatic ecosystems - - rivers and streams, lakes, wetlands, estuaries, coastal areas, oceans and groundwaters - - so that 75% of waters support healthy aquatic communities.

Sub-objective 2.1 states: By 2005, restore and protect watersheds so that 75% of waters support healthy watersheds as shown by comprehensive assessment of the nation's watersheds.

One of EPA's Annual Planning Goals is to restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans. Success in meeting this Annual Planning Goal is measured through Annual Planning Measures. To conform to GPRA, the measures adopted by the EPA in 2001 were:

- 1) the number of priority actions initiated across the NEP, and
- 2) the acres of habitat protected and restored.

With respect to the habitat measure, NEPs have been asked to report those acres protected or restored during the reporting period. The information in this GPRA report covers the period October 1, 2003 to September 30, 2004 (i.e., Federal FY2004).

### ***CCMP Priority Actions Initiated and Completed***

The Buzzards Bay Project has not revised the priorities in our CCMP or added any new actions during the past year. We have, however, begun a review of the CCMP with the objective of producing a new document with major revisions and updates. This work will be one of the focuses of the Buzzards Bay Project in the coming year.

The summary in Table 1 for FY 2004 accomplishments continues from where the Buzzards Bay Project's previous GPRA report submitted in October 2003 left off. No new action plans were initiated this year because work on so many others is ongoing.

As we have begun our review of the old action plans, we have concluded that two recommendations in the Protecting and Enhancing Shellfish Resources Action Plan elements have been completed to the extent practical. These are:

1. DMF will work to train individuals in each Buzzards Bay town in shoreline surveys and strive to develop long-term cooperative arrangements that ensure consistency of town participation and supplements limited state personnel with local manpower.
2. DMF will encourage Buzzards Bay towns to work cooperatively with them to expand the number of conditionally approved shellfish areas.

The Buzzards Bay Project’s CCMP Rewrite Workgroup has concluded that both tasks have been accomplished, and DMF continues to implement local collaborations on an ad hoc basis whenever needed. With respect to expand conditionally approved areas, currently the towns and DMF agree that the necessary number of rainfall conditional sites have been implemented, but that the existing sites need to be maintained, and future conditions may change that require creation of new conditional areas.

It is important to recognize that a summary like Table 1 cannot capture the essence of implementation activities in Buzzards Bay. For example, during the past 8 years, perhaps 25% of the Buzzards Bay Project’s and Buzzards Bay municipal effort (dollars and manpower) related directly or indirectly to the remediation of stormwater discharges contributing to beach or shellfish bed closures. This effort has continued to pay off big dividends with the rehabilitation of hundreds of acres of shellfish beds over the years, with many more acres of shellfish beds open during at least part of each year (Figure 1).

One important improvement from the past year is that there are few remaining oil spill closures in Buzzards Bay as a result of April 2003 Bouchard No. 120 tank barge accident. That spill, of an estimated 98,000 gallons of No. 6 fuel oil in Buzzards Bay, closed most of Buzzards Bay to

