

Chapter 78

FERTILIZER NITROGEN AND PHOSPHOROUS CONTROL

[HISTORY: Adopted by the Town of Barnstable 11-20-2014 by Order No. 2015-032. Amendments noted where applicable.]

GENERAL REFERENCES

Hazardous materials — See Ch. 108.

Toxic and hazardous materials — See Ch. 381.

Trees — See Ch. 221.

Wells — See Ch. 397.

Wetlands protection — See Ch. 237.

Wetlands buffer zone activity — See Ch. 704.

Herbicides — See Ch. 332.

§ 78-1. Purposes and intent.

- A. Excessive nutrient enrichment of the region's groundwaters and surface waters may have significant public health ramifications, including direct detrimental effects on drinking water sources by increased concentrations of nitrates that can violate safe drinking water standards, and have negative impacts on economic, environmental and recreational resources and values in the Town and region.
- B. The Town has significant glacially deposited sandy soils that are subject to rapid water infiltration, percolation, and leaching of nutrients.
- C. This chapter incorporates by reference the University of Massachusetts Extension's Turf Management Best Management Practices. These practices, if followed, are deemed to protect the public health, safety and welfare and aid in achieving compliance with the total maximum daily loads (TMDL) for the Town's water resources prescribed by the Commonwealth of Massachusetts while allowing reasonable use of fertilizers for the enhancement and maintenance of turf quality.

§ 78-2. Applicability.

- A. This chapter provides for a reduction of nitrogen and phosphorus entering the Town's waters and wetlands by means of an organized system of education, certification, standardization and regulation of practice. This chapter is not intended to eliminate the use of fertilizer.
- B. This chapter adopts the best management practices as the normal operating procedures for turf management but not plants other than turf.

§ 78-3. Statutory authority.

This chapter is adopted as implementing regulations pursuant to and as authorized by the Fertilizer Management District of Critical Planning Concern designation, Barnstable County Ordinance 13-07, and by Section 9 of Chapter 262 of the Acts of 2012.

§ 78-4. Definitions.

For the purposes of this chapter, the following words shall have the following meanings unless the context clearly indicates a different meaning:

AGRICULTURE/AGRICULTURAL USE — Farming in all of its branches, including the cultivation and tillage of the soil, the production, cultivation, growing, and harvesting of any agricultural, floricultural or horticultural commodities, including but not limited to cranberries.

BARNSTABLE — The Town and all of its waters.

BEST MANAGEMENT PRACTICES (BMP) — A sequence of activities designed to limit a nonpoint pollution source. For the purposes of this chapter and pursuant to § 78-5A of this chapter, "BMP" means the edition of Best Management Practices for Soil and Nutrient Management in Turf Systems, prepared by the University of Massachusetts Extension, Center for Agriculture, Turf Program in effect on September 18, 2014.

CERTIFIED FERTILIZER APPLICATOR — An applicator certified in the manner prescribed hereunder to apply fertilizer and manage turf in conformance with the BMP.

COMBINATION PRODUCTS — Sometimes known as "weed and feed," means any product that, in combination with fertilizer, contains pre- or post-emergence herbicides, insecticides, other pesticides or plant growth regulators.

COMPOST — The biologically stable humus-like material derived from composting, or the aerobic, thermophilic decomposition of organic matter, which is used as a fertility source for turf.

FERTILIZER — A substance that enriches turf with elements essential for plant growth, such as nitrogen, phosphorus, or other substances; fertilizer hereunder does not include dolomite, limestone, or lime, grass clippings, or compost/compost tea. "Fertilize, fertilizing, or fertilization" means the act of applying fertilizer to turf.

FERTILIZER APPLICATOR — Any person who applies fertilizer to turf and soils.

IMPERVIOUS SURFACE — A surface that has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water, except for compacted areas on athletic fields, such as clay or baseball infields, intensely trafficked turf and the like.

LANDSCAPE PROFESSIONAL — A person, either as a sole proprietor or as part of a company, who, in exchange for money, goods, services, or other consideration, performs landscaping services. A landscape professional can include turf management staff at a private golf course operation or other private entity.

LANDSCAPING — For purposes of this chapter, establishment (including by sod, seeding, or transplanting), renovation, maintenance, management or fertilization of turf.

MUNICIPAL APPLICATOR — A public employee of a city, town, the county, or the state or federal government (or an employee of a department of and within such public entity) who fertilizes and manages turf located on property owned or controlled by a town, the county, the state or federal government (including publicly owned golf courses and athletic fields) within the scope of their official public employment responsibilities.

