

Buzzards Bay National Estuary Program
Implementation Activities
Federal FY 10 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, 2013

Last modified: April 9, 2010

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 \$800,000 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 \$750,000 (\$800,000-\$50,000 CBB monitoring) 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 \$50,000 to the citizens 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 (CZM) 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.

FY10 Budget Overview

Federal FY 10 Funding	\$800,000
Base Funding (less Coalition Funding)	\$750,000
Coalition Water Quality monitoring*	\$50,000
Match (\$750,000 required)	\$751,400
* match to Coalition funding provided through that organization	

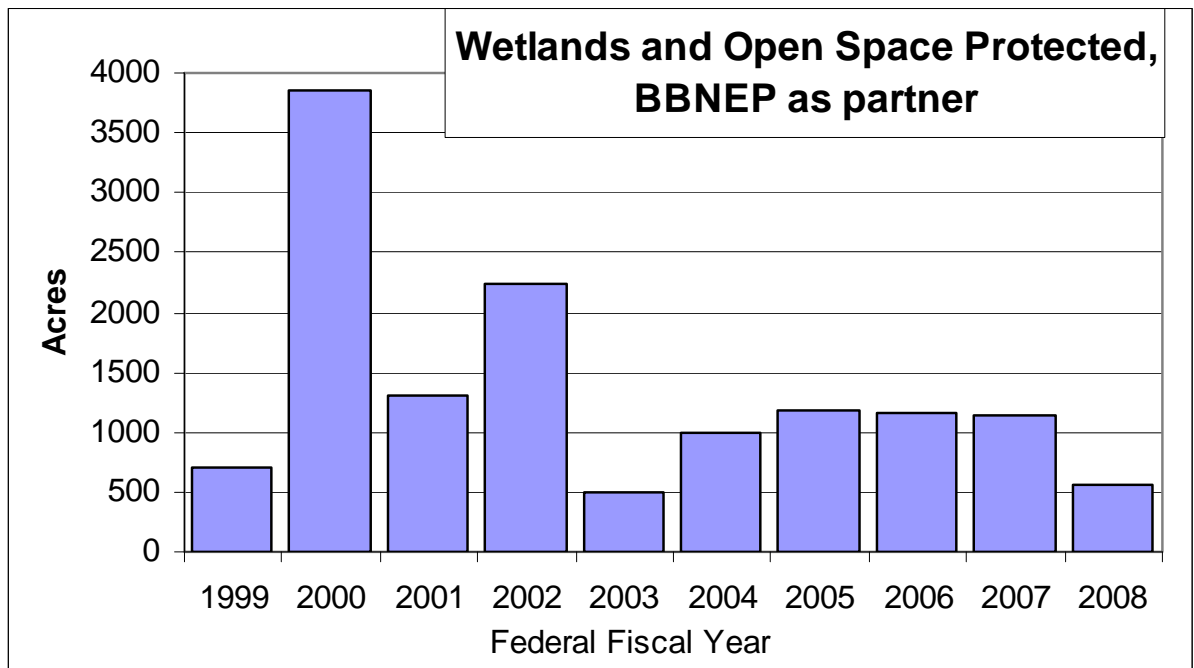
Section I: BBNEP Highlights and Accomplishments

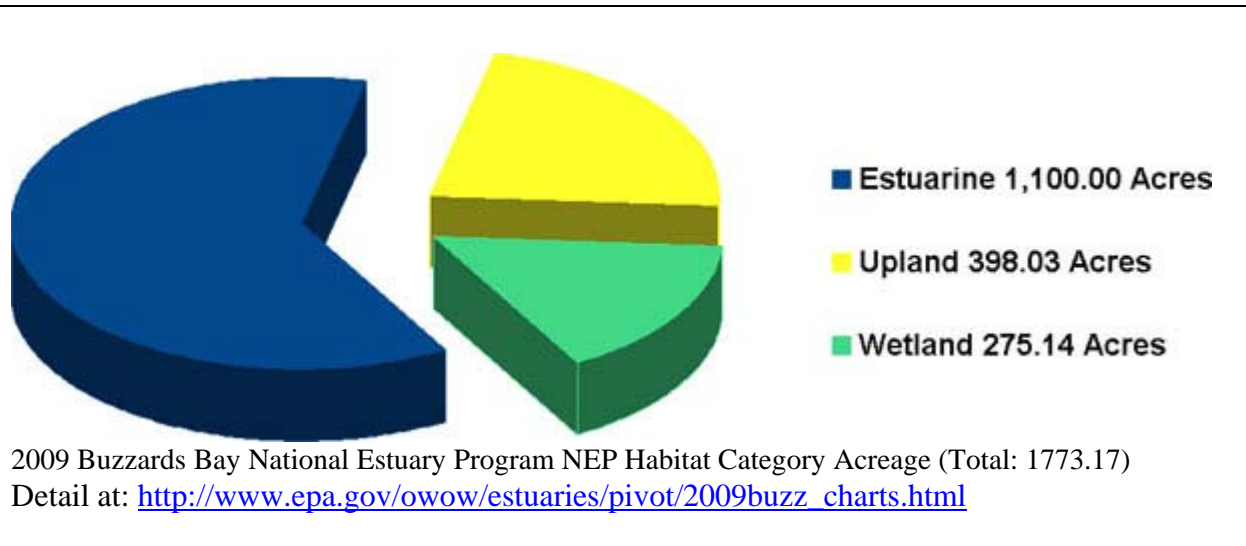
July 1, 2009 to present

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 2009 work plan include:

