

Chapter 5. Implementing the CCMP

The Players and Their Roles

Buzzards Bay remains an estuary in transition, subject to stresses from new development, yet benefiting from ongoing restoration efforts. Increased development along its shores, coupled with decades of dumping industrial and municipal wastes into its waters, created the initial call to restore and protect the bay. Evolving regulatory and non-regulatory approaches in environmental management can provide the formula for renewal.

The action plans presented in Chapter 4 include a number of stated commitments and other recommended steps that government must take, now and in the future, to preserve and protect Buzzards Bay. The action plans also identify the organizations that are responsible for taking those steps. These organizations include regulatory and planning agencies at the federal, state, regional, and local level, legislative bodies, and citizens groups. Table 45 shows which organization is primarily responsible for each of the recommendations in the action plans. This chapter provides a broader perspective of the role of each of organization involved in implementing these recommendations and in undertaking the future work needed to ensure that complete implementation occurs within a reasonable time.

For many of the recommendations, these organizations share overlapping responsibilities, and close coordination is required to ensure each responsible entity takes action. For other recommendations, a single organization can achieve the desired result. For still others, the implementing responsibility may belong to one organization, but another may be able to provide technical or financial assistance.

Federal and state regulatory agencies, such as the U.S. Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP), have authorities that can address many of the recommendations contained in the action plans. However, the major focus of this CCMP and the Buzzards Bay NEP as a whole has been on compelling local authorities to take action to preserve the bay and its resources because, in the New England tradition of home rule, such management decisions belong to the community and its inhabitants. The theme has been increasingly codified by state and federal agencies in efforts to aggregate traditional non-point source pollution sources into traditional point-source pollution programs. This is particularly evident in the Phase II MS4 stormwater permits now required of municipal governments and other entities.

At the same time, the CCMP recognizes that a fully integrated intergovernmental approach is optimal, be-



Figure 103. It is essential that residents understand the sources of pollution in their watershed, where their drinking water comes from, and where their wastewater is disposed. As a cost savings measure, the state removed these signs in 2008.

cause federal and state agencies not only can provide local managers with scientific and technical information needed for wise municipal decisions, but also can complement those decisions with additional regulatory actions on the multitude of existing and potential pollution problems. State and federal government can also provide the necessary financing to complete or leverage local actions.

The Commonwealth has an additional responsibility created by the fact that it owns, on behalf of the public, all rights in tidal waterways beyond the low water mark, for public access, and an easement in the intertidal zone for fishing, fowling, and navigation. These rights are held "in trust" for the benefit of the public. This responsibility of stewardship of these public trust lands¹²⁵ and protecting the integrity of the Buzzards Bay ecosystem, is reflected in this management plan, and in other documents, like the 2009 Massachusetts Ocean Plan.

Ultimately, the public will not automatically accept management recommendations presented in this CCMP merely because they are good ideas. There is a political

¹²⁵ A full discussion of the Public Trust Doctrine is contained in Slade, 1997.

element too, one that may involve individual and collective hardships as well as implementation difficulties and costs. Citizens must be prepared to support local initiatives resulting from these recommendations and to demand action. Underlying all the recommendations presented is the need for citizen involvement. Such involvement will be the crucial ingredient for the success of this Plan and the protection of Buzzards Bay, and it is why we wrote Action Plan 23, *Enhancing Public Education and Participation*.

In the original CCMP, the Buzzards Bay NEP discussed and negotiated commitments with local, state, and federal agencies identified as responsible for specific regulatory or institutional actions. In this new CCMP, specific commitments were not included. Instead the BBNEP will develop 5 year Strategic Plan which will outline specific actions and targets for the BBNEP and its partners that will achieve progress to CCMP implementation.

At all levels of government, better planning is one of the most important elements to preserve existing good water quality and habitat conditions. Previous efforts to manage growth impacts in Massachusetts have failed and promoted sprawl and increased financial burdens to local government because of poorly thought-out policies and regulations. Most importantly, Buzzards Bay communities must engage in better landuse planning, and adopt smart growth and low impact development techniques to manage the impacts of future growth.

