

A Report of Implementation Activities
Relating to 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, 2002 to September 30, 2003.

prepared by the
Buzzards Bay Project National Estuary Program
October 14, 2003

Background

The US Environmental Protection Agency (EPA), is required to conform to the Government Performance and Results Act (GPRA), which measures 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, 2002 to September 30, 2003 (i.e., Federal FY2003).

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. The summary in Table 1 for FY 2003 accomplishments continues from where the Buzzards Bay Project's previous GPRA report submitted in October 2002 left off.

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 paid 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. However, the picture is clouded for 2003 because of the Bouchard 120 oil spill of April 27, 2003, where an estimated 98,000 gallons of No. 6 fuel oil was spilled. The oil spill, and the lack of state and federal standards for hydrocarbons in shellfish, has resulted in 87,775 acres of shellfish beds remaining closed on our annual July 1 inventory date (and 35,000 acres are still closed today, see Figure 1).

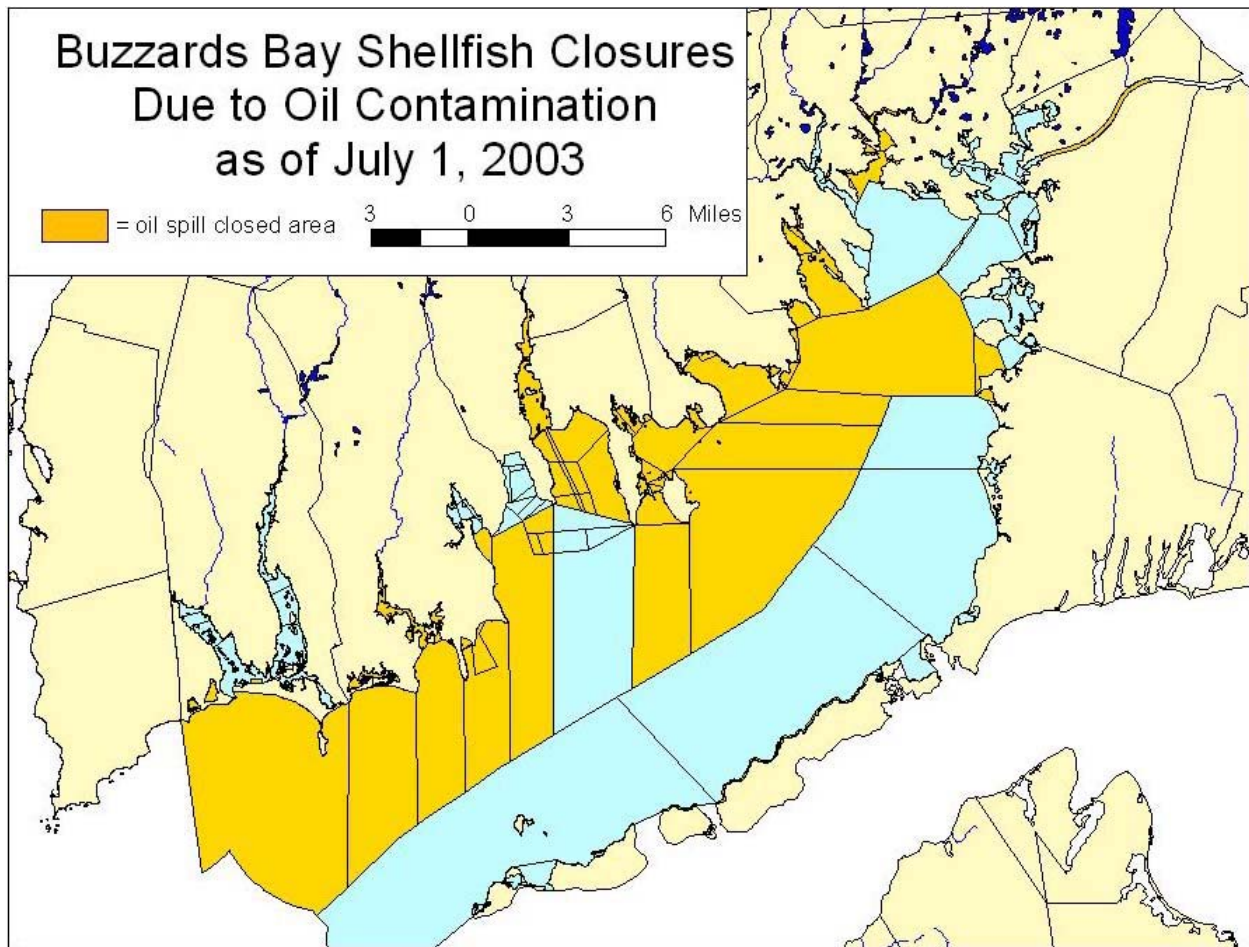


