



MIDDLETOWN
Rhode Island

PLANNING DEPARTMENT

TOWN OF MIDDLETOWN

350 East Main Road, Middletown, RI 02842
(401) 849-4027 | MiddletownRI.com

To: Paul Croce, Chair
Planning Board members

From: Ron Wolanski, Town Planner

Date: May 3, 2023

Re: Review and recommendation to the Town Council on draft fertilizer and pesticide control regulations, proposed amendment to Town Code Chapter 153- Stormwater Management, Section 153.80.

The full-build impact analysis completed for the Town in 2020 by Crossman Engineering included an action item to implement a nutrient fertilizer and pesticide control ordinance in order to reduce impacts on water resources. This action was identified by the Town Council as a high priority for implementation during its joint meeting with the Planning Board. I have worked with the Town Solicitor's office to provide the attached draft ordinance for consideration. It would result in amendments to Chapter 153 of the Town Code – Stormwater Management. Even though these are not amendments to the Zoning Ordinance, I believe it is appropriate for the Planning Board to offer a recommendation to the Town Council regarding potential adoption since it was recommended in Crossman's build-out report.

The attached draft includes the following components:

1. Findings as to the need for the regulations, including:
 - Known negative impacts of nutrient enrichment and pesticides on water resources, including the drinking water supply
 - Recognition of low infiltration rates of Middletown soils
 - Excessive or improper use of turf fertilizer is a significant potential source of nutrient loading
 - It is Middletown policy to protect and enhance surface water quality
2. The regulations will apply to "any and all applications of nitrogen and phosphorus through fertilizer and applications of pesticides", including by residents and lawn care companies, subject to the following exemptions:
 - Agricultural activities with an NRCS approved conservation management plan are exempt
 - Agricultural activities that customarily use fertilizers and pesticides are exempt
 - Golf courses are exempt
3. The draft contains definitions for terms relevant to the proposal.
4. Requirements for the sale and use of fertilizer, including:

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- Businesses selling fertilizer must post notice of these regulations at the product display.
 - All application of fertilizer shall comply with best management practices (BMPs) of either the UMASS extension's *Best Management Practices for Lawn and Landscape Turf* or the UCONN College of Agriculture's *New England Regional Nitrogen and Phosphorus Fertilizer and Associated Management Practice Recommendations*.
 - Fertilizer shall not be applied closer to 100 feet from any water body of wetland.
 - Fertilizer shall not be applied within 48 hours of a heavy rain event (rate greater than .25 inches per hour, or greater than 1-inch total rainfall in the next 24 hours).
 - Fertilizer shall not be applied to saturated ground.
 - Fertilizer shall not be applied November 15 – April 15, or when the ground is frozen.
 - Fertilizer shall not be applied during summer dormancy of turf grass.
 - Fertilizer shall not be applied to bare ground except for re-seeding.
 - Fertilizer shall not be applied to paved or other impervious surfaces.
 - Before application of fertilizer stormwater conveyances (storm drains, swales) must be covered with a tarp.
 - For fertilizers containing nitrogen, a single application shall not contain more than 1 pound of nitrogen per 1,000 square feet, which must be at least 20% slow-release. Annual rate not to exceed 2 pounds per 1,000 square feet.
 - Fertilizers containing phosphorus shall not be applied at all unless a soil test demonstrates a phosphorus deficiency, or if being used to establish new or repaired turf.
 - Unused fertilized must be stored in its original container in a dry place or discarded at a household hazardous waste facility, and not dumped into a water body, storm drain or sanitary sewer drain.
 - Fertilizer applications shall not be watered with more than 0.3 inches of water.
 - Clippings from a fertilized lawn shall be allowed collect on impervious surface or dumped into storm drains, water bodies or wetlands.
5. Requirements for the sale and use of pesticides, including:
- Businesses selling pesticides must post notice of these regulations at the product display.
 - All use of pesticides must comply with RIDEM applicable regulations.
 - Any person applying pesticides must be at least 18 years old.
 - Any person involved in the noncommercial application of pesticides must read and understand the label instructions and warnings, and use store an dispose of pesticides in accordance with the label instructions.
 - All equipment drawing water from surface waters must provide backflow prevention.

- No pesticides may be applied to public water supplies or tributaries except by water supply entities or RIDEM.
- Pesticides shall not be allowed to drift or flow outside the targeted area.
- Pesticides can not be reused for another purpose.
- Only licensed commercial applicators may apply pesticides on school grounds.

6. Violations

- Fine of \$100 for the first offence.
- Second and subsequent offenses require hearing before Municipal Court and penalties per Town Code section 10.99 up to a fine of \$500 and/or ten days community service per occurrence.

