# PROPOSED LAWN FERTILIZER CONTROL DISTRICT

# UNDER CONSIDERATION

Public Hearing March 27, 2014 staff notes (Jo-Ann Taylor, DCPC Coordinator) (March 25 edition – watch for possible updates)

# Note on the Evening's Proceedings

The Commission is holding a single public hearing addressing two DCPC procedures, DESIGNATION of a proposed District under consideration and CONFORMANCE OF PROPOSED REGULATIONS. The two are so closely linked that much of the presentation addresses both the designation vote and proposed regulations, as may the public hearing testimony. Please keep in mind that MVC has not designated the District and will undertake that vote after conclusion of the hearing. The vote on designation may well take place on March 27 and if affirmative should include the Goals and Guidelines for Development. Draft Goals and Guidelines have been prepared by staff and the DCPC Committee for use in the event of an affirmative vote, and are included in the public hearing materials for convenience.

On April 3, a vote should be taken on the Written Decision (affirmative or negative). Should the MVC vote to designate, a separate subsequent vote would determine whether or not the proposed regulations are in conformance with the Guidelines for Development specified in the Designation Decision. That vote could also take place on April 3 (possibly on March 27).

# 1. PROCEDURAL NOTES

# Purpose of hearing:

To consider designation of the proposed Fertilizer Control District under consideration since the MVC accepted the nominations on February 20, and to hear evidence as to whether the Commission should find that regulations proposed to govern the District conform to the Commission's Goals and Guidelines for the District.

# Timeline:

The MVC could best accommodate the towns by completing its votes prior to the "Super Tuesday" night of April 8, when four Annual Town Meetings take place. (Definitive time limits are as follows: designation vote by May 19, town regulations adoption within one year from designation)

# 2. AREA UNDER CONSIDERATION

<u>Area under consideration for designation:</u> (excerpts from the nomination are included here; full nominations were presented on February 20; a representative of the five nominations is appended and all five nomination documents are available on the Commission's website).

The six towns, comprising the entirety of the Island of Martha's Vineyard, except for the Indian Common Lands – generally known as the Clay Cliffs, the Cranberry Bogs and the Herring Creek – and the Settlement Lands, and excluding Nomans Land Island.

# 3. DESIGNATION CRITERIA

In making its designation decision, the Commission is guided by Section 8 of Chapter 831 of the Acts of 1977 as amended ("the Act") and by its "Critical Planning District Qualifications" as well as the public hearing record. The "Qualifications" (sometimes known as the "Criteria"), which are excerpted in boxes below, are based very closely on the specifics of Section 8. The full "Qualifications" document is appended and is available on-line http://www.mycommission.org/dcpcs/gualifications.html

# 3.1 GENERAL QUALIFICATIONS 3.1a NEED FOR DESIGNATION

"There must be a regional need for special regulations or planning to protect the district from damage or losses by inappropriate development. The Commission shall find: that the present public or private regulations in a substantial part of the district cannot assure protection; and that damage to the district or impediments to proper development will be a substantial loss to the region or to two or more towns."

The nominations appear to adequately address the designation for designation. The nominations were made or supported by all the Vineyard towns, expressing widespread concern for this need.

Nitrogen moves readily through groundwater and remains a threat to water quality as it moves through the ground and eventually surfaces in a pond, stream or the ocean. Although nitrogen is an important nutrient to support life, nitrogen in excess negatively impacts water quality. As noted in the nominations, the towns anticipate increasing pressure to improve water quality by reducing nitrogen inputs to groundwater. Without adequate regulation to limit nitrogen input, the towns may be forced to build expensive infrastructure such as sewer systems or expansion of sewer systems.

The nominations detail the progress of the Massachusetts Estuaries Project (MEP) assessments and the regulatory limits associated with those assessments "*Reports have been completed for Edgartown Great Pond, Farm Pond, Lagoon Pond, Sengekontacket Pond and Tisbury Great Pond. The MEP studies document that lawn fertilizers partly contribute to the eutrophication of our estuaries... The Massachusetts Department of Environmental Protection (Mass DEP) has issued Total Maximum Daily Loads (TMDLs) for each of the water resources with completed MEP reports. Similar studies are currently underway for Cape Poge Bay, Chilmark Ponds, Katama Bay and Lake Tashmoo. In due course, TMDLs will be established for all of these participating water resource areas."* 

"Eventual Commonwealth enforcement of TMDLs will require measures to reduce nitrogen levels, but if Vineyard towns do not soon adopt fertilizer regulations, they will be reliant upon the Commonwealth's regulations, which could remove fertilizer controls as a low-cost option for addressing part of the nitrogen problem. In 2012, the Commonwealth set out to develop statewide regulations of fertilizer use, reserving unto itself the ability to further regulate the use of fertilizers. The Cape and Islands communities were provided a window of opportunity to adopt regulations through the special legislative authority of their regional planning agencies. The window expires the latter of January 1, 2015 or one year after the commonwealth promulgates its statewide fertilizer regulations." "Adding sewers to reduce nitrogen that is attributable to excessive fertilizer use rather than using proper fertilizing practice could increase long-term Clean Water Act compliance costs to the Vineyard community by \$10-20 million or more."

# 3.1b SIZE AND SHAPE OF DISTRICT

"The district shall consist of the land and water which reasonably belong in the district for the three following reasons: It is the critical area or critical resource which is in need of protection. It is the logical planning area that should be considered in adopting a coordinated system of regulations to protect the critical resource or critical area. The dimensions or landmarks which form the boundary of the district are convenient and recognizable."

Regarding Size and Shape of the proposed District, the nominations request Island-wide designation and coordinated regulation "*The Island's boards of Health are seeking a common, Island-wide regulation that establishes a sustainable standard of lawn care, one that promotes the responsible use of fertilizers for lawns and other turf, in order to prevent harm to our water resources from application of nitrogen in excess of what the soil and turf area are able to utilize…* The strength of the *regulations lies in the definition of a common, Island-wide vision, one that defines a common set of standards..* Only a common island-wide regulatory approach is capable of fully addressing the 5% to 12% of the controllable nitrogen that enters our ponds and harbors from landscape fertilizer."

The nomination appears to adequately make a case for Island-wide designation, as the Commission has already found appropriate for the Coastal District, the Island Road District and the Special Places District. The very nature of groundwater movement ensures that it will cross town boundaries. Of the 14 coastal ponds and harbors for which MEP assessments have been completed, 8 lie within watersheds that span one or more neighboring towns. Should the Commission find that the area under consideration does warrant designation, the proposed boundary description appears to be adequate. The Commission does not regulate certain named Wampanoag lands that have been excluded from the nomination. The Settlement Lands are also excluded because of limitations on town regulations there. Nomans has also been excluded.

Some watersheds drain directly into the ocean, rather than to a pond or harbor. The nominations acknowledge that nitrogen from fertilizer may have little impact in the ocean, but nevertheless have asked for a unified designation and regulation for the benefits of standardization "Applying the fertilizer regulations across the Vineyard would also significantly aid administration of the regulations and their objectives. Education and training efforts can be shared among towns. Landscapers would only need to know a single set of standards for anywhere on the Island. A common standard would also eliminate potential confusion for landowners with properties in more than one Island town. This ease of understanding and administration is also a compelling argument for including areas of the towns that drain directly to the ocean."

