

Chapter 1. The Buzzards Bay NEP and CCMP: Then and Now

Program and Management Plan Origins

In 1985, the United States Congress appropriated funds for U.S. Environmental Protection Agency (EPA) to create programs to study and manage four nationally significant estuaries, including Buzzards Bay². These programs were meant to emulate the approaches of the Chesapeake Bay Program that Congress had created in 1983. These four estuary studies would become the pilots for the National Estuary Program that would eventually be established by the Clean Water Act in 1987³.

In 1985, the U.S. EPA and Commonwealth of Massachusetts entered into a Cooperative Agreement to create the Buzzards Bay Project. In 1987, after passage of the Clean Water Act, the Buzzards Bay Project applied for designation under the Clean Water Act, and in January 1988, the U.S. EPA formally designated the Buzzards Bay Project as a National Estuary Program. Today the Buzzards Bay NEP is one of 28 such programs in the United States.

The management structure created in 1985 for the Buzzards Bay Project included a Policy Committee

² In the Buzzards Bay Project's December 1985 newsletter, we wrote, "Congress also recognizes the unique value of Buzzards Bay and selected the bay as one of four estuaries in the country to be studied under a special \$4 million appropriation in 1985." The original efforts to study and protect these four estuaries can be traced to a 1983 attempt to reauthorize the Federal Water Pollution Control Act (98th Congress S431, the Clean Water Act of 1983), which included funding amendments for studies of Buzzards Bay, Narragansett Bay, Puget Sound, and Long Island Sound. Although the legislation did not pass into law, the effort apparently led to appropriations for the four programs. In 1984 and 1985, additional attempts were made to formalize the designation of estuaries of national significance in various bills to reauthorize the Clean Water Act. It was not until 1987 that Congress finally passed the Clean Water Act (reauthorization of the Federal Pollution Control Act) and thus created the National Estuary Program, approving it over a presidential veto. By that time, Congress listed 10 estuaries, including Buzzards Bay, to be given priority for inclusion into the program. See additional details posted at buzzardsbay.org/bbnep-anniversary.htm.

³ The National Estuary Program was established by Section 320 of the Clean Water Act of 1987. The 1987 Clean Water Act was an amended and reauthorized version of the Clean Water Act of 1977, which itself was an amended version of the Federal Water Pollution Control Act Amendments of 1972. The 1972 law and its subsequent revisions have become the basis of a large body of state and federal regulations to "...restore, and maintain the chemical, physical, and biological integrity" of the United States waters and bordering wetlands that are the basis of most recommendations in this CCMP. By controlling water pollution, the Clean Water Act attains and maintains a level of water quality that supports the "protection and propagation of fish, shellfish, and wildlife and for recreation in and on the United States' waters" (USC 33 Section 1251).

composed of the state Environmental Secretary and U.S. EPA Regional Administrator who were jointly responsible for overseeing and implementing a federal cooperative agreement that supported the NEP. A Management Committee more directly oversaw the program. This committee was composed of state, federal, and local officials, citizen groups, and others. Subcommittees to the Management Committee included a Citizen Advisory Committee, a Technical Advisory Committee, and a Management Plan Advisory Committee.

Under this management structure, between 1985 and 1990, the Buzzards Bay Project funded characterizations and assessments of water quality and living resources. Based on those findings, the program identified management options to address the identified problems, and conducted financial assessments of these solutions. With feedback from the public, state, and local government, the Buzzards Bay Project drafted the Buzzards Bay Comprehensive Conservation and Management Plan (CCMP) in 1989, the first NEP to do so. Massachusetts Governor William Weld approved this Management Plan in September 1991, and in April 1992, the U.S. EPA approved it⁴.

The Buzzards Bay CCMP was one of the country's first coastal watershed plans, and one of the first to focus so strongly on nonpoint source pollution and the cumulative impacts of development on water quality and living resources. Moreover, the plan did not focus exclusively on the quality or the long-term protection of Buzzards Bay waters—it also recognized that the protection of freshwater wetlands and inland habitat throughout the watershed (Figure 1) was vital and better land use decisions and improved management of development impacts were important parts of a holistic watershed protection strategy. The 1991 Buzzards Bay CCMP also included a Buzzards Bay Action Compact, signed by the member towns of the Buzzards Bay Advisory Committee (later calling itself the Buzzards Bay Action Committee), an NEP subcommittee composed of municipal officials, and letters of commitment from key federal and state agencies supporting the management plan goals.