Figure 1. Areas remaining closed due to the Bouchard 120 No. 6 oil spill of April 27, 2003.

Despite the confounding effects of the oil spill, we were still able to quantify the ongoing rehabilitation of shellfish beds due to mitigation of stormwater discharges, because a number of areas had improvements before the oil spill occurred.

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, no new CCMP actions can be identified as being completed because the CCMP states all problematic discharges must be remediated.

A summary of completed recommendations is shown in Figure 2. 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.

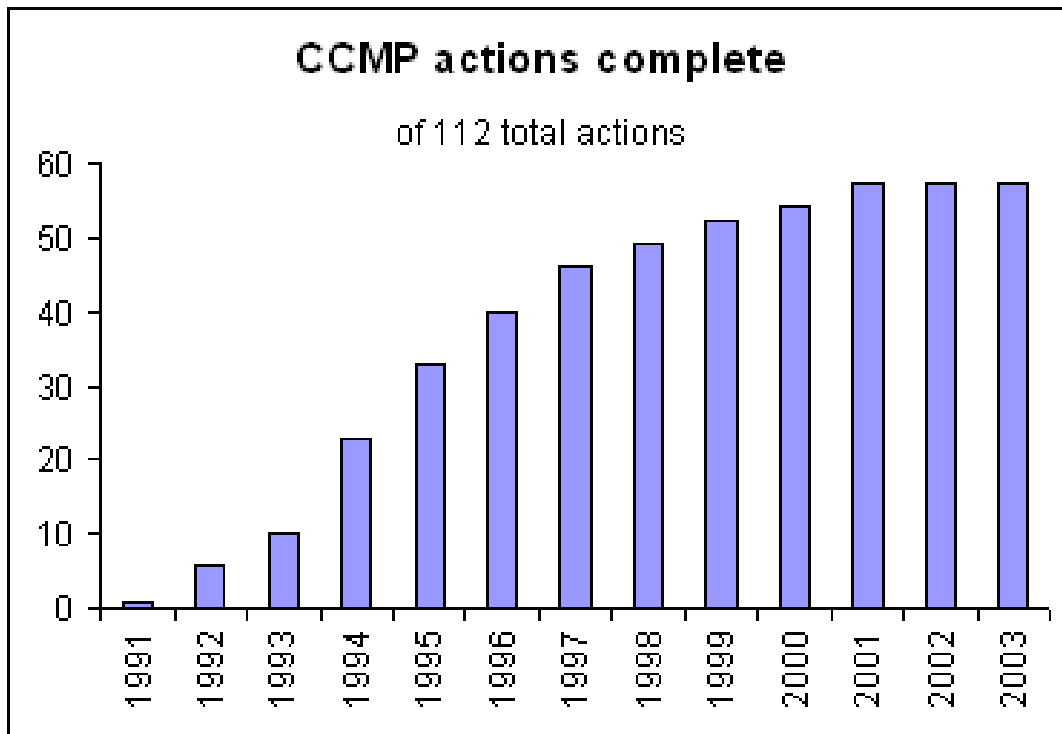


Figure 2. Cumulative CCMP recommendations completed over time.

Habitat Protection and Restoration

With respect to amount of habitat protected and restored, we have included created 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.

Reported acreage is only for this reporting year (10/1/02 - 9/30/03). Because these categories have been a major focus of the Buzzards Bay Project and other partners, progress has continued throughout Federal FY 2003.

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, 58,489 acres, or 21.1% of the land is now protected open space. These protected open space parcels are shown in Figure 3.

