

TOWN OF HARWICH FERTILIZER AND NUTRIENT CONTROL REGULATION

FERTILIZER AND NUTRIENT CONTROL

I. Findings.

The Town of Harwich herein makes the following findings:

- A. The Massachusetts Estuaries Project (MEP) has found that fertilizers account for an important portion of controllable nitrogen load in Cape Cod watersheds. Excessive nitrogen from fertilizers and other watershed sources leads to eutrophication of marine embayments. Other studies have demonstrated that phosphorus from fertilizers can lead to eutrophication in freshwater ponds.
- B. Public health risks from excessive loading of nutrients to water resources may include direct detrimental effects on drinking water sources by increased concentrations of nitrates that can violate safe drinking water standards.
- C. The Town has significant amounts of glacially deposited coarse, sandy soils that are subject to rapid water infiltration, percolation, and leaching of nutrients.
- D. Scientific literature demonstrates that a significant potential source of nutrient loading to water resources is from inappropriate and/or improper use of turf fertilizer.

II. Purposes.

It is the overarching goal of the Town of Harwich to provide a regulatory framework that results in reducing the nutrient loading from the application of fertilizers. Consistent with this goal, and based on the findings provided in Section I: Findings, the Board of Health provides this regulation to achieve the following purposes.

- A. To ensure application of fertilizer shall be performed in a manner consistent with best management practices (BMPs), which from time to time may undergo changes in response to scientific research.
- B. To provide a legal mechanism for enforcement against the inappropriate and/or improper use of fertilizer.
- C. To incorporate, by reference, the University of Massachusetts Extension's Turf Management BMPs as the primary standard for the content and application practices related to turf fertilizer.
- D. To provide a regulatory tool that will help Harwich to achieve compliance with the total daily maximum loads (TMDL) for the Town's water resources prescribed by the Commonwealth of Massachusetts.
- E. To provide the standards that will allow reasonable use of fertilizers for the enhancement and maintenance of turf quality, found in Section VI of this regulation.

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- F. To help achieve the goals of the Harwich Wastewater Management Plan, the Cape-Wide Fertilizer Management DCPC, and the Local Comprehensive Plan.

III. Authority.

This regulation is adopted by the Town of Harwich Board of Health 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.

IV. Applicability.

- A. This Regulation allows for a reduction of nitrogen and phosphorus going into the Town's waters and wetlands by means of an organized system of education, standardization and regulation of practice. This Regulation is not intended to eliminate the use of fertilizer but only to eliminate excess amounts of phosphorus and nitrogen from reaching our surface water and groundwater. This Regulation adopts the Best Management Practices (BMP) as the normal operating procedures for turf management throughout the Town.
- B. This regulation shall apply to and regulate any and all applications of nitrogen and phosphorus through fertilizer within the Town of Harwich.
- C. Applications of fertilizer for agriculture and horticulture uses are exempt from the provision of this regulation as they are regulated by the MDAR Fertilizer Regulations.

V. Definitions.

For the purposes of this regulation, the following terms are defined as provided below:

AGRICULTURE/AGRICULTURAL USE — Includes farming in all its branches, generally as the cultivation and tillage of the soil, dairying, the production, cultivation, growing and harvesting of any agricultural, floricultural, viticultural or horticultural commodities, and shellfishing, including preparations and delivery to storage or to market or to carriers for transportation to market.

BEST MANAGEMENT PRACTICES (BMP) — A sequence of activities designed to limit a nonpoint pollution source. For the purposes of this regulation, BMP means the "Best Management Practices for Soil and Nutrient Management in Turf Systems," prepared by University of Massachusetts Extension, Center for Agriculture, Turf Program. The version of this document that applies to this regulation shall be that which was most recent at the time of the adoption of this regulation or any subsequent versions that are adopted as an amendment to this regulation through a majority vote at Town Meeting.

ENFORCEMENT AUTHORITY — The party designated by the Board of Health to oversee and enforce the provisions of this regulation, including but not limited to designated agents of the Board of Health and Conservation Commission, Natural Resource Officer, Harbormaster, Police Officer.

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FERTILIZER — A substance that enriches the soil with elements essential for plant growth, such as nitrogen, phosphorus, potassium or other substances; fertilizer does not include those nutrients that are normally excluded from fertilizer such as chemicals that are part of horticultural gypsum, dolomite, limestone, lime, Jersey greensand, grass clippings, or compost topdressing.

HEAVY RAIN — A rainfall greater than 0.25 inch per hour during a given twenty-four-hour period or a rainfall of greater than one inch total in the next twenty-four-hour period.

IMPERVIOUS SURFACE — Any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, and includes concrete, asphalt, paver blocks, gravel, decks, patios, elevated structures, and other similar structures, surfaces, or improvements.

MDAR FERTILIZER REGULATIONS — The most recent regulations of the "Plant Nutrient Application Requirements for Agricultural Land and Land Not Used for Agricultural Purposes," developed by the Massachusetts Department of Agricultural Resources (MDAR) pursuant to its authority under MGL c. 128, §§ 2(k) and 65(A), as amended by Chapter 262 of the Acts of 2012, 330 CMR 31.00.