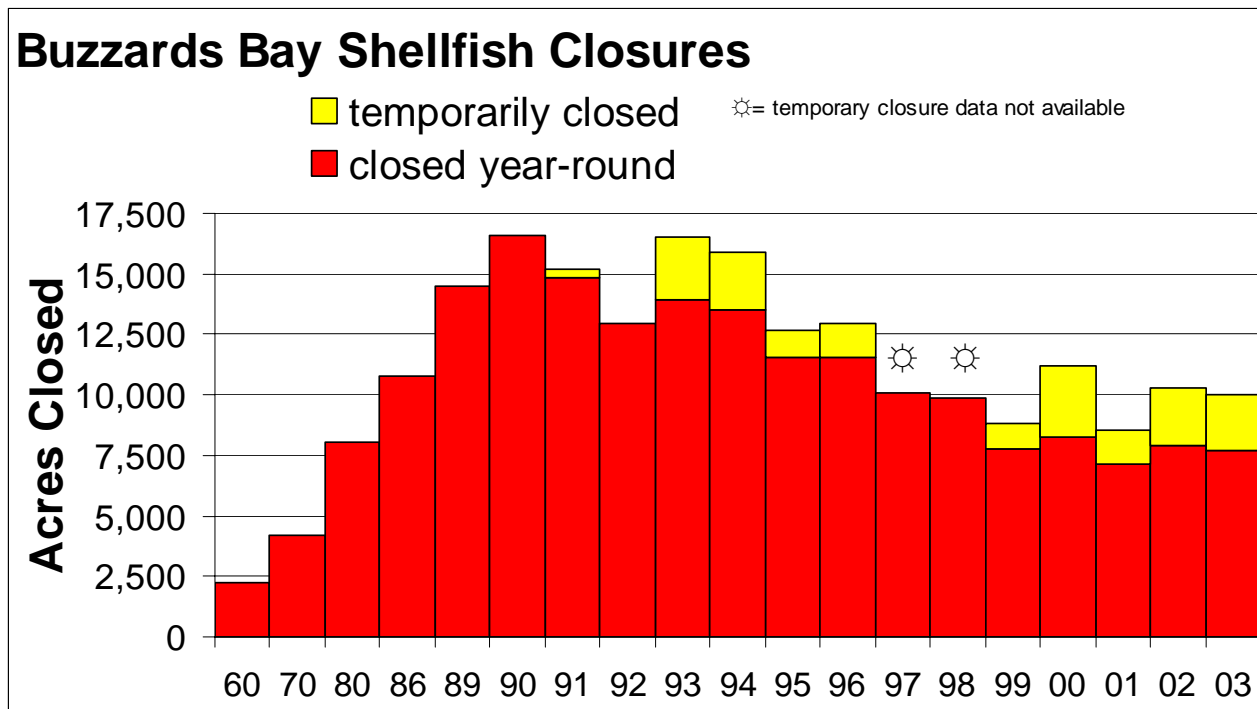


Figure 2. Shellfish beds closed in Buzzards Bay on July 1<sup>st</sup> of each year. Temporarily closed beds for 1997 and 1998 not available. Temporarily closed areas were those seasonally closed (summer closure) or after heavy rains as of July 1. The 2003 data does not include the Bouchard 120 oil spill closure that complete closed the bay to shellfishing in April and May, and on July 1, half the bay, or 90,000 acres remained closed. Thus, the 2003 data actually represents the classification as of April 27 for half the bay.