Results for the past five years are summarized in Figure 4 below. As shown, open space acquisition in the FY 2003 reporting period was successful, accounting for more than 506 acres, including 1.5 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.

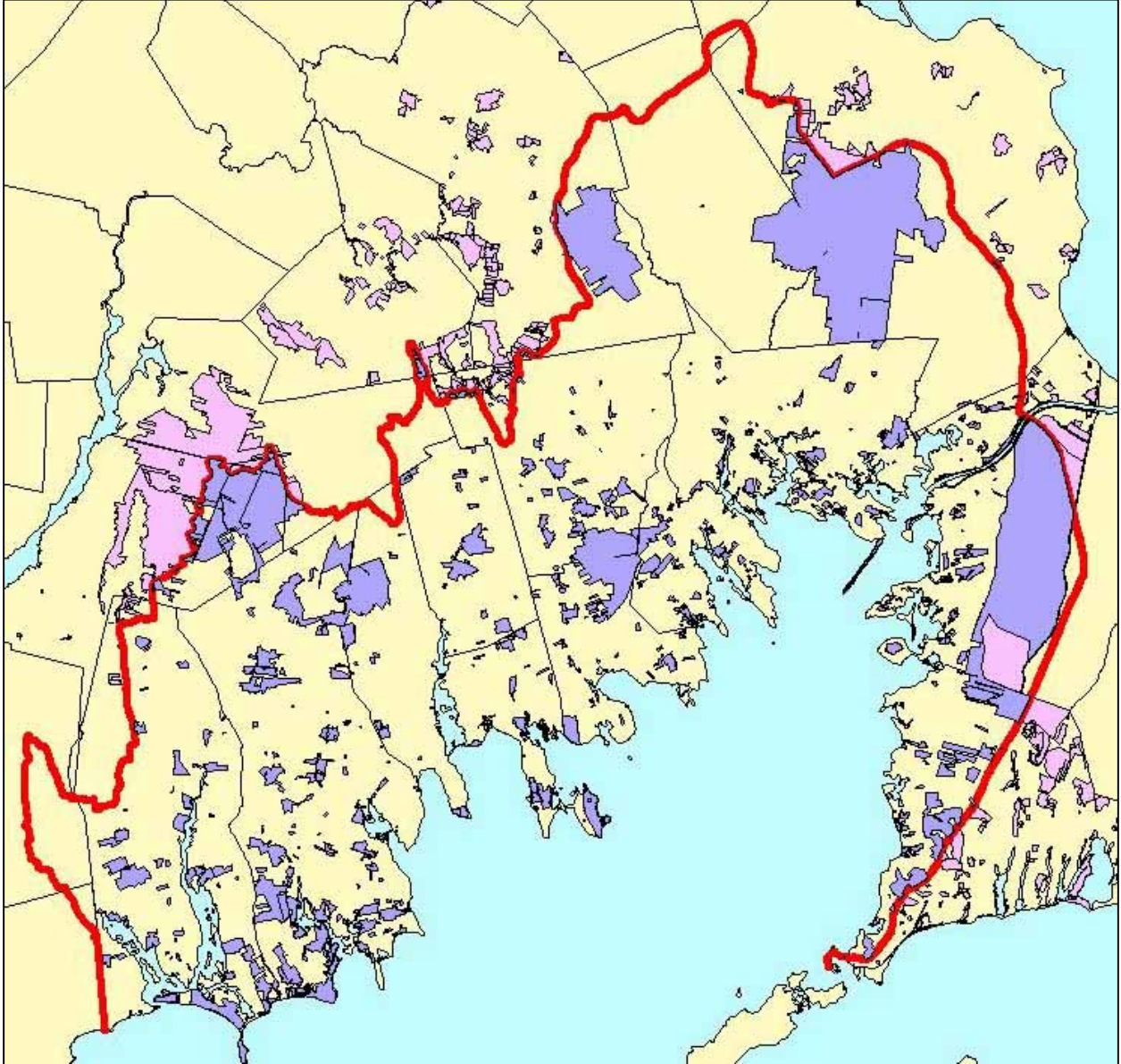


Figure 3. Protected open space in the Buzzards Bay watershed (shaded dark blue). These lands account for 21.1% of the mainland watershed.