# **3.2 SPECIFIC QUALIFICATIONS**

The Specific Qualifications define resources that may be considered valid for designation of a District of Critical Planning Concern:

# 3.2a DRINKING WATER RESOURCE DISTRICT

"The district is important to the protection of a regional aquifer, watershed, aquifer recharge zone or surface water supply with the following considerations:

• Development or waste disposal without special regulations in the district could endanger the quality or quantity of the water.

• Studies or expert advice indicate that the designation and regulation of the district could be effective in protecting the quality or quantity of water, and that, since public health, safety and welfare are paramount, special precaution should be taken."

The nominations appear to have adequately described the need for designation as a Drinking Water District.

As stated in the nominations, "Significant portions of the Island rely on on-site drinking water wells for potable water and other areas zoned for residential use are occupied by Zone II recharge areas for municipal public water supplies. Nitrogen is essential for all living things, as it is an essential component of protein. Excessive concentrations of nitrate-nitrogen in drinking water can be hazardous to health, especially for infants, nursing mothers, and pregnant women. Limiting the amount of nitrogen applied in the form of fertilizer is protective of drinking water quality and will complement other nitrogen limiting measures."

Regarding specifics of drinking water needs, the nominations include separate descriptions of each town's drinking water needs. Based on density of development, several of the towns have constructed public water supply systems. Others rely more on private wells. All rely on good water quality, which may be at least partly determined by another town's nitrogen inputs. The nominations individually state:

- "With the exception of the small area served by the Menemsha Water Company, the town of Chilmark is served entirely by on-site drinking water supply wells. Constructing drinking water wells in significant parts of town can present challenges due to complex geology and associated limited water supply. Protecting Chilmark's drinking water quality due to the complexity and limits connected with establishing a source includes protecting its quality... Additionally, Chilmark's geology supports many streams and ponds which in some cases are closely related to surrounding potable water supplies. Protecting surface water quality simultaneously protects drinking water quality in Chilmark.
- Significant portions of the Town of Edgartown rely on on-site drinking water wells for potable water, including Chappaquiddick and Katama. Additionally, the Zone II recharge areas for the municipal public water supply wells occupy approximately 25% of the area zoned for residential use. Two separate neighborhoods have experienced elevated nitrate levels in drinking water (perhaps caused by septic systems).
- The majority of the Town of Oak Bluffs relies on municipal public water for its potable water supply. Municipal public water supply Zone II's cover approximately 50% of the areas zoned for residential and/or business use. Oak Bluffs' public water supply Zone II's span into neighboring towns as well.
- A review of private well tests in Tisbury have shown some elevated nitrogen levels. Tisbury has also seen slightly elevated nitrogen levels in the Sanborn Well.
- The Town of West Tisbury relies on private wells for potable water. Several abutting towns have Municipal public water supply Zone II's that encompass a portion of West Tisbury."

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# 3.2b FISHING RESOURCE DISTRICT

# "The water body in the district is particularly well suited for the production of shell or fin fish or can be made productive through good management and improvements."

The nominations state "Although fertilizer is not applied directly to the surface waters, the MEP studies document the contribution of excess nitrogen that leaches into the groundwater and migrates to great ponds. The excess nitrogen stimulates algal growth to the detriment of other plants and shellfish. Reducing nitrogen loading, of which fertilizers are one source, can restore healthy habitat for fish."

This distinction is usually made for a specific body of water. Some water bodies will not be suitable for the production of fish regardless of nutrient inputs.

# 3.2b WILDLIFE, NATURAL SCIENTIFIC OR ECOLOGICAL RESOURCE DISTRICT

"The district contains an important and identifiable wildlife, natural, scientific or ecological resource. This would include but not be limited to special plant and animal life and their habitats, as well as unusual geological features, and is critical because development may disrupt the ecological balance."

# 3.2 c CULTURAL OR HISTORIC RESOURCE DISTRICT

"The district contains a place, landscape, way or view which is in some special way expressive of the character of the Island, traditions of the Island residents, and of special interest to Island visitors. The maintenance and protection of those values is essential to a sound local economy. The district also: is of exceptional symbolic or recreational importance to the residents of more than one town and is either visible or accessible to them or can reasonably be made so; or is rare, unique, or makes an unusual contribution to the diversity of the Island character; or is irreplaceable, or replaceable only with extraordinary effort or expense. Subject to the above general tests, designations may be considered for areas which are important for their connection with the history of the region-including its geological history or the history of its Indian settlement-or which symbolize and support the traditional activities and ways of Island life, or which give us a particular understanding of the Vineyard lands and their setting in the sea. These include places which present opportunities for hunting and fishing and the enjoyment of wildlife."

The nominations state "Although this nomination is not made as either a WSNE Resource District or Cultural District, regulating the appropriate application of fertilizer used for lawns and other turf will have positive impact on the health, vitality and appearance of the Island's great ponds. The great ponds are critical components of the Vineyard's natural ecosystems and iconic resources for recreation and enjoyment – as already recognized by the Commission's 1975 designation of the Coastal District."

There appears to be cause for designation as a Wildlife, Natural Scientific or Ecological Resource District.

## 4. CORRESPONDENCE SUMMARY

None as of March 25, 2014

# 1 5. DRAFT GOALS AND GUIDELINES

Offered by DCPC Committee members Linda Sibley, Joan Malkin and John Breckenridge; prepared by
 Jo-Ann Taylor, DCPC Coordinator; with input from Bill Veno, MVC staff. Draft 2014-03-21 for public
 hearing on March 27, as a convenience in the event that the Commission chooses to vote in favor of
 designation. Such designation vote would include Goals and Guidelines.

- 8 5. Guidelines
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10 The Commission adopts the following guidelines ("the Guidelines") for the development 11 of the Lawn Fertilizer Control District. In adopting the Guidelines, the Commission has 12 evaluated each of the considerations enumerated by Section 8 of the Act and, in 13 addition, has considered other relevant matters.

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Towns shall, in the manner required by the Act, adopt Regulations for the development of the Lawn Fertilizer Control District. The Commission draws the towns' attention to Section 10 of the Act which in part provides, "In adopting such regulations, each municipality shall have all of the powers it otherwise had under the General Laws". The Commission also finds a compelling need for the towns to adopt compatible regulations within the Lawn Fertilizer Control District. As used herein, the term "regulations" shall

21 have the same meaning as in the Act.

# 22 <u>5.1 Goals</u>

5.1. A.To improve, restore and protect the quality of Martha's Vineyard's groundwaterand water bodies by:

- Reduction of nitrogen entering Martha's Vineyard's groundwater and water bodies by means of an organized system of education, regulation of practice, and enforcement.
- Promoting lawn and turf fertilization practices appropriate to the Island's climate and environment.
- Adoption of standards that may be more stringent or otherwise differ from those
   that may be promulgated by the Commonwealth of Massachusetts
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5.1. B. To contribute to the towns' ability to achieve compliance with any water quality
 standards prescribed by the Commonwealth for controllable nitrogen in water bodies.

# 35 5.2 Establishment of Guidelines

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The towns shall adopt regulations of the types described in the Act, which conform to these Guidelines, to control development within the Lawn Fertilizer Control District. 39

# 40 5.3 Guidelines

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- 42 5.3.1 General Standards for Lawn and Non-agricultural Turf Fertilizer Application:

The towns shall adopt regulations addressing the appropriate application of fertilizer for
 growing lawns and other non-agricultural turf, taking into consideration the need for
 Martha's Vineyard to maintain surface water quality primarily through regulating inputs
 to groundwater.