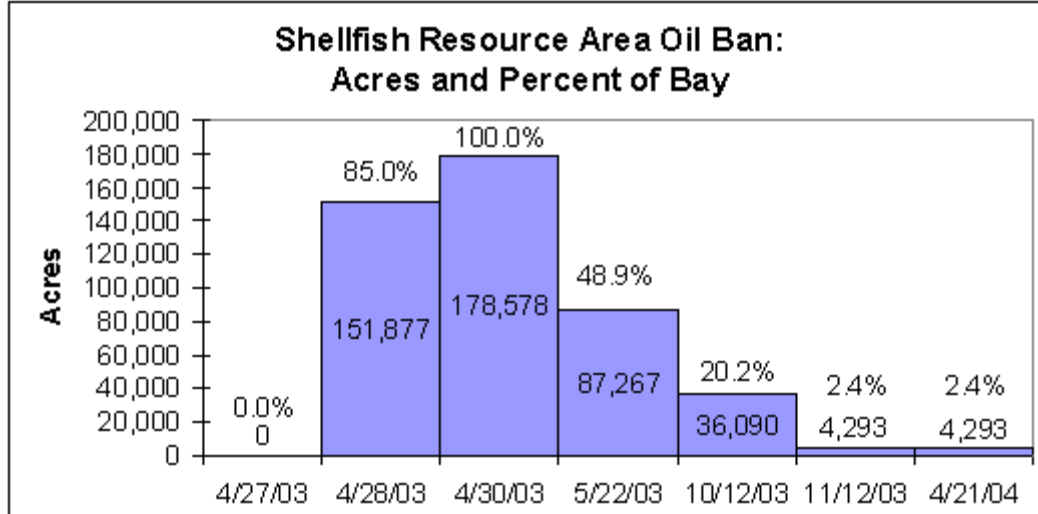


Figure 1. Acreage of shellfish beds remaining closed due to the Bouchard 120 No. 6 oil spill. By July 1, all oil spill related closures were eliminated.

shellfishing in April and May of 2003. However, the oil spilled related shellfish acreage closed dropped to 4,293 acres by November 2003, then to a few hundred acres by July 1, 2004 (Figure 2).

While the oil spill impaired Buzzards Bay shellfish resource areas for more than a year, the work to remediate stormwater discharges contributing to the closure of shellfish resource areas relates to only two or three Buzzards Bay CCMP recommendations that recommend remediation of problematic stormwater discharges. At the current level of effort, it will take 20 years or more and tens of millions of dollars for these Management Plan recommendations to be completed. Thus, despite the success of these efforts, this action plan can never be viewed as complete because the CCMP states all problematic discharges must be remediated.

A summary of completed recommendations is shown in Figure 3. Although 119 actions are contained in the CCMP, 7 actions have been deemed obsolete or no longer relevant when the actions were reviewed in 2001 by BBP staff and the EPA Region I Project Officer.

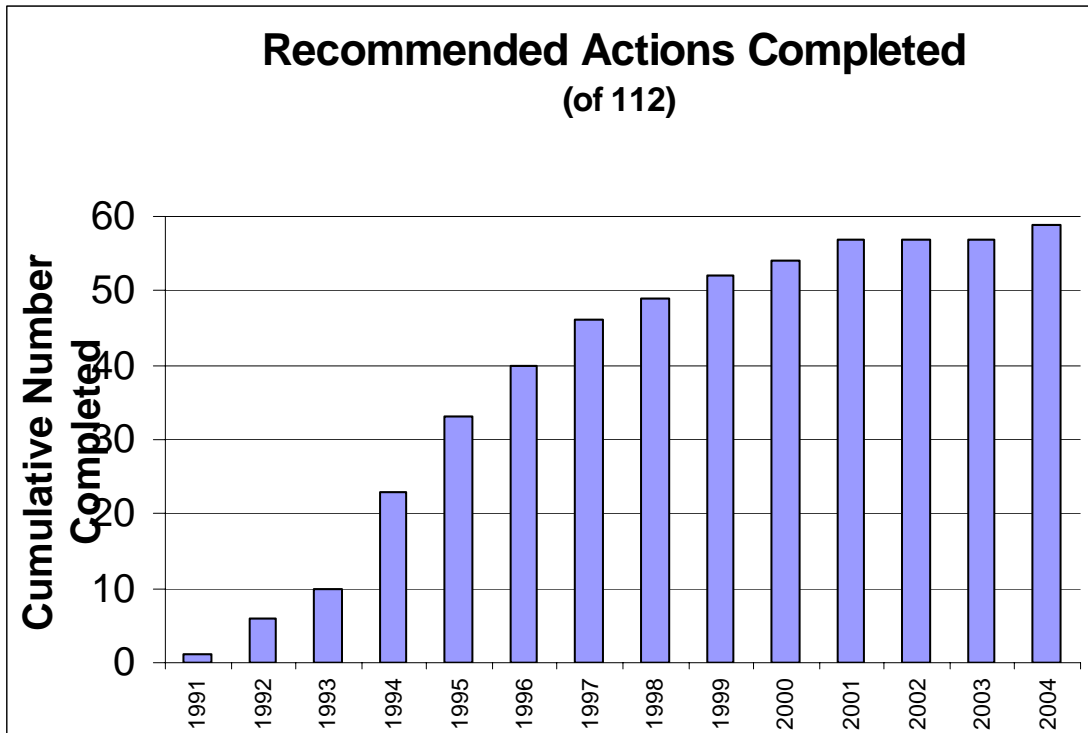


Figure 3. Cumulative CCMP recommendations completed over time.

