

I. The Big Picture of the Buzzards Bay Project

Identity, Structure, History, and Purpose

The Buzzards Bay Project National Estuary Program is an advisory and planning unit of the Massachusetts Office of Coastal Zone Management (MCZM). Its offices are located in Wareham, MA. The Buzzards Bay Project receives funding from, and is part of the US Environmental Protection Agency's National Estuary Program. Created in 1985, the Buzzards Bay Project completed a Comprehensive Conservation and Management Plan (CCMP) for the Bay in 1991. This CCMP is a blueprint for the protection and restoration of water quality and living resources in Buzzards Bay and its watershed. Today, the Buzzards Bay Project provides funding and technical assistance to municipalities and citizens to implement the recommended actions contained in the CCMP.

Our Mission: 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.

Since its inception, a Policy Committee has been the entity ultimately responsible for ensuring that the Buzzards Bay Project meets its goals. This Policy Committee is composed of the Massachusetts Executive Office of Environmental Affairs Secretary and the US Environmental Protection Agency (EPA) New England Regional Administrator.

From 1985 to 1991, the Buzzards Bay Project staff, largely employees of MCZM, was directly overseen by a Management Committee composed of more than 20 members representing state, federal and regional agencies, municipalities, and citizens groups. The EPA chaired this Management Committee, and there were several standing committees including a Technical Advisory Committee, a Buzzards Bay Advisory Committee, and a Management Plan Advisory Committee.

With the completion of the Management Plan in 1991, the Management Committee replaced itself with a 5-member Steering Committee composed of those parties most interested in ensuring implementation of the Management Plan. These members were Massachusetts Coastal Zone Management (CZM), the US EPA, the Southeast Regional Planning and Economic Development District and two



Figure 1. Current BBP structure.

nonprofits: the Buzzards Bay Action Committee, which is composed of municipal officials, and the Coalition for Buzzards Bay, a citizen-based group. Both the Action Committee and the Coalition were offshoots of the Project's Citizen Advisory Committee which split in 1987, and ultimately led to the formation of these two independent nonprofit organizations. Other standing committees of the Project were abolished.

The new Steering Committee, which remains in place today, has the responsibility of guiding implementation activities of the Project. It is chaired by the MCZM representative (generally the Director or Deputy Director), a reflection of MCZM's role and responsibilities in helping facilitate the implementation of the Management Plan, and also a reflection of the agency's role in directly supervising the MCZM employees that staff the Project.

While not on the Steering Committee, the Buzzards Bay Project works closely with several other agencies identified as key partners in the Buzzards Bay CCMP. These include the Massachusetts Department of Environmental Protection, the Massachusetts Division of Marine Fisheries, the Cape Cod Commission, and the USDA Natural Resources Conservation Service. These organizations have collaborated or coordinated with the Project on a wide range of issues and initiatives.

One of the most important assets to the Buzzards Bay Project is that our parent agency, Massachusetts Coastal Zone Management is within the Executive Office of Environmental Affairs, one of the state's cabinet agencies. This places MCZM on even footing with other state environmental agencies such as the Department of Environmental Protection, Division of Fisheries and Wildlife Law Enforcement, Department of Environmental Management, and Department of Food and Agriculture. Another benefit of the Buzzards Bay Project's placement within MCZM is that EOEA and MCZM provide the financial administration to operate the Project, leaving the Project staff free to focus on their key responsibilities such as technical support to Buzzards Bay municipalities.

Funding of the Buzzards Bay Project

The Buzzards Bay Project is largely funded by the US EPA in the form of "Cooperative Agreements" with the Commonwealth of Massachusetts. The state provides a 25% match to this federal funding, and historically this has most often been in the form of a cash match which has been directed to Buzzards Bay municipalities as "grants" for specific implementation projects such as stormwater remediation initiatives to open shellfish beds. The municipalities in turn provide 25% match to these grants.

The Buzzards Bay Project has received funding from various other sources, but the "core funding" to keep the program operating and pay for key staff comes from the US EPA through "Section 320" of the Clean Water Act. The responsibilities of these core staff is to provide technical expertise in state and local efforts to implement the Buzzards Bay CCMP. The cost of maintaining core staff (Project Director, Administrative Assistant, Wetlands Specialist, GIS Analyst), a BBP office, and state indirect costs and benefit compensation, now amount to about \$240,000 annually. When the Project receives funds in excess of what is needed to cover needed

technical assistance staff, it generally directs the funds to Buzzards Bay municipalities as municipal grants. This is illustrated by Figure 2.