The Planning Board might wish to solicit public input on the proposed amendments. If so, once the Board has considered public comment and made any necessary revisions to the draft amendments, the proposal and the board's recommendation should be forwarded to the Town Council for consideration. The Town Council would then consider potential adoption.

Please feel free to contact me with any questions.

Cc: Town Administrator
Town Solicitor

**ORDINANCE OF THE
TOWN OF MIDDLETOWN, RHODE ISLAND**

**AN ORDINANCE AMENDING THE TOWN CODE OF THE
TOWN OF MIDDLETOWN**

TITLE XV: LAND USAGE

NOW THEREFORE, BE IT ORDAINED AS FOLLOWS:

FIRST: The following new section is inserted into Title XV, Chapter 153: Stormwater Management:

CHAPTER 153.80: NUTRIENT FERTILIZER AND PESTICIDE CONTROL

§153.80 FINDINGS

- (A) There is sufficient scientific evidence demonstrating that excessive nutrient enrichment of and pesticide addition to water resources can have numerous and various, significant negative impacts.
- (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 nitrogen and phosphorus that can violate safe drinking water standards.
- (C) Degradation of the quality of water resources can have significant negative impacts to the local and regional economy, and the fiscal well-being of the Town of Middletown.
- (D) The Town of Middletown's soil characteristics mean that agronomic practices of soil fertilization and pesticide applications common in other parts of the region, state and country may not always apply in the Town of Middletown, as these practices vary by soil type.
- (E) Scientific literature demonstrates that a significant potential source of nutrient loading to water resources is from inappropriate, excessive and/or improper use of turf fertilizer.
- (F) As recognized by RIGL §46-30-2, it is found and declared that water resources are a critical renewable resource which must be protected.
- (G) As recognized by RIGL §23-25-3, the drifting or washing of pesticides into streams, lakes, or other bodies of water may cause appreciable damage to aquatic life.

- (H) It is the policy of the Town of Middletown to restore, preserve, and enhance the quality of surface waters and to protect the waters from discharges of pollutants so that the waters shall be available for all beneficial uses and thus protect the public health, welfare and the environment.

§153.81 PURPOSE

It is the goal of the Town of Middletown to provide a framework that results in the planting and maintenance of minimally managed turf areas. Consistent with this goal, and based on the findings provided in §153.80, the Town of Middletown enacts this chapter to achieve the following purposes.

- (A) To ensure that application of fertilizers and pesticides are performed in a manner consistent with best management practices (BMPs);
- (B) To provide a regulatory tool that will help the Town of Middletown achieve compliance with the total daily maximum loads (TMDL) for the Town's water resources prescribed by the Rhode Island Department of Environmental Management;
- (C) To provide standards that will allow reasonable use of fertilizers and pesticides for the enhancement and maintenance of turf quality;
- (D) To conserve valuable waterways and other resources that increase property values, protect the unique environment vital to the town's economy, and reduce the financial burden on taxpayers and property owners by regulating the outdoor application of nitrogen, phosphorus, and pesticides on turf;
- (E) To help achieve the goals of the Town of Middletown's Comprehensive Community Plan.

§153.82 AUTHORITY

This chapter is adopted by the Town of Middletown pursuant to and authorized by RIGL §§46-12-1, *et. seq.*, 23-25-1, *et. seq.*, and 45-6-1, *et. seq.*

§153.83 APPLICABILITY

This chapter shall apply to and regulate any and all applications of nitrogen and phosphorus through fertilizer and applications of pesticides within the Town of Middletown, subject to the exemptions listed in Section 153.84.

§153.84 EXEMPTIONS

The following activities are exempt from the provisions of this chapter:

- (A) Agricultural land management activities carried out in accordance with a conservation management plan that has been approved by the Natural Resources Conservation Service;
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(B) Agricultural uses that customarily utilize fertilizer or pesticides;

(C) Public and private golf courses within the Town of Middletown;

§153.85 DEFINITIONS

For the purpose of this chapter, the following definitions shall apply:

AGRICULTURE/AGRICULTURAL USE. Land uses normally associated with the production of food, fiber and livestock for sale. This 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. For purposes of this chapter, such uses shall not include the development of land for the processing or sale of food and the manufacturing of agriculturally related products.

APPLICATOR. Any individual or entity that applies fertilizer or pesticides to turf or soils.

BEST MANAGEMENT PRACTICE (“BMP”). A structural device or a nonstructural practice for pollution management, which is deemed to provide the best available treatment or control of a pollution source such as stormwater. For purposes of this Chapter, BMP means the “*Lawn and Landscape Turf Best Management Practices*,” from the University of Massachusetts Amherst Center for Agriculture, Food and the Environment, or the *New England Regional Nitrogen and Phosphorus Fertilizer and Associated Management Practice Recommendations* written by the University of Connecticut College of Agriculture and Natural Resource.