Implementation of all the recommendations in this CCMP will likely take decades. This is because some particularly intractable problems, like stormwater management and nitrogen reductions will cost billions of dollars and immense levels of effort among local, regional, state, and federal entities. Continued cooperation among the different levels is essential to protect and enhance the viability of the bay and its watershed resources because no one level of government can solve all the problems. Implementation will require improved regulatory programs, planning for the future, establishing a regional perspective, taking legislative action, and insti-

Table 45. Primary lead entities that must implement the CCMP Action Plans

	Action Plan	Primary Leads
1	Managing Nitrogen-Sensitive Embayments	Municipalities, EPA, DEP
2	Protecting and Enhancing Shellfish Resources	Municipalities, DMF
3	Managing Stormwater Runoff	Municipalities, EPA, DEP
4	Error! Reference source not found.	Municipalities
5	Improving Land Use Management and Promoting Smart Growth	Municipalities
6	Managing On-Site Wastewater Disposal Systems	Municipalities, DEP
7	Managing Impacts from Boating, Marinas, and Moorings	Municipalities, DEP, CZM
8	Protecting Wetlands	Municipalities, DEP
9	Restoring Migratory Fish Passageways	Municipalities, DMF
10	Protecting Bio-Diversity and Rare and Endangered Species Habitat	Municipalities, MEPA, DEP
11	Managing Water Withdrawals to Protect Wetlands, Habitat, and Water Supplies	Municipalities, DEP
12	Managing Invasive and Nuisance Species	EPA, DEP
13	Protecting Open Space	Municipalities, EEA
14	Protecting Ponds and Streams	DEP, FWS
15	Reducing Beach Debris, Marine Floatables, and Litter in Wetlands	Municipalities, Citizen Groups
16	Managing Coastal Watersheds and the Waterfront	Municipalities, EEA
17	Reducing Toxic Pollution	DEP, EPA, Municipalities
18	Preventing Oil Pollution	DEP, USCG, EPA
19	Planning For a Shifting Shoreline and Coastal Storms	Municipalities, MCZM, DEP
20	Protecting Public Health at Swimming Beaches	Municipalities, DPH
21	Monitoring Management Action, Status and Trends	BBNEP, BBC, DMF, DEP
22	Enhancing Public Education and Participation	BBC, BBNEP, DEP

tutionalizing the recommendations contained in the CCMP.

Federal

In Massachusetts, EPA has primary responsibility for issuing wastewater discharge permits (both wastewater and stormwater) under the National Pollutant Discharge Elimination System (NPDES), although most permits are issued jointly with DEP. EPA also has principal authority in enforcing the Clean Water Act, and ensuring compliance of TMDLs and water quality standards. Given the scale and scope of addressing stormwater and nutrient pollution problems, and in complying with pathogen and nutrient TMDLs, EPA must take a more proactive stance in assisting local government and facilitating state action necessary to implement these programs and achieve the goals of the Clean Water Act.

After the original Buzzards Bay CCMP was approved, EPA developed an improved (but still imperfect) set of indicators for evaluating and classifying swimming beaches. Similarly, the FDA made some minor changes in how they classified shellfish beds and assessed risks

associated with pathogens in the water. Both agencies must continue their efforts to studying and evaluating new approaches and water indicators to assess public health risk associated with pathogen contamination of coastal waters.

During the past 20 years, the USDA Natural Resource Conservation Service has expanded its efforts considerably to protect and restore wetland habitats and water quality. While these efforts have been admirable, more effort is required to encourage farmers to implement best management practices to minimize pollutant runoff from farmlands. USDA should also ensure that farm plan agreements are adhered to and enforced through the various USDA farm loan programs.

Federal agencies should undertake a variety of planning activities to implement the recommendations in this CCMP. The U.S. Army Corps of Engineers has already committed to help initiate the development of a dredged material management plan for the bay. The U.S. Fish & Wildlife Service needs to ensure that any remediation plan developed for the New Bedford Harbor Superfund site will adequately protect natural resources. The Federal Emergency Management Agency should adopt new floodplain boundaries submitted by communities subject to sea-level rise or shoreline erosion. The U.S. Department of Agriculture should continue to work with agricultural users to minimize the offsite transport of agrichemicals.

State

DEP is the major regulatory authority for environmental protection, and as such, has the responsibility for most state recommendations contained in this management plan. As discussed above, DEP jointly administers the NPDES program and TMDL development with EPA. In this regard, this agency is on the frontline in ensuring the goals and requirements of those programs are met.

Perhaps DEP's greatest responsibility in the next decade will be to encourage towns to adopt management strategies to meet nutrient TMDLs. In can achieve this through its grant programs, permit programs, and through enforcement action.