- 47 <u>5.3.1. a Intensity of Fertilizer Application</u>: Regulations shall limit the amount
   48 of nitrogen, by setting standards for concentration and frequency of application,
   49 and may limit the amount of other nutrients that may be applied to lawns and
   50 other non-agricultural turf. Such limits may be tailored to various situations.
- 51 **5.3.1. b Timing of Fertilizer Application:** Regulations shall stipulate time 52 periods when fertilizers should or should not be applied, based on optimizing 53 plant utilization of the fertilizer and preventing migration of the fertilizer to areas 54 not intended to be fertilized. Short-term time periods may also be defined with 55 regard to episodic circumstances such as the imminent passing of a heavy 56 rainstorm.
- 57 **5.3.1. c Considerations for Siting:** Regulations should include specialized 58 standards for particularly sensitive areas such as water bodies, wells, and the 59 Buffer Zone defined in the town's Wetland Protection By-Law. Regulations 60 should address impervious surfaces and ensure that stormwater runoff shall not 61 carry fertilizer to public roads or stormwater collection systems. Regulations may 62 vary for different types of turf, such as sports turf or golf courses.
- 5.3.1. d Exemptions: Regulations may include exemptions based on the
   specialized character of particular types of lawn or turf, or based on the
   proficiency of a person applying fertilizer.
- 5.3.1. e Adherence to Academic Standards: Regulations should be
   consistent with the requirements and guidance contained in the UMass Best
   Management Practices for Soil & Nutrient Management in Turf Systems
   published by the University of Massachusetts Amherst Extension Center for
   Agriculture.
- 5.3.2 Administration: The towns shall administer these regulations with clearly defined
   standards and procedures for promoting and certifying proficiency in fertilizer
   application. Based on that proficiency requirement, it should not be necessary for each
   individual application of fertilizer to require a permit.

- 5.3.2. a Education and Assessment: Regulations shall provide for a general
   program of fertilizer education and establish assessment of proficiency for
   potential practitioners or other participants following completion of the program.
- 5.3.2. b Authorization to Apply Fertilizer: Regulations shall establish a
   structured system of accreditation that requires practitioners to achieve sufficient
   proficiency to apply fertilizer appropriately, and to be so documented by
   certificate, license or other mechanism. Regulations shall prohibit practitioners
   form fertilizer application without the appropriate License, Certificate, or other
   such authorization from the town.
- 5.3.2. c Effective Date of Enforcement: In order to accommodate the
   educational component integral to the effectiveness of this regulation, a town
   may defer enforcement to a date other than adoption of this regulation but no
   later than March 1, 2015.
- 5.4 Complementary Programs across Town Boundaries: Regulations in the towns
   shall be the same or substantially similar to each other in order to enable coordinated
   administration and to promote understanding by the public.

# 6. PROPOSED REGULATIONS

The Boards of Health have proposed regulations which appear to be in conformance with the Goals and Guidelines.

The basic approach was to set up a coordinated program of education and assessment, leading to authorization to apply fertilizer. As long as the system adequately trains and permits practitioners to apply fertilizer appropriately, there should be no need for a permit each time fertilizer is applied. There may be need to suspend enforcement of the regulations until an effective training program has been established and produced authenticated graduates.

An appropriate motion for approval would be to determine that the proposed Regulations conform to the Goals and Guidelines for the Fertilizer Control District.

The proposed regulations are appended as the second attachment (after the first 11 numbered pages).

## Attachments

**Critical Planning District Qualifications** 

**Proposed regulations** 

Sample nomination (of 5 included in the record)

Correspondence

### **CRITICAL PLANNING DISTRICT QUALIFICATIONS**

#### **GENERAL QUALIFICATIONS FOR ALL DISTRICTS**

#### NEED FOR DESIGNATION

There must be a regional need for special regulations or planning to protect the district from damage or losses by inappropriate development. The Commission shall find:

• that present public or private regulations in a substantial part of the district cannot assure protection: and

• that damage to the district or impediments to proper development will be a substantial loss to the region or to two or more towns.

#### SIZE AND SHAPE OF DISTRICT

The district shall consist of the land and water which reasonably belong in the district for the three following reasons:

- It is the critical area or critical resource which is in need of protection.
- It is the logical planning area which should be considered in adopting a coordinated system of regulations to protect the critical resource or critical area.
- The dimensions or landmarks which form the boundary of the district are convenient and recognizable.

#### SPECIFIC QUALIFICATIONS

#### DRINKING WATER RESOURCE DISTRICT

The district is important to the protection of a regional aquifer, watershed, aquifer recharge zone or surface water supply with the following considerations:

• Development or waste disposal without special regulations in the district could endanger the quality or quantity of the water.

• Studies or expert advice indicate that the designation and regulation of the district could be effective in protecting the quality or quantity of water, and that, since public health, safety and welfare are paramount, special precaution should be taken.

#### FISHING RESOURCE DISTRICT

The water body in the district is particularly well suited for the production of shell or fin fish or can be made productive through good management and improvements.

#### WILDLIFE, NATURAL, SCIENTIFIC OR ECOLOGICAL RESOURCE DISTRICT

The district contains an important and identifiable wildlife, natural, scientific or ecological resource. This would include but not be limited to special plant and animal life and their habitats, as well as unusual geological features, and is critical because development may disrupt the ecological balance.

#### CULTURAL OR HISTORIC RESOURCE DISTRICT

The district contains a place, landscape, way or view which is in some special way expressive of the character of the Island, traditions of the Island residents, and of special interest to Island visitors. The maintenance and protection of those values is essential to a sound local economy. The district also:

- is of exceptional symbolic or recreational importance to the residents of more than one town and is either visible or accessible to them or can reasonably be made so; or
- is rare, unique, or makes an unusual contribution to the diversity of the Island character; or

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• is irreplaceable, or replaceable only with extraordinary effort or expense.

Subject to the above general tests, designations may be considered for areas which are important for their connection with the history of the region-including its geological history or the history of its Indian settlement-or which symbolize and support the traditional activities and ways of Island life, or which give us a particular understanding of the Vineyard lands and their setting in the sea. These include places which present opportunities for hunting and fishing and the enjoyment of wildlife.

### ECONOMIC OR DEVELOPMENT RESOURCE DISTRICT

The district will include areas which have special potential for providing employment or housing for Island residents, or for accepting necessary development which might be detrimental in other locations. The district must also:

- require special regulations to create, preserve or enhance that potential, and
- be better suited or more readily available for the facility or development than other areas of the Island, considering topography, utilities, costs and environmental and social impact; and
- have adequate access, preferably from a regional feeder road.

### MAJOR PUBLIC INVESTMENT DISTRICT

The district will include areas which have a significant impact on an existing or possible future major public investment or areas which are significantly affected by such an investment. In addition, the district must qualify as follows:

- The district pertains to a major public investment as defined in Chapter 831 as amended<sup>1</sup>, and may include airports, highways, schools, parks, beaches, preserves, public utilities and medical facilities owned or operated by a Federal, state or county agency, or by a quasi-public or charitable non-profit agency; and
- the intended use or operation of the public investment or the health, safety and welfare of the public could be impaired by improper development in the district.

