CAPE COD WATERSHED
Assessment and 5-Year Action Plan

compiled by the
Former EOEA Cape Cod Watershed Team

edited by
Courtney Armentrout
Former Assistant Watershed Team Leader

2004

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Dear Friends of the Cape Cod Watershed:

It is with great pleasure that I present you with the 5-Year Watershed Action Plan for the Cape Cod Watershed. The plan will be used to guide local and state environmental efforts within the Cape Cod Watershed over the next five years. The plan expresses some of the overall goals of the Executive Office of Environmental Affairs, such as improving water quality, restoring natural flows to rivers, protecting and restoring biodiversity and habitats, improving public access and balanced resource use, improving local capacity, and promoting a shared responsibility for watershed protection and management.

The Cape Cod Watershed Action Plan was developed with input from the former Cape Cod Watershed Team and multiple stakeholders including watershed groups, state and federal agencies, Regional Planning Agencies and, of course, the general public from across the Watershed. We appreciate the opportunity to engage such a wide group of expertise and experience as it allows the state to focus on the issues and challenges that might otherwise not be easily characterized. From your input we have identified the following priorities:

- Clean Water
- Groundwater Protection
- Biodiversity and Healthy Ecosystems
- Community Preservation
- Watershed Stewardship

I commend everyone involved in this endeavor. Thank you for your dedication and expertise. If you are not currently a participant, I strongly encourage you to become active in the Cape Cod Watershed restoration and protection efforts.

Regards,

[Signature]

Ellen Roy Herzfelder
Former Cape Cod Watershed Team

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Orleans Water Quality Task Force – Judy Scanlon
Community Foundation of Cape Cod – Lisa McNeil
Association to Preserve Cape Cod – Maggie Geist
The Compact of Cape Cod Conservation Trusts – Mark Robinson

Other Participants:
Citizen Water Quality Monitoring Network
Pleasant Bay Alliance
Mashpee Environmental Coalition
Long Pond Association
Cotuit Waders
Three Bays Preservation
Bourne Water Pollution Task Force
Town of Barnstable
Town of Mashpee
Dennis Water Quality Advisory Board
Chatham Water Quality Lab
Harwich Water Quality Task Force
Barnstable County Resource Development Office
Orenda Wildlife Land Trust
Cape Cod Conservation District
Cape Cod Community College
Massachusetts Bays Program
Barnstable County Health Department
The Nature Conservancy
Massachusetts Audubon Society – Wellfleet Bay Wildlife Sanctuary
Coalition For Buzzards Bay
Cape & Islands Senior Environment Corps
Woods Hole Oceanographic Institute Sea Grant
United States Geological Survey
Massachusetts Wetlands Restoration Program
Town of Wellfleet
Town of Eastham
Indian Ponds Association
Brewster Ponds Stewards
And Many Interested Citizens
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Sandwich Harbor   Sandwich
Squatucket Harbor   Harwich
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Squaw Island   Barnstable
Stage Harbor   Chatham
Sulphur Springs   Chatham
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Three Bay System   Barnstable, Sandwich
Waquoit Bay   Mashpee, Falmouth, Sandwich
Wellfleet Bay   Wellfleet, Eastham, Truro
West Falmouth Harbor   Falmouth
Wild Harbor   Falmouth, Bourne, Sandwich
Wychmere Harbor   Harwich

**Cape Cod Watershed Five Year Action Plan**

Section 1. Goals, Objectives, and Strategies . . . . . . Action p. 1
Section 2. Action Plan Implementation Matrix . . . . . . Matrix p. 1

**Partner Reports**

- 1998 Cape Cod Watershed, Draft Water Quality Assessment Report
  *Massachusetts Department of Environmental Protection*
- Cape Cod Pond and Lake Atlas
  *Cape Cod Commission*
- Growth Management on Cape Cod: A Survey of Local Bylaws
  *Association to Preserve Cape Cod*
- Cape Cod Priority Ponds Project
  *The Compact of Cape Cod Conservation Trusts*
- Massachusetts Estuaries Project
  *Massachusetts Department of Environmental Protection and the School of Marine Science Technology, University of Massachusetts Dartmouth*
Appendices
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Preamble

Purpose
This document is intended to provide a coordinated approach to the management of natural resources on Cape Cod and to foster environmental protection. Intended users include state, federal, and municipal government, non-governmental organizations, businesses, citizen environmental stewardship groups, and interested citizens. The document was developed under the guidelines of the former Massachusetts Watershed Initiative.

The Cape Cod Watershed Assessment (Chapter 3) presents the current condition of the environment of Cape Cod; identifies studies, planning efforts, and management actions underway that are working towards improving and protecting the area’s natural resources; and pinpoints sources and causes of environmental degradation. It gives recommendations to address the environmental problems. The Five Year Watershed Action Plan (Chapter 4) is based on the findings of the watershed assessment, and should guide activities over the next five years and chart a course for watershed research, monitoring, and implementation activities by soliciting funds through grant programs.