The Buzzards Bay staff also includes a Stormwater Specialist on detail from the USDA Natural Resources Conservation Service. About half of this individual's time is directed toward urban runoff issues, the other half to agricultural problems in the watershed. From time to time, the BBP may have additional staff or interns funded through other sources of funding besides "Section 320" funds. For example, in 1996, the Buzzards Bay Project received a \$450,000 competitive grant to construct a facility to promote and test alternative septic systems in Massachusetts. These funds also pay for the BBP's operator of this Septic System Test Center, constructed on Cape Cod, and now in operation.

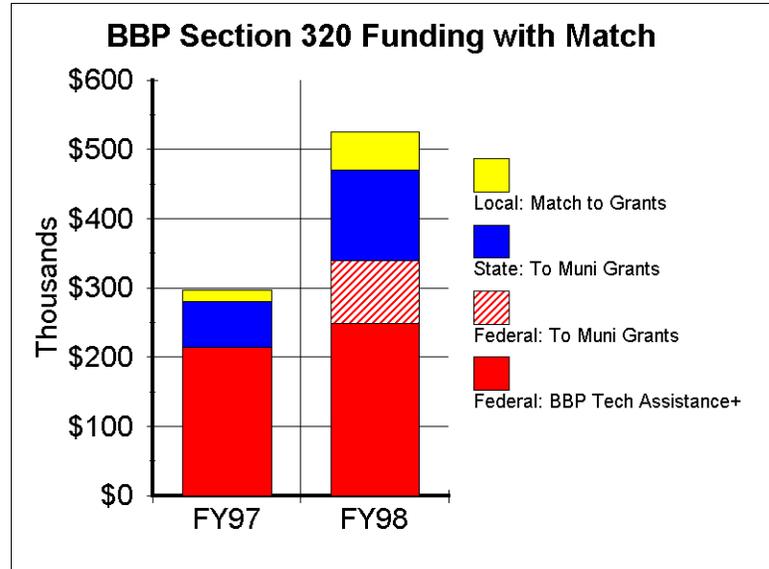


Figure 2. Use of EPA Section 320 funds (by federal Fiscal Year) by the BBP and related match expenditures.

One of the great successes of the Buzzards Bay Project has been its ability to receive other sources of funding, including many national, state, and regional competitive grants. For any given year, these funds have far exceeded those received from the US EPA under Section 320. The Project's success in receiving these grants is illustrated by Figure 3. Since 1993, when the Buzzards Bay Project began aggressively seeking additional implementation funds (including efforts by municipal officials for Congressional add-ons), the Buzzards Bay Project has directly secured more than \$3.0 million for town or project implementation initiatives, whereas the Project received only \$1.4 million in EPA section 320 base funding during the same period.

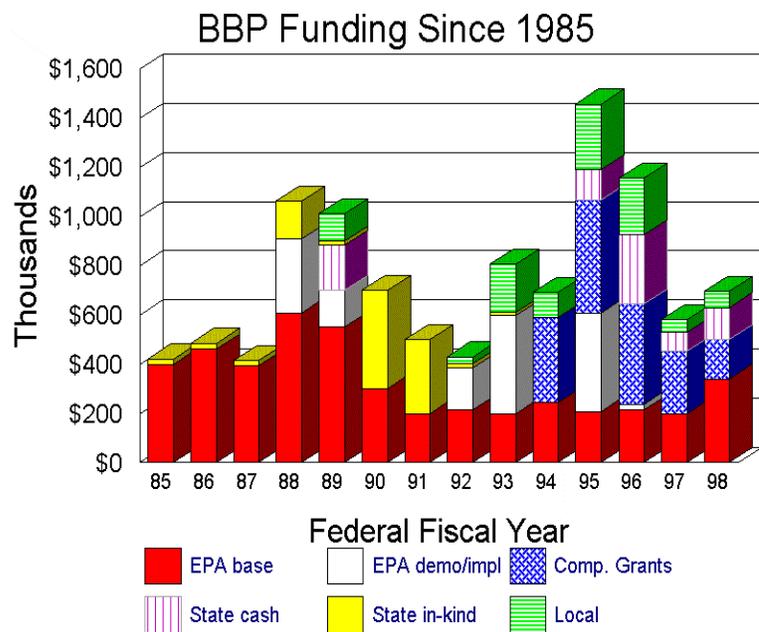


Figure 3. Sources of funding received or managed by the BBP including matching funds.

