

Buzzards Bay National Estuary Program

Implementation Activities

Federal FY 09 Funds Work plan and Budget

Pursuant to Section 320 funding under a

Cooperative Agreement CE-98164503-01 with the US EPA

Beginning July 1, 2008 to June 30, 2011

Last modified: May 22, 2009

Introduction

Since the completion of the watershed management plan titled the *Buzzards Bay Comprehensive Conservation and Management Plan (CCMP)* in 1991, the ongoing focus of the Buzzards Bay National Estuary Program has been to facilitate implementation of the recommendations contained in this CCMP. This year, the US EPA has made available to the Buzzards Bay National Estuary Program \$600,000 in Clean Water Act Section 320 funds. For this work plan funding, the Commonwealth of Massachusetts is amending its existing Cooperative Agreement with the US EPA.

When reviewing this work plan, it is important to recognize that this US EPA Cooperative Agreement to the Commonwealth does not fund all tasks described here, or utilize the full NEP allocation of funds. Specifically, the US EPA is awarding \$575,000 directly to the Commonwealth under this grant application and work plan. For the balance of the NEP section 320 funds, the US EPA, at the request of the Buzzards Bay NEP, will directly award \$25,000 to the citizen group, The Coalition for Buzzards Bay, for specific tasks in the Buzzards Bay Citizen Water Quality Monitoring Program. The Coalition for Buzzards Bay is directly providing the match under their separate grant agreement with the US EPA.

Some initiatives, like the USDA Natural Resource Conservation Service (NRCS) cost-share of personnel detailed to the Buzzards Bay National Estuary Program for technical assistance, are not considered match or a financial contribution under the terms of this Cooperative Agreement. Any grants or assistance from the Massachusetts Executive Office of Environmental Affairs (EEA) or Massachusetts Coastal Zone Management are not considered match to this award unless expressly identified in the “Match to Cooperative Agreement” section in the final Cooperative Agreement. Inclusion of any non-match efforts by other agencies in this work plan are meant to demonstrate the collaborative or coordinating role of the Buzzards Bay National Estuary Program in achieving specific recommendations contained in the watershed plan, the Buzzards Bay CCMP.

FY08 Budget Overview

Federal FY 08 Funding	\$600,000
Base Funding (less Coalition Funding)	\$575,000
Coalition Water Quality monitoring*	25,000
Match (\$575,000 required)	\$575,750
* match to Coalition funding provided through that organization	

Section I: BBNEP Highlights and Accomplishments

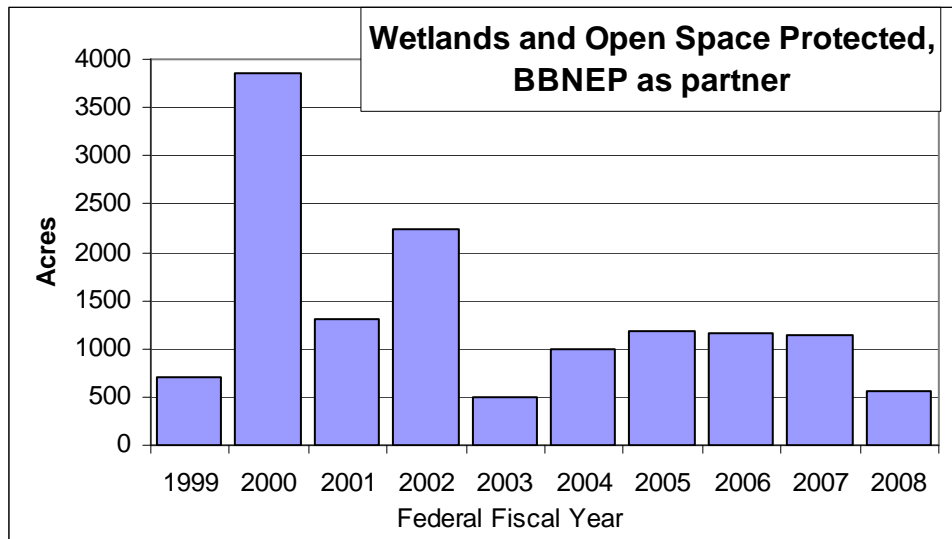
July 1, 2008 to present

The Buzzards Bay NEP's (BBNEP) primary mission is to provide technical support, and where possible, financial support to Buzzards Bay municipalities, and others, to help implement the recommendations in the Buzzards Bay Comprehensive Conservation and Management Plan. Much of the day to day work of Buzzards Bay staff revolves around specific projects, like helping a town develop stormwater treatment designs to treat a stormwater discharge contributing to shellfish bed closures, helping towns secure federal funding for environmental projects like herring ladder repair, or helping a town evaluate environmental impacts or determine compliance with local regulations of proposed development. Some of the BBNEP's bay-wide initiatives and successes through our work during the FY 2008 work plan include:

- In the fall of 2008, the Buzzards Bay NEP through the Massachusetts Coastal Zone Management office and the Executive Office of Energy and Environmental Affairs, awarded \$100,500 in grants to six Buzzards Bay watershed municipalities. More information on the grant awards is available at <http://www.buzzardsbay.org/funding>.
- In the summer and winter of 2008-09, the Buzzards Bay NEP closed out 8 grants totaling \$138,429 including \$104,000 in municipal grants awarded in March 2008
- In April 2009, the Buzzards Bay NEP awarded a contract \$15,000 for an engineering firm. The selected firm will develop engineering designs and site plans to treat stormwater discharges at the Middle School Library Complex in the Town of Westport. The primary goal of this project is to produce stormwater designs for the Town of Westport that reduce stormwater discharge volume from the Middle School and Library Complex into the Westport River, particularly those designs that incorporate rainwater storage for use in irrigating school athletic fields. The Westport River watershed Alliance contributed \$20,000 to the first phase of the Project.
- The BBNEP continued to work with state and federal agencies reviewing and evaluating the environmental impacts of the 2003 Bouchard No. 120 oil spill in Buzzards Bay as part of the state-federal Natural Resources Damage Assessment. The Buzzards Bay National Estuary Program is representing the state on evaluating oil injuries on aquatic organisms and populations in the intertidal and near subtidal zone. The damage assessment phase is expected to be complete in 2009. The BBNEP expects to be involved with guiding restoration projects that will follow the final NRDA determination.
- The Buzzards Bay National Estuary Program has continued to provide support to non-profits and municipalities in the acquisition and implementation of North America Wildlife Conservation Act (federal) grants awarded to the Coalition for Buzzards Bay and Ducks Unlimited. These grant monies were awarded as part of a grant application that the BBNEP helped prepare in partnership with the above non-profits. Work is ongoing in efforts to restore more than 90 acres of wetlands at a number of sites around Buzzards Bay, particularly at sites in Falmouth around Sippewissett Marsh, and in Mattapoisett.
- The Buzzards Bay National Estuary Program produced over 120 new or revised maps and fulfilled dozens of requests for data, calculations, or graphics to be used for newsletters, grants, etc. Numerous maps and GIS evaluations were prepared for The Coalition for Buzzards Bay, area lands trusts, and municipalities. Examples include municipal open

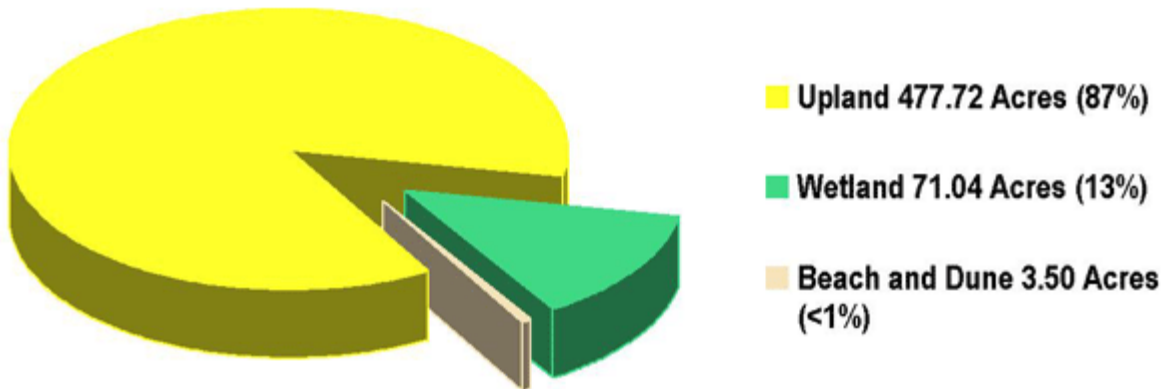
space maps, The Coalition for Buzzards Bay's "Watershed Ride" maps, an event held October 2008, maps used by municipalities in open space reports and their grant applications, maps used for area legislators in support of the rail extension to Wareham, maps used in the citizen monitoring program, and for other purposes.

- The BBNEP is continuing to work with state, federal, and local officials to update the Buzzards Bay management plan. New draft action plan recommendations are posted on our website (at <http://www.buzzardsbay.org/newccmp.htm>).



- During the fall of 2008, the BBNEP worked with the Division of Marine Fisheries to update shellfish bed closure GIS coverages to cover the July 1, 2008 status maps.
- In August 2008, the DMF opened more than 1000 acres of closed shellfish beds in outer New Bedford Harbor, some areas of which had been closed for more than 40 years. A grant to the City of New Bedford from the BBNEP that eliminated a CSO discharge, together with expansion of sewerage in Fairhaven, contributed to the opening.
- BBNEP staff will continue to work with the BBAC, EEA, and MCZM on workshops for watershed communities.
- In the spring of 2008, the BBNEP was working with the Westport Board of Health to finalize their local stormwater regulations that the program helped them develop.
- Fall of 2008 and Spring of 2009, the BBNEP helped the Wareham Board of Selectmen and Wareham Clean Water Committee develop revised draft bylaws to address nitrogen loading.
- In the fall 2008, at the request of Wareham citizens, the BBNEP continued its review of a 1300 unit mixed commercial use TDR development on the Agawam River in Plymouth to determine potential nitrogen contributions to the Wareham River estuary and encourage the state to adopt a no-net nitrogen increase policy. Also, at the same time the BBNEP worked with MCZM to develop comments on a similar 6,000 acre mixed use development project (Tihonet Mixed Used Development). In our comments to MEPA, the BBNEP stressed the need to ensure that this project too adopts a "no net nitrogen goal" with respect to potential development. Review of the projects began in 2008 and review of both projects will continue through 2009.