Process
The Cape Cod Watershed Assessment and Action Plan were developed through a public process involving collaboration and consensus, with input from state, federal, and local government, non-profit organizations, businesses, environmental stewardship groups, and interested citizens. Data collection for the watershed assessment began in 2000 and continued until Summer 2002. The former Watershed Team compiled information from state agencies, towns, the regional planning agency, environmental non-profit agencies, citizen water quality monitoring groups, and pond and lake associations to provide a picture of the state of the environment on Cape Cod.

The Action Plan was developed during the summer and fall of 2002. The Team formulated the actions contained in the plan through several venues. Many of the actions resulted from discussions at Cape Cod Watershed Team meetings over the past two years. In Summer 2002, a survey was sent to towns, non-profit organizations, and citizen groups Cape-wide to solicit input. Participants at two Cape Cod Watershed Team meetings, held in September and October of 2002 and advertised widely through mailings, contributed additional actions and worked to identify predominant themes among all the actions. An Action Plan Subcommittee was created at these public meetings that subsequently met twice to organize and refine the Action Plan.

For a detailed description of the process of developing the Cape Cod Watershed Assessment and Action Plan, please see Appendix A.
Structure
The first part of this document is the Cape Cod Watershed Assessment. In order to provide both a picture of the whole of the Cape Cod, as well as more detailed information about each of the Cape’s 47 embayment subwatersheds, the assessment is comprised of two parts. Section 1 gives an overview of the natural resources and socioeconomic conditions for all of Cape Cod. Section 2 contains a fact sheet and two maps for each subwatershed. The fact sheets list the active citizen or municipal organizations in the subwatershed, studies that have been conducted, water quality monitoring efforts, management actions taken, and priority actions that should be taken to improve or protect the environment.

The second part of this document is the Cape Cod Watershed 5-Year Action Plan. The action plan begins with a listing of goals to protect, restore, and improve the environment of Cape Cod and objectives and strategies that would help meet those goals. From the extensive list of actions that would achieve these goals, objectives, and strategies, the Team chose twelve categories of actions that would benefit from a collaboration of team members. These twelve categories appear in the Action Plan Implementation Matrix. The matrix provides details on the projects, responsible parties, cost, potential funding sources, and measures of success.

Reasoning behind the Structure
The former Cape Cod Watershed Team, in developing this Watershed Assessment and Action Plan, attempted to avoid duplication with other planning programs on the Cape. Cape Cod has a very broad and active environmental community with numerous planning efforts underway. The Cape Cod Commission, the area’s Regional Planning Agency, just completed their 2001 Regional Policy Plan. The Commission is also involved in a project to coalesce existing natural resource inventories, plans, and other data sources into a regional open space plan for Cape Cod. Nine of the fifteen towns on Cape Cod have certified Local Comprehensive Plans and several towns are developing Comprehensive Wastewater Management Plans. The Massachusetts Military Reservation, which occupies 22,000 acres on the Upper Cape, is the subject of a massive clean-up effort involving state and federal agencies, local government, and citizen groups working together to assess pollution and direct the clean-up efforts. On the west coast of Cape Cod, Buzzards Bay is the subject of planning efforts by the Buzzards Bay National Estuary Program; on the north coast, Cape Cod Bay is included in the Massachusetts Bays planning program; and on the eastern part of the Cape, the Cape Cod National Seashore has an up-to-date Strategic Plan and Water Resources Management Plan. In addition, several non-governmental organizations, as well as smaller citizen groups, such as lake associations, have developed their own action plans.

In light of the abundance of planning documents prepared by the numerous groups striving to protect and improve the environment of Cape Cod, the Watershed Team decided that the most efficient use of its time would be to develop a plan that focuses on those activities that benefit from a collaboration among various team members. Thus, the Action Plan Implementation Matrix should not be regarded as a comprehensive guidance document listing all potential environmental activities to be undertaken by agencies, non-profit organizations, and citizen groups on Cape Cod. Rather, it is a listing of those activities that
members of the former Cape Cod Watershed Team deemed the highest priority and have agreed to collaborate on during the next five years.

**Instructions for State Agency Use**

Cape Cod Watershed priorities for grant funding appear in several locations in this document. Priority actions are identified for each of the Cape’s 47 subwatersheds. These priorities appear in Section 2 of the Assessment, at the end of each of the subwatershed fact sheets, under the heading “Priorities.” Actions of a broader nature, that apply to a larger region or the whole of Cape Cod are provided in the Action Plan, more generally in Section 1: Goals, Objectives, and Strategies, and in more project specific detail in Section 2: Action Plan Implementation Matrix.

**Cape Cod Watershed Team Participants**

Input into this watershed assessment and action plan was provided by the members and participants of the former Cape Cod Watershed Team.

**Members:**
Department of Environmental Protection – Elizabeth Kouloheras
Department of Environmental Management – Christine Gault, Les Perry
Department of Fish and Game – Amy Singler, Steve Hurley
Division of Marine Fisheries – Paul Caruso
Coastal Zone Management – Truman Henson, Katie Lund
Office of Technical Assistance – Matt McCook
U.S. Environmental Protection Agency – Bruce Rosinoff
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Massachusetts Wetlands Restoration Program  
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And Many Interested Citizens  

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