The Buzzards Bay CCMP broke much new ground including an innovative coastal nitrogen management strategy that paved the way for the adoption of later TMDL strategies. It was also the first CCMP to address increased sea level rise from climate change. The Buzzards Bay CCMP was also innovative in its focus on support of local government. In fact, nearly three quar-

⁴ Buzzards Bay Project. 1991. Buzzards Bay Comprehensive Conservation and Management Plan, 8/91 Final. Volume 1, EPA and EOA (U.S. Environmental Protection Agency and Massachusetts Executive Office of Environmental Affairs). 246 pp.



Figure 1. Buzzards Bay watershed boundary (blue) adopted in the 2013 Buzzards Bay CCMP.

Watershed boundaries are somewhat changed from the 1991 Buzzards Bay CCMP (see discussion in Chapter 2).

ters of the 119 recommendations contained in the 1991 Buzzards Bay CCMP focused on local government action. This focus on local government was a reflection of Massachusetts’ environmental regulatory framework, particularly the “home rule” laws, which empower municipal government, more than any other level of government, with the greatest authority to address the cumulative impacts of nonpoint source pollution and of growth.

Program Restructuring and New Focus

Well before the completion of the Buzzards Bay CCMP, a subcommittee of the Buzzards Bay Project Management Committee, called the Buzzards Bay Citizen Advisory Committee (CAC), originally formed to help identify management options to protect and restore Buzzards Bay, had separated into two new organizations. The first organization, established in 1987, called itself The Coalition for Buzzards Bay (in 2011 the group renamed itself the Buzzards Bay Coalition) and became a citizen based group dedicated to education and outreach (a 501(c)3). The second group became the Buzzards Bay Action Committee, (originally a 501(c)4 organization in 1989, then later became a 501(c)3 organization) and was composed of municipal officials. This second group became more involved with state, local, and federal legislative and regulatory issues, provided a forum for the exchange of ideas among municipal officials, and helped develop watershed wide consistent strategies among Buzzards Bay communities. Today both the Buzzards

Bay Action Committee and the Buzzards Bay Coalition have adopted, as one of their major goals, the implementation of recommendations contained in the Buzzards Bay Comprehensive Conservation and Management Plan.

In the 1990s, the U.S. Congress made changes as to the focus of the NEPs. Although NEPs were originally conceived as temporary programs charged with developing management plans, Congress later recognized that these new programs could provide a valuable function in ensuring the implementation of the management plans they created. Because most of the CCMPs were non-regulatory consensus documents, during the mid-1990s Congress passed legislation authorizing NEPs to monitor and help implement their management recommendations after EPA approved their CCMPs. By the late 1990s, Congress authorized the funding of roughly \$500,000 per NEP (together with an equivalent required non-federal match) to achieve these new goals.

During this period, the Buzzards Bay Project Management Committee also restructured the program’s management oversight. The Policy Committee remained in place (composed of the EPA Regional Administrator and the Secretary of the Massachusetts Executive Office of Environmental Affairs), however, about 1993, with the completion of the Management Plan, 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 Office of Coastal Zone Management (CZM), the U.S. EPA, the Southeast Regional Planning and Economic Development District and the program’s two nonprofit partners—the Buzzards Bay Action Committee and the Buzzards Bay Coalition. The Steering Committee abolished the other standing committees. In 2008, the Massachusetts Department of Environmental Protection (DEP) joined the Steering Committee.

With the completion of the Buzzards Bay CCMP, and new mandates and funding from Congress, during the 1990s the Buzzards Bay Project transformed itself into a technical assistance and implementation program dedicated to working with municipalities, non-profit organizations, and the public to implement the recommendations contained in the Buzzards Bay CCMP.

Because the Buzzards Bay watershed now had three groups with a focus on the protection and restoration of Buzzards Bay, to improve coordination among the three organizations, in 1995 the Buzzards Bay Project developed a Memorandum of Understanding with the Buzzards Bay Coalition and the Buzzards Bay Action Committee (page 313). This MOU helped clarify the interests and activities of each group to minimize duplication of effort. At this time, the Buzzards Bay Project even abandoned its public outreach program and newsletter and

instead relied upon the outreach activities of the Coalition. This triad partnership among the three Buzzards Bay organizations was subsequently reflected in federal and state grants to each of the programs. The partnership has helped ensure that the program has remained one of the most successful of the NEPs.