- In Spring 2009, the Buzzards Bay NEP submitted its Triennial Review package to EPA headquarters, and during the summer met with program review team members and partners. EPA was pleased with the program review and issued a favorable review letter in November 2009.
- In the summer 2009, the Buzzards Bay NEP closed out 7 grants totaling \$117,215 (New Bedford \$20,000, Fairhaven \$17,952.93, Fairhaven \$20,493.75, Bourne \$30,500, Mattapoisett \$12,768, Acushnet \$8,000, Rochester \$7,500). One grant to the Town of Wareham for \$35,000 was returned unspent and added into the next grant round.
- In the fall of 2009, the Buzzards Bay NEP through the Massachusetts Office of Coastal Zone Management and the Executive Office of Energy and Environmental Affairs, awarded \$167,000 in grants to eight Buzzards Bay watershed municipalities. More information on the grant awards is available at <http://www.buzzardsbay.org/funding>.
- During the fall and winter of 2009, the BBNEP successfully closed out a previous three-year Cooperative Agreement with EPA, including detailed matching forms.
- 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 2010. The BBNEP expects to be involved with guiding restoration projects that will follow the final NRDA determination.
- The Buzzards Bay National Estuary Program continues to provide technical assistance to non-profits and municipalities in preparing permits for wetland restoration projects around Buzzards Bay.
- The Buzzards Bay National Estuary Program produced over 323 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, Coalition for Buzzards Bay' fundraising maps, maps used by municipalities in open space reports and their grant applications, 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 the program's website.
- During 2009, the BBNEP worked with the Division of Marine Fisheries to update shellfish bed closure GIS coverages to cover the July 1, 2009 status maps.
- BBNEP staff will continue to work with the Buzzards Bay Action Committee, EEA, and MCZM on workshops for watershed communities.
- The BBNEP worked with the Westport Board of Health to finalize their local stormwater regulations that the Program helped them develop.
- The BBNEP continues to assist the Wareham Board of Selectmen and Wareham Clean Water Committee develop revised draft bylaws to address nitrogen loading. The NEP also began a collaboration with The Coalition for Buzzards Bay, where the citizen's group began hosting facilitated meetings involving town officials, cranberry growers, and other stakeholders. These meetings are ongoing.
- The Buzzards Bay NEP continues to be involved in the review of two large mixed use development project comprising nearly 8,000 acres of the Buzzards Bay watershed. The Buzzards Bay NEP is working with partners and government agencies to ensure these projects are nitrogen neutral and are in compliance with other state and federal standards of environmental protection.
- NEP staff continues to participate in National meetings and meet programmatic reporting deadlines of EPA, like the GPRA and NEPORT submissions.





- Throughout the year, the BBNEP wetland specialist provided training to area conservation commissions and others. These include three MACC workshops in the spring of 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 560 main pages, with an additional 700 downloadable pdf files and reports, as well as numerous graphic files and maps, for a total space use of 4.2 GB. The website currently receives more than 1200 unique 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 or Herring Atlas. 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, and 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 with local, state, and federal wetland laws, and our

efforts to help towns restore impaired wetlands continue to meet broad Clean Water Act goals and new MS4 requirements expected in the coming year.

The Coalition for Buzzards Bay Highlights and Accomplishments (outputs)

July 1, 2009 to present, for actions in support of the BBNEP work plan, CCMP actions, and collaborative efforts