NONCERTIFIED FERTILIZER APPLICATOR — An applicator who is not certified in the manner prescribed hereunder to manage turf and apply fertilizer in conformance

with the BMP.

NUTRIENT — Any of the following 17 elements needed for growth of a plant: the three nonmineral elements: carbon, hydrogen, and oxygen; the six macronutrients: nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur; and the eight micronutrients: boron, copper, iron, chloride, manganese, molybdenum, nickel and zinc.

NUTRIENT MANAGEMENT — The systematic control of the application and availability of nutrients to plants in order to minimize nutrient loss and to maintain the productivity of the soil.

READILY AVAILABLE NITROGEN — Any water-soluble nitrogen (WSN) that is readily available to turf after application.

SLOW-RELEASE, CONTROLLED-RELEASE, TIMED-RELEASE, or SLOWLY SOLUBLE/AVAILABLE NITROGEN — Nitrogen in a form that delays its availability for uptake and use after application, and is not rapidly available to turf.

SOIL — The uppermost layer of the earth's surface, comprised of mineral and organic matter, which can host biological communities.

SOIL TEST — A technical analysis of soil conducted by a soil testing laboratory that uses standards recommended by and in agreement with the University of Massachusetts Amherst Extension Program BMP, including a Modified Morgan soil testing procedure and extractable nutrient values.

TURF — Grass-covered soil held together by the roots of the grass, also known as "sod" or "lawn."

WATERS or WATER/BODIES — Includes, but are not limited to, streams, including intermittent streams, creeks, rivers, freshwater and tidal wetlands, ponds, lakes, marine waters, canals, lagoons, and estuaries within the Town, including without limitation all waters defined in Massachusetts General Laws, Chapter 131, Section 40, and the Town Wetland Ordinance or Regulations, with the exception of the following: coastal and inland banks, beaches, coastal dunes, dune fields, and lands subject to coastal storm flowage, inland or coastal flooding or inundation, or within 100 feet of the hundred-year storm line.

§ 78-5. Standards of performance.

- A. Best management practices. The best management practices (BMP), as defined herein, shall be applied to the standards of performance.
- B. Performance standards for noncertified fertilizer applicators. Fertilizer applicators who do not hold fertilizer certification issued in accordance with § 78-6B of this chapter shall comply with the following standards for fertilizer applications to turf:
 - (1) Noncertified fertilizer applicators shall not apply fertilizer during or immediately prior to heavy rainfall, such as but not limited to thunderstorms, hurricanes, or northeastern storms, or when the soil is saturated due to intense or extended rainfall;
 - (2) Noncertified fertilizer applicators shall not apply fertilizer or compost between November 12 and the following March 31;

- (3) Noncertified fertilizer applicators shall not apply, spill, or deposit fertilizer on any impervious surface and fail to remove the applied, spilled, or deposited fertilizer immediately (and in which case the applicator shall then either contain, dispose of legally or apply the fertilizer as allowed), and shall not apply, spill or deposit fertilizer in a manner that allows fertilizer to enter into storm drains;
 - (4) Unless the Town's existing laws and regulations, including its Wetland Ordinance or Regulations, contain a stricter standard or other enforcement or approval mechanism such as through the Town's Conservation Commission, which shall control, noncertified fertilizer applicators shall not apply fertilizer closer than 100 feet to any water body, or within the Zone I of a public drinking water well unless permission is obtained through the enforcement authority set out in § 78-6D(1) herein allowing such activity;
 - (5) A noncertified fertilizer applicator shall not apply fertilizer that contains phosphorus, unless a soil test taken not more than three years before the proposed fertilizer application indicates that additional phosphorus is needed for growth of that turf, or unless establishing new turf or reestablishing or repairing turf after substantial damage or land disturbance, in which case the application shall be in compliance with the BMP;
 - (6) A single application of fertilizer that contains nitrogen shall not exceed 1.0 pounds of actual nitrogen per thousand square feet, shall consist of at least 20% slow-release nitrogen fertilizer (NOTE: This represents the minimum percentage: use of higher SRN content is generally preferable, especially on sandy root zones, during stress and pre-stress periods, and when there are fewer annual applications of nitrogen made to a lawn.) and the annual rate shall not exceed 3.2 pounds of actual nitrogen per thousand square feet. Single applications shall be done at intervals of no less than four weeks until the annual maximum is reached;
 - (7) The fertilizer application requirements of this § 78-5B shall apply with the same limitations to combination products, i.e., amount of nitrogen applied, vicinity of water bodies, etc;
 - (8) Noncertified fertilizer applicators shall not deposit grass clippings, leaves, or any other vegetative debris into or within 50 feet of water bodies, retention and detention areas, drainage ditches or stormwater drains, or onto impervious surfaces, such as, but not limited to, roadways and sidewalks, except during scheduled clean-up programs.
- C. Performance standards for certified fertilizer applicators. Certified fertilizer applicators shall be exempt from the requirements set forth in § 78-5B of this chapter, provided that they shall manage turf and apply fertilizer to turf in accordance with the BMP. The burden shall be on the certified fertilizer applicator, if and as required, to show that he/she is applying fertilizer in accordance with the BMP.
- D. Exemptions. The following activities shall be exempt from this chapter:
- (1) Application of fertilizer as a fertility source for agriculture and agricultural