- Throughout the year, the BBNEP wetland specialist provided training to area conservation commissions and others. These included specialized training to a new Conservation Agent in Westport in the Fall of 2008, two MACC workshops in the fall of 2008, and a special training for state southeastern MA DCR staff held at the Waquoit Bay National Estuary Research Reserve in April 2009.
- We continue to implement major revisions and streamlining of the Buzzards Bay website, including pages on the new CCMP, with review comment submission pages, and pages to track municipal actions to implement low impact development. Currently there are a total of 520 main pages, with an additional 630 downloadable pdf files and reports, as well as numerous graphic files and maps, for a total space use of 480 MB. The website currently receives more than 1200 visitors per day, and it remains a major resource for information about Buzzards Bay.
- The regional open space plan was finalized in the spring of 2009. Because of time constraints of the Executive Director, little progress was made on the Eelgrass Atlas, although cleaned up copy of the 1980s eelgrass GIS data set was posted on line with additional photographs of historical coverage. This work will resume after the finalization of the CCMP.
- The Buzzards Bay Project's grant and technical assistance programs continue to fund or advance progress on EPA's Clean Water Act core programs. For example, the BBNEP continues to fund and provide technical support to the citizen water quality monitoring program which is being used as the basis for updates to the state's water quality assessment and integrated list of waters standards, nitrogen total maximum daily loads being developed for Buzzards Bay embayment watersheds by the Massachusetts DEP. Our work with towns to require nitrogen removal septic systems for new development, or to treat and remediate stormwater discharges to open shellfish beds and prevent beach closures (through technical assistance and grants) directly supports EPA goals to better control non-point source pollution on a watershed basis. Our ongoing and expanding watershed stormwater atlas and data set initiative not only helps towns map and evaluate their stormwater, but is helping municipalities better comply with the NPDES Phase II MS4 stormwater program, and even placing towns on the fast track to take action as compared to other communities around the Commonwealth. This work, together with our efforts with towns to evaluate sewer and nitrogen removal onsite technology that could be used to meet soon to be enacted nitrogen TMDLs, is helping municipalities better understand the need for sustainable wastewater infrastructure. Finally our efforts to help towns and applicants better comply local, state, and federal wetland laws, and our efforts to help towns restore impaired wetlands continue to meet broad Clean Water Act goals.



2008 Buzzards Bay National Estuary Program NEP Habitat Category Acreage (Total: 552)
 Detail at: http://www.epa.gov/owow/estuaries/pivot/2008buzz_charts.html

The Coalition for Buzzards Bay Highlights and Accomplishments (outputs)

July 1, 2008 to present, for actions in support of the BBNEP work plan, CCMP actions, and collaborative efforts

- After five years of battling to protect the Bay from future oil spills, the Coalition has terrific news to share: oil spill prevention measures have been restored for Buzzards Bay! On Friday, August 8, Gov. Deval Patrick signed into law "An Act Further Preventing Oils Spills in Buzzards Bay" ensuring that all single- and double-hulled oil barges have a tugboat escort and an experienced local pilot on board while transiting Buzzards Bay. The Coalition drafted the new legislation, which was filed by Sen. Mark C. Montigny of New Bedford and Rep. John F. Quinn of Dartmouth in January 2007, and successfully lobbied for its passage. No lobbying activities are funded by or provided as match to the assistance agreement.
- On July 19, 2008 the Coalition held their 15th consecutive Swim Buzzards Bay. This 1.2 mile swim from New Bedford to Fairhaven is to open to swimmers from ages 12 to 73, every age, ability, shape, size, and fitness level. More than 100 swimmers participated in the event demonstrating their care and concern for clean bay waters and a healthy environment.
- The Coalition for Buzzards Bay held the Second Annual Watershed Ride on Sunday, October 5. Last year's inaugural Ride, which drew 41 adventurous cyclists, raised more than \$23,000 to support the programs of the Coalition. The 75-mile route will begin at Horseneck Beach in Westport, taking cyclists through farmland, coastal villages, New Bedford's waterfront, cranberry bogs and along the back roads of Cape Cod, ending in Woods Hole. Perfectly timed to take advantage of the spectacular autumn foliage, the cools days of early fall, and the quiet off-season roads, the Ride is one of the best outdoor events of the season.
- A first-time collaborative effort between The Coalition for Buzzards Bay and [The 300 Committee](#) recently resulted in the permanent protection of roughly 30 acres along a barrier beach fronting Buzzards Bay in North Falmouth. Called Flume Pond, the property is

owned by The 300 Committee and takes its name from the 11-acre tidal salt pond that sits on its western boundary. Perpetual protection of the property was a priority for coastal water quality protection, as the property's coastal upland forest and wetlands act as a natural buffer, or filter, to Buzzards Bay. The property also provides significant wildlife habitat for migratory birds.

- On December 31, 2008, the latest success to come out of the on-going partnership between the Coalition for Buzzards Bay and the [Rochester Land Trust](#) is the protection of nearly eight acres along Hartley Road. While the property is still owned by the Lawrence family, the two organizations now co-hold a conservation restriction on the parcel, which limits further development and permanently protects forested uplands, wetlands, frontage on Snow's Pond, a small one-acre island, and an abandoned cranberry bog. The property is additionally important as it lies within the Massachusetts Department of Environmental Protection's Zone II, which is indicative of being important to drinking water supply aquifers and is designated as Critical Supporting Watershed land, which has the greatest potential for sustaining freshwater biodiversity by Mass Wildlife's Natural Heritage and Endangered Species Program. The property serves as a natural buffer to maintain the water quality of Snow's Pond, the Mattapoissett River, and by extension, Buzzards Bay.
- Sponsored by eight local environmental organizations, the "Shrink Your Footprint Series" continued at New Bedford's Buttonwood Park Zoo. The most recent event was held on Saturday, February 21st from 10 a.m. to noon. "Buy Green." "Buy Green" demonstrated simple ways for people to live a more eco-friendly lifestyle, thereby reducing their negative impact on the environment. The Shrink Your Footprint Series is designed to help people reduce their negative environmental impact, energy use, water use and expenses through lectures and workshops. All events, which are held at Buttonwood Park Zoo's Education Center, are free thanks to funding from a \$5,000 grant from the Community Foundation of Southeastern Massachusetts and the Southeastern Environmental Education Alliance (SEEAL). The sponsoring agencies are: Buttonwood Park Zoo, Dartmouth Natural Resources Trust, Lloyd Center for the Environment, Mass Audubon's Allens Pond Wildlife Sanctuary, The Coalition for Buzzards Bay, The Marion Institute, Trustees of Reservations and Westport River Watershed Alliance.
- In December 2008 "How Healthy is Your Part of the Bay: New Water Quality Data Graphs" were uploaded on Coalition Web Site. The Baywatchers Water Quality Monitoring Web site is now updated with the most recent water quality data. View 1992-2007 water quality data graphs for the Bay Health Index, Dissolved Oxygen Levels, Total Nitrogen and Chlorophyll Pigments from more than 30 Bay harbors and coves - from the Westport Rivers to Woods Hole and the Elizabeth Islands. All data is derived from the Coalition's [Baywatchers Program](#), Massachusetts' largest volunteer-based monitoring effort and the primary source of long-term data used to assess the health of Buzzards Bay waters
- **Baywatchers Data Published in 2008 SouthCoast Signals Report.** Baywatchers data was recently published in the [2008 SouthCoast Signals Report](#) produced by the University of Massachusetts Dartmouth Center for Policy Analysis. The Center for Policy Analysis aims to enhance the economic and social well-being of citizens by providing research, information, and technical assistance to government, business, non-profit, and educational agencies. SouthCoast Signals measures 54 social, economic, educational, and environmental indicators in the SouthCoast region of Massachusetts. The indicators are

tracked to determine where the region is and where it is going. Baywatchers data results serve as one of three environmental indicators reflecting the status of water quality in the region.

- **Restoring Herring in the Sippican River.** Much needed restoration efforts on the Sippican River will soon be underway thanks to \$49,000 awarded to the Coalition through the American Rivers - National Oceanic and Atmospheric Administration (NOAA) River Grants Program. The funds will help kick-start the Sippican River Revitalization Initiative - a project comprised of multiple partners working together to determine the best environmental and ecological options to restore the natural flow and improve habitat for a number of important fish species in the river, including severely depleted river herring populations. The project was the only one selected for funding in the Northeast Region and was one of only seven funded nationally.
- **New Brochure Helps Homeowners Combat Nitrogen Pollution.** Homeowners throughout the Buzzards Bay watershed now have a new informative resource at their fingertips to help them understand how Title 5 septic systems are the main culprit of nitrogen pollution in the Bay and what they can do to help eliminate the problem. Produced by the Coalition as part of the [Turn the Tide](#) project, the new brochure explains the problem with nitrogen, how a Title 5 septic system works and why it is ineffective in removing nitrogen. There's also a section that offers step-by-step guidance to communities on how to begin addressing nitrogen pollution in their area, as well as information about the types of wastewater treatment systems available today that work more effectively than Title 5 systems. The problem of septic systems and nitrogen pollution exists in all Buzzards Bay towns and the information presented in this [new brochure](#) applies baywide.

Municipal Grant Program Detail: Fall 2008 Awards

In the fall of 2008, as part of our federal grant, the Buzzards Bay NEP requested proposals from Buzzards Bay municipalities for projects to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed. A total of \$100,500 was allocated from FY08 funding for municipal grants (see section II budget detail). Through the Massachusetts Coastal Zone Management office and the Executive Office of Energy and Environmental Affairs, the BBNEP announced the award of \$100,500 in grants to six Buzzards Bay watershed municipalities. The purpose of the RFR was stated as follows:

"The Executive Office of Energy and Environmental Affairs (EEA), through the Buzzards Bay National Estuary Program in the Massachusetts Office of Coastal Zone Management (CZM), announces that funding is available to assist eligible Buzzards Bay watershed municipalities in the protection of open space, rare and endangered species habitat, and freshwater and saltwater wetlands; to help restore tidally restricted salt marshes, to develop designs and remediate stormwater discharges threatening water quality, to provide support for mapping stormwater drainage networks, to construct pump-out facilities, to update town parcel data, to digitize wetland boundaries approved in permits, to assist in the monitoring of water quality to prioritize stormwater remediation, to address problems in migratory fish passage, and to implement other recommendations contained in the watershed management plan for Buzzards Bay."

The awards were as follows:

City of New Bedford – \$15,000 for planning on how to treat stormwater discharges near public piers and wharves in the city’s port. The city seeks to reduce stormwater pollutants in its harbor as part of its “green port” initiative. City officials will use the funds to evaluate seven candidate treatment sites, and develop stormwater treatment designs for the top candidates.

Town of Wareham – \$35,000 to redesign and repair a fish ladder on Gibbs Brook, the second largest herring run in Wareham. The project will open up 1,500 feet of the brook and improve passage of herring and other anadromous fish from Muddy Cove in Onset to Dicks Pond, improving access to 40 acres of spawning habitat. Town officials plan to hire an engineer to finalize design and a contractor to reconstruct the ladder.

Town of Fairhaven – \$25,000 for survey work and legal fees to support the acquisition of a 52 acre property called Nasketucket Woods in the Nasketucket River watershed. The property, predominantly forested wetlands, is within a Wellhead Protection Area and a drinking water protection district. The property includes an aquifer and endangered species priority habitat, and provides public walking, hiking and birding trails.