- After six year of battling to protect the Bay from future oil spills, the Coalition has terrific news to share: The Coast Guard Will Not Challenge New Buzzards Bay Oil Spill Prevention Law. In a letter addressed to Representative Barney Frank, Homeland Security Secretary Janet Napolitano confirmed this month that the federal government does not intend to challenge new Massachusetts legislation signed by Governor Patrick in September securing a tugboat escort for every oil barge navigating through the waters of Buzzards Bay. Specifically, this law requires the state to provide an escort tug to double hull barges, as current Coast Guard regulations require escort tugs for only single hull barges. This law was signed by the Governor on September 24, 2009. No lobbying activities are funded by or provided as match to the assistance agreement.
- On July 11, 2009 the Coalition held their 16th consecutive Swim Buzzards Bay. This 1.2 mile swim from New Bedford to Fairhaven is open to swimmers from ages 12 to 73, every age, ability, shape, size, and fitness level. One hundred and eighteen swimmers, 53 of which were newcomers, participated in the event demonstrating their care and concern for clean bay waters and a healthy environment.
- A total of 134 volunteers participated in the Baywatchers Water Quality Monitoring Program's 18th water quality sampling season between May and September.
- The Coalition for Buzzards Bay held the Third Annual Watershed Ride on Sunday, October 4, 2009. The Ride, which drew 56 adventurous cyclists, raised more than \$35,000 to support the programs of the Coalition. The 76-mile route begins Horseneck Beach in Westport 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.
- The Coalition assisted the Town of Mattapoisett in the summer of 2009 with the permanent protection of thirty acres of forested land within the Mattapoisett River Valley. Keeping this land from development will help prevent pollution to the river and to Buzzards Bay, benefit drinking water and help maintain open space and important wildlife habitat. The CBB assisted with securing funding from sources including the Department of Environmental Protection's Drinking Water Protection Program and the Mattapoisett River Valley Water Supply Protection Advisory Committee.
- In the summer of 2009 the Coalition assisted the Town of Fairhaven with permanently protecting 52 acres of forest land, called Nasketucket Woods, comprising a significant portion of the inland watershed to the Nasketucket River, Austin Pond, and downstream Little and Nasketucket Bays. The area will be owned and managed by the Town of Fairhaven Conservation Commission. The land includes forest, freshwater wetlands, perennial streams, a vernal pool, and protected habitat for rare species, including the Eastern box turtle, in the immediate vicinity of the Nasketucket River.
- The Coalition assisted the Town of Fairhaven in the acquisition of eight acres of undeveloped forested land along New Boston Road in July of 2009. The Coalition, which had previously secured an option to purchase the property, finalized the transaction with grant

funding provided by Fairhaven's Community Preservation Committee. The land will be owned and managed by the Town of Fairhaven Conservation Commission.

- The former Acushnet Sawmill site on Mill Road in Acushnet, which is owned by The Coalition for Buzzards Bay, received even greater protection from development when a permanent conservation restriction (CR) on the 19-acre property was granted by the Coalition to the Acushnet Conservation Commission in July of 2009.
- The Coalition sponsored the Bioneers by the Bay: Connecting for Change conference in downtown New Bedford. On October 23, 2009, Coalition President Mark Rasmussen and Buzzards Bay Center architect Richard Renner hosted a workshop titled Buzzards Bay Center: Building Green for New Bedford and the Bay. The workshop took place at the old Cogshall Counting House located on Front Street - future headquarters of The Coalition for Buzzards Bay. Mark and Richard discussed the greenest historic restoration Southeastern Massachusetts has ever seen; specifically, the application of proven and replicable techniques to the conversion of an under-utilized 170-year-old building into a Center for public awareness, environmental education, advocacy, and headquarters for the Coalition. Participants received a tour of the Center during the workshop. Bioneers by the Bay provides an opportunity for concerned citizens to meet with environmental, scientific, and social justice innovators to address the Earth's most pressing challenges.

Municipal Grant Program Detail: Fall 2009 Awards

In the fall of 2009, 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 \$167,000 was allocated from FY09 funding for municipal grants (see section II budget detail). Through the Massachusetts Office of Coastal Zone Management and the Executive Office of Energy and Environmental Affairs, the BBNEP announced the award of \$167,000 in grants to eight 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:

- **Town of Rochester** - \$20,000 to improve a herring run at Leonards Pond, which provides important spawning habitat for fish traveling up the Sippican River. The town has been working with the Massachusetts Division of Marine Fisheries, Alewives Anonymous, The Coalition for Buzzards Bay, and a private landowner to replace the existing poorly functioning fishway to improve the passage of fish into the pond. The town will

hire an engineer to produce detailed site plans and construction specifications, and eventually hire a contractor to remove and replace the fishway.