COMBINATION PRODUCTS. Sometimes colloquially referred to as “weed and feed,” any product that, in combination with fertilizer, contains post-emergence herbicides, insecticides, other pesticides, or plant growth regulators.

COMMERCIAL APPLICATOR. Any individual or entity, including employees of any federal, state, country, or municipal agency, department, office, division, section, bureau, board, or commission who applies or supervises the application of any pesticide or fertilizer for any purpose.

COMPOST or ORGANIC COMPOST. The biologically stable, humus-like material derived from composting or the aerobic, thermophilic decomposition of organic matter.

ENVIRONMENT. The water, air, land, and all plants and humans and other living animals in it, and the interrelationships which exist among these.

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 EVENT. A rainfall greater than 0.25 inches per hour during a given twenty-four (24) hour period, or a rainfall greater than one (1) inch total in the next twenty-four (24) 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.

LABEL. The written, printed, or graphic matter on, or attached to, the pesticide or fertilizer or device or any of its containers and wrappers.

LICENSED COMMERCIAL APPLICATOR. Any commercial pesticide applicator who is licensed under RIGL §23-25-12 as authorized to use or supervise the use of any pesticide not classified for restricted use by the United States Environmental Protection Agency or limited use by RIDEM on land not owned or rented by the commercial pesticide applicator.

NITROGEN. An element essential to plant growth. For the purposes of this chapter, 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.

NONPOINT SOURCE POLLUTION. Pollution from any source that is not discernible, confined and discrete. Potential sources of nonpoint source pollution include, but are not limited to, stormwater runoff, agriculture, silviculture, mining, construction, septic systems and urban development.

NUTRIENT. Any of the following seventeen (17) elements needed for growth of a plant: the three non-mineral 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.

PESTICIDE. Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest; and any substance or mixture of substances for use as a plant regulator, defoliant, or desiccant.

PHOSPHORUS. An essential plant nutrient, phosphorus fertilizers are used for replenishing phosphorus in soil, produced commercially from phosphate rock and apatites, including such organic substances as bone meal and manure and such phosphorus-rich industrial wastes as basic slag and Thomas slag.

RECHARGE. The replenishment of underground water reserves.

SATURATED GROUND. Soil soaked with moisture such that it cannot absorb any more liquid.

STORMWATER RUNOFF. Flow on the surface of the ground, resulting from precipitation.

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.

WETLAND. An area, as defined by RIGL §2-1-14 (Coastal Wetland) and RIGL §2-1-20 (Freshwater Wetland) and as determined by the Rhode Island Department of Environmental Management or the Coastal Resources Management Council, which is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

§153.86 PERFORMANCE STANDARDS FOR FERTILIZER APPLICATION

- (A) The care and maintenance of residential lawns and other landscaped areas in the Town of Middletown can contribute to water quality degradation. Further, excessive amounts of fertilizers, inappropriate formulations, and poor timing of application can result in adverse impacts to stormwater.
- (B) Posted Notice requirements.
 - (1) Any and all individuals and entities engaged in the business of selling fertilizer products for profit shall obtain and display the Official Notice of this chapter, Middletown Code of Ordinances §153.8;
 - (2) Such Official Notice shall be posted at the forefront of fertilizer product displays; and
 - (3) Such Official Notice shall be posted conspicuously, prominently, and without obstruction.
- (C) All uses and applications of fertilizer within the Town of Middletown shall comply with the following performance standards:
 - (1) All fertilizer applications shall follow and be performed in accordance with BMPs found either in the University of Massachusetts Extension Turf Program's *Best Management Practices for Lawn and Landscape Turf*, or the University of Connecticut College of Agriculture and Natural Resource's *New England Regional Nitrogen and Phosphorus Fertilizer and Associated Management Practice Recommendations*.
 - (2) Fertilizers containing nitrogen or phosphorus shall not be applied to turf closer than one hundred (100) feet to any water body or wetlands.
 - (3) Fertilizers containing nitrogen or phosphorus shall not be applied within forty-eight (48) hours of a heavy rain event.