***Habitat Protection and Restoration***

With respect to amount of habitat protected and restored, we have considered or included any created wetland areas, protected areas resulting from acquisition, conservation easement or deed restriction, submerged aquatic vegetation coverage increases, permanent shellfish bed openings, anadromous fish habitat increases, etc. If a shellfish bed was temporarily closed and then reopened, we did not count this acreage, and only areas removed from the “permanent” closure categories were included. Because shellfish bed openings are generally the result of many individual projects typically initiated primarily by the municipalities without state or BBP funding, we do not have a firm cost estimate for all these projects. Submerged aquatic vegetation data sets have been deemed inadequate for trends tracking at this time.

Reported acreage of wetlands and habitat protected or restored was documented only for this reporting year (10/1/02 - 9/30/03). Because of state funding cutbacks at the Massachusetts Division of Marine Fisheries, they were unable to digitize new shellfish conditional areas. There have been also many new demands on DMF as a result of the oil spill. At this time we do not believe there were any permanently closed areas of Buzzards Bay that had improved sufficiently to change their status.

In the reporting table, we have employed the US EPA’s recommended categories and definitions

for the Wetland Habitat Category as follows: estuarine, beaches and dunes, barrier island, mangroves, SAV, wetland, riparian, instream, uplands, other (as specified).

Additionally, we have employed the US EPA's recommended categories and definitions for the Implementation Activity Type, as follows:

- **Establishment:** The manipulation of the physical, chemical, or biological characteristics present to develop a habitat that did not previously exist on an upland or deep water site. Establishment results in a gain in acres. Includes activities commonly associated with creation.
- **Re-establishment:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of **returning** natural/historic functions to former estuary habitat. Re-establishment results in rebuilding former estuary habitat and **results in a gain in habitat acres.**
- **Rehabilitation:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of **repairing** natural/historic functions of degraded estuary habitat. Rehabilitation results in a gain in habitat function, but **does not result in a gain in habitat acres.**
- **Enhancement:** The manipulation of the physical, chemical, or biological characteristics of a undisturbed or degraded site to heighten, intensify, or improve specific functions or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for a purpose of such as water quality improvement, flood water retention or wildlife habitat. The term includes activities commonly associated with the terms enhancement, management, manipulation, and directed alteration.
- **Protection:** The preservation of habitat by mechanisms such as land acquisition, conservation easements, deed restrictions, etc.

### ***Results: Protected Wetlands and Open Space***

One of these categories, the permanent protection of open space, wetlands, and habitat is a high priority for the Buzzards Bay Project and its partners. Of the 276,580 acres (432 square miles) in the mainland portion of the Buzzards Bay watershed, 60,208 acres, or 21.8% of the land is now protected open space. These protected opens space parcels are shown in Figure 3.

Results for the past six years are summarized in Figure 4 below. As shown, open space acquisition in the FY 2004 reporting period was successful, accounting for more than 990 acres, including 2.6 miles of stream. The amount of land acquired or protected in any given year depends on a number of factors including state and local funding, economic conditions, and land availability.