A few recent awards are shown in Table 1. Not included in this total are the many state and federal grant applications that the Buzzards Bay Project prepared on behalf of Buzzards Bay municipalities that resulted in implementation of specific projects around Buzzards Bay.

Table 1. Selected recent grant awards during the approximate federal fiscal year award. (*Note: BBP receives federal awards at the end of the respective federal fiscal years, so these dates are nearly representative of calendar year award totals. Grants are not necessarily expended in the fiscal year in which they were awarded. "MET" = Massachusetts Environmental Trust which administers a grant program to expend fees collected by the Massachusetts environmental license plate program.*)

FY	Funding Agency: Grant Initiative	Federal	State	MET	Local/oth
96	DEP 319: N management-Open space	\$33,000	\$0	\$17,000	\$10,000
96	DEP 319: Test Center Support	\$125,000	\$10,000	\$0	\$15,000
96	EPA Region I Fairhaven stormwater	\$50,000	\$0	\$0	\$0
96	Mass Highway ISTEA (in progress)	\$139,000	\$0	\$50,000	\$25,000
97	DEP 319: Weweantic herring Run	\$38,800	\$0	\$0	\$22,000
98	319: Test Center Continuation	\$129,000	\$3,000	\$40,000	\$7,000
98	Mass. WRBP: Salt Marsh Atlas	\$0	\$11,000	\$0	\$0
99	319: Winsegansett	\$22,500	\$0	\$8,000	\$7,000
99	EPA: 5 star Winsegansett	\$9,700	\$0	\$3,300	\$3,000
99	Region I: Nonproprietary septic systems	\$30,000	\$35,000	\$5,000	\$5,000

(Two additional 319 grants pending totaling \$150,000 federal)

The Buzzards Bay Project is expected to continue receiving funding from the US EPA and Commonwealth of Massachusetts in its efforts to implement the Buzzards Bay Comprehensive Conservation and Management Plan. Several pieces of legislation are pending before Congress that would reauthorize the National Estuary Program and provide additional federal funding for implementation. With nearly all BBP funding directed toward implementation of this CCMP, the Buzzards Bay Project continues an aggressive program of securing competitive state and federal grants to assist the Project and area municipalities to implement the recommendations contained in the Management Plan. The Buzzards Bay Project hopes this strategy will continue to benefit municipalities, citizens, industry, tourists, shellfishermen, recreational boaters, and all the other stakeholders in Buzzards Bay and its watershed.

Priorities of the Buzzards Bay Project

The priorities of the Buzzards Bay Project remain those laid out in the Buzzards bay CCMP. In the CCMP, the four major areas of concern were identified as:

- 1) Fecal coliform contamination, especially via stormwater discharges, and resulting shellfish bed closures.

- 2) Nitrogen loading from human land use of coastal embayments within Buzzards Bay and resulting coastal eutrophication
- 3) toxic contamination-both ecosystem impacts and contamination of seafood
- 4) habitat loss especially wetlands, within the bay and watershed.

Because of the BBP has only a few staff and modest amounts of funding, historically the Project has put its effort in where it has felt it can effect the greatest change. For example, from the outset, the Buzzards Bay Project contributed modestly to certain Buzzards Bay “mega projects” where other agencies had already contributed considerable resources. Good examples of these problems include the New Bedford PCB Superfund Site, and the New Bedford Sewage Treatment Facility upgrade. Such an approach was taken, not because these projects were unimportant, but because the limited resources of the Project could be better used to fill an important void. This need was identified in the Buzzards Bay CCMP in numerous recommendations. Namely, Buzzards Bay municipalities had a pressing need of funding and technical assistance to implement the recommendations in the CCMP to address non-point source pollution.

In the development of each year’s work plan, the Buzzards Bay Project Steering Committee revisits the Buzzards Bay CCMP priorities periodically, but for the most part has remained committed to the four major problem areas identified above. In practical terms however, the day to day activities of the BBP staff are dictated by what grants the Project has awarded to the communities, what grants the Project has received directly, and what types of technical support is specifically requested by the towns. These priorities are in turn refined by the Buzzards Bay Project in its monthly meetings with the Buzzards Bay Action Committee. This nonprofit organization of municipal officials is an important sounding board for the project in terms of what services are needed by the towns. The Project also uses this municipal organization to refine the municipal grant categories and amounts whenever the Project has funds to award to municipalities. This dynamic relationship has resulted in a continual evolution and changing of Buzzards Bay Project activities to meet the needs of the municipalities. By knowing both municipal needs, and being well connected to state and federal granting agencies, the BBP often becomes a successful broker in matching town needs to state and federal grant programs, and this relationship has proved fruitful to many Buzzards Bay towns.