<sup>&</sup>quot;A major public facility is any publicly owned facility of regional importance except:

<sup>(1)</sup> any public facility operated by a municipality primarily for the benefit of the residents of that municipality, or by any agency serving primarily the residents of one municipality:

<sup>(2)</sup> any street or highway which is not recognized as or maintained as a part of the state or federal highway system; or

<sup>(3)</sup> any educational institution serving primarily the residents of one municipality."

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# TOWN OF [TOWN] BOARD OF HEALTH REGULATIONS Board of Health Regulation, Section [##]

# THE CONTENT AND APPLICATION OF FERTILIZER FOR TURF ON MARTHA'S VINEYARD, TOWN OF [TOWN]

# **SECTION 1. FINDINGS**

9 1.1 This Section details the public health and ecological foundations for the 10 regulation of the use of fertilizer on turf in [Town].

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12 1.2 In appropriate concentrations, nitrogen in the form of oxides plays a critical role 13 in the nitrogen cycle and is essential to life. In excess, these forms of nitrogen represent 14 an environmental pollutant that has the potential to harm our water resources, and 15 ultimately damage human health. Excessive amounts of nitrogen, as well as phosphorus, 16 contribute to undesirable algal and aquatic plant growth, and degrade the water used for 17 drinking and shellfishing as well as swimming and boating.

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19 1.3 Algal blooms cause our ponds and harbors to become increasingly anaerobic, with 20 seabeds robbed of oxygen and devoid of aquatic life, and cloudy water columns filled 21 with dense algal and aquatic plant growth. The algal bloom brings with it human health 22 risks. Depending on the type, quantity and route of exposure, symptoms from algae 23 blooms vary from skin and eye irritations to gastrointestinal and asthma-like symptoms, 24 with children and pets being particularly susceptible.

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26 1.4 [Town]'s groundwater is also at risk from nitrogen infiltration. Rising nitrogen levels 27 in our Island ponds are caused in major part by rising nitrogen content in our 28 groundwater. The groundwater/aquifer underlying [Town] is the source of its existing 29 and future drinking water supply and should be preserved and protected from excess 30 nitrate infiltration. Ingested nitrates are converted by the body into nitrites, which are 31 capable of converting hemoglobin into an oxidized form that does not bind tightly to 32 Infants, young children, pregnant women and some people with blood oxygen. 33 compromised immune systems who drink water in excess of established Safe Drinking 34 Water Standards are particularly vulnerable and may become seriously ill if untreated. 35 The Island's municipal and well water supply is an outstanding asset, one that is safe now 36 and should be protected going forward.

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38 1.5 The Island of Martha's Vineyard in its entirety has significant amounts of glacially 39 deposited coarse, sandy soils that are subject to rapid water infiltration, percolation, and 40 leaching of nutrients into its groundwater that flow ultimately into the Island's harbors, embayments, salt ponds and coastal resources, including the water and wetland resources 41 42 of [Town]. Additionally, soils associated with terminal moraine and glacial till contribute 43 to rapid runoff into streams feeding coastal water bodies. These unique geologic, 44 topographic and hydrographic characteristics require innovative soil management 45 practices. The adoption of specific turf and soil fertilization requirements across the

- Island, including [Town], is necessary to protect the water and wetland resources of theIsland, including [Town]'s.
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49 1.6 The six towns comprising Martha's Vineyard have engaged the Massachusetts 50 Estuaries Project ('Estuaries Project') to undertake analyses of many of the harbors, 51 embayments, salt ponds and coastal resources in the Island towns and to prepare reports 52 detailing the nutrient loading from multiple sources, including fertilizers. The Estuaries 53 Project considers fertilizers a locally controllable source of water degradation. This is 54 very significant as it is anticipated that the State will require all Massachusetts towns to 55 bring the nutrient levels of their coastal ponds, harbors and other water resources to 56 within recognized acceptable water quality standards established in the federal Clean 57 Water Act.

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59 1.7 As of the date of the enactment of this Regulation, Estuaries Project reports have been 60 completed for Edgartown Great Pond, Farm Pond, Lagoon Pond, Sengekontacket Pond and Tisbury Great Pond. In addition, the Massachusetts Department of Environmental 61 62 Protection has established the maximum amount of a pollutant that four of these ponds can receive and still safely meet water quality standards (known as "Total Maximum 63 64 Daily Loads" or "TMDLs"). (TMDLs for Tisbury Great Pond are under consideration as 65 of the date of the enactment of this Regulation.) Similar studies are currently underway 66 for Cape Pogue, Chilmark Pond, Katama Bay, Menemsha Pond, Oak Bluffs Harbor, 67 Oyster Pond, Pocha Pond, Squibnocket Pond and Tashmoo Pond. In due course, TMDLs 68 will be established for all of these participating water bodies.

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1.8 Of the fourteen coastal ponds and harbors participating in the Estuaries Project, eight
have watersheds that encompass portions of more than one town, suggesting that an
Island-wide, coordinated approach is necessary for effective management of water
quality in these ponds.

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1.9 The responsible application of fertilizers rests not only with property owners, but also with professional landscapers whose work takes them across the Island without regard to town or watershed boundaries. Coordinated regulation of fertilizers across the Island will facilitate the educational process for landscapers and will avoid confusion that might arise if fertilizer regulations were materially different from town to town.

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1.10 The [Town] Board of Health, recognizing that excessive use of fertilizers is part of
the overall problem of nutrient pollution, promulgates this Regulation regarding the use
of fertilizer on turf. As a parallel effort, the BMPs Working Group has assisted the Island
town Boards of Health in drafting the *Best Management Practices for Landscape Fertilizer Use on Martha's Vineyard*, which is based on the UMass Amherst Extensions' *Best Management Practices for Soil and Nutrient Management in Turf Systems*, both of
which from time to time may undergo changes in response to scientific research.

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1.11 The practices and standards set out herein are deemed necessary to protect the public
health, including the maintenance of drinking water quality and the preservation of our
water and wetland resources. They also represent an early step in achieving compliance

92 with applicable water quality standards. This Regulation is intended to allow our Island's

waters to be both sustainable and sustaining, while affording reasonable use of fertilizersfor the enhancement of lawn quality.

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96 1.12 It is anticipated that compliance with this Regulation will be achieved primarily as a 97 community responsibility and as consequence of the adoption of a common standard of 98 turf care in respect of both the sale and application of Fertilizer. This regulation provides 99 for educational initiatives to enable this process to occur. To supplement these 100 community-based activities, this Regulation also provides for an enforcement process 101 applicable to those who apply Fertilizer in violation of the standards set out in this 102 Regulation.

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# 104 SECTION 2. PURPOSE

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This Regulation provides for a reduction of nitrogen and phosphorus going into [Town]'s Water Resources by means of an organized system of education, licensure, regulation of practice, and enforcement. The Regulation is intended to contribute to [Town]'s ability to protect, maintain, and ultimately improve the water quality in all its Water Resources and assist in achieving compliance with any applicable water quality standards relating to controllable nitrogen and phosphorus.

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# 113 SECTION 3. AUTHORITY

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115 This Regulation is adopted by the [Town] Board of Health as authorized by 116 Massachusetts General Laws, Chapter 111, Section 31 and is further authorized pursuant 117 to the Fertilizer Management District of Critical Planning Concern designation, [detail 118 authority], and by section 9 of Chapter 262 of the Acts of 2012, as amended.

