



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

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TIMOTHY P. MURRAY  
Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

January 30, 2013

Paul Niedzwicki  
Executive Director  
Cape Cod Commission  
3225 Main Street  
Barnstable, MA 02630

Dear Mr. Niedzwicki:

On behalf of Governor Patrick and Secretary Rick Sullivan of the Executive Office of Energy and Environmental Affairs, I am writing to direct the Cape Cod Commission to prepare an update to the 1978 Water Quality Management Plan for Cape Cod to address a critical problem—the degradation of Cape Cod’s water resources from excessive nutrients. This directive accompanies the Commonwealth’s commitment to provide the Cape Cod Commission with \$3,350,000 from the Water Pollution Abatement Trust to fund this update.

As you are well aware, nutrient contamination is one of the the most pressing environmental challenges facing Cape Cod. Increased population and development in those areas surrounding Cape Cod’s estuaries have resulted in excessive amounts of nutrients being discharged into these sensitive resources, causing eutrophication and prompting the accelerated growth of nuisance plants, weeds and algae, using up much of the oxygen in the water. This forces out finfish, shellfish, and indigenous plant species. The result - water bodies that violate state water quality standards, are visually displeasing, smell bad, and cannot support the natural uses that the estuaries have historically offered. This is not only an environmental problem—if left unchecked, it is likely to harm the Cape’s economy through a decline in fishing, shellfishing, tourism, and property values.

The primary water quality problem on Cape Cod stems from nitrogen contamination. Nitrogen from septic systems, wastewater treatment plants, lawns and stormwater leaches into groundwater and flows underground and is discharged to surface water bodies. While nitrogen comes from a variety of sources, on Cape Cod the predominant sources are on-site septic systems. Approximately 85 percent of the wastewater flow into Cape Cod’s embayments comes from on-site septic systems.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868  
MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

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Over the past decade, the Massachusetts Department of Environmental Protection (MassDEP) has been working closely with Cape Cod communities and the University of Massachusetts, through the Massachusetts Estuaries Project, to provide communities with the scientific studies they need to effectively address the specific water quality issues impacting each estuary. These studies clearly demonstrate the need to take action now. Based on the analyses performed to date, we estimate that more than 90 percent of the Cape's estuaries do not meet water quality standards.

It has become equally clear that the most effective and affordable approach to this problem is a regional effort. Nitrogen-loading is a Cape-wide problem, with estuaries and watersheds often crossing municipal boundaries. A regional approach to these problems will:

- Facilitate a more holistic, watershed-based approach to addressing nitrogen impacts;
- Limit the amount of infrastructure needed by sharing of wastewater facilities targeted towards areas of greatest need;
- Allow greater opportunity for solutions involving decentralized and innovative approaches, and continued use of conventional septic systems where appropriate; and
- Achieve greatest economies of scale, and spread costs over the largest number of users.

To most effectively facilitate a regional approach, MassDEP is directing the Cape Cod Commission, as the successor agency to the Cape Cod Planning and Economic Development Commission ("CCPEDC"), to prepare an update to the 1978 Water Quality Management Plan for Cape Cod.

Section 208 of the federal Clean Water Act authorizes State Governors to identify areas that have substantial water quality control issues and designate a planning entity to develop effective water quality management plans. Before a State Governor may forward such a plan to EPA for approval, § 208 also requires the Governor to designate suitable management agencies to implement the plan, based upon the plan's recommendations. The intent of this process is to generate a unified framework for activities to abate water pollution in a geographic area and integrate technical needs for pollution control with management arrangements capable of implementing those controls.

In 1975, Governor Dukakis designated the CCPEDC to create a regional water quality management plan for Cape Cod waters. The 1978 Plan, created by CCPEDC, was certified by the Governor and approved by EPA in accordance with § 208. The Plan relies primarily on designating existing local authorities for implementation and identified the need for further investigation into the possibility of strengthening the regional role in areas under the authority of the towns.

Since 1978, extensive scientific study has demonstrated that nutrient pollution on Cape Cod, especially nitrogen pollution, has become a far more serious problem, giving rise for the need to develop new cost-effective and environmentally sound approaches to managing water quality in

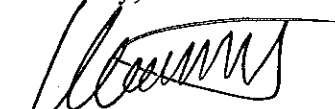
the region. The updated plan should include a comprehensive analysis of the factors contributing to water quality degradation, but prioritize management of controllable nutrients due to the current conditions in the region. The updated plan should:

- Prioritize water resources, identifying the most impaired or endangered, and the actions to achieve water quality goals as quickly as possible;
- Limit the amount of infrastructure needed by prioritizing those areas requiring “shared” systems to restore water quality;
- Provide an opportunity to more fully evaluate decentralized and innovative approaches, as well as the continued use of conventional septic systems, where appropriate;
- Identify preferred solutions for nutrient management in nitrogen sensitive watersheds;
- Achieve greatest economies of scale, and identify methods to equitably share costs among all parties benefitting from the improvements;
- Feature a robust public participation process, including a facilitated outreach effort, watershed level advisory committees, and extensive public input opportunities to fully consider all views and input, and to build consensus for identified solutions;
- Identify ways in which solving the wastewater problem could also address other challenges facing the Cape. As one example, the updated plan should explore the use of anaerobic digesters at new or existing wastewater treatment plants to generate low-cost, renewable energy and help the Cape address organic waste disposal challenges; and
- Identify funding and implementation mechanisms.

The development of the updated regional plan is a substantial undertaking that will require significant resources. The Executive Office of Energy and the Environmental Affairs and MassDEP are committed to working with the Cape Cod Commission as it undertakes this critical task. We are pleased that the Massachusetts Water Pollution Abatement Trust voted on January 16, 2013, to authorize \$3.35 million to support the development of the updated regional plan and related efforts subject to the signing of a Memorandum of Understanding regarding the scope of services, corresponding project plan and budget, and disbursement of funds. MassDEP will play a significant role in development of the plan, providing input, specific requirements, and general oversight. We look forward to meeting with you in the near future to discuss the plan scope and contract in more detail.

On behalf of the Patrick-Murray Administration, I want to commend Barnstable County, the Cape Cod Commission, the Cape Cod Water Protection Collaborative, and the Cape Cod legislative delegation for your efforts to assist Cape communities in addressing these issues on a regional, watershed basis. We are pleased that the Commonwealth is able to provide additional resources to support your efforts. We look forward to continuing to work with you, Cape elected officials, communities, stakeholders, and residents in this critical effort to develop a plan that will restore and protect Cape Cod’s water resources in an acceptable phased approach that integrates affordability, appropriate infrastructure and growth management.

Sincerely,



Ken Kimmell  
Commissioner

Cc: Senate President Therese Murray  
Treasurer Grossman  
Scott Jordan  
Senator Wolf  
Representative Peake  
Representative Madden  
Representative Turner  
Representative Vieira  
Representative Hunt  
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