Town of Fairhaven – \$10,000 to fund a program to evaluate stormwater discharges to Little Bay, Nasketucket Bay and connecting streams, which are all designated as impaired and closed to shellfishing. Fairhaven has hundreds of discharge pipes and culverts that discharge to wetlands and surface waters. The program aims to identify the most problematic discharge areas by evaluating stormwater runoff from residential and agricultural areas and collecting and analyzing water samples.

Town of Acushnet – \$8,000 for survey work, appraisal fees, and closing costs for the acquisition of a 10-acre property on Keene Road along the Keene River. The property overlies a potential drinking water supply aquifer and a core habitat and natural landscape for rare species. The site also provides public riverside canoe and kayak launches and could support a public trail system.

Town of Rochester – \$7,500 to conduct a feasibility study for improving the passage of anadromous fish at the Hathaway Pond Dam. The town is considering a range of options including dam removal and restoration of an inoperable fish ladder. Town officials plan to hire an environmental firm to collect and test river sediments near the dam and conduct a legal and environmental review of permitting issues and access rights. The purpose of the project is to support a multi-year effort to restore the Sippican River for anadromous fish and other aquatic species.

Completed and Ongoing Municipal Grants on this Cooperative Agreement

Town	Description	Award	Status	End Date
Wareham	Redesign and repair a fish ladder on Gibbs Brook, the second largest herring run in Wareham.	\$35,000.00	In Progress	ends 12/31/09
Rochester	Feasibility study for improving the passage of anadromous fish at the Hathaway Pond Dam.	\$7,500.00	In Progress	ends 6/30/09
Fairhaven	Evaluate stormwater discharges to Little Bay, Nasketucket Bay and connecting streams, which are all designated as impaired and closed to shellfishing.	\$10,000.00	In Progress	ends 12/31/09
New Bedford	Design treatment for stormwater discharges near public piers and wharves in the city's port.	\$15,000.00	In Progress	
Fairhaven	Survey work and legal fees to support the acquisition of a 52 acre property called Nasketucket Woods in the Nasketucket River watershed.	\$25,000.00	In Progress	ends 6/30/09
Acushnet	Survey work, appraisal fees, and closing costs for the acquisition of a 10-acre property on Keene Road along the Keene River.	\$8,000.00	In Progress	ends 6/30/09
TOTAL		\$100,500.00		

Completed and Ongoing Municipal Grants on Cooperative Agreement CE-98164502

Town	Description	Award	Status	End Date
Bourne	Detailed water quality sampling of 20 high priority stormwater discharges in Bourne, Wareham and Marion	\$16,600.00	Project successfully completed	6/30/2008
Marion	Design and permitting related to removal of fill and creation of wetlands in Washburn Park	\$22,000.00	Project successfully completed	6/30/2008
Marion	Develop stormwater treatment designs for Old Landing	\$15,000.00	Project successfully completed	6/30/2008
Rochester	Land acquisition costs related to the purchase of 20.8 acre Church property	\$25,000.00	Project successfully completed	6/30/2008
Westport	Develop stormwater designs for Middle School stormwater treatment	\$15,000.00	Project in progress	6/30/2009
New Bedford	Map non-CSO related stormwater discharges	\$20,000.00	Project successfully completed	6/30/2008
Mattapoisett	Water Quality Analysis and Nitrogen Modeling	\$14,429.00	Project successfully completed	12/30/2008
New Bedford	Intern partnership with UMass Engineering continue GIS data acquisition for stormwater discharges and catch basins including flow direction	\$20,000.00	Project successfully completed	12/31/2008
Fairhaven	Develop vertical rim elevations for stormwater infrastructure and digitize and update stormwater related data.	\$18,000.00	Project successfully completed	12/31/2008

2008 Leveraged Funding

Each September, the Buzzards Bay National Estuary Program submits to EPA, as part of our Government Performance Reporting Act requirements, a summary of state, federal and local dollars and in-kind services leveraged by the Buzzards Bay NEP, or leveraged by our partners with technical support by the Buzzards Bay NEP, in support of the implementation of the Buzzards Bay CCMP. Some funds are leveraged through the municipal grant program, other funds are leveraged through other grant programs with our partners. For the period October 1, 2007 to September 30, 2008, the Buzzards Bay NEP's leveraged funds in the significant or primary category totaled \$2.5 million and \$6.4 million total.

NEP Role (primary, significant, or support)	Total
Primary	\$2,510,378
Significant	\$36,232
Support	\$3,823,812
Grand Total	\$6,370,422

We will report our final 2008-2009 estimates to EPA in the fall 2009.

Travel to National Meetings during past Fiscal Year.

EPA requires travel of NEP staff to attend EPA and non-EPA national meetings for the purposes of tech transfer and staff development. The BBNEP allocated \$8,344 for all travel in our work plan. It is important to recognize that this category both in-state travel of staff to meetings and site visits, and out-of-state-travel costs. Due to state budget restraints and policies BBNEP out-of-state travel was curtailed, however the BBNEP director did attend both the November 2008 NEP meeting in New York, and February 2009 in Washington, DC. This national meeting travel totaled \$2627.61. In state travel totaled \$6,311.65.

Executive Director	Washington DC NEP Meeting	Feb-09	\$1,548.61
Executive Director	NY City ANEP Meeting	Nov-08	\$1,079.01
	National Meeting sub-Total		\$2,627.62
Staff In-state Travel			\$6,311.65
	Total Travel		\$8,939.27

Section 2: FY2009 Funds Work plan Narrative Summary

Federal FY 2009 Tasks (July 1, 2009 to June 30, 2010)

We have organized the work plan narrative summary using our past work plan structures for the most part. We have organized work plan goals and activities using EPA's recommended logic model to the extent possible. In this effort, we have conformed to EPA's terminology defined as follows:

- Activities: NEP work plan projects;
- Partnerships: involvement of local community partner agencies, organizations and/or individuals;

- Outputs: products and services resulting from the work plan (i.e., deliverables);
- Short-term outcomes: changes in knowledge, learning, attitude, and skills; raising awareness amongst targeted NEP partners and stakeholder groups;
- Intermediate outcomes: changes in behavior, practice, decisions and involvement among targeted NEP partners and stakeholder groups;
- Pressures: changes, positive and/or negative, related to specific quantitative targets (e.g., percent of nitrogen reduction); and
- Long-term outcomes: changes in condition of the state, when possible.

Project / Task 1 - Wetland Restoration and Open Space Protection and Restoration

CCMP/Work Plan Goal(s):

Wetlands and habitat protection and restoration in the wetland action plans and the land use management action plans principally. (Sub-element: Habitat, Water Quality, Living Resources, Healthy Communities. Program goal: Ecosystem Restoration & Protection)

Project/Activity Purpose and Description: (ongoing)

As we have done in the past, the Buzzards Bay NEP will continue to work and collaborate with The Coalition for Buzzards Bay and their Lands Center, as well as with area lands trusts, in our ongoing effort to protect and restore valuable wetlands, and upland wildlife habitat throughout the Buzzards Bay watershed. Through this effort, the Buzzards Bay NEP will continue to provide maps, help develop federal grant applications, conduct land use analyses, and through the municipal grant program, provide funds for land protection purposes. During the past 4 years, an average of 1200 acres were protected or restored annually in the Buzzards Bay watershed as reported to EPA on our annual GPRA reports. This success is due to the leadership of the Coalition on this issue, and behind the scenes support and action by the Buzzards Bay NEP. For example, in the past few years, millions of dollars of federal funds were received from the North American Wetland Conservation Act (NAWCA) to fund worthy wildlife enhancing projects and acquisitions around Buzzards Bay as a direct result of Coalition applications and Buzzards Bay NEP support. This collaboration between the BBNEP and The Coalition is a model for successful public-private partnerships, and will remain a major focus in the Buzzards Bay NEP work plan. Although oil spill funds directed through NAWCA have already been expended, we will continue to work with the Coalition for Buzzards Bay and area lands trusts to prepare additional NAWCA grants. The past NAWCA funded projects are now underway, and are in various stages of design and permitting. The BBNEP was working with The Trustees of Reservations (TTOR) on the development of a new NAWCA grant. Work related to this new project is expected to continue into this work plan.

Responsible Partners and Their Role(s):

The Coalition for Buzzards Bay and area Lands Trusts are key partners in our combined efforts. These non-profits are vitally important in the development of grant applications, and in building local financial and political support for new initiatives. These non-profits also work with private landowners to become partners in these protection efforts. For the wetland restoration projects funded through the NAWCA program, Ducks Unlimited and the Coalition for Buzzards Bay are our key partners, but we also work with the towns, area lands trusts, landowners, and MCZM Wetlands Restoration Program as needed and required.

NEP Staff:

Principal Staff involved in these tasks: Regional Planner will complete the Regional Open Space Plan, with support from Buzzards Bay National Estuary Program staff, guidance from the Executive Director, as well as with input from the Coalition Executive Director and the Coalition Lands Center, and area lands trusts. The Executive Director, Regional Planner, and Administrative Assistant complete the GPRA report.

Outputs/Products:

1. Municipal and state grant applications to federal grant programs.
2. Additional applications will be submitted to the BBNEP municipal grant program in support of these efforts.
3. The BBNEP may provide support to towns to complete outdated local open space plans (which expire every five years).
4. The permanent protection of new open space with wetlands and other important habitat in the Buzzards Bay watershed through conservation restriction or purchase in fee.
5. Annual GPRA reports on wetland and habitat protected or restored.
6. Assistance in the completion of past projects including facilitation of permitting including past NAWCA funded projects in Sippewissett Marsh in Falmouth, and Crooked River in Wareham, and move forward with a new Project on Wigwam Road in Falmouth in partnership with Ducks Unlimited.

Milestones:

1. Report to EPA each September via GPRA report. Other projects and activities as financial or local interest opportunities arise. Projects undertaken through BBNEP municipal grant program must comply with schedules established by the grant awards. NAWCA grant schedule and Self Help grant eligibility varies with communities. Maps prepared for area Lands Trusts as need and upon request.

Budget:

Staff costs, and those funds in the municipal grant program that are competitively awarded under this category. Roughly \$2,000 in office supplies and paper are projected to be expended on the production of maps, brochures, and outreach information.

Outcomes

Short-term: Increased number of habitat acres protected and restored, including geographic information systems location data.

Intermediate: Increased number of wetland and habitat related actions in the Buzzards Bay Comprehensive Conservation and Management Plan that have been completed. Increased leveraging of resources committed to Buzzards Bay NEP activities or towards implementation of CCMP goals and recommended actions. Increased number of acres of protected open land through purchase or easement

Long-term: CCMP Goal: Long-term increase of high-quality wetlands and coastal habitat in the Buzzards Bay watershed.

Supports CWA core program: CWA and state wetland protection efforts.

Project / Task 2 - Buzzards Bay stormwater mapping, atlas and database update

CCMP/Work Plan Goal(s):

Principally Stormwater Management, Shellfish bed restoration, nitrogen management, and toxics reduction.

