

## **BARNSTABLE COUNTY**

In the Year Two Thousand and Thirteen

### **Ordinance 13-07**

To establish a Fertilizer District of Critical Planning Concern pursuant to the Cape Cod Commission Act ("the Act") for Barnstable County, Massachusetts.

Barnstable County hereby ordains:

#### **SECTION 1.0 Source of Authority and General Purposes**

As authorized by Section 10 of the Cape Cod Commission Act, the Barnstable County Assembly of Delegates hereby designates Barnstable County, as hereinafter described, a District of Critical Planning Concern ("District" or "DCPC") for Fertilizer Management purposes. The purpose of this District shall be the protection of groundwater quality and water quality due to nutrient concerns.

#### **SECTION 2.0 Effective Date**

The Ordinance shall take effect upon the effective date of this ordinance or upon recording of this Ordinance at the Barnstable County Registry of Deeds, whichever occurs later.

#### **SECTION 3.0 Written Description of the Area**

The area nominated for District designation is as follows:

The District is county-wide, to the extent of the corporate Barnstable County land boundary, including the land area of all 15 Cape Cod towns comprising Barnstable County. The boundary is as shown on the map entitled "Fertilizer Management DCPC District Boundary," incorporated by reference herein and appended as Exhibit A.

#### **SECTION 4.0 Type of District/Reasons for Designation**

The District, as described above, qualifies under Section 10(a) of the Cape Cod Commission Act for designation as a District due to the following factors:

- a) The presence of significant natural, coastal, cultural, architectural, historic, archaeological and recreational resources, as well as values of regional, statewide and national significance as described below.

As identified by the Cape Cod Commission, this area is designated as the following:  
Fertilizer Management District

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**SECTION 5.0 Reasons for the District's Designation**

Cape Cod's coastal waterbodies and embayments, watersheds and ponds are significant, ecologically sensitive resources, which do not follow town boundaries. The volume of nitrogen entering Cape Cod's coastal waters and freshwater ponds has increased over the last several decades as the area population has increased. Excess nitrogen within an embayment can result in eutrophication, significant algae growth, loss of eelgrass, diminishing shellfisheries, ponds choked with algae, and decreasing dissolved-oxygen concentrations—occasionally leading to massive fish and shellfish kills, odor, and frequent violation of water quality standards. Coastal waterbodies and freshwater ponds around the Cape are showing the stress of excess nitrogen, with effects that impair their natural functions and their recreational appeal.

Water quality testing for the Massachusetts Estuaries Project (MEP) has clearly documented that many of Cape Cod's waterbodies have impaired water quality and ecological damage due to nitrogen loading in their watersheds. A major source of nitrates, a type of nitrogen that may be found in drinking water, is run-off from fertilizer application into water bodies, which in turn supply the aquifer. Excess nitrates threaten drinking water resources.

Nitrogen from fertilizer in the groundwater or as runoff is an important and controllable source of nitrogen loading, with the greatest amount coming from residential fertilizer use. A recent, draft study of fertilizer use by Horsley and Witten estimates that nearly six million pounds of fertilizer is used annually on Cape Cod, with nearly 4.3 million pounds associated with residential use.

Managing fertilizer use and application through education, Best Management Practices, and enforceable regulations will help towns achieve cost-effective and efficient nitrogen reduction. Regulating fertilizer application is one of the more straight-forward, easily-implemented and cost-effective ways to help address the broader nitrogen loading issues on Cape Cod. In fact, the relative percentage of nitrogen contribution to impaired watersheds associated with fertilizer use becomes greater as wastewater problems are ultimately addressed. Even today, according to watershed modeling based on MEP reports, fertilizer contribution to nitrogen loading is as great as 26% in certain impaired watersheds.

There is a need for a special, coordinated system of planning and regulations to manage fertilizer use and application in the District, which is likely to be effective in protecting or otherwise meeting the objectives of the District by preserving or maintaining the resources intended to be protected by the Act.

Without special fertilizer management regulations in place in the District, inappropriate fertilizer use and application could continue to contribute to degradation of Cape Cod's water resources. Evidence suggests that fertilizer management regulations could help protect, maintain and repair Cape Cod's water quality.

The opportunity to adopt local fertilizer management regulations through a DCPC is especially important now that the county and towns' ability to regulate this area has been restricted. The Attorney General has advised that recently enacted amendments to Chapter 128 of the General

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Laws give the Massachusetts Department of Agricultural Resources (MDAR) exclusive authority to regulate and enforce fertilizer application in the Commonwealth. MDAR's regulations are not anticipated to be released for public comment until late fall 2013, and are anticipated to deal with phosphorus rather than nitrogen management.

Implementing Regulations adopted pursuant to the Fertilizer Management DCPC would preserve the towns' ability to regulate fertilizer use and application now and in the future, in light of these recently enacted amendments to M.G.L. Chapter 128. Unless a town adopts Implementing Regulations consistent with the DCPC designation, the town will be subject to state law, with no local control over fertilizer management. When the state does ultimately promulgate fertilizer regulations, they may not address some of the unique local and regional issues concerning nutrient management that exist on Cape Cod.