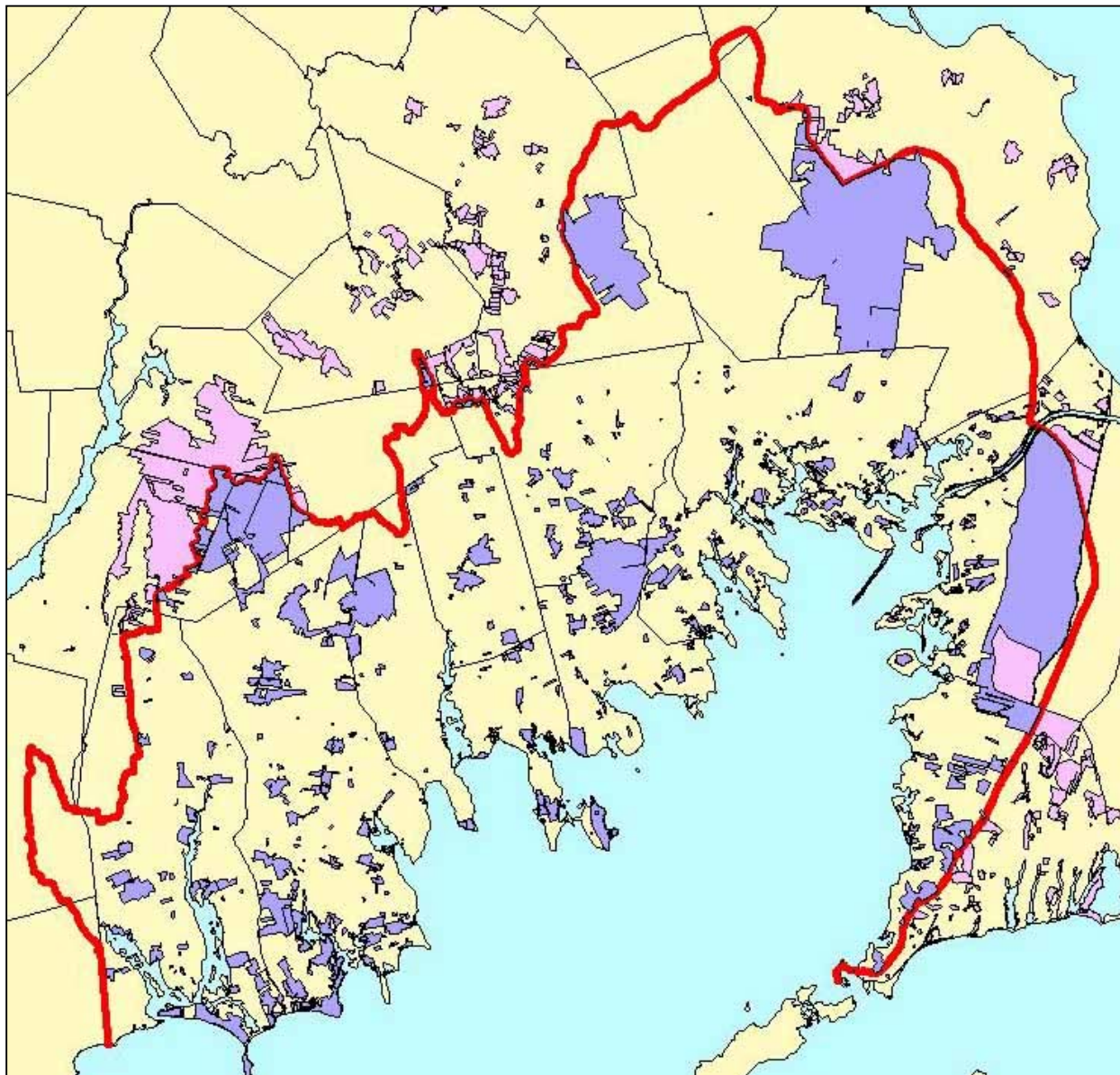


Figure 3. Protected open space in the Buzzards Bay watershed (shaded dark blue). These lands account for 21.8% of the mainland watershed.