Project/Activity Purpose and Description: (ongoing)

The BBNEP will continue its work to assist municipalities to map stormwater drainage networks in their communities. Recently completed work by the City of New Bedford will be incorporated in the database. Maps and data will be prepared for Phase II MS4 permit plans for municipalities upon request. New grants to New Bedford and Fairhaven in our recent grant round will expand staff demands to oversee and facilitate these projects

Responsible Partners and Their Role(s):

Buzzards Bay municipalities, especially recent grant recipients including the City of New Bedford, and Fairhaven.

NEP Staff:

Principal Staff involved in these tasks: Regional Planner, Stormwater Specialist and Executive Director.

Outputs/Products:

1. Updated GIS database, made available on BBNEP website.
2. Updated Atlas maps to be posted on BBNEP website.
3. Maps prepared for municipalities and others upon request.
4. Routine maintenance and training for field laptops (awarded in a BBNEP grant in 2006), upon request.

Milestones:

1. New stormwater atlas maps added to website Initiated July 1, 2008 Completed February 28, 2009.
2. Draft Final GIS shapefiles added to website July 30, 2008, December 30, 2008, and Final 2009 version issued July 30, 2009.
3. Other tasks completed upon request or as needed.

Budget:

Staff costs, and those funds in the municipal grant program that are competitively awarded under this category. Roughly \$500 in office supplies and paper is expected to be spent on the production of maps for this task. Joint projects with towns under our municipal grant program requires a minimum match of 33% of total project costs, however actual match provided during the past 3 rounds the match has averaged 2.5 times the grant awards, and a conservative 2:1 match is presumed for the purposes of our match estimations.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related

to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Increased number of shellfish resource areas protected and restored. Decreased acres of shellfish beds that are closed and increased acres of temporarily closed shellfish beds over time (reduced closures indicates a positive environmental outcome). Increased number of actions in the Buzzards Bay Comprehensive Conservation and Management Plan that have been completed.

Long-term: CCMP goals: Stormwater 1. Prevent new or increased untreated stormwater flows to Buzzards Bay that would adversely affect shellfish harvesting areas, swimming beaches, water quality, and wetlands. Stormwater 2. Correct existing stormwater runoff problems that are causing or contributing to water quality degradation or shellfish-bed closures in Buzzard Bay. Shellfish restoration: Increase availability of shellfish resources for recreational and commercial uses.

Pressures affecting outcomes: The update of the database will depend on the completion of the work in New Bedford and Carver by the fall of 2008. Whatever draft state those databases are in may require a future update to the database and individual maps as needed. Other tasks relating to local map preparation and data analysis and QA will depend on technical assistance demands and requests by watershed municipalities.

Supports CWA core program: 3) developing total maximum daily loads (for bacteria), 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, and 6) supporting sustainable wastewater infrastructure.

Project / Task 3 - Characterize and map natural resources and habitat

CCMP/Work Plan Goal(s): Technical Assistance and Capacity Building

Project/Activity Purpose and Description: (ongoing)

Map smaller herring runs and impairments

Continue mapping and evaluating historical aerial photographs for eelgrass bed coverage.

Responsible Partners and Their Role(s):

The BBNEP will work with DMF to finalize the herring atlas and integrate information collected by the Coalition for Buzzards Bay stream watch and herring watch programs. The Buzzards Bay NEP will work with DEP to combine state data sets including 1952 eelgrass bed coverage.

NEP Staff:

Executive Director and Administrative Assistant

Outputs/Products:

1. Draft herring atlas submitted to DMF for review and comment.
2. Final atlas, photos, and interactive maps posted on website.
3. Draft Eelgrass Atlas.
4. Other maps of natural resources for communities and lands trusts of sensitive resource areas

Milestones:

1. Eelgrass atlas finalized July 30, 2009.

Budget:

The only costs are staff time. An estimated \$2,000 is estimated to be required for aerial photograph acquisition.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan. Help achieve CCMP goal: Long-term increase of high-quality wetlands and coastal habitat in Buzzards Bay.

Pressures affecting outcomes: Unanticipated demands on staff time.

Supports CWA core program: CWA and state wetland protection efforts

Pressures affecting outcomes: Short-term: Time availability by BBNEP Director.

Project / Task 4 - Stormwater Remediation and Technical Assistance

CCMP/Work Plan Goal(s): Ecosystem Restoration and Protection.

Principally stormwater management, shellfish management, and wetlands and habitat action plans, secondarily Land Use, On-Site Septic System management plans

Project/Activity Purpose and Description: (ongoing)

There are several ways the Buzzards Bay National Estuary Program provides assistance to towns on stormwater issues. First, we review stormwater designs proposed by towns for remediation projects, or at the request of a town board as part of local permitting or site plan review. Second, we help towns prepare grant applications for federal monies to help fund remediation of priority sites. Third, we assist towns to develop and implement stormwater management plans, like the Phase II MS4 NPDES municipal plans. Finally, we work with town boards to adopt local stormwater regulations and LID strategies.

Responsible Partners and Their Role(s):

Our principal partners on these projects are the watershed municipalities. Other partners may arise in the course of project revisions, collaborations related to MEPA permit submissions, or projects commencing that are of regional significance.

NEP Staff:

Stormwater Specialist will conduct the stormwater design reviews, the Wetlands Specialist will assist in the implementation of stormwater regulations, and the Stormwater Specialist and Execu-

tive Director will develop federal grant applications and attend meetings as needed or opportunities arise.

Outputs/Products:

1. Products include stormwater plan updates, review and analysis of stormwater calculations.
2. Proposals to fund stormwater designs developed by municipalities, minimize impacts of new development, towns adopt improved stormwater regulations and policies.

Milestones:

Most products and activities in this technical assistance program arise and are completed as needed on an ad hoc basis, and as permit applications are submitted, or as towns express interest and have match available to apply for federal and state grants. Some activities are defined by stormwater grants in the Buzzards Bay municipal grant program. Other specific milestones from projects already initiated.

Budget:

The only costs are BBNEP staff time, including the \$40,000 annual cost of stormwater services from the Natural Resource Conservation Service. Joint projects with towns under our municipal grant program require a minimum match.

Outcomes

Short-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Intermediate: Increased leveraging of resources committed to Buzzards Bay NEP activities or towards implementation of CCMP goals and recommended actions.

Long-term: Actions taken to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: Interest and local match availability. The BBNEP can handle requests for technical assistance depending upon workload and ongoing projects.

Supports CWA core program: 2) improving water quality monitoring, 3) developing total maximum daily loads (for bacteria), 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, and 6) supporting sustainable wastewater infrastructure.

Project / Task 5 - BBNEP Technical Assistance and Municipal Grant Program

CCMP/Work Plan Goal(s):

Technical Assistance and Capacity Building

BBNEP Technical assistance and municipal grant program

May address Stormwater, Nitrogen, Shellfish, Wetlands and Habitat, Land Use, On-Site Septic Systems, and other action plans.

Project/Activity Purpose and Description: (ongoing)

The BBNEP will continue to promote restoration and protection projects through the management and facilitation of grants awarded through the municipal minigrant program, and to promote the use of these limited funds to leverage other funding. Administration of the grants will be by the Executive Director, Regional Planner, Administrative Assistant, and a technical lead by the staff member most closely specializing in the area of the grant. Thus, all staff members will be involved to some degree in the minigrant program. The funds will be directed to tasks necessary to implement priority action plans in the Buzzards Bay CCMP, and will be identified after consultation with the Buzzards Bay Action Committee and other partners. BBNEP staff guide projects and often complete tasks and assist with permitting to facilitate completion of projects.

In an effort to ensure that federal funds are expended in a timely way to meet new federal policies, funds in the new cooperative agreement will be announced in an RFR that will close on July 1, with all projects completed by June 30 of the following year. In 2009, the RFR will be issued in May 2009 for an anticipated contract award date of July 15, 2009.

Responsible Partners and Their Role(s):

Buzzards Bay municipalities are of course the key partner in this effort, and are the only entities eligible to receive direct funding. However, for stormwater design grants, the BBNEP directly contracts with engineering firms for stormwater designs to expedite this task and to ensure better consistency with state stormwater policies. The Buzzards Bay Action Committee is a key partner in ensuring continued interest and participation in the program. Moreover the BBAC helps the BBNEP target grant funding areas in the program. The Coalition for Buzzards Bay sometimes partners with Buzzards Bay municipalities in developing state and federal grant applications.

NEP Staff:

Principal Staff involved in these tasks: Executive Director, Stormwater Specialist, Regional Planner, and Administrative Assistant, CZM and other staff as needed.

Outputs/Products:

Scopes developed, contracts awarded, press releases prepared, website updated with projects, projects overseen, projects completed, match documents received, and contracts closed.

Milestones:

1. RFR issued May 15, 2009 for next RFR round.
2. Grant applications received June 29, 2009.
3. Grants Awarded July 15, 2009.
4. Contracts closed June 30, 2010.

Budget:

Besides the cost of staff to oversee and assist in the completion of projects, a minimum of \$107,000 in section 320 funds are dedicated to this effort. In the previous years (except last), the BBNEP received \$50,000 from DEP. Due to the state budget crisis, it is unlikely these funds will be received.

Outcomes

Short-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Intermediate: Increased leveraging of resources committed to Buzzards Bay NEP activities or towards implementation of CCMP goals and recommended actions.

Long-term: Actions taken to protect and restore protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: There are two principal issues that can delay this effort. First, the state may delay the award or release of funds for various reasons. Second, municipalities may have problems meeting grant schedules for various reasons and request extensions in their grant agreements.

This task may support any of these CWA core program: 1) strengthening water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Project / Task 6 - Program Oversight and Administration

CCMP/Work Plan Goal(s):

Supports all program activities.

Project/Activity Purpose and Description: (ongoing)

The Buzzards Bay National Estuary Program Executive Director and Administrative Assistant and MCZM financial manager ensure administration of the EPA and other grants and ISAs awarded to the Buzzards Bay NEP.

The Buzzards Bay National Estuary Program will submit complete Government Performance Results Act (GPRA) report information to EPA as specified in the EPA Funding Guidance. The GPRA report for NEPs includes annual estimates of habitat and wetlands protected or restored, and annual estimates of funds leveraged in some way by the NEP. As a requirement of this agreement, the BBNEP will provide information on the GPRA performance measures to EPA by their required date.

Responsible Partners and Their Role(s):

The BBNEP parent agencies of MCZM and EEA are responsible for the fiduciary and financial reporting requirements of the BBNEP.

NEP Staff:

Principal Staff involved in these tasks: BBNEP Executive Director and Administrative Assistant, with additional support from the MCZM financial management assistant.

Outputs/Products:

1. Financial reports to EPA.
2. Preparation of work plans, cooperative agreements, grant amendments.
3. Steering Committee meetings needed to review the work plan.