About 2005, the Buzzards Bay Project renamed itself the Buzzards Bay National Estuary Program to minimize misidentification with other Buzzards Bay partner organizations and the recently formed Massachusetts Estuaries Project.

Update of the Management Plan

The original Buzzards Bay CCMP contained 119 recommended actions. Soon after the completion of the Buzzards Bay CCMP, seven actions were no longer relevant because of changes in law or other circumstances, and the Buzzards Bay NEP began tracking progress of the remaining 112 recommendations. By 2009, 61 of these remaining 112 Buzzards Bay CCMP recommendations were complete (Figure 2) with significant progress on many of the remaining recommendations. Some key indicators in Buzzards Bay, like reductions in shellfish bed closures, showed remarkable declines, despite new stressors to the environment. These stressors included a 20% increase in the watershed's population, together with the construction of thousands of new business and residential units, and the loss of thousands of acres of open space and natural landscapes.

Despite these successes, other indicators of water quality, particularly indicators of eutrophication, showed continued water quality declines in the embayments around Buzzards Bay with few exceptions. These changes, coupled with continued eelgrass bed loss, new shellfish bed closures, wetland declines, and failure to address persistent problems like bilge oil discharges from commercial vessels suggests a reevaluation of recommendations and strategies in the Buzzards Bay CCMP. New problems have also arisen, some never considered in the original Buzzards Bay CCMP.

Besides these new environmental issues and challenges, other changes in state and federal programs have refocused the priorities of the Buzzards Bay NEP. The most important of these new programs has been the promulgation of new federal rules requiring the treatment of stormwater from industrial and construction sites, and municipal stormwater networks under the Phase II NPDES stormwater program. In addition, in the early 2000s, the U.S. EPA also promulgated rules requiring the issuance of nitrogen and bacteria total maximum daily load (TMDL) limits for coastal watersheds. These programs are incorporating certain nonpoint sources of pollution, once considered beyond the control of state and federal regulators, into permit programs that increasingly require action by local government. These pro-

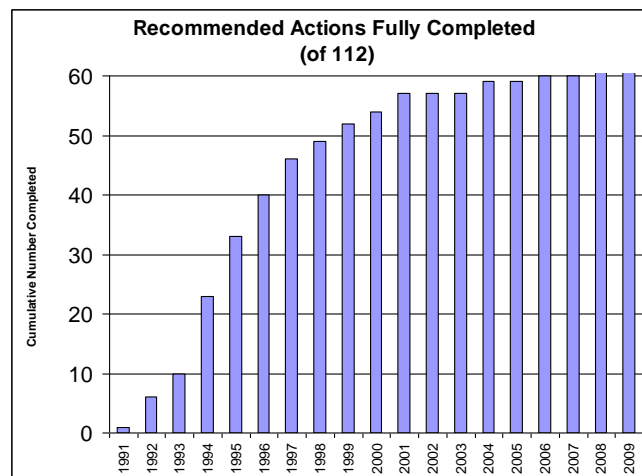


Figure 2. Numbers of recommendations completed in the 1991 Buzzards Bay CCMP.

grams will have a profound effect on state and local government in the decades to come and are now the foundations of several action plans in this document.

Other changes occurred within state government in their effort to bring together diverse programs and prioritize actions, in a more holistic way, to address watershed scale problems. In the early 1990s, the Massachusetts Executive Office of Environmental Affairs along with community partners initiated the Massachusetts Watershed Initiative - an innovative, results-oriented program that protected and restored natural resources and ecosystems based upon a watershed perspective. The Massachusetts Watershed Initiative was a movement to a more inclusive, collaborative agenda-setting and decision-making process, making it possible for all parties to use their specialized knowledge or expertise to help influence local and regional policy making management decisions, and funding allocations. This watershed initiative established watershed teams composed of state and federal agencies, conservation organizations, businesses, municipal officials, and interested residents.