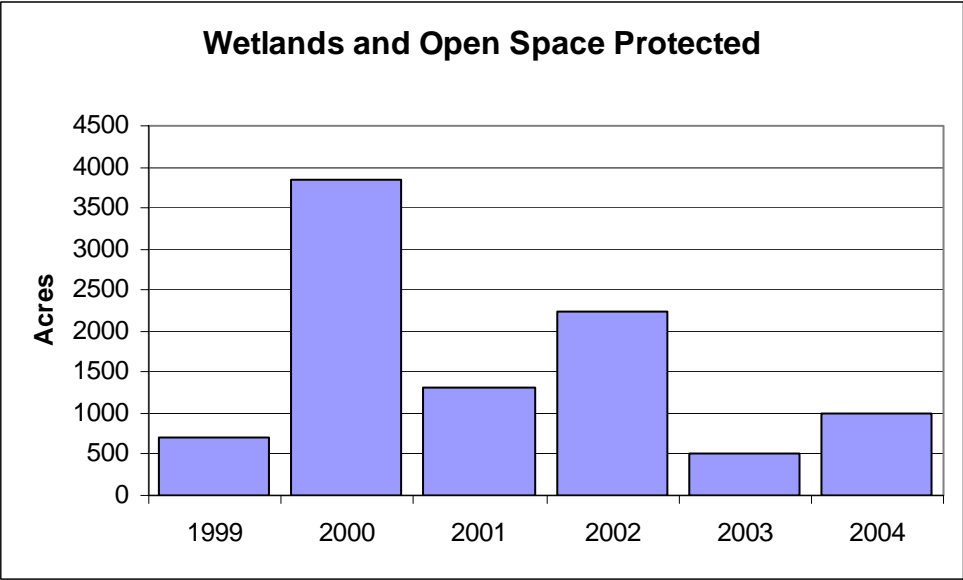


Figure 4. Protected open space and wetlands in Buzzards Bay. Does not include acres restored.

***Results: Rehabilitation of Shellfish Beds***

As noted earlier, efforts to treat and manage stormwater, and eliminate other non-point source pollution such as illicit discharges and failed septic systems has paid off in big dividends with the rehabilitation of hundreds of acres of shellfish beds over the years. In many cases, the shellfish beds changed from permanently closed (“prohibited”) to seasonal or rainfall conditional closures because of improved water quality. These changes were often the direct result of stormwater remediation and management in the area of the affected shellfish beds. These areas, now for the first time in many years, can have shellfish harvested for at least a significant portion of each year.

Some of the changes can be tracked to specific grant awards for stormwater management. Others are related to town efforts to eliminate illicit discharges, sewer areas with failing septic systems, or in-house improvements and maintenance to stormwater systems. Consequently, in many cases the precise cost in terms of dollars or manpower to achieve the water quality improvements cannot be precisely estimated.

However, as noted earlier, no changes in shellfish beds could be documented for this year.

**Table 1. CCMP Priority Actions Initiated and Completed October 1, 2003 to September 30, 2004. Because 103 of 112 recommended action plans have been initiated to some degree, but only 52 actions completed, no remaining new priorities will be initiated. Instead existing initiated priorities will remain the focus of implementation efforts.**

<b>Total Priority Actions in CCMP</b>	<b>Number and Title of CCMP Priority Actions Initiated This Year</b>	<b>Total Priority Actions Initiated This Year* (Since last GPRA report)</b>	<b>Total Percentage of all CCMP Priority Actions Initiated This Year (FY 2004)</b>	<b>Target of Priority Actions Initiated by 9/2004</b>	<b>Number of Ongoing Priority Actions This Year* (Since initial GPRA Report)</b>	<b>Number of Total Priority Actions Completed This Year* (Since last GPRA report)</b>	<b>Cumulative Number of Priority Actions Completed To Date</b>
112	0	0	0	103	8	2	59

\* This year refers to the reporting period (October 1, 2003 to September 30, 2004, i.e. roughly federal FY 2004).