Milestones:

1. Account draw downs and reports as needed and required.
2. GPRA and leveraging reports due to EPA annually by 1 September.
3. Draft 2009 work plan sent to Steering Committee in April 2009.
4. Approved Cooperative Agreement sent to EPA in April 2009.
5. EPA finalize award by 30 June 2009.

Budget:

The only costs are BBNEP staff time.

Outcomes

Short-term: Increased leveraging of resources committed to Buzzards Bay NEP activities or towards implementation of CCMP goals and recommended actions.

Intermediate: Increase and improve upon the information that the Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public has for making management actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: Various administrative delays are possible at levels in the hierarchy.

This task does not directly support any CWA core programs.

Project / Task 7 - Buzzards Bay Citizen's Water Quality Monitoring

CCMP/Work Plan Goal(s):

Principally Nitrogen Management, but also some assistance toward goals in Stormwater, Shellfish, Wetlands and Habitat, Land Use, On-Site Septic Systems, Sewage Treatment Facilities action plans.

Project/Activity Purpose and Description: (ongoing)

With its support from the BBNEP, Commonwealth of Massachusetts, citizens, dues, and other sources, the Coalition for Buzzards Bay will continue its nationally recognized water-quality monitoring program, which costs roughly \$200,000 annually. The Buzzards Bay National Estuary Program provides technical support and funding to the program (\$25,000 this year). The Buzzards Bay National Estuary Program and The Coalition use data collected by the Coalition program to advocate for nitrogen management in Buzzards Bay watershed communities, the data is used by DEP's Massachusetts Estuaries Project in the development of TMDLs. The Common-

wealth of Massachusetts has provided \$150,000 annually in previous years toward this program which was used as match to our program (except last year).

Responsible Partners and Their Role(s):

The Coalition for Buzzards Bay is the lead for the program, and is responsible for meeting state and federal QAPP requirements. The BBNEP Regional Planner provides GIS products in support of the program. The BBNEP Executive Director coordinates with Coalition Executive Director on needed program support, and provides technical assistance and guidance on biannual water quality and related state of the bay products. MCZM administers the state funding to the program.

NEP Staff:

Principal Staff involved will be the BBNEP Executive Director, Administrative Assistant, and other NEP staff as required.

Outputs/Products:

1. Annual data disks provided to the BBNEP and MCZM.
2. Updates posted to Coalition and BBNEP website.
3. Electronic Rainfall Database maintained for evaluating impacts to water quality.

Milestones:

1. Coalition submits data for Summer 2008 monitoring by May 2009.
2. Coalition releases state of the bay report in 2009.

Budget:

The only costs of Section 320 funds are BBNEP staff time, with some supplies for map products. The Coalition's budget for the monitoring program is \$200,000.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed. Increase involvement of citizens to protect the natural resources of Buzzards Bay by actively empowering people to get involved and make a difference in the sound management and restoration of the Bays resources.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay. The advancement in knowledge on the effects of nitrogen pollution and documentation of the condition of localized water quality throughout Buzzards Bay harbors in relation to nutrient loads from the watersheds. Provide external water quality data for the Massachusetts Department of Environmental Protection to assess waterbody health and develop cleanup plans for impaired waters.

Long-term: Maintain, and ideally increase, the number of acres of eelgrass habitat in Buzzards Bay through reduced nitrogen loading. Meet nitrogen action plan goals: 1. Ensure that no beneficial water uses will be lost, nor will ecosystems be adversely affected by excessive contributions

of nitrogen to any embayment within Buzzards Bay. 2. Restore any beneficial water uses and ecosystems lost or impacted by the excessive contribution of nitrogen to any embayment within Buzzards Bay.

Pressures affecting outcomes: Turn around time in receiving data and data analysis from the Coalition's analytical laboratory.

This task supports these core programs: 1) strengthening water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 4) controlling non-point source pollution on a watershed basis, and CWA and state wetland protection efforts.

Project / Task 8 - Environmental Indicators and Outcomes Tracking

CCMP/Work Plan Goal(s):

All Action Plans.

Project/Activity Purpose and Description: (ongoing)

The US EPA requires an assessment of environmental “outputs” and “outcomes”, and a method to measure achievement of outputs and outcomes in our efforts to implement the CCMP, and to meet our overarching goal to protect and restore water quality, wetlands, and habitat in Buzzards Bay and its surrounding watershed. The Buzzards Bay National Estuary Program defined environmental outcomes and preliminary indicators through its annual Government Performance Reporting Act submissions.

The Buzzards Bay National Estuary Program submitted its first report to EPA in October 2003, and continues to submit this information annually. To a large degree, the Buzzards Bay National Estuary Program will measure this work plan's outputs and outcomes based on annual reporting of work plan tasks completed, CCMP recommendations implemented, remediation projects completed, and our GPRA/environmental indicators reporting. Each work plan will contain a summary of tasks and measurable outcomes accomplished over the previous year, and tasks ongoing through program extensions.

To meet the need for environmental indicators reporting, the Buzzards Bay National Estuary Program has set up a Buzzards Bay “status and trends” webpage at www.buzzardsbay.org/trends.htm. This page summarizes information tracked by the Buzzards Bay National Estuary Program and the Coalition for Buzzards Bay that is needed to evaluate the long-term progress on key environmental indicators for Buzzards Bay, and builds upon work developed for the Coalition’s 2003 State of the Bay conference, and also the 2007 state of the bay report. We will also expand the website to include access to older information and data sets.

Specifically the Buzzards Bay National Estuary Program continues to track and monitor key environmental indicators to document the success of the CCMP. Besides the ongoing water quality monitoring program of the Coalition, the new DEP eelgrass data, together with new historical eelgrass information collated by the Buzzards Bay NEP, will help create a new eelgrass area tracking system posted on our website for Buzzards Bay embayments. This information will be posted on the Buzzards Bay Status and Trends webpage. Other data tracked by the Buzzards Bay National Estuary Program will be the percentage of stormwater discharges with some form of stormwater remediation implemented, tracking of CCMP accomplishments, ongoing monitoring

of two key Buzzards Bay herring runs, and the ongoing tracking of protected open space and new land acquisitions.

To more readily transmit information collected through the citizen water quality monitoring program (see Task 12), the Coalition for Buzzards Bay plans to continue to enhance its website to include annual updates of its water quality testing program to show individual trends for Buzzards Bay embayments. The BBNEP believes this is an important endeavor to enable citizens and managers to see trends in embayments they are most concerned with.

Responsible Partners and Their Role(s): (ongoing)

The Coalition for Buzzards Bay is a key partner in this effort and is the lead in the collection and tracking of several data sets. The Massachusetts Division of Marine Fisheries is the lead agency in collecting and assessing shellfish closures, and provides this data to the Buzzards Bay NEP. The BBNEP coordinates closely with DMF in creating Buzzards Bay GIS shellfish bed closures.

NEP Staff:

Executive Director and Administrative Assistant.

Outputs/Products:

1. Annually updated shellfish bed closure maps for Buzzards Bay posted at:
http://www.buzzardsbay.org/shellfish_closures_buzzards_bay.htm
2. Data and information for The Coalition for Buzzards Bay 2009 state of the bay report

Milestones:

1. Shellfish bed closure map for the summer of 2008: Initiated August 2008, completed September 2008.
2. Data for Coalition for future state of the bay report (started spring 2009, completed July 2009).
3. Coalition state of the bay report started (Fall 2008, completed spring 2009).

Budget:

The only section 320 funds are BBNEP staff time, with some supplies for map products. The Coalition's budget includes staff and outreach and publication costs.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay. The advancement in knowledge on the effects of nitrogen pollution and documentation of the condition of localized water quality throughout Buzzards Bay harbors in relation to nutrient loads from the watersheds.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: Unanticipated demands on staff time.

This task may indirectly support any of these CWA core program: 1) strengthening water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Project / Task 9- Outreach and Education

CCMP/Work Plan Goal(s):

CCMP Actions: Will address Stormwater, Nitrogen, Shellfish, Wetlands and Habitat, Land Use, On-Site Septic Systems, Sewage Treatment Facilities.

Project/Activity Purpose and Description (ongoing):

The Coalition for Buzzards Bay will continue to undertake outreach and education activities highlighting condition and state of Buzzards Bay, progress toward restoration and protection goals, and collaboration with Buzzards Bay National Estuary Program in their activities. These activities include the July 2009 Swim Buzzards Bay, their annual meeting, press events, and various publications, including the annual report to their members. The annual swim, part of an event titled "Celebrate Buzzards Bay 2009," consists of a 1.2-mile open water swim across outer New Bedford Harbor. It highlights the role a clean and healthy Buzzards Bay plays in the lives of watershed residents. In September 2008, the Coalition held a bike "Watershed Ride." The BBNEP prepared the map poster for this event and individual maps for the riders. We expect this event will be repeated in 2009. The Coalition also produces brochures, fact sheets, press releases, and other events about citizen action to protect and restore Buzzards Bay.

The Coalition will continue to maintain their website, and undertake open space acquisition initiatives with technical support from the Buzzards Bay National Estuary Program to reach out to landowners to conserve and protect valuable wetlands. The Coalition will also continue its advocacy efforts through their Buzzards Baykeeper Program (a boat providing pump-out service, monitoring, and other needs).

In addition to the Coalition activities, the Buzzards Bay Action Committee has expanded its efforts to include environmental education in local schools. In 2008 and 2009 they provided to the towns within the Buzzards Bay watershed at no-charge special programs that will use animal models (borrowed from the Coalition for Buzzards Bay), and programs on water quality and habitat protection. The BBAC is hoping to expand these efforts greatly in 2009 by seeking additional funds from EPA's environmental education grant program to purchase a portable watershed table for hands-on classroom experimentation and other support materials.

Responsible Partners and Their Role(s):

Coalition for Buzzards Bay and the Buzzards Bay Action Committee are our principal partners, but we may partner with other organizations, and the BBNEP may also periodically prepare

newsletter articles for MCZM's Coastlines magazine. The BBAC promotes increased awareness in their municipalities by sometimes including mailings with water bills or other mailings, and are also attempting to create a school education program.

NEP Staff:

Principal Staff involved will be the BBNEP Executive Director, and other NEP staff as required

Outputs/Products:

Coalition and Buzzards Bay NEP website. Coalition newsletter, flyers, posters, press releases, and reports to their members and residents about actions to protect and restore Buzzards Bay. Improved Buzzards Bay NEP website information, newsletters, brochures, and flyers.

Milestones:

Both The Coalition and Buzzards Bay Action Committee have established schedules to meet their own goals and guidelines and are not included in this work plan.

Budget:

The only section 320 fund costs are the BBNEP staff time.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: The level of effort by the BBAC will be constrained by whether or not they receive a grant for their school program. Many of The Coalition outreach efforts evolve around specific projects that may occur in the future. Unanticipated demands on staff time.

This task will principally support this CWA core program: 4) controlling non-point source pollution on a watershed basis, but may also indirectly support 1) strengthening water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 5) strengthening National Pollutant Discharge Elimination System permits, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Project / Task 10 - CCMP Update and Watershed Action Plan Development.