# 120 SECTION 4. DEFINITIONS

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

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"Agriculture" means farming in all of its branches and the cultivation and tillage of the
Soil, the production, cultivation, growing, and harvesting of any agricultural, floricultural
or horticultural commodities. For the purposes of this Regulation, agriculture means
production for commercial sale.

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- 130 "Application Fee" means a fee in the amount of \$100.
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"Best Management Practices for Landscape Fertilizer Use on Martha's Vineyard" or
"Martha's Vineyard BMPs", means a sequence of activities designed to minimize
Fertilizer use while also promoting healthy vegetative growth, as prepared by a working
group of Island landscape professionals, golf course superintendents, Health Agents,
landscape retailers, and conservationists.

"Board of Health" means the [Town] Board of Health whose members are elected by the
voters of [Town] to oversee public and environmental practices through the actions of its

- 140 Health Department.
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"Buffer Zone" means the area abutting a Resource Area within which no alteration (as
that term is defined in Commonwealth's Wetland Protection Act or the [Town] Wetland
Protect Bylaws and Regulations) is permitted without an Order of Conditions or a
Negative Determination from the [Town] Conservation Commission.

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147 "Compost Tea" means a liquid infusion of Organic Compost but, for the purposes of this148 Regulation, is not considered a Slow Release Fertilizer.

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150 "Fertilizer" means a substance that enriches the Turf or Soil with elements essential for 151 plant growth, such as nitrogen, phosphorus, or other substances. Fertilizer also includes 152 'combination products', sometimes referred to as 'weed and feed', which contain 153 Fertilizer in combination with pre- or post-emergence herbicides, insecticides, other 154 pesticides or plant growth regulators. Fertilizer does not include those substances that are 155 normally excluded from Fertilizer such as dolomite, limestone, or lime.

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157 "Golf Course" means the managed (i.e. mowed and fertilized) Turf at each of
158 Chappaquiddick Golf Club, Farm Neck Golf Club, Edgartown Golf Club, Mink
159 Meadows Golf Club, and Vineyard Golf Club.

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161 "Health Agent" means the individual who has direct oversight of the daily activities of162 the Board of Health.

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"Horticulture" is a general term meaning plant science and plant products. For the
purposes of this Regulation, horticulture means the raising of flowers, fruits, vegetables,
berries, herbs, nuts, and other similar products for commercial sale.

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168 "Impervious Surface" means a surface that has been compacted or covered with a layer of 169 material so that it is highly resistant to infiltration by water, but does not include 170 compacted areas on athletic fields, such as baseball infields, and intensely trafficked Turf. 171

"Landscape Professional" means a person, either as a sole proprietor or as an employee of
a company or a municipality, who in exchange for money, goods, services, or other
consideration applies Fertilizer to Turf. A Landscape Professional includes Turf
management staff at a Golf Course.

176

177 "License" means that documentation issued by [Town] authorizing the individual or178 commercial entity holder to apply Fertilizer in [Town].

179

180 "Licensee" means a Landscape Professional who has a valid License.

181

182 "Liquid Fertilizer" means a form of Fertilizer which typically is sprayed directly onto aplant.

- 185 "Martha's Vineyard Lawn Fertilizer Working Group" means the group of individuals 186 from the six Island towns, including landscape professionals, golf course superintendents, 187 Conservation Commissioners, Selectmen, Board of Health Commissioners and Health 188 Agents, and Martha's Vineyard Commission members, who met and consulted with 189 members of the public representing these and other constituencies to draft this 190 Regulation.
- 191
- "Organic Compost" is a Slow Release form of Fertilizer comprised of the biologically
  stable, non-pelletized, humus-like material derived from composting or the aerobic,
  thermophilic decomposition of organic matter.
- 195
- 196 "Participating Town" means an Island town that has voted to adopt regulations governing197 the use of Fertilizer that are substantially similar to this Regulation.
- 198
- 199 "Property Owner" means the owner of record of the Turf or Soil to which Fertilizer is200 applied (and, for the avoidance of doubt, includes [Town]).
- 201
- 202 "Relevant Employee" means a person engaged (as an employee, agent, contractor or
  203 otherwise) by a Landscape Professional who applies Fertilizer to Turf or Soil.
- 204
- 205 "Resource Area" means an area subject to protection under the Commonwealth's206 Wetland Protection Act or the [Town] Wetland Protection By-Laws or Regulations.
- 207
- "Slow Release" in relation to nitrogen, means nitrogen in a form that delays its
  availability for uptake and use after application, and is not rapidly available to Turf.
  Slow Release is also sometimes referred to as 'controlled-release', 'timed-release' or
  'slowly soluble/available'. This definition expressly excludes nitrate salts and urea.
- 212
- "Soil" means the upper-most layer of the earth's surface, comprised of mineral andorganic matter, which can host biological communities.
- 215
- "Soil Test" means a technical analysis of Soil conducted by a Soil testing laboratory that
  measures extractable nutrient values using a Modified Morgan soil testing procedure and
  making recommendations based on values as determined by the University of
  Massachusetts Extension Soil and Plant Tissue Testing Lab.
- 220
- "[Town]" encompasses the land and water of the Town of [Town] on the island ofMartha's Vineyard, County of Dukes County.
- 223
- "Turf" means grass-covered Soil held together by the root system, and includes turf usedfor sports and recreational activities as well as for lawns and utility areas.
- 226

"Water Resource" includes, without limitation, groundwater, streams, including
intermittent streams, creeks, rivers, freshwater and tidal wetlands, ponds, lakes, marine
waters, canals, lagoons, embayments, estuaries and all waters defined in Massachusetts
General Laws, Chapter 131, Section 40 and the [Town] Wetland By-Laws or
Regulations.

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# 233 SECTION 5. TURF PERFORMANCE STANDARDS234

# 235 5.1 General Turf Performance Standards

5.1.1 No person shall apply Fertilizer between November 15<sup>th</sup> and the following April 15<sup>th</sup>.

5.1.2 No person shall apply Fertilizer to Turf or Soil immediately before or during
heavy rainfall when the Lawn or Soil is likely to be saturated with water, when the
Turf or Soil has the characteristics of an Impervious Surface or when they are
showing signs of stress due to drought, or any other time when the Fertilizer is
unlikely to be taken up by the Turf root structure.

- 5.1.3 No person shall apply or deposit Fertilizer on any Impervious Surface or on
  any place or in such a manner as would allow the Fertilizer to enter into storm drains
  or other storm flowage receptacles and/or channels. If a person inadvertently applies
  or deposits Fertilizer to an Impervious Surface by spill or otherwise, or applies or
  deposits Fertilizer as prohibited in this section, that person must immediately remove
  the Fertilizer.
- 253 5.1.4 No person shall apply Fertilizer containing more than 0.5 pounds of nitrogen 254 per 1000 square feet of Turf *per application*, provided, however, that a single 255 application of Fertilizer between April 15 and June 1 and a single application of 256 Fertilizer in September may contain up to .75 pounds of nitrogen per 1000 square 257 feet of Turf. Cumulative applications of Fertilizer must not exceed 3.0 pounds of 258 nitrogen per 1000 square feet of Turf per year. Fertilizer shall not be applied within 4 259 weeks of a prior application. For the purposes of this Regulation, Fertilizer applied 260 by all persons to the same Turf will be aggregated.
- 5.1.5 No person shall apply Fertilizer unless it contains at least 50% of its nitrogen in
  the Slow Release form. Compost Tea and Liquid Fertilizer are exempt from this
  standard, provided that no single application exceeds 0.1 pounds of nitrogen per
  1000 square feet over a 4-week period.