- **Town of Rochester** - \$5,000 to appraise land parcels totaling 150 acres along Wolf Island Road in the Mattapoisett River Valley Groundwater Protection District, which provides drinking water to the towns of Rochester, Marion, Mattapoisett and Fairhaven. The town is seeking to purchase the properties to protect drinking water supplies and wildlife habitat.
- **Town of Fairhaven** - \$35,000 to acquire open space at Nasketucket Woods. In partnership with the Coalition for Buzzards Bay, the town of Fairhaven has sought funding to assist with the acquisition and legal costs associated with protecting an eight-acre parcel of land containing important wetlands and wildlife habitat.
- **Town of Westport** - \$20,000 to develop designs to treat stormwater from Old County Road discharging to the head of the Westport River collected by more than 30 catch basins along the road discharges directly to the head of East Branch of the Westport River. The design will focus on a large discharge that has contributed to shellfish closures in the area. Once the road designs are complete, the town will seek grant funds to construct the stormwater treatment systems.
- **Town of Marion** - \$7,500 to complete the required permits for the Grassi Bog wetland restoration project, which will restore an abandoned cranberry bog into a natural wetland system. The project includes rerouting a small stream from an existing bypass channel to a new channel that will flow through the bog, constructing an emergency spillway to protect the dyke that creates the existing eight-acre pond, creating new spotted turtle habitat, eliminating fish passage impediments, and removing of old roads. Natural Resources Conservation Service awarded the town a \$10,000 grant for the project, which was designed in consultation with the Massachusetts Division of Marine Fisheries. The grant will be used to prepare necessary environmental permits for the project.
- **Town of Marion** - \$3,600 for land surveys and deed searches as part of an effort to permanently protect 14 acres of town-owned land near Holmes Woods near Sippican Harbor. The properties are currently unprotected, and require survey plans and deed descriptions before they can be registered at the county deeds office and protected as open space under Article 97 of the Massachusetts Constitution.
- **Town of Mattapoisett** - \$9,900 to develop engineering plans to restore a seven-acre salt marsh at Pico Beach. The town-owned salt marsh is tidally restricted because of undersize culverts under a road and footpaths. The restriction of tidal flow is reducing salinity of the marsh, killing native plants and allowing non-native invasive species like the Common Reed (known also by its scientific name, *Phragmites*) to invade. The changes have reduced or eliminated wildlife dependent on native salt marsh vegetation.
- **Town of Bourne** - \$15,000 to evaluate and develop plans to improve the migration of herring and restore salt marsh vegetation in the Bourne Fishway, also known as Dykes

Creek. Two culverts restrict salt water tidal flow. The town will hire an engineer to complete a survey of the existing fishway and surrounding salt marsh, and to develop plans to restore the site.

- **Town of Wareham** - \$35,000 to acquire a conservation restriction on 2.5 acres of land bordering Marks Cove in partnership with the Wareham Land Trust. The state's Natural Heritage and Endangered Species Program (NHESP) has identified this property as priority habitat for rare species. Protection of this parcel will complete a contiguous corridor of 115 acres of land in this sensitive area.
- **Town of Dartmouth** - \$16,000 to pay for the appraisal, survey, and legal work to finalize the donation of a 30-acre conservation restriction to the town. The town will work with the Coalition for Buzzards Bay to preserve the property, which abuts existing protected town-owned lands along Dyke Creek in Apponagansett Bay. The land is comprised of salt marsh and upland, and provides habitat for species such as roseate and common terns. Protection of this property will help maintain the existing natural habitat buffer along the creek to protect water quality and habitat.

Completed and Ongoing Municipal Grants on this Cooperative Agreement

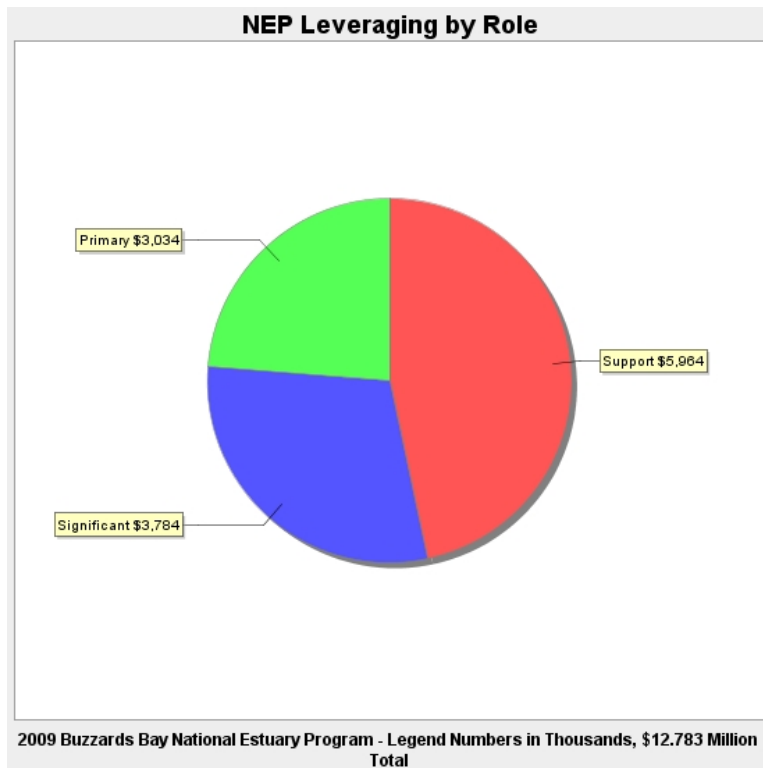
Town	Description	Award	Status	End Date
Wareham	Redesign and repair a fish ladder on Gibbs Brook, the second largest herring run in Wareham.	\$35,000.00	Funds returned to minigrant program	
Rochester	Feasibility study for improving the passage of anadromous fish at the Hathaway Pond Dam.	\$7,500.00	completed	\$6700 moved to 502
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	Completed	6/30/09
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	completed	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	completed	Moved to 502
Westport	Stormwater Designs for the Middle School and Library Complex	\$15,000	completed	6/30/09
New Bedford	Stormwater Mapping to update the BBNEP Stormwater Atlas	\$20,000	completed	12/30/08
Bourne	Stormwater design for Hen Cove	\$30,500	completed	6/30/09
	SUBTOTAL	\$166,500		