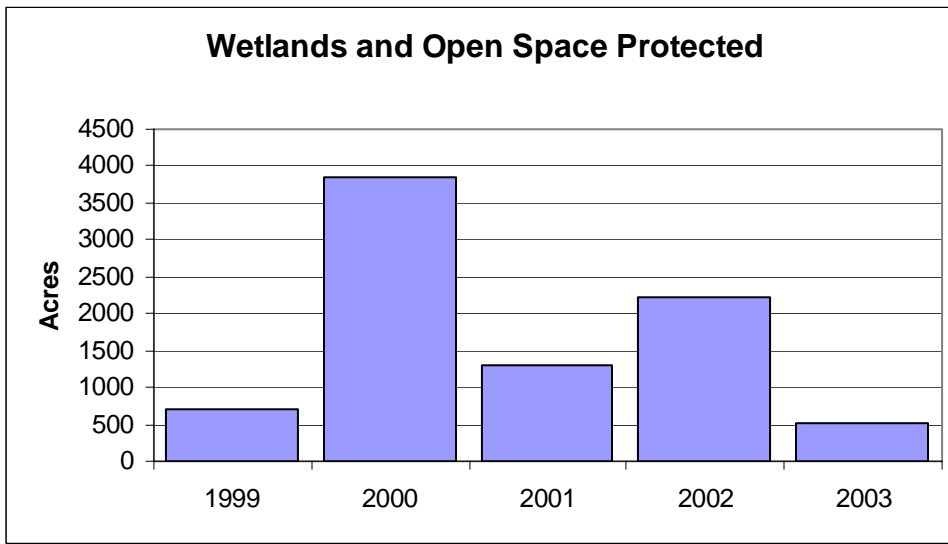


Figure 4. Protected open space and wetlands in Buzzards Bay. Does not include acres restored.

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. As shown in Table 2 and figure 5, 344 acres of shellfish growing areas were reclassified to allow shellfishing during some portion of the year during the reporting period. 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.