Local

Most streams and ponds in the Buzzards Bay watershed and near coastal waters of Buzzards Bay are affected by small yet cumulatively significant and numerous nonpoint sources of pollution. Increasingly, through permit programs like the MS4 NPDES stormwater program and through implementation of TMDLs, state and federal government has directly shifted responsibility for action to local government. In Massachusetts, because a considerable amount of authority has been delegated to local boards, these discharges can and will be managed by local boards and municipal departments. This will

not happen automatically or quickly because local government has neither the financial or the staffing capacity to implement these programs today.

Many Buzzards Bay communities are handicapped in their efforts to implement local regulatory programs because they lack personnel with either the requisite technical expertise, or they lack sufficient number of staff to handle all the new responsibilities thrust upon them by the state and federal government. Some smaller Buzzards Bay communities lack professional staff like planners and conservation agents or full time health agents. Many municipalities do not have staff and software to undertake the simplest of GIS analyses. Due to the wide range of disciplines required of any one local employee, even the communities that retain staff are hard-pressed to deal expertly with the many complex environmental issues that they must confront. It is for these reasons that the Buzzards Bay NEP directs so much of its operation toward providing technical and financial assistance to Buzzards Bay municipalities.

To focus local efforts, each municipality should establish a surface water quality coordinator position and a water quality committee. The responsibilities of the water quality coordinator and committee would be to:

- Establish water quality goals and objectives for the town so that municipal departments and boards clearly understand the critical water quality and living resource issues that need to be addressed.
- Review the community's present management and regulatory policies and recommend necessary modifications.
- Advise selectmen and other policy makers as to appropriate actions necessary to meet these goals and objectives.
- Review relevant environmental data collected by state and federal agencies and local departments, and integrate this information into the local management program.

This recommendation was in the original Buzzards Bay CCMP, but was rarely implemented¹²⁶. Efforts to development of Comprehensive water management plans, phase II MS4 permits, and state and federally imposed TMDLS make such a committee all the more important mandate such a committee.

As noted above, Buzzards Bay communities need to better plan for growth and development in a way that protects environmental quality. Adopting "smart growth" and "low impact development techniques and regulations are essential to meet this goal.

¹²⁶ After the first CCMP was approved, the Town of Bourne established what is now called the Selectmen's Task Force on Local Pollution, which remains in existence to this day. The task force over the years has developed programs and plans to reduce pathogen and nutrient pollution in the town's coastal waters.

Establishing a Regional Perspective

There is an essential need to view Buzzards Bay and the living resources in its watershed as a regional resource shared by municipalities. Bay-wide organizations, like the Buzzards Bay Coalition, the Buzzards Bay Action Committee, and the Buzzards Bay NEP have all been instrumental during the past 20 years in raising the awareness of residents and local officials as to what is needed to protect and restore Buzzards Bay, but more effort is needed. The protection of a resource the size and complexity of Buzzards Bay requires cooperation and consistency of approach among the communities sharing these resources. It is for this reason that these three Buzzards Bay regional organizations, together with regional planning agencies like SRPEDD, and the Cape Cod Commission, continue to implement initiatives that cross municipal boundaries and enhance watershed awareness.

This regional awareness became self-evident after the Bouchard 120 oil spill in 2003. The spill bound together municipal first responders and other local officials, state and federal legislators, and the public in a way that sped up the cleanup of Buzzards Bay and fostered improvements to navigation and oil transport in Buzzards Bay. A similar regional awareness is needed to address the nitrogen loading and stormwater problems facing the estuaries around the bay since both these problems cross municipal bounds and will cumulatively cost billions to address.

Institutionalizing the CCMP

It is unimportant whether the average Buzzards Bay resident knows or understands that a Comprehensive Conservation and Management Plan exists for Buzzards Bay and its watershed. What is important is that both young people and adults understand the sources pollution and environmental degradation, and what actions individually and collectively need to be taken to protect the environment. They must also understand the costs of action and inaction. Without an informed citizenry, inaction will be the norm.

However, even with the noblest intentions, failure to act may occur because of high costs. This is why it is vital that regulations and the burden of restoring degradation be placed on those causing the degradation. More importantly, public policies and regulations must be structured so that new development and redevelopment also mitigate and manage both new and old impacts so that the cost of restoring the environment is always part of development.