CCMP/Work Plan Goal(s):

CCMP Actions: All.

Project/Activity Purpose and Description: (ongoing)

The Buzzards Bay National Estuary Program continues the review and update of the recommendations of the Buzzards Bay CCMP. Completion of the document has been delayed by insufficient staffing to complete the tasks. A completed draft final of the new CCMP is not anticipated for public review until July 2009. The BBNEP will ensure that the new plan is consistent with the state's new Ocean Plan. The EEA Watershed initiative is continuing to participate and support the Buzzards Bay National Estuary Program to ensure the revised CCMP meets the goals content requirement of EEA's Watershed Action Plans.

Responsible Partners and Their Role(s):

MCZM, DEP, The Coalition for Buzzards Bay, the Buzzards Bay Action Committee, the Executive Office of Energy and the Environment, and the US EPA will be key partners in the development and update of the new Buzzards Bay CCMP and Watershed Action Plan, but we may partner with other organizations, and the BBNEP may also periodically prepare newsletter articles for MCZM's Coastlines magazine.

NEP Staff:

The BBNEP Executive Director will be the lead NEP staff member, but all NEP staff will be involved.

Outputs/Products:

1. New draft action plans developed.
2. Action plans reviewed by agencies and BBAC.
3. Steering Committee meetings to review the updated actions and progress.
4. Public meetings to raise awareness of the new CCMP and its importance.
5. Finalization of the new CCMP by the state and EPA.

Milestones:

1. The BBNEP Steering Committee will meet in June 2009 and September 2009 to discuss the CCMP and progress.
2. A new CCMP action plan is discussed at every BBAC meeting
3. Public dog and pony shows on the new combined CCMP and Watershed Action Plan in the Fall of 2009.
4. Strategy finalized for new state received federal approval process by December 2009.
5. Document complete, published and posted by June 30, 2010.

Budget:

The only costs are BBNEP staff time, and we will complete the document in house. However, personnel in other agencies and organizations will contribute drafts of sections. No funds are available for contractual support for this project. The time commitment from other contributors is not included in our match estimates.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related

to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the new CCMP/WAP will be finalized that will contain town-specific and agency-specific recommendations to protect and restore water quality and living resources in the bay and surrounding watershed.

Pressures affecting outcomes: Time constraints on the NEP director or other staff are the principal pressures affecting progress on this task.

This task may directly or indirectly support any of these CWA core program: 1) strengthening water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Project / Task 11 - Other Specialized Technical Assistance

CCMP/Work Plan Goals:

Various action plans including nitrogen management, stormwater management, land use planning, and open space protection.

Purpose and Description: (ongoing)

The Buzzards Bay Comprehensive Conservation and Management Plan (CCMP) is largely a non-regulatory document, with most recommendations directed toward municipalities because they have the greatest authority and capacity to address the growth related and non-point source pollution problems facing the bay and watershed. As a result, since completion of the CCMP, the focus of the Buzzards Bay National Estuary Program has been to provide technical assistance, and where feasible, financial assistance to towns in their efforts to implement the CCMP.

Because municipalities often lack adequate technical staff to develop or implement many of the recommendations contained in the CCMP, since 1992, the Buzzards Bay National Estuary Program has been providing essential and much needed specialized technical assistance to municipal boards. This technical assistance not only focuses on specific initiatives funded with NEP, state and federal funds, but a wide range of CCMP issues as well. This task includes items not included in the above tasks.

Responsible Partners and Their Role(s):

The Coalition for Buzzards Bay, the BBAC, Buzzards Bay municipalities, other state and federal agencies.

NEP Staff:

All NEP staff work on these projects as needed or required.

Outputs/Products:

1. Provide specialized technical assistance to municipalities to promote low impact development, remediate stormwater discharges and adopt stormwater management strategies, promote better management of on-site septic systems and innovative wastewater systems; improve local wetlands and habitat protection, manage nitrogen loadings, prepare and adopt open space plans
2. Identify new local actions needed to support the development of an updated Buzzards Bay CCMP and EEA Watershed Action Plan.
3. Encourage towns to take actions that both support the updated Buzzards Bay CCMP and EEA Watershed Action Plan.
4. Encourage towns to complete their Commonwealth Capital applications and to take environmental actions that will improve their score (e.g. adopting smart growth and low impact development policies and regulations).
5. Promote Low Impact Development and Smart Growth strategies and stormwater management in Buzzards Bay communities.
6. Help towns develop concepts, remediation strategies and help prepare grant applications to implement programs and projects to implement CCMP recommendations.
7. Promote better management of on-site wastewater systems and use of innovative technologies.
8. Help municipalities improve local wetlands and habitat protection through regulatory and non-regulatory approaches.

Milestones:

Depends on future projects that cannot be anticipated at this time.

Budget:

The only costs are BBNEP staff time.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: The advancement in knowledge on the effects of nitrogen pollution and documentation of the condition of localized water quality throughout Buzzards Bay harbors in relation to nutrient loads from the watersheds.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: We provide technical assistance on a first come first serve basis and as allowed by available staff time.

This task may directly or indirectly support any of these CWA core program: 1) strengthening

water quality standards, 2) improving water quality monitoring, 3) developing total maximum daily loads, 4) controlling non-point source pollution on a watershed basis, 5) strengthening National Pollutant Discharge Elimination System permits, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Project / Task 12 - Technology Transfer to Other Estuaries

CCMP/Work Plan Goal(s):

All CCMP actions to some degree.

Project/Activity Purpose and Description: (ongoing)

The US EPA requires attendance at out-of-state conferences, particularly the Spring and Fall National Estuary Program meetings. The BBNEP will limit staff travel to only the attendance of the Executive Director to EPA, NEP and ANEP meetings. The BBNEP imposes an annual meeting attendance requirement for the Coalition for Buzzards Bay as a condition for receipt of funding for the citizen monitoring program in their Cooperative Agreement with the US EPA.

Responsible Partners and Their Role(s):

The Coalition for Buzzards Bay.

NEP Staff:

The BBNEP Executive Director or his designee will attend spring and fall NEP meetings. Other NEP staff may attend meetings as required by the Executive Director.

Outputs/Products:

1. Attendance at NEP meetings.
2. Presentations at out of state meetings.
3. Information transfer to Buzzards Bay communities.
4. Informational materials to area legislators.

Milestones:

Attendance of Fall 2009 and Spring 2010 EPA-NEP meetings at a minimum. Staff may also attend other national conventions (on planning, wetlands, and stormwater as budget, availability, and staff time allows.

Budget:

The travel budget (\$10,000) covers all out of state meeting expenses, as well as all instate travel of staff.

Outcomes

Short-term: Information and lessons from Buzzards Bay transferred to other entities.

Intermediate: Increased involvement of citizens to protect the natural resources of Buzzards Bay by actively empowering people to get involved and make a difference in the sound management and restoration of the Bays resources.

Long-term: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Pressures affecting outcomes: Unanticipated budget shortfalls can require elimination of out-of-state travel.

This task does not directly support any CWA core programs.

Project / Task 13 - Oil Spill Damage Assessment

CCMP/Work Plan Goal(s):

Oil Pollution and Toxics Action Plan

Project/Activity Purpose and Description:

The Natural Resource Damage Assessment (NRDA) for the *Bouchard No. 120* oil spill of 2003 is now expected to be finalized by the end of 2009. The Buzzards Bay National Estuary Program Director is continuing to participate in the aquatic injuries workgroup, representing the Commonwealth. The Buzzards Bay NEP website is the website of record for the reports prepared by the Licensed Site Professional (LSP). The LSP is responsible for actions under the Massachusetts Contingency Plan (MCP), overseen by Mass DEP, to ensure that the cleanup complies with the state hazardous waste cleanup regulations (MGL 21E). Part of the damage assessment is focusing on meeting CCMP goals of protecting and restoring endangered species Roseate Tern habitat in Buzzards Bay

Responsible Partners and Their Role(s):

NRDA Trustees, DEP

NEP Staff:

Principal Staff involved will be the BBNEP Executive Director, and other NEP staff as required.

Outputs/Products:

1. Meetings, report reviews, conference calls and analysis as required by the state.
2. Postings on the BBNEP website of the LSP reports as new reports are issued.

Milestones:

1. Products are developed and actions taken as needed or required.
2. Finalization of the NRDA in the fall of 2009.

Budget:

The only costs are BBNEP staff time.

Outcomes

Short-term: Increased information availability for use by Buzzards Bay community leaders, environmental managers, scientific and education community, Commonwealth of Massachusetts, federal officials, and the general public to make better management decisions and actions related

to the restoration, protection, and sustainable use and enjoyment of Buzzards Bay and its watershed.

Intermediate: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay.

Long-term: Help achieve Oil Spill Action Plan Goals: 1. Reduce the amount of petroleum hydrocarbons entering Buzzards Bay. 2. Minimize the occurrence of oil spills in Buzzards Bay, both large and small. 3. Minimize the environmental effects from oil inputs to Buzzards Bay. Protection and restoration of Roseate Tern habitat (an endangered bird using habitat in Buzzards Bay

Pressures affecting outcomes: The schedule of this task is driven by the actions of the NRDA Trustees and DEP, and is outside of the control of the BBNEP.

This task supports this core program: 4) controlling non-point source pollution on a watershed basis.

Project / Task 14 - Website Maintenance and Innovation

CCMP/Work Plan Goal(s):

Supports all activities, in particular outreach and education components.

Project/Activity Purpose and Description:

The Buzzards Bay National Estuary Program shall continue to maintain an independent website to assist the BBNEP to promote new approaches, receive feedback, communicate successes, track trends in water quality, performance of government in implementing the CCMP, express the views and concerns of the NEP Steering Committee, create a forum for new initiatives and ideas of our partners, and support other obligations and tasks identified in this work plan. The website is also used to post results of the bay indicators and documents relating to the oil spill, and post procurement notices and grant announcements. The BBNEP has also been systematically scanning all old BBNEP reports and gray literature related to Buzzards Bay and posting it on our website.

Principal Staff involved in these tasks:

Executive Director, Administrative Assistant.

Responsible Partners and Their Role(s):

The BBNEP coordinates with The Coalition for Buzzards Bay to ensure that each of our indicator and tracking pages are consistent where we provide overlapping information.

NEP Staff:

The BBNEP Executive Director is the web master and principal author of the website. Administrative assistant does much of the updating of data. Other NEP staff contribute to the site with specific documents and materials, and review.

Outputs/Products:

1. Posting of new web pages and documents.
2. Update of existing web pages.

3. Modify all pages and documents to meet state and federal requirements for Accessibility of the site for those with disabilities including W3C, WAI, and Section 508 compliance.

Milestones:

Updates and postings as need or required.

Budget:

The only costs are BBNEP staff time, website fees of \$240 per year.