Approaches, Solutions and Outreach

The Buzzards Bay Project is a non-regulatory, advisory unit of government. Its principal mission is one of providing technical assistance to Buzzards Bay municipalities, citizen groups, and the public. While most Buzzards Bay Project actions are pro-active and relate to municipal technical assistance, citizen groups or the public may request and receive assistance that may not be well received by a particular municipal board. A good example of this type of situation would be the Holly Woods Rd. development case in Mattapoisett. In this case, the Buzzards Bay Project reacted to citizen complaints about alleged illegal filling of wetlands, and which eventually resulted in the Buzzards bay Project submitting an appeal to the state to overturn a local Conservation Commission decision.

Besides the Buzzards Bay Action Committee, another organization contributing to the Buzzards

Bay Projects success is the citizen group, the Coalition for Buzzards Bay. The Coalition currently has 1,882 members, with 1,623 of these being individuals, 205 being business, and the remainder being clubs, other non-profits, and foundations. The complimentary relationship between the Coalition, Action Committee and Project is not surprising since the Coalition and Action Committee originated from the Buzzards Bay Project's Citizen Advisory Committee, and all three organizations have identified implementation of the Buzzards Bay CCMP as one of their primary goals.

To avoid redundancy among the organizations, and maximize the effectiveness of the Buzzards Bay Project, the BBP Steering Committee voted to eliminate the Buzzards Bay Project's outreach program. This resulted in the elimination of the outreach coordinator staff person and quarterly newsletter and also led to the creation of the wetlands specialist position. During this transition period, the consensus among BBP Steering Committee members was that the Coalition for Buzzards Bay, who also had an outreach program and newsletter, was far better equipped to reach the general public about the actions need to protect water quality and living resources of Buzzards bay and the watershed.

Overall the change in direction has worked very well for the three organizations. To address concerns about possible confusion of the identity of the three organizations, the Buzzards Bay Project established a web site (www.buzzardsbay.org). The website has proven to be a valuable repository for reports and information from the Buzzards Bay Project, thereby reducing staff time in responding to routine queries for information. The Project also periodically releases press release to area newspapers on its activities. The Project continues to form collaborations with both the Coalition and Buzzards Bay Action Committee. For example, the Project is currently providing technical assistance to the Coalitions in the implementation of the Bay Lands Center, and assisting the Buzzards Bay Action Committee in the development of a boat no discharge area application for Buzzards Bay.

Indicators of Success

The Buzzards Bay Project has relied on shellfish bed closure statistics, and the results of the Citizen's monitoring program for nitrogen as the best measures of success for evaluating water quality improvements related to implementing the recommendations in the Buzzards Bay CCMP. Success at implementing other recommendations in the CCMP will be evaluated on based measures of management action such as the number of towns adopting stormwater management regulations, or the number of embayments designated no discharge areas to name two examples.

With regards to nitrogen loading, it is widely believed that most actions to manage nitrogen will not result in improved water quality since there is a lag time between watershed inputs and groundwater discharges to coastal waters is often many years to decades. The exception to this rule is better managed direct discharges like sewage outfalls, or sewerage immediately along the coast, where improved water quality may be observed in just a few years.

The citizen's monitoring program was implemented cooperatively and under the guidance of the Buzzards Bay Project to gather data to support management action, especially through

embayment comparisons, and to track long term trends in water quality. This monitoring program has shown that although the central portions of Buzzards Bay have very good water quality, many embayments exhibit eutrophic conditions. Each embayment has its own suite of sources and potential management solutions. In order to encapsulate the myriad of measures monitored by the program, the BBP created a eutrophication index to score each bay on a 0-100 scale. Embayments with scores less than 35 are labeled “eutrophic”, embayments with scores of 35 to 65 are labeled fair. Those with scores greater than 65 are labeled “good to excellent.”

In Figure 4 below, these eutrophication classifications are summarized for 33 representative stations monitored in the program the program where most or all stations were monitored. If data was absent from a particular year, and average of adjoining years was used. As shown there were no clear baywide trends. This is because some embayments are showing improvement, others declines. Moreover, yearly variations in rainfall may cause baywide shifts in river dominated estuaries, but have less impact on embayments with small watersheds. For example, 1995 was a very wet year. These results suggest individual embayment trends and assessments will remain the best tool for quantifying long term success of nitrogen management actions.