Buzzards Bay Shellfish Closures

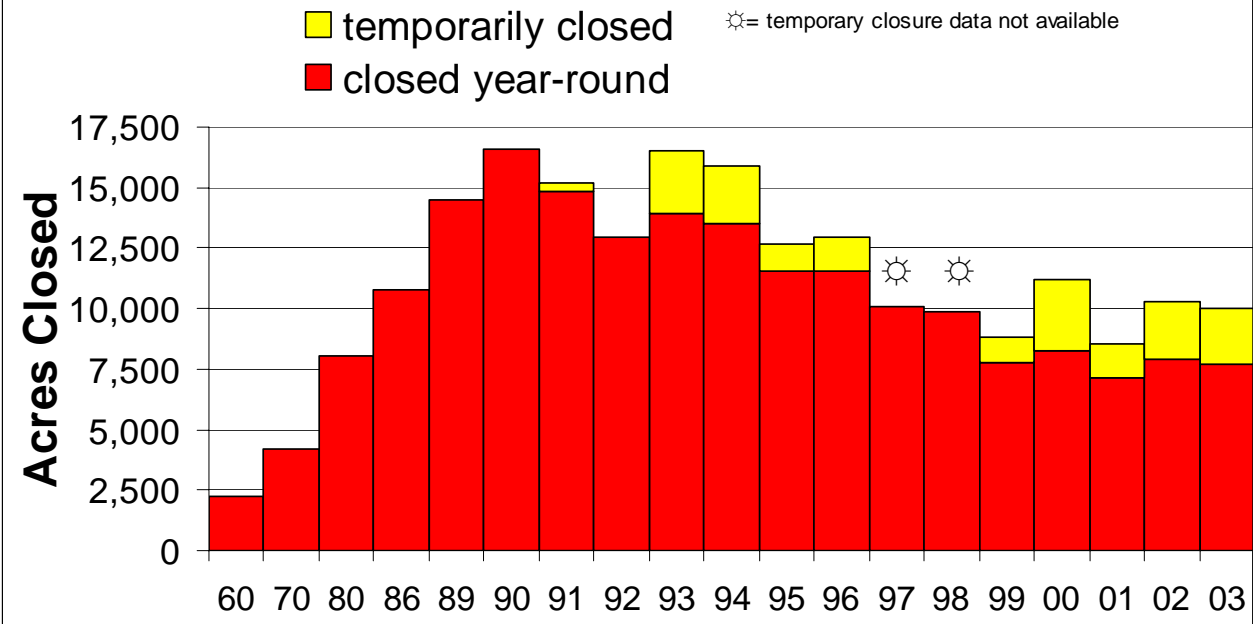


Figure 2. Shellfish beds closed in Buzzards Bay on July 1st of each year. Temporarily closed beds for 1997 and 1998 not available. Temporarily closed areas were those seasonally closed (summer closure) or after heavy rains as of July 1. The 2003 data does not include the Bouchard 120 oil spill closure 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.

Table 1. CCMP Priority Actions Initiated and Completed October 1, 2002 to September 30, 2003. 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.

Total Priority Actions in CCMP	Number and Title of CCMP Priority Actions Initiated This Year	Total Priority Actions Initiated This Year* (Since last GPRA report)	Total Percentage of all CCMP Priority Actions Initiated This Year (FY 2003)	Target of Priority Actions Initiated by 9/2003	Number of Ongoing Priority Actions This Year* (Since initial GPRA Report)	Number of Total Priority Actions Completed This Year* (Since last GPRA report)	Cumulative Number of Priority Actions Completed To Date
112	0	0	0	103	7	0	57

* This year refers to the reporting period (October 1, 2002 to September 30, 2003, i.e. federal FY 2003).

Table 2. Habitat Protection and Restoration October 1, 2002 to September 2, 2003.

CCMP Action	Project Name	Habitat Description	Habitat Category	Project Description	Activity/ Action	Partners	Acres	Linear Miles (if in stream)	Latitude	Longitude	Project Cost	NEP cost / Completion Date	Reporting Year
Wetlands & Habitat	King Farm	agricultural fields, mixed oak forest	Uplands	State purchase of Agricultural Preservation Restriction	Protection	State Department of Food & Ag, Dartmouth Natural Resources Trust, The Trustees of Reservations, Coalition for Buzzards Bay, private landowner	117				\$665,000	\$1,000 in kind - 10/1/2002 - 1/2003	2003
Wetlands & Habitat	Hoppy's Landing	beach, saltmarsh, uplands	Beaches and Dunes	Purchase for conservation of open space/recreation	Protection	Town of Fairhaven, Seaport Advisory Committee, State Water Land Conservation Fund	6.4				\$500,000	10/1/2002 - 4/2003	2003
Wetlands & Habitat	J. Gray Conservation Easement	upland, saltmarsh, beach	Beaches and Dunes	Donation of Conservation Easement	Protection	Wildlands Trust & private landowner	2.01				gift	10/1/2002 - 12/2002	2003
Wetlands & Habitat	S. Gray Conservation Easement	upland, saltmarsh, beach	Beaches and Dunes	Donation of Conservation Easement	Protection	Wildlands Trust & private landowner	1.76				gift	10/1/2002 - 12/2002	2003
Wetlands & Habitat	Krause Property	forested uplands, wetlands	Uplands	Bargin sale to land trust w/ Conserv. Easement held by DFW	Protection	Westport Land Conservation Trust, Division of Fisheries & Wildlife, Town of Westport	50.5				\$425,000	10/1/2002 - 12/2002	2003
Wetlands & Habitat	Brownell Woodlot	upland forest	Uplands	Donation to land trust	Protection	Westport Land Conservation Trust & private landowner	21				gift	10/1/2002 - 6/2003	2003
Wetlands & Habitat	Grassi Bog	cranberry bog, ponds, wetlands	Wetlands	Purchase for conservation of open space	Protection	Town of Marion, NRCS, private landowner	36				\$80,000	\$1,000 in kind - 10/1/2002 - 10/2002	2003
Wetlands & Habitat	Peterson-Teal Conservation Easement Addition	open upland	Uplands	Donation of Conservation Easement	Protection	Wildlands Trust & private landowner	4.8				gift	10/1/2002 - 12/2002	2003
Wetlands & Habitat	Beaton River Lot	upland, wetland,	Riparian	Purchase for conservation of open space	Protection	Sippican Lands Trust & private landowner	10	0.26			\$190,000	10/1/2002 - 3/2003	2003