use.

- (2) Application of fertilizer as a fertility source to home gardens, landscape ornamentals, shrubs, trees bushes, vegetables, fruit and container plants.

§ 78-6. Education; certification; enforcement; penalties.

A. Fertilizer/turf management education. Fertilizer education may consist of, but is not limited to, collaboration with retailers to post in-store information on Town fertilizer regulations, the BMP and fertilizer certification requirements; mailings and flyers for the general public concerning Town fertilizer regulations, the BMP and fertilizer certification requirements; and outreach to landscape professionals and municipal applicators concerning fertilizer-related laws, the BMP and fertilizer certification requirements. The Town may rely on Cape Cod Cooperative Extension to assist in maintaining a program of fertilizer and turf management education that is based on the BMP.

B. Fertilizer certification.

- (1) The Town may seek the assistance of the Cape Cod Cooperative Extension to establish application requirements for and the process required to obtain fertilizer certification and renewals thereof, including evidence that the applicant is proficient in the BMP. Any noncertified fertilizer applicator may then apply to the Town or Cape Cod Cooperative Extension, as the case may be, for fertilizer certification as a certified fertilizer applicator.
- (2) Notwithstanding the requirement for a proficiency assessment set out in § 78-6B(1) above, municipal applicators or landscape professionals who meet the following criteria shall be presumed to be proficient in the BMP and may become certified fertilizer applicators without the need for an additional proficiency assessment or fees:
 - (a) Current Massachusetts pesticide commercial applicator license (Category 00) or commercial applicator license with turf certification (Category 37) or commercial applicator license with shade tree and ornamentals certification (Category 36), with evidence of participation in a recognized continuing education program for turf management within the past year; or
 - (b) Active membership in the Cape Cod Landscapers Association, the Golf Course Superintendents Association of Cape Cod, Massachusetts Association of Lawn Care Professionals (MALCP) or a substantially similar organization and any one of the following:
 - [1] Associate's Degree or higher in turf management, or closely related field, with evidence of participation in a recognized continuing education program for turf management within the past year;
 - [2] Current Massachusetts Certified Landscape Professional (MCLP) certification or current Massachusetts Certified Arborist (MCA) certification, or substantially similar professional certification with emphasis on turf management, with evidence of participation in a

recognized continuing education program for turf management within the past year;

- [3] Certificate of Completion from the University of Massachusetts Extension Green School (Turf or Landscape sections) or the University of Massachusetts Winter School for Turf Managers, or a horticultural certificate from Cape Cod Community College, or substantially similar professional certification with emphasis on turf management, with evidence of participation in a recognized continuing education program for turf management within the past year.
- (3) The Town may seek the assistance of the Cape Cod Cooperative Extension to help develop or administer an assessment to determine an applicator's proficiency in the BMP and to assist with or administer a fertilizer certification process, which if administered by the Extension, may be a county-wide process.
- (4) Municipal applicators or landscape professionals who are noncertified fertilizer applicators may nonetheless apply fertilizer and manage turf pursuant to the standards for certified fertilizer applicators set out in § 78-5C of this chapter so long as they fertilize and manage turf under the direct supervision of a manager or supervisor who has attained fertilizer certification hereunder. "Direct supervision" shall mean the instruction and control by such manager or supervisor who is responsible for fertilizer applications made and that person making them, and who is either physically present at the time and place the fertilizer is applied, or if not physically present, is available if and when needed.
- (5) All certified fertilizer applicators shall ensure that a copy of the official documentation of said fertilizer certification is readily available when and at the location fertilizer is being applied, and shall provide such certification when requested to do so by an officer or agent of the enforcement authority set out in § 78-6D(1) herein.
- (6) All certified fertilizer applicators who apply plant nutrients shall maintain records for three years of each application made. The following information shall be recorded, when applicable:
 - (a) Name of applicator;
 - (b) Date of application;
 - (c) Address or location description of the application site;
 - (d) Type and amount of nutrients applied;
 - (e) Size of the area being treated;
 - (f) Representative nutrient value or values (e.g., soil tests);
 - (g) Plant nutrient analysis of product used;