Westport	Design treatment for stormwater discharges Phase II: Stormwater Solutions for West Side of Old County Road	\$20,000	In progress	
Mattapoisett	Salt Marsh Restoration – Pico Beach Road	\$9,900	In progress	ends 12/31/10
Fairhaven	Nasketucket Woods Land Acquisition Bridge Street Parcel	\$35,000	In progress	ends 6/30/10
Dartmouth	Dike Creek Hughes Conservation Restriction	\$16,000	In progress	ends 6/30/10
Rochester	Wolf Road Preservation Project	\$5,000	In progress	6/30/10
Rochester	Leonard's Pond Anadromous Fishway Im- provement	\$20,000	In progress	6/30/10
Wareham	Marks Cove Conservation Corridor	\$35,000	In progress	6/30/10
Bourne	Fishway Restoration Phase I	\$15,000	In progress	6/30/10
Marion	Holmes Woods and Homes Lane Open Space Protection	\$3,600	In progress	6/30/10
Marion	Grassi Bog Open Space Protection	\$7,500	Funds returned	
	SUBTOTAL	\$167,000.00		
	AVAILABLE FUNDS TO BE AWARDED	\$39,492		
	TOTAL MINIGRANT FUNDS	\$277,922		

2009 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, 2008 to September 30, 2009, the Buzzards Bay NEP's leveraged funds in the significant or primary category totaled \$3 million and \$3.7 million respectively.

NEP Role (primary, significant, or support)	Total
Primary	\$3,034,000
Significant	\$3,784,000
Support	\$5,964,000
Grand Total	\$12,783,000



We will report our final 2009-2010 estimates to EPA in the fall 2010.

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 \$10,000 for all travel in our work plan. It is important to recognize that this category includes 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 the February 2010 in Washington, DC. A summary of out of state and in state travel to date is provided below.

Executive Director	Washington DC NEP Meeting	Feb-10	\$1,021.32
	National Meeting sub-Total		\$1,021.32
Staff In-state Travel	reimbursements through December		\$830.30
Staff In-state Travel	projects to end of year		\$1,250.00
	Total Travel		\$4,001.62

Section 2: FY2010 Funds Work Plan Narrative Summary

Federal FY 2010 Tasks (July 1, 2010 to June 30, 2011)

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 state and 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 on the NEPORT website. 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. Work related to this task will be principally generated through the municipal grant program and in response to request by area lands trusts, municipalities, and the Coalition for Buzzards Bay.

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. Several wetland restoration projects funded through the NAWCA program, Ducks Unlimited and the Coalition for Buzzards Bay are expected to be completed this year.

NEP Staff:

Principal Staff involved in these tasks: Regional Planner will provide technical support to Bay Lands Center and area lands trusts. Additional support will be provided from other Buzzards Bay National Estuary Program staff, with 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. Grant applications to state and 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 seven 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 will be submitted through the NEPORT website.
6. Assistance in the completion of past projects including facilitation of permitting, including past NAWCA funded projects in Sippewisset Marsh in Falmouth, in partnership with Ducks Unlimited.

Milestones:

1. Report to EPA each September via GPRA report on the NEPORT website. 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. State land conservation grant eligibility (and other grant programs) 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 for meeting the anticipated new Phase II MS4 permit, upon request. New and existing grants to New Bedford and Fairhaven, and from DEP, will continue to occupy staff in our collaboration with the projects, especially the review of draft designs and plans.

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 the program's website.
2. Updated Atlas maps to be on the program's website.
3. Maps prepared for municipalities and others upon request.

Milestones:

1. New stormwater atlas maps, including the posting of Google Earth files and ARCMAP shapefiles, added to website initiated July 1, 2010. Completed February 28, 2011.
2. 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 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 caus-

ing 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: Other tasks relating to local map preparation and data analysis, QA, and other technical assistance demands and requests by watershed municipalities affects the programs abilities to meet these projects.

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 - 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 Executive 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 4 - 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 in the spring, with all projects completed by June 30 of the following year. In 2010, the RFR will be issued in April 2010 for an anticipated contract award date of July 15, 2010.

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 to expedite this task and to ensure better consistency with state stormwater policies. The Buzzards Bay Action Committee (BBAC) 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 April 15, 2010 for next RFR round.
2. Grant applications received May 18, 2010.
3. Grants Awarded July 15, 2010.
4. Contracts closed June 30, 2011.

Budget:

Besides the cost of staff to oversee and assist in the completion of projects, a minimum of \$258,000 in section 320 funds are dedicated to this effort. In addition, the BBNEP steering Committee directed an additional \$12,000 in unspent travel and supplies funds from the first two amendments in the current grant toward the municipal grant program.

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 5 - 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 2010 work plan sent to Steering Committee in March 2010.
4. Approved Cooperative Agreement sent to EPA in April 2010.
5. EPA finalize award by 30 June 2010.