**Table 2. Habitat Protection and Restoration October 1, 2003 to September 30, 2004.**

<b>Project Name</b>	<b>Habitat Description</b>	<b>Habitat Category</b>	<b>Project Description</b>	<b>Activity/ Action</b>	<b>Partners</b>	<b>Acres</b>
Grantham CR	Upland hardwood forest, some wooded wetlands	uplands	Donation of CR	protection	The Trustees of Reservations	31
Little Tree Farm CR	A Christmas tree farm, 75% wetlands, includes 500 ft of Angeline Brook, pond, and wetlands	wetlands	Donation of CR	protection	TTOR & WLCT	10
Maskasach Farm CR	working farm with some woodlands and wetlands, includes 2000 ft of Westport River, extensive salt marsh	uplands	Donation of CR	protection	TTOR & WLCT	64
Lee Tripp CR	working farm, but 55% of land forested wetland or other wetland	wetlands	Bargin sale of CR	protection	WLCT, Town Comm	54.5
Higgins/Bartlett CR	field, riverfront land	uplands	Donation of CR	protection	Westport Land Conservation Trust	4.5
River Rock Farm APR	working farm, forest	uplands	Agricultural Preservation Restriction	protection	State DFA & TTOR	90
Sothard Property CR	maritime forest, includes 2,385 ft of Westport River, 10% wetland, mostly salt marsh	uplands	Donation of CR	protection	The Trustees of Reservations	31
Pine Bridge Farm	dairy farm, 25% forested wetlands, 10% woodland uplands	uplands	Agricultural Preservation Restriction	protection	TTOR, WLCT, State DFA	160
Russell Davis Property Hixville	turnip fields, leased to farmer, 25% woodland, 5% wetland	uplands	Purchase in fee	protection	Town of Westport	13
Conservation Project New Bedford Garden Club Reserve	Shingle Island River floodplain, includes 1,030 ft of Shingle Island River	riparian	Purchase in fee	protection	DNRT, Buzzards Bay Project	158
Mosney Reserve	wetlands includes kettle pond	uplands	Donation in fee	protection	Dartmouth Natural Resources Trust	2
Kieth's Tree Farm CR	Christmas tree farm, 25% wetland, includes 3,375 ft of Acushnet River	wetlands	Donation in fee	protection	Dartmouth Natural Resources Trust	7
		uplands	Purchase of CR	protection	Fairhaven-Acushnet Land Preservation	145

Kelleher Property	forested wetland	wetlands	Purchase in fee	protection	Trust, Buzzards Bay Project Fairhaven-Acushnet Land Preservation Trust	72
Eastover Farm (Carr)	open field	uplands	Purchase in fee	protection	The Trustees of Reservations	3.2
Eastover Farm (Leonards)	open field	uplands	Purchase of CR	protection	The Trustees of Reservations Town of Rochester, The Trustees of	11
Eastover Farm Self-Help Project	forested wetlands, includes 4,650 ft of Harlow Brook	wetlands	Purchase in fee	protection	Reservations Sippican Lands Trust	81
Stewarts Island Abandoned Railroad Bed Property	salt marsh with small upland island wetlands	wetlands	Donation in fee	protection	Marion Open Space Acquisition Committee	10
Barrows Bogs Property	abandoned cranberry bogs (wetlands)	wetlands	Purchase in fee	protection	Bourne Open Space Acquisition Commission	19
						24

*Abbreviations Used and Notes:*

*BBP= Buzzards Bay Project, TTOR= Trustees of Reservations. WLCT= Wildlands Conservation Trust*

*NRCS= US Department of Agriculture Natural Resource Conservation Service*

*gift = landowner donated property or gave up buildable use of property, value can only be approximated*

*APR = Massachusetts Agricultural Preservation Restriction program*

*(The APR Program is a voluntary program intended to offer a non-development alternative to farmers and other owners of "prime" and "state important" agricultural land who want to preserve the land from development. The program offers to pay farmers the difference between the "fair market value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction which precludes any use of the property that will have a negative impact on its agricultural viability)*