5.1.6 No person shall apply Fertilizer that contains phosphorus, unless a Soil Test
taken within the prior 3 years indicates a phosphorus deficiency of less than 14 ppm,
in which case the phosphorus application shall be limited to the quantity specified in
the test results. A Soil Test is not required for the application of:

(a) Organic Compost;

(b) specially labeled 'starter' Fertilizer products intended for use in establishing Turf or in repairing damaged Turf when applied in conjunction with Turf seed;

- 277 (c) Compost Tea; and
- 278

- 279 (d) pelletized organic Fertilizer whose phosphate content by weight is no greater 280 than 25% of its nitrogen content by weight.
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5.2 Fertilizer in the Buffer Zone

5.2.1 The Turf performance standards set out in Sections 5 (not including Section 5.1.4) apply to the Buffer Zone, except as modified in this Section 5.2.

287 5.2.2 No Fertilizer may be applied in the 10-foot wide strip running parallel and 288 immediately adjacent to a Resource Area. In the remainder of the Buffer Zone, no 289 person shall apply Fertilizer containing more than 0.25 pounds of nitrogen per 1000 290 square feet of Turf *per application*, with cumulative applications not to exceed an 291 annual maximum of 0.5 pounds of nitrogen per 1000 square feet of Turf, except that 292 where there is a continuous 25-foot wide strip of Fertilizer-free, non-Turf vegetation 293 running parallel to the Resource Area, Fertilizer may be applied to the area beyond 294 the 25 foot strip to an annual maximum of 1.0 pound of nitrogen per 1000 square 295 feet of Turf.

297 5.2.3 No person shall apply Fertilizer that contains phosphorus in the Buffer Zone, 298 unless a Soil Test taken within the prior 3 years indicates a phosphorus deficiency of 299 less than 14 ppm, in which case the phosphorus shall be limited to the quantity 300 specified in the test results.

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302 5.3 Fertilizer on Golf Courses

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- 304 5.3.1 The performance standards set out in Section 5 (not including Section 5.1.6) 305 apply to Fertilizer applied on Golf Courses except as modified in this Section 5.3. 306
- 307 5.3.2 Applications of Fertilizer to Golf Courses shall not be made between December 15 and the following April  $15^{\text{th}}$ . 308 309
- 310 5.3.3 Liquid Fertilizer may not be applied more often than biweekly, provided that 311 it is applied at a rate not to exceed 0.1 pound of nitrogen per 1000 sq. ft. per 312 application.
- 314 5.3.4 The performance standards set out in Section 5.2.2 do not apply to putting 315 greens and tee boxes in the Buffer Zone in existence at the effective date of this 316 Regulation.
- 318 5.4 **Exemptions**: The following activities are exempt from Section 5:
- 320 5.4.1 Application of Fertilizer to home vegetable and flower gardens, landscape 321 ornamentals, shrubs, trees, bushes, and container plants.
- 323 5.4.2 Application of Fertilizer for Agricultural or Horticultural use.
- 324

5.5 Precedence: To the extent that the Commonwealth of Massachusetts or [Town] has
enacted, enacts, or issues any law, regulation, bylaw, order or permit concerning the
application of Fertilizer containing phosphorus or nitrogen on Turf or Soil which is more
stringent than the performance standards set in this Section 5, those more stringent
standards take precedence.

- 331 SECTION 6. EDUCATION, LICENSURE AND ADMINISTRATION
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# 6.1 Education and Assessment

- 6.1.1 The Board of Health shall:
- (a) maintain and offer for a fee a general program of Fertilizer education for Property Owners and Landscape Professionals that is based on this Regulation and the Martha's Vineyard BMPs; and
- 341 (b) administer an assessment to determine a Professional Landscaper's or a
  342 Property Owner's proficiency with respect to this Regulation and the Martha's
  343 Vineyard BMPs following completion of the general education program.
- 6.1.2 The Board of Health shall make available to the public, including Property
  Owners, Landscape Professionals and Fertilizer retailers a summary of the Section 5
  performance standards, as well as a copy of this Regulation, as amended from time
  to time.

## **6.2 Licensure**

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- 6.2.1 No Landscape Professional shall apply Fertilizer in [Town] without a Licenseissued by the Board of Health in accordance with this Regulation.
- 6.2.2 Subject to Section 6.2.3, an application for a License shall be accompanied by
  the Application Fee and documentation that the applicant has both completed the
  general program of Fertilizer education referred to in Section 6.1.1(a) and achieved
  proficiency as set forth in Section 6.1.1(b).
- 6.2.3 Upon issuance of a License to an applicant, [Town] shall forward a "Notice of
  Issuance of Fertilizer License" to each other Participating Town nominated by the
  Applicant.
- 6.2.4 When [Town] receives a "Notice of Issuance of Fertilizer License" from any
  Participating Town, the Board of Health shall issue and mail (or email or otherwise
  forward) a License to the applicant. The payment of a fee and the production of
  additional documentation shall not be required.
- 369 6.2.5 A License shall indicate the License number and expiration date and shall be370 signed by the Licensee.
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- 6.2.6 Licenses shall be effective on issue and shall continue in effect for threecalendar years, expiring on the third December 31 after being issued.
- 6.2.7 Licenses may be renewed on application. Applicants for renewal must provide
  documentation of either re-completion of the general program of Fertilizer education
  or proficiency, as set out in Section 6.1.1, and pay the Application Fee.
- 6.2.8 A Landscape Professional licensed under this Regulation shall keep his/her
  License in their possession and shall display the License when requested to do so by
  any [Town] enforcement officer.
- 6.2.9 A Relevant Employee does not need to obtain a License, provided his/her
  employer maintains a ratio of not less than 1 Licensee to 8 non-Licensed Relevant
  Employees (the License held by the employer/owner being included for this
  purpose) and:
  - (a) the employer has provided the Relevant Employee with training sufficient to ensure that the employee fully understands this Regulation and the Martha's Vineyard BMPs;
- (b) the Relevant Employee has demonstrated proficiency with respect to this
  Regulation and the Martha's Vineyard BMPs in accordance with an
  assessment tool provided by the Board of Health and administered by the
  employer;
- 397 (c) the employer provides supervision appropriate to ensure that the Relevant
  398 Employee complies with this Regulation; and
  399
- 400(d) the employer retains documentation sufficient to establish compliance401with subsections (a), (b) and (c).
- These requirements set out in (a) and (b) above must be complied with not less often
  than every three years and within 6 months after any material amendments to this
  Regulation for each Relevant Employee.
- 407 6.3 Services to be Performed by a Third Party: The Board of Health may appoint
  408 from time to time a third party to perform on its behalf the responsibilities and services
  409 set out above in Sections 6.1 and 6.2.
- 410
- 411 **6.4 Liability**
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- 6.4.1 A Property Owner is liable for violations of this Regulation by a Landscape
  Professional or its Relevant Employees, including applying Fertilizer without a
  License, provided that the Property Owner knew or should reasonably have known
  that a violation would occur.
- 417