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 6 - 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 (\$50,000 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 Commonwealth of Massachusetts for a number of years provided between \$100,000 and \$150,000 annually toward this program which was used as match to our program, but this has been discontinued. Because of these sustained cutbacks to the program, the BBNEP Steering Committee increased the allotment in the budget to monitoring from \$25,000 to \$50,000.

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, Regional Planner, 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 2010 monitoring by May 2010.
2. Coalition releases State of the Bay report in 2011.

Budget:

The only costs of Section 320 funds under this Cooperative Agreement with EPA 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 7 - 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 the programs annual summary shellfish closure web page.
2. Data and information for The Coalition for Buzzards Bay 2011 State of the Bay report

Milestones:

1. Shellfish bed closure map for the summer of 2010: Initiated August 2010, completed September 2011.
2. Data for Coalition for future State of the Bay report (started fall 2010, completed July 2011.)
3. Coalition State of the Bay report started (Fall 2011, completed spring 2012.)

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 8 - 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 the condition and state of Buzzards Bay, progress toward restoration and protection goals, and collaboration with the Buzzards Bay National Estuary Program in their activities. These activities include the July 2010 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 2010," 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 2009, the Coalition held a the "Watershed Ride" bi-cycling event. The BBNEP prepared the map poster for this event and individual maps for the riders. We expect this event will be repeated in 2010. 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 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 2010 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. In addition, in March 2010, the Coalition hired a new education coordinator to address adult education needs. The Coalition has also purchased a new building which will contain educational exhibits for the public.

Responsible Partners and Their Role(s):

The 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 websites. 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 9 - 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

and 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 July 2010 and September 2010 to finalize the CCMP.
2. Public presentations on the new combined CCMP and Watershed Action Plan in the Summer 2010.
3. Strategy finalized for new state received federal approval process by December 2010.
4. Document complete, published and posted by December 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 rec-

ommendations 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 10 - 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 11 - 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 2010 and Spring 2011 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 (\$4,900) covers all out of state meeting expenses, as well as all in-state 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 12 - 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/FY09 Work Plan category Totals

With this amendment, we also reprogram and reallocate some previous funding to reflect actual expenditures.

First, due to travel freezes, and changes in state policy to lease, rather than purchase computers, excess funds are present in the Supplies and Travel categories. The Buzzards Bay NEP Steering Committee approved the redirection of \$12,000 in these funds to the municipal grant category.

Second, because of difficulties in closing out certain municipal grants in the previous cooperative agreement more funds in personnel were expended and less in the municipal grant category. This is corrected in this grant amendment by moving funds out of the personnel, fringe, and indirect categories, and moving them into the Other category. Other needed changes was also to include increases in the contractual grant category because of increased expenditures for stormwater contractual assistance. We summarize all these changes in the table below.

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.

	revised Fed FY08 Workplan	current fed FY09 workplans	reprogram (fed FY09 state F10)	revised FY09	New FY10	new amendment
Personnel	\$237,740.00	\$235,620.00	(\$42,335.00)	\$193,285.00	\$246,657.00	\$677,682.00
Fringe	61,361.00	\$65,008.00	(\$11,274.00)	\$53,734.00	\$86,404.00	\$201,499.00
Travel	8,939.00	\$10,000.00	(\$8,000.00)	\$2,000.00	\$4,900.00	\$15,839.00
Supplies	17,597.00	\$8,324.00	(\$4,000.00)	\$4,324.00	\$3,106.00	\$25,027.00
Contractual	40,000.00	\$55,000.00	\$46,500.00	\$101,500.00	\$60,000.00	\$201,500.00
Other-minigrants	139,486.00	\$108,500.00	\$30,006.00	\$138,506.00	\$238,500.00	\$516,492.00
Other		\$26,102.00	\$0.00	\$26,102.00	\$40,580.00	\$66,682.00
Indirect	61,627.00	\$66,446.00	(\$10,897.00)	\$55,549.00	\$69,853.00	\$187,029.00
TOTAL	\$566,750.00	\$575,000.00	\$0.00	\$575,000.00	\$750,000.00	\$1,891,750

	(4) Local 08 Revised	(2) Local 09	Local 10	new amendment
Personnel	\$194,600.00	\$118,600.00	\$155,400.00	\$373,600.00
Fringe				
Travel	\$500.00	\$1,350.00	\$5,000.00	\$2,700.00
Supplies	\$34,500.00	\$33,209.00	\$11,000.00	\$79,309.00
Contractual	\$165,400.00	\$146,216.00	\$64,000.00	\$430,716.00
Other	\$172,300.00	\$276,375.00	\$516,000.00	\$1,008,550.00
Indirect				
TOTAL	\$567,300.00	\$575,750.00	\$751,400.00	\$1,894,450.00