Buzzards Bay NEP staff have successfully forged strong institutional arrangements with local, state and federal stakeholders during the past twenty years. The emphasis has been on fostering partnerships with town regulatory boards because most CCMP actions are di-

rected at local government, which has the greatest burden to implement the CCMP, and because Buzzards Bay NEP technical and financial assistance is most needed by them. The staff's focus has been on providing technical assistance to planning boards, boards of health and conservation commissions. This assistance takes the form of bylaw development, workshops, open space planning, septic system tracking, stormwater treatment designs, GIS capability, and other useful implementation tools. Since the CCMP approval by the EPA in 1992, Buzzards Bay NEP staff have had the opportunity to work in all major Buzzards Bay watershed towns to varying degrees. The expertise that the staff has been able to provide has strengthened local capacity and accelerated CCMP implementation.

Besides technical assistance, the Buzzards Bay NEP has helped local grant writers with proposals, and secured highly competitive state and federal funds that were probably otherwise out of reach.

The Buzzards Bay NEP's ability to strengthen local capacity and facilitate CCMP implementation can be seen in numerous examples. In the 1990s, the NEP could be seen in the deployment of SepTrack (onsite septic system software) and grants to provide GIS capability to the communities, and to enhance the towns abilities to work with GIS data, prepare for oil spills, and provide funding for professional staff to boards of health and conservation commissions. In the 2000s, efforts continued through expansion of stormwater GIS databases, assistance on the update of open space plans, and an expanded municipal grant program, supplemented with state funds, to help leverage many new actions.

The Buzzards Bay Action Committee (BBAC) has been an essential partner guiding the Buzzards Bay NEP's grant and technical assistance program. The monthly meetings of the BBAC have also been effective in furthering local partnerships. These sessions have allowed discussions that both promote the Buzzards Bay NEP's activities and provide an opportunity to hear from town representatives about community needs. The BBAC has used these exchanges to help establish the Buzzards Bay NEP's funding priorities and to ensure that the municipal perspective is integrated into the overall yearly agenda.

Beyond establishing strong local relations, the Buzzards Bay NEP has also developed a solid working arrangement within state government. This starts with the program being housed within the Massachusetts Office of Coastal Zone Management (CZM) which provides a special institutional advantage. The program has used the prestige of CZM and the expertise of key staff to further the accomplishment of many program priorities within the Buzzards Bay watershed. CZM also provides valuable administrative support and framework to the program.

Massachusetts CZM could more formally adopt the Buzzards Bay CCMP as part of the CZM Program Plan with NOAA. CZM has a well-established and effective review process for evaluating projects, especially federal actions, that may affect the state's coastal zone. This process can address priorities in the Buzzards Bay CCMP and Buzzards Bay watershed that are not currently addressed in the state program plan¹²⁷.

At the state and federal level, the CCMP can continue to be institutionalized into other programs as they have been done during the past decade. This includes providing priority funding to projects that implement CCMP recommendations, and refocusing state and federal programs to achieve CCMP goals. EPA has already implemented such a policy in its 319 NPS pollution program and in its 604(b) watershed programs.

Because nitrogen management is a key component of the CCMP, the Buzzards Bay NEP has concentrated much of its focus on increasing the state's profile in nitrogen-related issues. The Buzzards Bay NEP was instrumental in assisting the Massachusetts Department of Environmental Protection (DEP) to incorporate nitrogen management issues into its rewrite of the state onsite septic system code in 1994 and in 1996, and in the adoption of new policies and regulations for the adoption and use of innovative wastewater systems. This collaboration must continue in our joint efforts to achieve compliance with nutrient and pathogen TMDLs.

To achieve these goals, the Buzzards Bay NEP must work through CZM and EEA, and its six-member Steering Committee. The Steering Committee, consisting of Massachusetts CZM, EPA- New England, Massachusetts DEP, SRPEDD, the BBAC, and the Buzzards Bay Coalition, must work to ensure the framework and goals of the CCMP are institutionalized in their programs, and part of the efforts of their collective partners.

References Cited

Slade, David. C. 1997. Putting the Public Trust Doctrine To Work, 2nd Edition ..pp.

¹²⁷ This has already occurred in several instances such as in comments submitted by CZM to MEPA on large groundwater wastewater discharges outside of the Massachusetts coastal zone, but within the Buzzards Bay watershed, that would cause environmental degradation due to nitrogen loading. Reauthorization of the Coastal Zone Management Act in the 1990s expanded state authority to go beyond the designated coastal zone.