Outcomes

Short-term: Improved public and governmental understanding of Buzzards Bay environmental issues, increased productivity of partners needing information or Buzzards Bay documents, and increased public and financial support for action to protect and restore Buzzards Bay.

Intermediate: Increased citizen and government actions to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the Buzzards Bay Comprehensive Conservation and Management Plan.

Long-term: Assists in advancing all CCMP goals

Pressures affecting outcomes: creation of new pages limited by time availability of the Executive Director (webmaster) to add new information and links.

This task does not directly support any CWA core programs. but may indirectly 2) improving water quality monitoring, 4) controlling non-point source pollution on a watershed basis, 6) supporting sustainable wastewater infrastructure and CWA and state wetland protection efforts.

Section III Budget Detail and Explanation

Amendment to FY08 Work plan Costs

The FY08 budget submitted to EPA had \$60,000 in funds allocated to the municipal grant program (included in the "Other" category). However, in August 2008, CZM no longer required a \$15,000 tap in our program for administrative support in the Personnel category (with associated Fringe, and Indirect). Furthermore, the state unexpectedly negotiated a lower fringe rate with the EPA. This created an increase of \$46,794 which the BBNEP Steering Committee approved to be reallocated to the municipal grant program. This raised the allocation to municipal grants to \$106,794, under the Other category.

Other adjustments had to be made in last year's budget as well as well. First, the NRCS contractual support for stormwater designs was targeted for \$40,000, however the actual contract was written for \$25,000. At the same time, \$15,000 of municipal grants included \$15,000 for stormwater designs to a project in the Town of Westport. Because the Buzzards Bay NEP contracted with an engineering firm directly for this amount, this meant \$15,000 had to be shifted from the "Other" into the "Contractual" category. These two actions offset each other, so there was no net shift into the "Contractual" category. The additional funds added to the other category were used to purchase a GPS unit that is used for mapping wetlands, stormdrains and catchbasins.

The year's amendment to the cooperative agreement includes both the reallocation of funds in various categories in the FY08 work plan described above, and the addition of funds in the FY09 work plan. The new FY09 added funds, and the adjustments to the FY08 work plan totals are summarized in the following table.

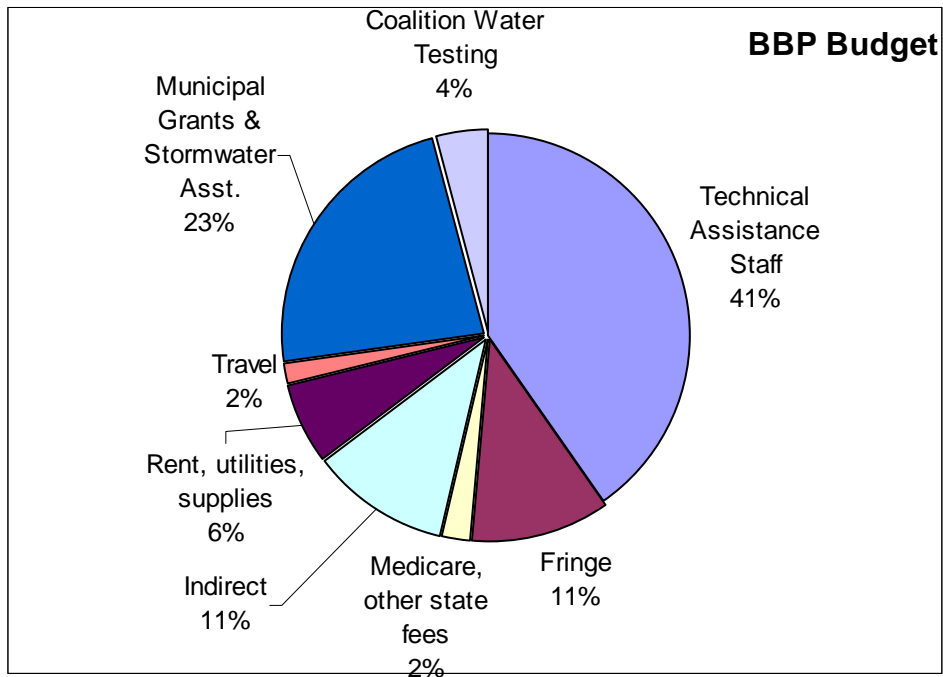
FY08 Budget Reallocation Plus FY09 Additions, By category					
EPA categories	original	adjustment	Revise Aug 2008	FY09	New Amendment
Personnel	\$253,125	(\$15,385)	\$237,740	\$235,620	\$473,360
Fringe	\$100,364	(\$39,003)	\$61,361	\$65,008	\$126,369
Contractual	\$40,000	\$0	\$40,000	\$55,000	\$95,000
other	\$92,692	\$46,794	\$139,486	\$134,602	\$274,088
supplies	\$10,365	\$7,232	\$17,597	\$8,324	\$25,921
travel	\$4,873	\$4,066	\$8,939	\$10,000	\$18,939
Indirect	\$65,331	(\$3,704)	\$61,627	\$66,446	\$128,073
TOTAL	\$566,750	\$0	\$566,750	\$575,000	\$1,141,750

FY09 Budget

Personnel

The FY09 budget is summarized in the table and pie chart below. Personnel costs are based on the following staffing levels: Executive Director- Full Time, Administrative Assistant-3/4 time; Regional Planner- 3/4 time; Wetland Specialist: fulltime 6 months, 3/4 time 6 months.

Budget Overview for communications



Match to the Cooperative Agreement

Below is a summary of the \$575,750 match that is being provided to meet the match requirement under this Cooperative Agreement to the Commonwealth (\$575,000 required). A large portion of the match is provided by the Coalition for Buzzards Bay, which last year had an operational budget of \$1.4 million. The Coalition's close partnership with the Buzzards Bay NEP, along with in kind and cash contributions from the Buzzards Bay Action Committee and member communities, and a very high rate of leveraging in our municipal grant program continues to represent the core of the match to our cooperative agreement. The BBNEP has been receiving \$50,000 annually from the legislature toward our municipal grant program, but it is too early in our budget cycle to determine if we will again receive those funds. If we do, that money, and the additional match it leverages, will be used to match our program when the Cooperative agreement is amended with next year's funding.

1) Coalition for Buzzards Bay Water Quality Monitoring Program (\$141,750).

For the past decade, the Coalition has continued to secure nonfederal funds through grants, member's dues, state earmarks, and donations to support its water quality monitoring program and related outreach. The cost of the core elements of this program (staff, publications, contractual laboratory testing services, and supplies) exceeds \$200,000 per year. This total does not include an estimated minimum of 3,000 hours donated annually by more than 110 volunteers conducting the sampling and testing. We have estimated this contribution to be valued at \$60,750 (at \$20.25/hr value - as reported at www.independentsector.org/program/research/volunteer_time.html). It also does not include Coalition administrative support, or the salary of the citizen monitoring program director. Thus the true cost of the program, counting volunteer time is \$250,000. Last year The Coalition received a \$150,000 legislative earmark to support their Citizen Water Quality Monitoring Program, through EEA, and administered by Coastal Zone Management to meet their program needs, and \$22,000 from the BBNEP. For this year's match we are just using \$150,000 of the programs costs.

2) Municipal support to BBAC (\$10,000).

The municipalities of Buzzards Bay pay \$10,000 per year to the Buzzards Bay Action Committee to support projects to implement the Buzzards Bay CCMP. These funds pay the costs of a part-time Executive Director, defray organization costs, helped fund a school education pilot program, and pay for meeting and workshop expenses.

3) BBAC, CCMP, and workshop meetings (\$14,300).

The BBAC is composed of high level municipal officials, generally Selectmen, Town Administrators, or Department heads that meet monthly (11 municipalities, about 10 officials typically attend, at 10 meetings per year for 2 hours per meeting. The average hourly rate assigned to these municipal officials is estimated to be \$65 per hour (including fringe and indirect, \$10,000 total).

In addition to these meetings, the Buzzards Bay NEP will hold workshops and CCMP development meetings, as part of BBAC meetings, or special meetings that will include town officials. We expect on average 20 municipal officials (excluding consultants or private citizens that may also attend these meetings). At least 2 of these meetings will be held, primarily in the summer and fall of 2009, and in partnership with MCZM. These municipal official contributions will also

be valued at \$65 per hour (including fringe and indirect, \$4,000 total).

Attendance of municipal officials at other wetlands and training workshops, Buzzards Bay oil spill coordinators at training events, additional updates of area contingency plan (planned by The Coalition for Buzzards Bay), are estimated to amount to an additional \$4,000.

The purpose of these meetings is to discuss CCMP implementation, specific progress on projects, and coordination with the Buzzards Bay National Estuary Program and Coalition for Buzzards Bay. In the coming year, time will be set aside at each BBAC meeting to discuss an action plan topic as part of the planned re-write of the CCMP. The BBNEP conservatively estimates a minimum of \$14,300 match from these activities.

4) Coalition for Buzzards Bay's The Bay Lands Center (\$97,200).

The Coalition has a foundation and donor-supported program with several staff members and outreach costs. Expenditures under this program by The Coalition, especially land acquisition, continue to represent a large portion of this non-profit's expenditures. The activities of the Lands Center support a key goal of the Buzzards Bay CCMP, the protection of wetlands, habitat, and open space to protect water quality, and living resources. Publicly accessible open space also helps build support for other environmental initiatives of both our programs. The Bay Lands Center is simply an initiative aimed at increasing the rate of land protection and the amount of protected shoreline, forestlands, and critical habitats in the Buzzards Bay watershed. The Coalition's Bay Lands Center works with landowners, land trusts and town officials to encourage Bay-focused watershed land protection, empower local land trusts, and educate private landowners about land conservation options.

The Buzzards Bay National Estuary Program is a key partner with the Coalition's Land Center, preparing hundreds of maps and conducting GIS land use evaluations for targeted acquisitions. Our support is integral in the Coalition's outreach for their program, and has helped the passage of municipal town meeting legislative articles in support of conservation land acquisitions.

5) Municipal Match to BBNEP grants (\$220,000).

The \$93,500 in the **BBNEP** mini-grant program will generate a minimum of \$30,855 in required municipal match because the project requires a 25% match of total project cost (=33% of award). However, our grants have been greatly overmatched, and we expect to easily achieve a 200% match of federal funds.

6) Other Coalition support (\$92,500).

The Coalition for Buzzards Bay's annual budget exceeds \$1,000,000 and includes a wide range of activities that compliment this work plan. These activities include public education and outreach initiatives and publications, water quality data management updates for their website, in-stream monitoring program, oil spill area contingency plan updates with municipal officials, newsletters and events that include the cost of Director, outreach staff, and communication costs. The applicable matching amounts support and coincide with the BBNEP tasks identified in this work plan.