CCMP Action	Project Name	Habitat Description	Habitat Category	Project Description	Activity/ Action	Partners	Acres	Linear Miles (if in stream)	Latitude	Longitude	Project Cost	NEP cost / Completion Date	Initiation	Reporting Year
Habitat & Wetlands	Marsh Island	riverfront saltmarsh, upland	Wetlands	Purchase for conservation of open space	Protection	NB Harbor Trustees, Coalition for Buzzards Bay, Fairhaven-Acushnet Land Preservation Trust	19.9				\$50,000	\$1,000 in kind - 12/2002	10/1/2002	2003
Wetlands & Habitat	Jarabek Parcel	forested upland, wetlands, stream	Uplands	Donation to Dartmouth Conservation Commission	Protection	Town of Dartmouth & private landowner	108	0.75			gift		10/1/2002 - 1/2003	2003
Wetlands & Habitat	Stommel Conservation Easement	upland	Uplands	Donation of Conservation Easement	Protection	Falmouth 300 Committee & private landowner	7				gift		10/1/2002 - 12/2003	2003
Wetlands & Habitat	Kandarian Conservation Easement	upland, marsh, waterfront	Estuarine	Donation of Conservation Easement	Protection	Falmouth 300 Committee & private landowner	1.21				gift		10/1/2002 - 6/2003	2003
Wetlands & Habitat	Long Plain Lot	agricultural fields, wooded waterfront	Uplands	Donation of Conservation Easement	Protection	Fairhaven-Acushnet Land Trust, NB Harbor Trustees Council, Coalition for Buzzards Bay, Town of Acushnet	19.8	0.12			gift	\$1,000 in kind - 7/2003	10/1/2002	2003
Wetlands & Habitat	Rounseville Homestead South	upland forest, wetlands, riverfront	Wetlands	Donation of Conservation Easement	Protection	Rochester Land Trust, Marion Water Dept, private landowner	99.1	0.38			\$201,200	\$1,000 in kind - 3/2003	10/1/2002	2003
Wetlands & Habitat	Hacker Street	beach, saltmarsh, some uplands	Wetlands	Purchase for conservation of open space	Protection	Town of Fairhaven, New Bedford Harbor Trustees Council	1.3				\$565,000		10/1/2002 - 1/2003	2003
Wetlands & Habitat	Highland Ave	beach, saltmarsh, some uplands	Wetlands	Purchase for conservation of open space	Protection	Town of Fairhaven, New Bedford Harbor Trustees Council	0.79				\$295,000		10/1/2002 - 1/2003	2003
Shellfish	Shellfish area BB36.14 Tempest Knob	shellfish habitat	other	improved water quality	Rehabilitation	DMF, Town	175				unknown		10/1/2002 - 12/1/2002	2003
Shellfish	Shellfish area BB30.1 Hiller	shellfish habitat	other	improved water quality	rehabilitation	DMF, Town	4				unknown		10/1/2002 - 1/1/2003	2003

CCMP Action	Project Name	Habitat Description	Habitat Category	Project Description	Activity/ Action	Partners	Acres	Linear Miles (if in stream)	Latitude	Longitude	Project Cost	NEP cost	Initiation / Completion Date	Reporting Year
	Cove Beach													
Shellfish	Shellfish area BB4.15	shellfish habitat	other	improved water quality	rehabilitation	DMF, Town	70				unknown		10/1/2002 -2/1/2003	2003
Shellfish	Lakes Island Buttermilk Bay	shellfish habitat	other	improved water quality	rehabilitation	DMF, Town	4				\$200,000		10/1/2002 -2/1/2003	2003
Shellfish	Wareham So. Shore Little Butermilk Bay	shellfish habitat	other	improved water quality	rehabilitation	DMF, Town	5.5				\$240,000		10/1/2002 -4/1/2003	2003
Shellfish	Squeteague Harbor	shellfish habitat	other	improved water quality	rehabilitation	DMF, Town	86				\$75,000		10/1/2002 - 9/30/2003	2003

Abbreviations Used and Notes:

BBP= Buzzards Bay Project

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