- (h) Method and rate of application;
 - (i) Total amount used;
 - (j) An original or legible copy of the label of the plant nutrient; and
 - (k) The implementation of all activities or protocols recommended or required by the nutrient management plan, if applicable.
- (7) The records required under this § 78-6B shall be made available for inspection by the Town's Director of Public Health.
- C. Retailer requirements. Any retailer who sells, or offers for sale, phosphorus-containing fertilizer shall:
- (1) Display the product separately from nonphosphorus plant nutrients;
 - (2) Post in a location where phosphorus-containing fertilizer is displayed a clearly visible sign, provided by the Town, at least 8 1/2 inches by 11 inches in dimension, which reads as follows: "PHOSPHORUS RUNOFF POSES A THREAT TO WATER QUALITY. THEREFORE, UNDER GL Ch. 128 sec. 65A, PHOSPHORUS CONTAINING FERTILIZER MAY ONLY BE APPLIED TO LAWN OR NON-AGRICULTURAL TURF WHEN (i) a soil test indicates that additional phosphorus is needed for the growth of that lawn or non-agricultural turf; or (ii) it is used for newly established lawn or non-agricultural turf during the first growing season."
 - (3) Post education materials on proper soil testing and use of fertilizers in a prominent location where fertilizer is being sold.
- D. Enforcement.
- (1) Enforcement authority. This chapter shall be enforced by the Town's Board of Health, through its Director of Public Health; provided, however, that the Town's Conservation Commission shall enforce the provisions of § 78-5B(4) and (8).
 - (2) For first and second offense within a twelve-month period. After the first year from the effective date of this chapter, whoever violates any provision of this chapter by committing a first or second offense may be penalized as follows:
 - (a) First offense: a written warning shall be issued;
 - (b) Second offense within a twelve-month period: either by attending an education program under § 78-6A or by obtaining a certification under § 78-6B.
 - (3) Noncriminal disposition. After the first year from the effective date of this chapter, whoever violates any provision of this chapter three or more times in a twelve-month period may be penalized by a noncriminal disposition process as provided in MGL c. 40, § 21D and the Town's noncriminal disposition ordinance. If noncriminal disposition is elected, then any person who violates any provision of this chapter shall be subject to a penalty of not more than \$300 for each violation.

- (4) Other remedies. The Town's Board of Health, through its Director of Public Health, or the Town's Conservation Commission for violations of § 78-5B(4) and (8) may enforce this chapter or enjoin violations thereof through any lawful process, and the election of one remedy by the Town's Director of Public Health and the Conservation Commission shall not preclude enforcement through any other lawful means.

§ 78-7. Severability.

Should any section, part or provision of this chapter be deemed invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining terms of this chapter as a whole or any part thereof, other than the section, part or provision held invalid, which shall remain in full force and effect.

§ 78-8. Amendments.

- A. No amendment to this chapter shall be adopted until such time as the Town Council shall hold a public hearing thereon, notice of the time, place and subject matter of which, sufficient for identification, shall be given by publishing in a newspaper of general circulation in the Town once in each of two successive weeks, the first publication to be not less than 14 days prior to the date set for such hearing. No such amendment shall be effective unless the proposed amendment has been approved by the Town Council.
- B. Amendments shall also be subject to the procedures set out in Sections 10 and 11 of the Cape Cod Commission Act, Chapter 716 of the Acts of 1989, as amended. Specifically, amendments must also be consistent with the Fertilizer Management District of Critical Planning Concern designation, Barnstable County Ordinance 13-07 and the Guidelines for Implementing Regulations set out therein, including the requirement for consistency with the BMP.

§ 78-9. When effective.

The effective date of this chapter shall be the date the fertilizer certification process outlined in § 78-6B herein is implemented and in effect.