Detail Match Breakdown

Proposed MATCH (non-state)	total	Personnel	Fringe	Contractual	other	supplies	travel	Indirect	total
1. Coalition WQ Monitoring Program	\$141,750			\$99,116 Fees to laboratory for sample analysis, summer intern, printer	\$19,575 Volunteer time see footnote 1	\$22,209 Sampling equipment and chemicals	\$850 Travel to annual WQ conference		\$141,750
2. BBAC dues	\$10,000			\$9,000 Contractual agreement with Executive Director		\$1,000 Printing and office expenses			\$10,000
3. BBAC, other municipal meetings, workshops	\$14,300	\$14,300 Municipal officials volunteer time							\$14,300
4. Coalition Lands Center Initiative	\$97,200	\$79,200 Coalition Staff			\$12,500 costs of outside printing, meeting expenses, postage, events	\$5,000 postage, internal expendables, printing	\$500 Costs to travel to annual Land-use conference		\$97,200
5. Match to BBNEP mini-grants	\$220,000				\$220,000 In-kind and cash expenditures associated with municipal mini-grants				\$220,000
6. Coalition outreach and education programs	\$92,500	\$25,100 Director and outreach staff		\$38,100 Interns, Rents, website costs, other contractual support events	\$24,300 Preparation and printing of educational materials, annual reports, postage	\$5,000 meeting expenses, internal printing supplies			\$92,500
Total	\$575,750	\$118,600	\$0	\$146,216	\$276,375	\$33,209	\$1,350	\$0	\$575,750
Proposed State Match									\$0
Summary	\$575,750	\$118,600		\$146,216	\$276,375	\$33,209	\$1,350		\$575,750

Footnote 1: 121 volunteers x \$20.85 (see http://www.independentsector.org/programs/research/volunteer_time.html) x 7.75 hours per season. This represents only a small fraction of CBB volunteer time. We estimate actual average time per volunteer as more than 40 hours per year with retrainings and samplings times for participants in the regular monitoring program (22 oxygen samplings and 4 nutrient samplings), but as little as 6 hours per year for a minority of volunteers who sample only the four nutrient dates.

Current Buzzards Bay National Estuary Program Staff

Dr. Joe Costa is Executive Director of the Buzzards Bay NEP. Besides overseeing and administering the Program, he provides technical assistance on nitrogen loading assessment and management, water quality analysis, watershed planning, build-out analysis, data analysis, and software support. His research in Marine Ecology, particularly nitrogen loading effects on eelgrass beds and coastal ecosystems has been put to use in the Coalition's citizen monitoring program and the NEP's nitrogen management approach. The director is also the program's webmaster.

John Rockwell did a Master's thesis on wetlands delineation techniques, and as a former conservation agent, conservation commission chair, and MACC board member, he brings with him a wealth of experience on wetland protection. John conducts workshops, drafts bylaws, and conducts wetland delineations for towns.

Bernadette Taber is an employee of the USDA Natural Resource Conservation Service and has been detailed to the Buzzards Bay National Estuary Program office since 1991. She evaluates and develops engineering solutions for stormwater remediation in both agricultural and urban environments. She has reviewed many engineering plans at the request of Buzzards Bay municipalities, and has also developed the preliminary designs identified in many Buzzards Bay National Estuary Program and town grant proposals.

Tracy Warncke is the Buzzards Bay NEP's Administrative Assistant (3/4 time). She not only handles administrative duties including federal grant administration at the Buzzards Bay National Estuary Program office and updates data for the website, but has designed many reports, brochures, and fact sheets for the NEP and municipalities alike. Tracy spent four years with the Bourne Board of Health testing water for fecal coliform bacteria, experience she has put to work at the BBNEP.

Sarah Williams is the NEP's Regional Planner (3/4 time). She provides assistance to municipalities on land use and watershed planning, land conservation, buildout analysis, habitat restoration, and mapping. She is a coordinator between the towns and the Buzzards Bay National Estuary Program on our Municipal Grant Program, and is preparing the NEP's regional open space plan. Sarah was also a former member of the Fairhaven-Acushnet Land Preservation Trust and Fairhaven Conservation Commission, and brings this valuable experience to bear on her activities.

work planfy09

Appendix I Index of Tasks

Project / Task 1 - Wetland Restoration and Open Space Protection and Restoration	11
Project / Task 2 - Buzzards Bay stormwater mapping, atlas and database update	13
Project / Task 3 - Characterize and map natural resources and habitat	14
Project / Task 4 - Stormwater Remediation and Technical Assistance	15
Project / Task 5 - BBNEP Technical Assistance and Municipal Grant Program	16
Project / Task 6 - Program Oversight and Administration	18
Project / Task 7 - Buzzards Bay Citizen’s Water Quality Monitoring	19
Project / Task 8 - Environmental Indicators and Outcomes Tracking.....	21
Project / Task 9- Outreach and Education	23
Project / Task 10 - CCMP Update and Watershed Action Plan Development.....	24
Project / Task 11 - Other Specialized Technical Assistance.....	26
Project / Task 12 - Technology Transfer to Other Estuaries	28
Project / Task 13 - Oil Spill Damage Assessment	29
Project / Task 14 - Website Maintenance and Innovation	30

Appendix II.

Work Plan 2008-2009 Annual Report of Outputs and Outcomes

Background

The US EPA requires an annual report of outputs and outcomes for each work plan. Because the BBNEP's work plan has been realigned to coincide with the state fiscal year, and to facilitate the submission of this information to the USEPA, the BBNEP has elected to include this annual reporting requirement as an Appendix to its annual work plan.

Outputs

- Awarded \$100,500 in eight grants to six Buzzards Bay watershed municipalities
- Closed out 8 grants totaling \$138,429
- Solicited for, and awarded contract for \$15,000 to an engineering firm to develop engineering designs and site plans to treat stormwater discharges at the Middle School Library Complex in the Town of Westport.
- Completed reviews of documents on the environmental impacts of the 2003 Bouchard No. 120 oil spill in Buzzards Bay as part of the state-federal Natural Resources Damage Assessment.
- Continued to provide support to non-profits and municipalities in the acquisition and implementation of North America Wildlife Conservation Act (federal) grants awarded to the Coalition for Buzzards Bay and Ducks Unlimited.
- Worked with state, federal, and local officials to update the Buzzards Bay management plan. New draft action plan recommendations are posted on our website (at <http://www.buzzardsbay.org/newccmp.htm>).
- Updated shellfish bed closure GIS coverages to cover the July 1, 2008 status maps based on information from the Division of Marine Fisheries.
- Supported BBAC, EEA, and MCZM on workshop including a 11/5/2008 Phase II MS4 training seminar for the City of New Bedford staff on the City's responsibilities and opportunities to manage stormwater discharges, particularly under the MS4 permit, a November 18, 2008 BBAC Meeting where the DEP Bureau of Municipal Assistance Loan Program gave an overview the Comprehensive Wastewater Management Plan (CWMP) process, and a December 18, 2008 BBAC Meeting where the state office of Coastal Zone Management and USGS gave a presentation on the Seafloor Mapping Program to soon take place in Buzzards Bay ("Strategic Plan for Mapping Massachusetts Benthic Habitats") and to solicit comments from BB municipalities.
- Existing condition site plans were developed for Middle School Library Complex in the Town of Westport in support of a stormwater remediation project there.
- Worked with the Westport Board of Health to finalize their local stormwater regulations that the program helped them develop.
- Fall of 2008 and Spring of 2009, the BBNEP helped the Wareham Board of Selectmen and Wareham Clean Water Committee develop revised draft bylaws to address nitrogen loading.
- Prepared comments and data products of a 1300 unit mixed commercial use TDR development on the Agawam River in Plymouth to determine potential nitrogen contributions to the Wareham River estuary and encourage the state to adopt a no-net nitrogen increase policy.

- Worked with MCZM to develop comments on a similar 6,000 acre mixed use development project (Tihonet Mixed Used Development). In our comments to MEPA, the BBNEP stressed the need to ensure that this project too adopts a "no net nitrogen goal" with respect to potential development.
- Implemented major revisions and streamlining of the Buzzards Bay website, including pages on the new CCMP, with review comment submission pages, and pages to track municipal actions to implement low impact development.
- Continued funding and technical support to the citizen water quality monitoring program.
- Worked with towns to require nitrogen removal septic systems for new development, or to treat and remediate stormwater discharges to open shellfish beds and prevent beach
- Produced over 120 new or revised maps and fulfilled dozens of requests for data, calculations, or graphics to be used for newsletters, grants, etc.
- Numerous maps and GIS evaluations were prepared for The Coalition for Buzzards Bay, area lands trusts, and municipalities. Examples include municipal open space maps, The Coalition for Buzzards Bay's "Watershed Ride" maps, an event held October 2008, maps used by municipalities in open space reports and their grant applications, maps used for area legislators in support of the rail extension to Wareham, maps used in the citizen monitoring program, and for other purposes.
- New draft CCMP action plan recommendations are posted on our website (at <http://www.buzzardsbay.org/newccmp.htm>).
- Specialized training was provided to a new Conservation Agent in Westport in the Fall of 2008
- The BBNEP conducted MACC-sponsored workshops in the fall of 2008
- Special training workshop was conducted for state southeastern MA DCR staff held at the Waquoit Bay National Estuary Research Reserve in April 2009.
- A Buzzards bay watershed regional open space plan was finalized in the spring of 2009
- Revised copy of the 1980s eelgrass GIS data set was posted on line with additional photographs of historical coverage.
- Expanded watershed stormwater atlas data and posted on BBNEP website.

Environmental Outcomes

- More than 1100 acres of closed shellfish beds in outer New Bedford Harbor were opened, some areas of which had been closed for more than 40 years. A grant to the City of New Bedford from the BBNEP that eliminated a CSO discharge, together with expansion of sewerage in Fairhaven, contributed to the opening.
- Because of Buzzards Bay NEP comments, together with those of the Coalition for Buzzards Bay and the Massachusetts Office of Coastal Zone Management, the Massachusetts Environmental Protection Act office adopted a no-net-nitrogen increase policy for a large mixed use development in a subwatershed where a draft nitrogen TMDL report had found the estuary was degraded and required nitrogen reductions. This was a precedent decision for the MEPA office, and will have broad implications for the state's review of similar projects.

- The Westport River watershed Alliance contributed \$20,000 to the first phase of a Project that lead to the development of engineering designs and site plans to treat stormwater discharges at the Middle School Library Complex in the Town of Westport.
- The BBNEP helped restore 24 acres of tidal wetlands through improved tidal flushing on Mattapoisett Neck and in Back River in Bourne. Both projects received technical support from the BBNEP. Similarly, 3/4 of an acre of filled freshwater wetlands was restored in the Town of Marion.
- More than 520 acres of wetlands and upland were protected as open space through grants and technical assistance from the BBNEP to municipalities and lands trusts, and in partnership with the Coalition for Buzzards Bay.
- Town officials in Wareham brought to town meetings in fall 2008 and Spring 2009 articles for bylaws to establish nitrogen limits for local wastewater disposal permits. The spring bylaw passed, requiring nitrogen removal technology for systems discharging greater than 2,000 gallons per day.