



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Resource Protection, 627 Main Street 2nd Floor, Worcester, MA 01608

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PUBLIC MEETING – January 25, 2007

Massachusetts Estuaries Project

**Three Bays Coastal Embayments, Towns of Barnstable, Sandwich, and Mashpee
Draft Total Maximum Daily Load (TMDL) For Total Nitrogen
Cape Cod Watershed**

The Massachusetts Department of Environmental Protection (MassDEP) announces the availability, for public comment, of the Draft Total Maximum Daily Loads (TMDL) for Total Nitrogen in coastal water bodies in the Three Bays estuary system, with watersheds in Barnstable, Sandwich and Mashpee. The embayments are: Cotuit Bay, West Bay, Seapuit River, North Bay, Prince Cove, Warren Cove, and Prince Cove Channel. This Draft TMDL Report, number MA 96-TMDL-10, is required by the EPA Federal Clean Water Act section 303d. This TMDL and the Technical Report on which it is based have been prepared as part of the Massachusetts Estuaries Project, a collaborative effort of the MassDEP, the University of Massachusetts School for Marine Science and Technology, the Cape Cod Commission, the U.S. Environmental Protection Agency, the Executive Office of Environmental Affairs, as well as municipalities and watershed associations in southeastern Massachusetts, to identify and address nitrogen pollution in 89 estuaries in southeastern Massachusetts.

A TMDL establishes a maximum amount of pollution that a water body can accept and still meet water quality standards. The TMDL serves as the regulatory and technical basis for developing integrated water resource management plans designed to restore the water quality of impaired water bodies. Five of the embayments covered in this report are listed on the 2004 Massachusetts Integrated List of Waters (Category 5) as impaired primarily for nutrients and/or pathogens.

MassDEP has prepared the Draft TMDL report for controlling excess nutrients (nitrogen), the primary cause of eutrophication that can lead to: loss of eelgrass beds (which are critical habitats for macro-invertebrates and fish), undesirable increases in macro algae (which are much less beneficial than eelgrass), periodic extreme decreases in dissolved oxygen concentrations that threaten aquatic life, reductions in the diversity of benthic animal communities, and periodic algae blooms. The primary "locally controllable" source of nitrogen in these embayments is sanitary wastewater from septic systems. Stormwater runoff, leaching lawn fertilizers, discharges from agricultural land uses, and atmospheric deposition, also contribute varying quantities of nitrogen to Three Bay's coastal rivers, ponds, and harbors. The goal is to achieve state water quality standards for Class SA and SB waters as defined in Massachusetts Surface Water Quality Standards, 314 CMR 4.00. The water quality standards of particular interest are for dissolved oxygen, nutrients, aesthetics, excess plant biomass, and nuisance aquatic vegetation. Standards for Class SA and SB waters provide numerical and narrative criteria to meet designated uses, including the support of habitat for fish and other aquatic wildlife.

This information is available in alternate format by calling our ADA Coordinator at (617) 556-1057.

<http://www.state.ma.us/dep> • Phone (508) 792-7470 • Fax (508) 791-4131

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A copy of this Draft TMDL and a further explanation of the TMDL Program are available on MassDEP's website at: <http://www.mass.gov/dep/water/resources/esttmdls.htm>. The Massachusetts Estuaries Project Final Technical Report for the Three Bays, on which the Three Bays TMDL is based, is available at <http://www.oceanscience.net/estuaries/reports.htm>.

The Massachusetts Department of Environmental Protection (MassDEP) will hold a public meeting on Thursday, January 25, 2007 from 7:00 pm – 9:00 pm in the Town Council Hearing Room of the Barnstable Town Hall, 367 Main St. in Barnstable to discuss and respond to any public comments on the report.

MassDEP will consider all comments and the Draft TMDL Report will be revised as appropriate prior to submittal to EPA Region 1 for approval. All public comments, which should refer to report number MA 96-TMDL-10, must be received in writing or in electronic format by 5:00 p.m. on Friday, February 9, 2007 and addressed to:

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