One of the goals of these watershed teams was to create 5-year Watershed Action Plans (WAPs). The purpose of these WAPs was to guide state and local environmental actions and funding over five-year periods to implement the goals of the Massachusetts Watershed Initiative and the recommendations in the WAPs. While there were strong parallels between NEP CCMPs and Watershed Action Plans, WAPs included goals and actions that were not included in the original CCMPs such as restoring natural flows to rivers, improving public access, balanced resource use, and protecting drinking water supplies. Thus, in some respects, the WAPs took a more holistic approach to watershed environmental management by focusing actions on public and private utilization of natural resources like water withdrawals, which have profound effects on terrestrial and aquatic resources within coastal watersheds.

The Watershed Initiative faced a special challenge in Buzzards Bay in that a watershed plan already existed (the Buzzards Bay CCMP), but this management plan did not contain all the elements of a Watershed Action Plan, and it was outdated. This led to a consensus within the agency and CZM that a newly updated Buzzards Bay CCMP should also address many Watershed Initiative goals and objectives contained in other Watershed Action Plans around the state. Although the state Watershed Initiative is no longer a functioning program, state managers agree that guidelines for the development of WAPs remain relevant to the update of the Buzzards Bay CCMP, particularly because many state grant programs still prioritize funding to Watershed Action Plan recommendations.

In 2007, the governor and state legislature merged the Massachusetts Executive Office of Environmental Affairs with two energy cabinet secretariats to create a new Executive Office of Energy and Environmental Affairs. This action explicitly recognized the interrelationships between energy, environment, and climate issues, and the Commonwealth of Massachusetts was the first state to combine such divisions of government. With subsequent proposals to build wind farms in Buzzards Bay and elsewhere, this linkage of programs has become all the more relevant.

Finally, the Massachusetts legislature passed the Oceans Act, which was signed by Governor Patrick in 2008. The Oceans Act both modified the existing Massachusetts Ocean Sanctuary Act, and also required the Secretary of Energy and Environmental Affairs to develop a comprehensive plan to manage development in state waters that balances natural resource preservation with traditional and new uses, including renewable energy. The plan, based on scientific information and stakeholder input, was promulgated by December 31, 2009. Future activities in these ocean areas must be consistent with the Ocean Management Plan. The plan will be updated in 2014.

Most of Buzzards Bay is included in this new plan (Figure 3). However, where the Buzzards Bay CCMP recommendations are principally focused on actions in the watershed and nearshore areas, the Ocean Management Plan principally focuses on areas greater than a third of a mile from shore.

For all these reasons, it became clear that it was vital to reevaluate and renew the Buzzards Bay CCMP, and bring it into the 21st century. The updated management plan, it was agreed, needed to address previously unaddressed issues like managing water withdrawals, invasive and nuisance species, regional open space protection, and it needed to better integrate regional recreational and public access needs to ensure consistency with other Watershed Action Plans in Massachusetts.

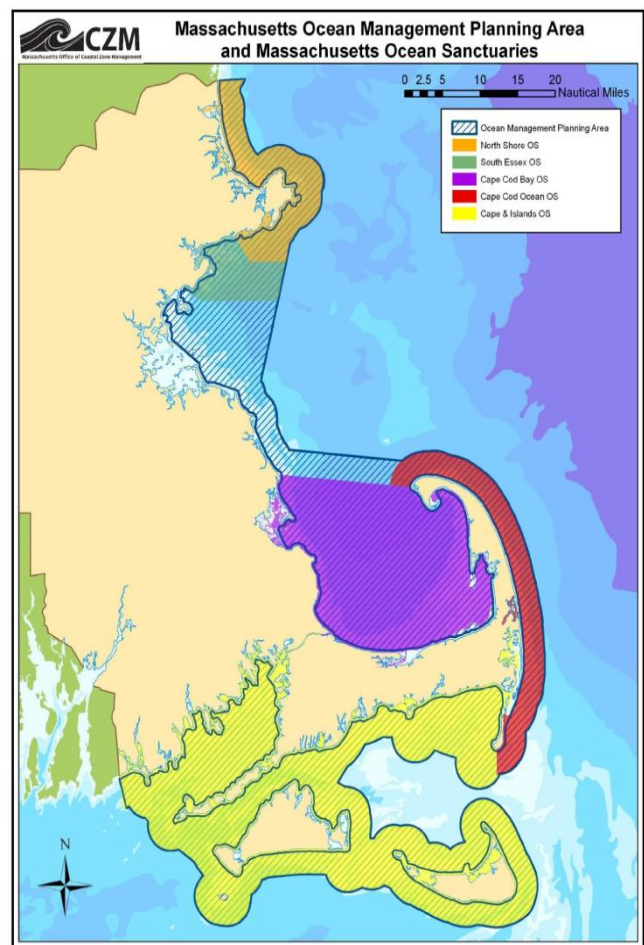


Figure 3. Massachusetts Ocean Management Planning Area and Massachusetts Ocean Sanctuaries.