NITROGEN — An element essential to plant growth. For the purposes of the regulation, nitrogen may be available as slow-release, controlled-release, timed-release, slowly available, or water-insoluble nitrogen, which means nitrogen in a form that delays its availability for plant uptake and use after application and is not rapidly available to turf and other plants; and/or quick-release, water-soluble nitrogen which means nitrogen in a form that does not delay its availability for turf and other plant uptake and is rapidly available for turf and other plant uptake and use after application.

PHOSPHORUS — Mineral and organic substances that contain phosphorous and that are used for improving the nutrition of plants.

TURF — Any non-crop land area that is covered by any grass species, excluding meadows, grasslands, flower or vegetable gardens, pasture, hay land, trees, shrubs, turf grown on turf farms or any form of agricultural production or use.

ZONE I — the 400 foot radius around a public water supply or wellfield as stated in 310 CMR 22.02.

VI. Performance standards for fertilizer application.

All application of fertilizer to turf shall comply with the following standards:

- A. The application of fertilizer containing nitrogen is **prohibited between November 15 and April 15** unless specifically permitted by the enforcement authority as set out below. Based on early spring or fall weather conditions, soil temperature and degree of turf emergence from dormancy, or other relevant condition, and using the guidelines of the BMP, the enforcement authority may permit earlier or later application of fertilizer

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containing nitrogen, in which case such extended period shall be announced by notice or publication.

- B. Nitrogen and phosphorus from any fertilizer application shall **not be to applied to, or otherwise be deposited on, any impervious surface**, including parking lot, driveway, roadway, sidewalk, frozen soil or ice. Any fertilizer applied, spilled, and/or deposited on any impervious surface, either intentionally or accidentally, must be immediately and completely removed and contained and either legally applied to turf or any other legal site or returned to an appropriate container.
- C. Fertilizer shall **not be applied within 24 hours before or during a heavy rain event** nor shall fertilizer be applied onto saturated ground.
- D. An application of fertilizer should be **watered in with no more than 0.25 inch of irrigation** or natural rain within the twenty-four-hour period following application. Where irrigation systems are used, the volume and rate of irrigation water applied shall be performed in a manner that reduces runoff to the greatest extent practicable. Where an irrigation system uses sprinkler heads or other similar spray devices, these devices shall direct irrigation water in a manner that reduces runoff to the greatest extent practicable.
- E. Unless the Town's existing laws and regulations, including its Wetland Bylaw or Regulations, contain a stricter standard or other enforcement or approval mechanism such as through the Town's Conservation Commission, which shall control, fertilizer shall **not be applied closer than 100 feet to any water body, or within the Zone I of a public drinking water well** (as defined in 310 CMR 22.02), unless permission is obtained through the enforcement authority set out in VI herein allowing such activity.
- F. Fertilizer that contains phosphorus shall not be used 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.
- G. A single application of fertilizer that contains nitrogen shall not exceed 1.0 pound of actual nitrogen per 1,000 square feet, shall consist of at least 20% slow-release nitrogen fertilizer and the annual rate shall not exceed 3.0 pounds of actual nitrogen per 1,000 square feet. Single applications shall be done at intervals of no less than four weeks until the annual maximum is reached.

VII. Education.

The Town may rely on the Cape Cod cooperative Extension to assist in maintaining a program of fertilizer and turf management education that is based on BMPs.

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Fertilizer education may consist of, but is not limited to, collaboration with retailers to post in-store information on town fertilizer regulations, the BMP requirements; mailings and flyers for the general public concerning town fertilizer regulations; and outreach to Landscape Professional's fertilizer-related laws and the BMP requirements.

VIII. Noncriminal disposition; violations and penalties.

Whoever violates any provision of this regulation may be penalized by a noncriminal disposition process as provided in MGL c. 40, § 21 D, and the Town's noncriminal disposition bylaw. If noncriminal disposition is elected, then any person who violates any provision of this regulation shall be subject to a penalty in the amount of \$300 per day for each day of violation, commencing 10 days following day of receipt of written notice from the enforcement authority. A warning in lieu of a fine or other enforcement action for the first offense can be issued at the discretion of the enforcement authority. Each day or portion thereof shall constitute a separate offense. If more than one, each condition violated shall constitute a separate offense.

IX. Severability.

Should any section, part or provision of this regulation be deemed invalid or unconstitutional, such decision shall not affect the validity of the remaining terms of this regulation as a whole or any part thereof, other than the section, part of provision held invalid or unconstitutional.

X. Amendments.

Amendments to this Regulation may be adopted by Board of Health after 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 fourteen days prior to the date set for such hearing. 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.

XI. Effective Date.

The effective date of this Regulation shall be the publication date pursuant to G.L. c. 111, §31, provided further that the Regulation has been certified by the Cape Cod Commission as consistent with the Fertilizer Management District of Critical Planning Concern designation, Barnstable County Ordinance 13-07, and has been approved by the Attorney General pursuant to MGL Ch. 40, Sec. 32, if and as required.

Harwich Board of Health Adopted January 22, 2021
 Pamela Howell, R.N., Chair
 Sharon Pflieger, Vice Chair
 Ronald Dowgiallo, D.M.D
 Matthew Antoine
 Kevin DuPont