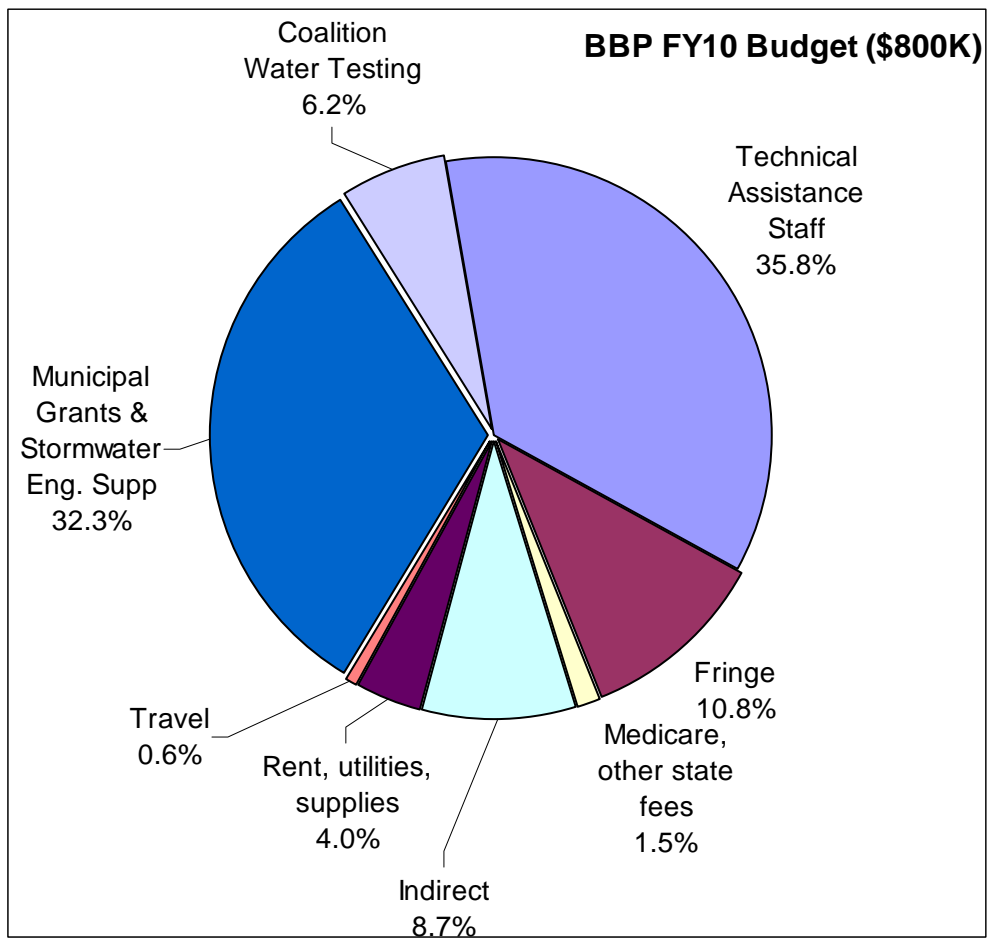
FY10 Budget

Personnel

The FY10 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; Financial Assistant 1/10 time.

Budget Overview for communications.

Note: The Coalition for Buzzards Bay WQ monitoring funding (\$50,000) is not included in this Cooperative Agreement, but will be provided to The Coalition under a separate agreement.



Match to the Cooperative Agreement

Below is a summary of the \$751,450 match that is being provided to meet the match requirement under this Cooperative Agreement to the Commonwealth (\$750,000 required). The largest portion of the match is provided by the municipal grant program because of its larger portion of the budget due to increased Congressional funds. The second largest match to the grant are programs at the Coalition for Buzzards Bay, which last year had an operational budget of over \$3 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.

1) Coalition for Buzzards Bay Water Quality Monitoring Program (\$67,500).

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 \$62,550 (at \$20.85/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 exceeds \$200,000. This match does not include \$50,000 that will be used as match for a separate grant with EPA Region I.

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 (\$10,400).

The BBAC is composed of high level municipal officials, generally Selectmen, Town Administrators, or Department heads that meet monthly (12 municipalities, about 10 officials typically attend, at 8 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, \$13,000 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.

5) Municipal Match to BBNEP grants (\$516,000).

The \$238,500 in the **BBNEP** mini-grant program will generate a minimum of \$78,705 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: education programs and land conservation programs (\$147,500).

The Coalition for Buzzards Bay's annual budget exceeds \$3,000,000 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.

The Coalition also has vigorous land protection program to encourage Bay-focused watershed land protection, empower local land trusts, and educate private landowners about land conservation options. These efforts are supported by foundation and donor-supported programs, and include several staff members and has 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.