Differences between the New and Old Plan

In most ways, the new Buzzards Bay CCMP is very much like the old Buzzards Bay CCMP, with a few exceptions. The most important change is the elimination of specific recommendations and an increased focus on goals, objectives, and the general processes for achieving those goals. This change was initiated by the NEP's experiences in that there is not a one-size-fits-all approach to environmental management. Each community must define the approaches and financial solutions that make the most sense to them. Thus, the new Buzzards Bay CCMP embraces goals to meet nitrogen TMDLs, but leaves the solution as to whether sewerage, nitrogen removal septic systems, or some other set of combined approaches make the most sense. For programmatically tracking and goal setting, the Buzzards Bay NEP will instead rely on progress on annual workplans and possibly future 5-year watershed action plans.

Other ways that the new Buzzards Bay CCMP was changed was that new areas of concern were added (e.g. freshwater pollution, and litter in the environment), and certain other management actions were further parsed

out. For example, low impact development, which deals principally with stormwater management, was treated separately from smart growth, which deals with policies and patterns of development. Similarly, the old Buzzards Bay CCMP chapters on land use management, implementing the Buzzards Bay CCMP, and the separate monitoring plan volume have all been converted to or incorporated into other action plans.

In contrast to these additions, the chapter titled Pollution Remediation Projects in New Bedford has been eliminated as a stand-alone chapter and pollution issues specific to New Bedford are interspersed among the background chapters and specific action plans. Thus, recommendations about combined sewer overflows are included in Action Plan 1 Managing Nitrogen Sensitive Embayments and Action Plan 3 Managing Stormwater Runoff and Promoting LID, and recommendations about the New Bedford PCB superfund cleanup are included in Action Plan 16 Reducing Toxic Pollution.

The original Buzzards Bay CCMP also had a separate financial plan volume. In the new Buzzards Bay CCMP, financial costs are interspersed in action plans, and the overall financial plan strategy is included in Chapter 5 Implementing the Buzzards Bay CCMP. The net result is that the new Buzzards Bay CCMP has 21 action plans as compared to 14 equivalent action plans in the original document.

Management Plan Principles

In the development of the Buzzards Bay Comprehensive Conservation and Management Plan 2013 Update, the Buzzards Bay NEP adopted two principles. First, like the 1991 Buzzards Bay CCMP, we developed a plan based on sound science and an excellent understanding of the regulatory framework with which environmental protection decisions are made. Upon this framework, diverse ideas were incorporated through collaborative efforts and outreach with state, federal, and local government, citizen groups, businesses, and the public of the Buzzards Bay watershed. The Buzzards Bay NEP long ago recognized that effective progress in plan implementation requires stakeholder involvement and partnerships.

Second, in each action plan we identified how implementation toward the goals and objectives could be tracked objectively. With the passage of government performance reporting laws, and the need to better track successes and failures, this new Buzzards Bay CCMP now includes many more recommended performance-tracking measures. These performance-monitoring measures can be found under the measuring success headings both in the action plan summary pages, and in the action plan discussions sections. Many of these measures will be incorporated into an online tracking system on the Buzzards Bay NEP's website. This tracking system includes data on environmental conditions

and implementation activities, as well as management actions by government agencies and cumulative individual actions.

The Buzzards Bay Comprehensive Conservation and Management Plan 2013 Update lays out a variety of approaches for achieving the ultimate goal of a clean and healthy bay and surrounding watershed system of streams, ponds, wetlands, and groundwater. We wrote the plan for the benefit of the public, the people who live in the Buzzards Bay watershed, those who visit the region, and anyone who uses or benefits from the bay and its surrounding watershed.

At its core, this new Buzzards Bay CCMP remains a document based on the best available scientific and technical information and a rational analysis of the present and potential regulatory and non-regulatory actions that can protect and restore an entire bay and coastal watershed of a National Estuary. We hope that this 2013 update of the Buzzards Bay CCMP will form a blueprint for action throughout this decade.