418 419	6.4.2 A Landscape Professional is liable for violations of this Regulation by its Relevant Employees.	
420		
421	6.4.3 Notwithstanding Sections 6.4.1 and 6.4.2, any person who applies Fertilizer in	
422	violation of this Regulation may be held liable.	
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424	6.5 Enforcement	
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426	6.5.1 The Health Agent and the Board of Health may enforce this Regulation or	
427	enjoin violations thereof through any lawful process, and the election of one remedy	
428	by the Board of Health shall not preclude enforcement through any other lawful	
429	means.	
430		
431	6.5.2 Subject to Section 6.5.3, a person who violates any provision of this Regulation	
432	is subject to:	
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434	(a) in the case of a first violation within a consecutive 36-month period, a	
435	written warning;	
436 437	(b) in the case of a second violation within a consecutive 36-month period, a	
437	fine in the amount of \$50.00;	
439	The fit the amount of \$50.00,	
440	(c) in the case of three or more violations within a consecutive 36-month	
441	period, a fine in an amount of \$300.00 per violation, unless the Town	
442	proceeds by criminal complaint or indictment under Section 6.5.6, in which	
443	case the maximum fine for the third and subsequent violations is provided	
444	therein; and	
445		
446	(d) in the case of a Licensee (or a Relevant Employee), and subject to the	
447	notice and hearing provisions of Section 6.5.4, suspension of the License (or	
448	that of his/her employer, as the case may be) for 180 consecutive days or	
449	revocation of that License.	
450		
451	6.5.3 A Licensed Professional who applies Fertilizer without having a valid License	
452	is subject to:	
453		
454	(a) in the case of a first violation within a consecutive 36-month period, a	
455	written warning;	
456		
457	(b) in the case of two or more violations within a consecutive 36-month	
458	period, a fine in the amount of \$300.00 unless the Town proceeds by criminal	
459	complaint or indictment under Section 6.5.6, in which case the maximum fine	
460	for the second and subsequent violations is provided therein.	
461		
462	6.5.4 The Board of Health may suspend or revoke a License issued pursuant to this	
463	Regulation or any other applicable law. Such revocation or suspension may only	

464 take place after a hearing held by the Board of Health of which the Licensee shall be 465 given seven (7) days written notice. Such notice shall be deemed given upon 466 certified return receipt mailing same to the address listed on the License application. 467

468 6.5.5 The Board of Health is authorized to penalize any person who violates these 469 regulations by issuing a ticket under the noncriminal disposition process provided 470 for in Massachusetts General Laws Chapter 40, Section 21D, and the Town's 471 noncriminal disposition by-law, Sections 1-2, 1-3, 1-4, 1-5 and 1-6 of the Code of 472 the Town of [Town]. If noncriminal disposition is elected, then any person who 473 violates any provision of this Regulation shall be subject to the penalties provided in 474 Sections 6.5.2 and 6.5.3, as applicable, per violation or, in the case of a continuing 475 violation, per day for each day of violation. Each day or portion thereof shall 476 constitute a separate offense. If there is more than one violation, each shall constitute 477 a separate offense.

479 6.5.6 A person who violates any provision of this Regulation may be penalized by 480 indictment or on complaint brought in the district court. Except as may be otherwise 481 provided by law, the maximum penalty for each violation or offense shall be one 482 thousand dollars (\$1,000). Each day or portion thereof shall constitute a separate 483 offense. If there is more than one violation, each shall constitute a separate offense.

#### 485 **SECTION 7. SEVERABILITY CLAUSE**

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487 If any section, part or provision of this Regulation is deemed invalid or unconstitutional 488 by a court of competent jurisdiction, that decision shall not affect the validity of the 489 remaining terms of this Regulation as a whole or any part thereof, other than the section, 490 part or provision held invalid or unconstitutional.

491

#### 492 **SECTION 8. AMENDMENTS**

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494 8.1 This Regulation was developed by a broad group of stakeholders representing diverse 495 interests and has been reviewed by soil and turf scientists and educators. Therefore, 496 notwithstanding the requirements of G.L. c. 111, §31, no amendment to this Regulation 497 shall be adopted until such time as the Board of Health shall hold a public hearing 498 thereon, notice of the time, place and subject matter of which, sufficient for 499 identification, shall be given by publishing in a newspaper of general circulation in the 500 Town and County once in each of two successive weeks, the first publication to be not 501 less than fourteen days prior to the date set for such hearing. No such amendment shall be 502 effective unless the proposed amendment has been reviewed and commented upon by soil 503 and turf scientists and educators and it is passed by the Board of Health.

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505 8.2 Further, since these Regulations are also under Chapter 831 of the Acts of 1977, as amended, any amendments to the Regulations shall first be approved by the Martha's 506 507 Vineyard Commission, as conforming to the guidelines for the Fertilizer Management 508 District of Critical Planning Concern.

509

#### 510 **SECTION 9. EFFECTIVE DATE**

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- 512 This Regulation shall take effect on January 1<sup>st</sup> 2015 and upon publication pursuant to
- 513 G.L. c. 111, §31.
- 514

# 515 SECTION 10. INTERIM PROVISIONS

- 517 Landscape Professionals may apply Fertilizer without a license during the interim period
- 518 between the effective date of this Regulation and the development of a licensing program
- 519 by the Board of Health, provided that they comply with Section 5 of this Regulation.



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# DCPC NOMINATION

# Instructions

Please review Appendix "Critical Planning District Qualifications" prior to completion of the nomination. Only nominations in accordance with the "Critical Planning District Qualifications" will be considered.

Sponsors are encouraged to contact the Commission's DCPC Coordinator (Jo-Ann Taylor, 505-693-3453, Extension 19, taylor@mvcommission.org) prior to completing and submitting the nomination.

Please answer all questions as completely and concisely as possible, using additional sheets as necessary.

Include a locus map with proposed boundaries shown on an appropriate base, such as the town assessors' maps or a section of the most recent U.S.G.S. 1:25,000-scale topographic map.

If the sponsor is a town board or the Commission, include signature below and a copy of the vote.

If a taxpayer petition is included, include tax collector(s) verification for 75 signatures.

Submit the signed nomination, in person or by certified mail, to Martha's Vineyard Commission, Olde Stone Building, New York Avenue, P.O. Box 1447, Oak Bluffs, MA 02557.

SIGNATURES: If the sponsor is a town Board of Selectmen, Planning Board, Conservation Commission or Board of Health, or the Martha's Vineyard Commission, the appropriate officer of such board shall sign his or her name below. Attach a copy of the vote.

Harold T. Zabeh

EDGARTOWN HEACTH 2.11-2014

Board Chairman

2/11/2014

District Nomination

# NOMINATION INFORMATION

NAME AND ADDRESS of the nominating board (Board of Selectmen, Planning Board, Conservation Commission, Board of Health, Martha's Vineyard Commission) or a signatory of the taxpayers 'petition, All correspondence will be directed to the sponsor whose name and address appears here

Name:	Edgartown Board of Health 70 Main Street, PO BOX 1596 Edgartown, MA 02539
Address:	
Phone:	(508)627-6120
Fax:	(508) 627-6124 FAX
e-mail:	mpoole@edgartown-ma.us (Matthew E. Poole)

INAME AND LOCATION (TOWN OR TOWNS) OF PROPOSED DISTRIC

Martha's Vineyard Lawn Fertilizer Control District

Location:

Aquinnah, Chilmark, Edgartown, Oak Bluffs, Tisbury and West Tisbury

### AREA PROPOSED I ONDESIGNATIONE

Describe the location of the proposed district, referencing any distinguishable landmarks, structures, roads, assessors' map and parcel numbers, etc. which may act as boundary limits. If appropriate, give measurements in feet. Attach a locus map with proposed boundaries shown on an appropriate base, such as the town assessors' maps or a section of the most recent U.S.G.S. 1:25,000-scale topographic map. The proposed boundaries should be delineated as accurately as possible, both on the attached locus maps and in the narrative.