Detail Match Breakdown

Proposed MATCH (non-state)	Total	Personnel	Fringe	Contractual	Other	Supplies	Travel	Indirect	Total
1. Coalition WQ Monitoring Program	\$67,500			\$55,000		\$10,000	\$2,500		\$67,500
2. BBAC dues	\$10,000			\$9,000		\$1,000			\$10,000
3. BBAC, other municipal meetings, workshops	\$10,400	\$10,400							\$10,400
5. match to BBNEP mini-grants	\$516,000				\$516,000				\$516,000
6. Coalition education and land conservation programs									
VP Education & Public Engagement \$55,000									
VP Watershed Protection \$50,000									
Director of Land Protection \$40,000	\$147,500	\$145,000					\$2,500		\$147,500
Summary	\$751,400	\$155,400		\$64,000	\$516,000	\$11,000	\$5,000		\$751,400

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 retraining 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 planfy10

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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 \$167,000 in 10 grants to 8 Buzzards Bay watershed municipalities.
- Closed out 7 grants totaling \$131,000.
- Solicited for, and awarded contract for \$15,000 to an engineering firm to develop engineering designs and site plans to treat stormwater discharges for New Bedford.
- 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, 2009 status maps based on information from the Division of Marine Fisheries.
- Fall 2009 and Winter 2010 the BBNEP participated in meetings to develop consensus for solutions for reducing nitrogen pollution in Wareham.
- 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 closures.
- Produced over 323 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 2009, maps used by municipalities in open space reports and their grant applications, 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>).
- At the request of the Town of Marion, the Buzzards Bay Program updated its buildout analysis for the town of Marion.

- Created interactive Google Earth map (kmz file) for the Bristol County portion of the Buzzards Bay watershed from the updated FEMA maps for planning purposes only. Other Buzzards Bay watershed counties will be added when the digital FEMA maps become available.

Environmental Outcomes

- The BBNEP funded survey and deed work to permanently protect over 15.5 acres of land in the Town of Marion as open space.
- The BBNEP funded the appraisal, survey and legal expenses to help the Town of Dartmouth acquire a conservation restriction on a 30 acre property that resulted in a 235 acres assemblage of protected open space.
- The BBNEP funded a conservation restriction on 2.5 acres that completed a 115 acre contiguous corridor of priority habitat for rare species, added to a wildlife habitat corridor, preserved the quality of the drinking water supply and adjacent coastal waters, prevent development in a sensitive velocity flood zone and provided significant water-based and passive recreational opportunities.
- The BBNEP funded the appraisal of 149.81 acres of land in Rochester that is currently under negotiation for permanent protection. The properties are located within the Mattapoisett River Valley Groundwater Protection District that provides drinking water to the towns of Rochester, Marion, Mattapoisett and Fairhaven.
- The BBNEP funded acquisition and legal costs associated with the purchase of 8 acres parcel in Fairhaven that will complete a project protecting over 52 acres of land.
- At the request of the Town of Marion, the Buzzards Bay Program updated its buildout analysis for the town of Marion to improve understanding of potential environmental impacts from future development, help target lands for acquisition, and identify areas where impacts of onsite wastewater discharges need to be reviewed.
- At the request of the Town of Fairhaven, produced a GIS build-out analysis for their Comprehensive Water Management Plan (CWMP) to improve understanding of potential environmental impacts from future development, and to help develop plans to reduce wastewater and stormwater discharges to meet bacteria and nitrogen Total Maximum Daily Load Requirements.
- Produced over 323 new or revised maps and fulfilled dozens of requests for data, calculations, or graphics to be used for environmental newsletters and reports, to increase public awareness of environmental projects, to enhance public education efforts, or to be included in environmental grant applications, or as part of grant reporting.
- Assisted with stormwater design and final review of remediation plans for Head of Westport. Stormwater discharges from this site are contributing to shellfish bed closures in the upper estuary. This grant compliments earlier efforts funds by the 319-grant program, and grants from the USDA to area farmers.
- BBNEP is creating parcel level coverage for the Town of Gosnold. Such data is essential for land use planning, adopting environmental zoning regulations, identifying public lands to ensure their protection, and to help identify future acquisition and protection of sensitive wetlands and plant and animal wildlife
- Created interactive Google Earth map (kmz file) of FEMA flood zones for the Bristol County portion of the Buzzards Bay watershed to assist in local planning efforts and mu-

nicipal efforts to adopt coastal flooding overlay districts that help minimize loss of life, damage to property, and damage to sensitive habitat and wetlands cause by coastal storms. Other Buzzards Bay watershed counties will be added when the digital FEMA maps become available.

- Distributed 2 ft contour LIDAR data and LIDAR digital elevation models to the municipalities and engineering firms. This data is being used by communities to identify areas susceptible to sea level rise and storm surge. Using this data, Mass CZM prepared sea level rise inundation maps for the Town of Westport. The Buzzards bay NEP is also using this data to determine stormwater flow at two sites where we are working with engineers to design stormwater treatment systems. The use of the LIDAR data in this way will illustrate the value of the LIDAR data for the development of similar stormwater treatment design projects around the watershed.
- The BBNEP continues to work with the Massachusetts DEP to review the GIS analysis of nitrogen TMDL reports for each Buzzards Bay municipality, as they are finished. This work will lay the foundation of working with Buzzards Bay municipalities to develop strategies to meet these TMDLs.