**SECTION 6.0 Regulatory Framework**

Regulations similar to the implementing regulations anticipated to be developed in the DCPC process do not currently exist in any town in the region. Falmouth and Orleans have accepted fertilizer regulations or by-laws at town meeting.

The Implementing Regulations adopted pursuant to the Town of Sandwich's 3 Ponds DCPC do limit "excessive" use and application of fertilizers within 300 feet of the waterbodies located in that DCPC.

**SECTION 6.1 Suggested Guidelines for Implementing Regulations**

The following guidelines shall serve as the basis for future establishment of implementing regulations to be adopted by the Towns pursuant to Section 11 of the Cape Cod Commission Act.

**SECTION 6.2 Introduction to General Guidelines**

Town(s) shall develop and review Implementing Regulations consistent with the Guidelines described herein. Though the Implementing Regulations will be adopted town by town, a consistent, regional approach to regulation, considering, among other things, that towns shared watersheds, is strongly recommended. Accordingly, it is anticipated that towns within the District will adopt fertilizer management regulations, consistent with the Guidelines described herein, based on model regulations developed by the Cape Cod Commission with input from the towns, stakeholders, the University of Massachusetts Amherst Extension, and the Massachusetts Department of Agricultural Resources. Pursuant to the MGL Chapter 128 amendments, regulations must be done in conjunction with the University of Massachusetts-Amherst Extension. UMass has recently developed and released updated nutrient management Best Management Practices (BMPs), with which any Implementing Regulations would have to be consistent.

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It is anticipated that the model regulations, and thus ultimately Implementing Regulations, would be primarily directed to nitrogen and adopted at duly noticed public hearings of local Boards of Health in the form of Board of Health regulations.

Each Town which chooses to shall propose Implementing Regulations for the District to the Cape Cod Commission. In order to be approved, Implementing Regulations adopted by each town must be found by the Commission to be consistent with these Guidelines, pursuant to Section 11(d) of the Act.

**SECTION 6.3 Goals and Interests**

Based on the findings related to critical concerns in the area, the objective of these Guidelines is to ensure full protection of the following goals and interests of the District through the establishment of implementing regulations by each town. The goals and interests of this District shall be:

- Improve groundwater, surface water, and drinking water quality in the District.
- Protect key natural resources in the District.
- Educate the residents of the District on the Best Management Practices for fertilizer management.

**SECTION 6.4 Guidelines**

- 6.4.1 Timing of the Fertilizer Application.** A proposed regulation should include a shortened time period during which the application of fertilizer is allowed. A proposed regulation should also consider limited exceptions to that shortened time period. A proposed regulation should prohibit the application of fertilizer immediately before or during heavy rain events.
- 6.4.2 Location of the Fertilizer Application.** A proposed regulation should identify locations where the application of fertilizer is not allowed, potentially including, but not limited to, water resource areas and impervious surfaces.
- 6.4.3 Manner of the Fertilizer Application.** A proposed regulation should limit the quantity and frequency of fertilizer applications. These restrictions should be based on the type of product used, the turf type, and the use of the turf area. With respect to the type of product used, a proposed regulation should, at a minimum, address the use of slow-release fertilizer and water-insoluble fertilizer. A proposed regulation should also consider limited exceptions to the quantity and frequency requirements.
- 6.4.4 Education.** A proposed regulation should provide for education and outreach.
- 6.4.5 Certification.** A proposed regulation should provide for a certification program that could potentially allow for flexibility from the requirements contained in the proposed regulation.
- 6.4.6 Exemptions.** A proposed regulation should include an exemption for commercial agriculture and horticulture as well as for the application of lime. A proposed regulation should consider additional exemptions, potentially including, but not limited to, golf courses, athletic fields, and gardens. If a proposed regulation



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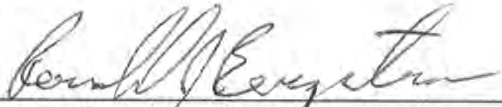
includes a distinction for professional/licensed/certified applicators, an exemption for those that are certified should be considered.

**6.4.7 Compliance with UMass Best Management Practices.** A proposed regulation should be consistent with the requirements and guidance outlined in the "UMass Best Management Practices for Soil & Nutrient Management in Turf Systems" document and potentially adopt the BMPs within the proposed regulation.

**SECTION 7.0 Review of Developments of Regional Impact (DRI) within the DCPC**


The regulations adopted pursuant to these Guidelines in no way alter the process for the referral and review of Developments of Regional Impact according to the Cape Cod Commission Act and Regulations of the Cape Cod Commission.

Adopted by the Assembly of Delegates on September 18, 2013

  
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Ronald J. Bergstrom, Speaker  
Assembly of Delegates

Approved by the Board of County Commissioners 10/2/13 at 10:00 a.m.  
Date Time

  
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Mary Pat Flynn

  
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William Doherty

  
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Sheila Lyons