The six towns, comprising the entirety of the Island of Martha's Vineyard, except for the Indian Common Lands – generally known as the Clay Cliffs, the Cranberry Bogs and the Herring Creek – and the Settlement Lands, and excluding Nomans Land Island. District Nomination

# INTEED FOR DESIGNATION

Please review Appendix "Critical Planning District Qualifications" before continuing. The Martha's Vineyard Commission will only consider proposals warranting designation in accordance with the "Qualifications".

### A: Indicate the type of district that is proposed (See Appendix "Critical Planning District - Qualifications") Nominations may include more than one category

- \_1. Drinking Water Resource District
- \_\_\_2. Fishing Resource District
- 3. Farming Resource District
- 4. Wildlife, Natural, Scientific or Ecological Resource District
- 5. Cultural or Historic Resource District
- 6. Economic or Development Resource District
  - \_\_\_7. Major Public Investment District
  - 8. Hazardous District

as necessary.

# B. Referring to the SPECIFIC QUALIFICATIONS (See Appendix "Critical Planning District Qualifications"), explain why you feel that this area would warrant designation. Use additional sheets

While the appropriate concentration of the nutrient nitrogen is essential to life, excessive amounts of nitrogen in the form of oxides and ammonia represent an environmental pollutant that has the potential to poison our Island's waterways and water table. Excessive amounts of nitrogen contribute to undesirable algal and aquatic plant growth, and degrade our water used for drinking, shellfishing as well as recreational swimming and boating. Promoting the appropriate use of fertilizers could also positively affect the related use of pesticides and herbicides.

The Massachusetts Estuaries Project (MEP) has shown that lawn fertilizer accounts for between 5% and 12% of the controllable nitrogen entering our Island ponds. The state and federal governments have stated their intent to get municipalities to bring these estuaries into compliance with the federal Clean Water Act. Adding sewers to reduce nitrogen that is attributable to excessive fertilizer use rather than using proper fertilizing practices could increase long-term Clean Water Act compliance costs to the Vineyard community by \$10 to \$20 million or more. Working in a coordinated manner, our Island has an opportunity to mitigate a portion of the nitrogen loading, thereby protecting our water in a cost-effective way. Time is a factor however.

In 2012 the Commonwealth set out to develop statewide regulations of fertilizer use, reserving unto itself the ability to further regulate the use of fertilizers. The Cape and Islands communities were provided a window of opportunity to adopt regulations through the special legislative authority of their regional planning agencies. The window expires the latter of January 1, 2015 or one year after the state promulgates its statewide fertilizer regulations.

The specific affected resource districts are detailed below:

Drinking Water Resource District

a.

b.

c.

d.

Significant portions of the Town of Edgartown rely on on-site drinking water wells for potable water including Chappaquiddick and Katama. Additionally, the Zone II recharge area for the municipal public water supply wells occupy approximately 25% of area zoned for residential use. Two separate neighborhoods have experienced elevated nitrate levels in drinking water ( perhaps caused by septic system). Limiting the amount of nitrogen applied in all of these area is protective of drinking water quality and will compliment other nitrogen limiting measures.

#### Fishing Resource District

Although fertilizer is not applied directly to the surface waters, the MEP studies document the contribution of excess nitrogen that leaches into the groundwater and migrates to great ponds. The excess nitrogen stimulates algal growth to the detriment of other plants and shellfish. Reducing nitrogen loading, of which fertilizers are one source, can restore healthy habitat for shellfish

Wildlife, natural, Scientific or Ecological Resource District Cultural

Although this nomination is not made as either a WNSE Resource District or a Cultural District, regulating the appropriate application of fertilizer used for lawns and other turf will have positive impact on the health, vitality and appearance of the Island's great ponds. The great ponds are critical components of the Vineyard's natural ecosystems and iconic resources for recreation and enjoyment – as already recognized by the Commission's 1975 designation of the Coastal DCPC.

C. Referring to the GENERAL QUALIFICATIONS (See Appendix: Critical Planning District Qualifications"), please answer as simply as possible the following: (Use additional sheets as necessary)

1.

Why is the resource or area important to more than one town or the Island as a whole?

As of this date, MEP reports have been completed for Edgartown Great Pond, Farm Pond, Lagoon Pond, Sengekontacket Pond and Tisbury Great Pond. In addition, the Massachusetts Department of Environmental Protection (Mass DEP) has issued Total Maximum Daily Loads (TMDLs) for each of the water resources. Similar studies are currently underway for Cape Pogue, Chilmark Pond, Katama Pond and Tashmoo Pond. In due course, TMDLs will be established for all of these participating water resource areas.

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Of these 14 coastal ponds and harbors, x lie within watersheds that span one or more neighboring towns. It would be helpful if even one town adopts regulations to better manage fertilizer use. It would be far more helpful though if all towns do so as pond and harbor watersheds readily cross town boundaries. Only a common Island-wide regulatory approach is capable of fully addressing the 5% to 12% of the controllable nitrogen that enters our ponds and harbors from landscape fertilizer. This is both an Island-wide problem and an Island-wide opportunity. Political geography should not serve as a sanctuary for excess landscape nitrogen.

Lands draining directly into the ocean, where nitrogen from fertilizers have little effect, are nevertheless included in this nomination because of the potential impact to groundwater quality. Applying the fertilizer regulations across the Vineyard would also significantly aid administration of the regulations and their objectives. Education and training efforts can be shared among towns. Landscapers would only need to know a single set of standards for anywhere on the Island. A common standard would also eliminate potential confusion for landowners with properties in more than one Island town. This ease of understanding and administration is also a compelling argument for including the areas of the towns that drain directly to the ocean.

2.

3.

What are the problems associated with the uncontrolled or inappropriate development of the area?

The MEP studies document that lawn fertilizers partly contribute to the eutrophication of our estuaries. In the absences of this discussion our ponds and harbors might become anaerobic, with anoxic floor beds devoid of aquatic life, and cloudy water columns filled with dense algal and aquatic plant growth. Nitrogen oxide levels in drinking water, which are already high, could become more of an Island-wide problem.

Eventual state enforcement of TMDLs will require measures to reduce nitrogen levels, but if Vineyard towns do not soon adopt fertilizer regulations, they will be reliant upon the state's regulations, which could remove fertilizer controls as a low-cost option for addressing part of the nitrogen problem.

What kind of development would be advantageous within the proposed district? The Island's Boards of Health are seeking a common, Island-wide regulation that establishes a sustainable standard –of-lawncare, one that promotes the responsible use of fertilizers for lawns and other turf in order to prevent harm to our water resources from application of nitrogen in excess or what the soil and turf area able to utilize. This will rely upon education and training more than enforcement.

The strength of the regulations lies in the definition of common, Island-wide vision, one that defines a common set of standards and yields ponds, harbors and groundwater that are both sustainable and sustaining.