- (4) Fertilizers containing nitrogen or phosphorus shall not be applied to saturated ground.
- (5) Fertilizers containing nitrogen or phosphorus shall not be applied during winter months (between November 15 and April 15), when the ground is frozen, or when the ground is partially frozen.
- (6) Fertilizers containing nitrogen or phosphorus shall not be applied during the summer dormancy of turf grass.
- (7) Fertilizers containing nitrogen or phosphorus shall not be applied to bare ground, unless for the purpose of re-seeding.
- (8) Fertilizers containing nitrogen or phosphorus shall not be applied to paved or otherwise impervious surfaces. If these fertilizers are incidentally applied to impervious surfaces, any spillage must be immediately contained and removed to prevent run-off.
- (9) Before applying fertilizers containing nitrogen or phosphorus, the applicator shall cover stormwater conveyances (including, but not limited to storm drains, ditches, and swales) with a tarp, drop-cloth, or similar covering.
- (10) 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 2.0 pounds of actual nitrogen per 1,000 square feet. Single applications shall be done at intervals of no less than four (4) weeks until the annual maximum is reached.
- (11) Fertilizers containing phosphorus shall not be applied unless a soil test within twelve (12) months of application is conducted and reveals an available phosphorus deficiency or unless establishing new turf or re-establishing or repairing turf after substantial damage or land disturbance, in which case the application shall be in compliance with the BMP.
- (12) The fertilizer application requirements of this subsection shall apply with the same limitations to combination products as defined by this ordinance.
- (13) Unused fertilizers containing nitrogen or phosphorus shall be put back in its original container and stored in a dry place, or taken to a household hazardous waste facility.
- (14) Unused fertilizers containing nitrogen or phosphorus shall not be over-applied to grass; dumped into storm drains, wetlands, or water bodies; or emptied into a toilet or sink.

- (15) Applications of fertilizers containing nitrogen or phosphorus shall be watered with no more than 0.3 inches of water.
- (16) Lawn clippings fertilized with nitrogen or phosphorus fertilizers shall not be allowed to collect on impervious surfaces; nor dumped into water bodies, storm drains, or wetlands.

§153.87 PESTICIDE APPLICATION CONTROL

- (A) As recognized in RIGL §23-25-3, pesticides may cause injury to people, or may cause unreasonable adverse effects on the environment if not properly used. The drifting or washing of pesticides into streams, lakes, and other bodies of water may cause appreciable damage to human life or animals, either by direct poisoning or gradual accumulation.
- (B) Posted Notice requirements
 - (1) Any and all individuals and entities engaged in the business of selling pesticide products for profit shall obtain and display the Official Notice of this chapter, Middletown Code of Ordinances §153.90;
 - (2) Such Official Notice shall be posted at the forefront of pesticide product displays, and;
 - (3) Such Official Notice shall be posted conspicuously, prominently, and without obstruction.
- (C) All uses and applications of pesticides within the Town of Middletown shall comply with the following performance standards:
 - (1) All commercial pesticide uses and applications shall comply with the Rhode Island Department of Environmental Management's Rules and Regulations Relating to Pesticides, promulgated pursuant to Chapter 25 of Title 23 of the Rhode Island General Laws and Section and 40 CFR §171.5 (a), as applicable.
 - (2) Any person applying pesticides must be eighteen (18) years of age or older.
 - (3) Any person engaged in the noncommercial application of pesticides shall:
 - (i) Read and understand the label instructions, information and warnings, including the common name of pesticides applied, the pests to be controlled, the timing and methods of application, safety precautions, restrictions; and any specific disposal procedures; and
 - (ii) Apply, use, store and dispose of pesticides in accordance with label instructions, information and warnings;

- (4) All pest control equipment using pesticides and drawing water from the surface waters of the state or from a potable water supply shall have an effective, Rhode Island Department of Environmental Management approved anti-siphon device to prevent backflow.
- (5) No pesticides shall be applied to public water supplies or their tributaries except by legally established water supply entities or their agents as authorized by the Rhode Island Department of Environmental Management.
- (6) No person shall apply pesticides in such a manner that allow pesticides to drift or flow into water supplies.
- (7) No application of pesticides shall be made by mechanically powered equipment at such times where wind velocity may cause the pesticide to drift beyond target area.
- (8) Pesticide containers shall not be used for any purpose, other than the storage of pesticides, unless such purpose has been approved by the Rhode Island Department of Environmental Management.
- (9) Only licensed or certified commercial applicators shall apply pesticides within any building or on the grounds of any school, and no pesticide shall be applied in any building or on the grounds of any school during regular school hours or during planned activities at the school. This subsection shall not apply to the use of germicides, disinfectants, sanitizers, deodorizers, antimicrobial agents, insecticide gels, non-volatile insect or rodent bait in a tamper resistant container, insect repellants, pesticides applied by public health officials during a state public health emergency, exempt pesticides under 40 CFR §152.25.

§153.88 VIOLATIONS

- (A) Any person, firm or corporation whether as principal, agent, employee or otherwise, who violates any of the provisions of this Chapter shall be subject to the following penalty:
- (1) For a first offense, \$100. The person charged shall, for a first offense, be given the opportunity to pay the fine assessed by mail which shall be indicated on the summons issued by the charging officer. Should the alleged violator elect not to pay the fine assessed by mail, said person shall be entitled to a hearing before the Municipal Court.
 - (2) For any second or subsequent violation, a hearing before the Municipal Court is required, and the alleged violators shall be subject to the penalties as outlined in §10.99.