

TOWN OF WEST TISBURY  
BOARD OF HEALTH

# REGULATIONS

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## SECTION 1. PURPOSE AND AUTHORITY

1.01 Purpose- The purpose of these regulations is to protect the public health and general welfare, to maintain the quality of the groundwater and surface waters, to prevent pollution of potable water supplies, and to maintain the viability of fishing and shell fishing areas.

1.02 Authority -Authority to adopt these public health regulations is granted under Chapter 111, Section 31 of the Massachusetts General Laws.

1.03 Severability- Each portion of this Regulation shall be construed as separate to the end that if any portion or sentence, clause or phrase thereof shall be held invalid for any reason, the remainder of that regulation and all other regulations herein shall continue in full force.

## SECTION 2. WELLS

2.01 Fees. The fee for Application for Well Installer Permit and the fee for Application for Permit to Install Wells are shown on the Approved Board of Health Fee Schedule which is posted in the Board of Health Office.

2.02 Permits.

(1) Application for Well Installer Permit. Wells may be installed only by holders of an approved Application for Well Installer Permit. Each application for Well Installer Permit must be accompanied by a current copy of the applicant's Massachusetts Well Driller's Registration. Approved applications for a Well Installer Permit shall expire on June 30<sup>th</sup>.

(2) Application for Permit to Install Well. No well drilling may begin without an approved Application for Permit to Install Well. An approved Application for Permit to Install Well should be good for one year from the date of approval.

2.03 Location. Submittals of Applications for Permit to Install Well must be accompanied by one copy of a scaled plot plan drawn by a registered professional engineer or surveyor. The plan must show the lot boundaries and the proposed well and, within a 150 foot radius, all existing and proposed subsurface disposal systems, all privies and all saltwater bodies. The plan must call out all required setbacks and separations. Minimum setbacks and separations are shown on TABLE 2.1 WELL AND SUCTION LINE SEPARATIONS AND SETBACKS. If the well is a replacement well, the Board of Health may waive the requirement for a new plot plan.

TABLE 2.1 WELL AND SUCTION LINE SEPARATIONS AND SETBACKS

	SEPTIC TANK (ft.)	LEACHING PIT (ft.)	PROPERTY LINE (ft.)	PRIVY (ft.)
WELL	50	150	10	100

2.04 Well Casing. If the casing of a new well is to be PVC, it must be no less than Schedule 40 PVC.

2.05 Performance. Wells must meet the flow rates shown in TABLE 2.2 WELL PERFORMANCE TEST for a 4-hour period.

TABLE 2.2 WELL PERFORMANCE TEST

WELL DEPTH (ft.)	RATE (gal./min.)
0 – 150	5
151-200	4
201-250	2
251-300	1
301 and over	½

- (1) The Board of Health must be given 24 hours' notice prior to the start of the above well performance test.
- (2) A written water analysis by water testing facility which has been approved by the Commonwealth of Massachusetts must be conducted on all new and replacement wells in order to confirm the potability of the water.

2.06 Reports. Before any well will be approved, a Drinking Water Laboratory Analysis Report and a Water Well Completion Report must be submitted to and approved by the Board of Health.

2.07 Subdivisions.

- (1) Plans submitted to the Planning Board for new subdivisions must show the location of all wells within 150 ft. of the subdivision.
- (2) At the Board of Health's discretion, wells may be required to be installed, tested and analyzed before a definitive Form C subdivision plan is approved by the Board of Health

### SECTION 3. DISPOSAL WORKS

Note: This section of the West Tisbury Board of Health Regulations is structured to match the structure of 310 CMR 15.00: MINIMUM REQUIREMENTS FOR THE SUBSURFACE DISPOSAL OF SANITARY SEWAGE STATE ENVIRONMENTAL CODE, TITLE 5. In many instances, Title 5 requirements are incorporated into this document by reference; there are, however, differences between the West Tisbury Board of Health Regulations and Title 5; wherever these differences occur, the West Tisbury Board of Health requirement is in addition to the Title 5 requirement.

#### 3.02 General Requirements.

- (1) Disposal Works Construction Permit. No individual sewage disposal system or other means of sewage disposal shall be located, constructed, altered, repaired or installed until a permit for its location, construction, alteration, repair or installation has been issued by the Board of Health
- (2) Disposal Works Installer's Permit. No person or firm shall engage in the construction, alteration, installation, or repair of any sewage disposal system without first obtaining a Disposal Works Installer's Permit from the Board of Health. Such permits shall expire at the end of the year in which they are issued unless earlier revoked for cause by the Board of Health.
- (3) Septage Handler's Permit. See 310 CMR Title 5 Para. 15.02 (3).
- (4) Application for Disposal Works Construction Permit. An application for Disposal Works Construction Permit shall be submitted to the Board of Health and must be accompanied by 3 copies of a plan of the proposed sewage disposal facilities. Such permit shall be invalidated if conditions different than those set forth in the application are found prior to or during actual construction of the sewage disposal system. In any event, a permit so granted shall expire one year from the date of issue unless construction of the system is begun before the expiration date. A Disposal Works Construction Permit is required for construction of a privy.

No Application for Disposal Works Construction Permit will be given final approval until a well has been installed, tested and approved. However, tentative approval may be granted to an Application for Disposal Works Construction Permit prior to well installation in those instances when the applicant wishes to have confirmation that the proposed sewage disposal system is acceptable prior to going to the expense of installing the well. Such sewage disposal system tentative approvals will become final only after well installation, test and approval.

(4.1) Building Permit. No Building Permit shall be issued until a Disposal Works Construction Permit has been installed, tested and approved.

(5) Plan of Sewage Disposal System. The sewage disposal system plan must be drawn to scale and must show as a minimum:

- Location and dimensions of the sewage disposal system (including reserve area),
- A profile of the sewage disposal system,
- Design calculation for the sewage disposal system,
- Maximum groundwater elevation in the area of the sewage disposal system,
- Existing and proposed contours,
- Location and floor plan of existing and proposed dwellings
- Location and log of deep observation holes,
- Location and results of percolation tests,
- Location of any proposed well to serve the lot,
- Location of existing and proposed water lines on the property,
- Location of any streams, surface and subsurface drains, and wetlands within 100 feet of the sewage disposal system,
- All water supplies and sewage facilities within 150 feet of the sewage disposal system,
- All underground fuel storage tanks or systems on the subject lot.

The disposal system plan must be prepared by a professional engineer or other professional authorized by law to prepare such plans. The disposal facilities shall meet the separation and setback requirements shown on Table 3.1 DISPOSAL WORKS SEPARATIONS AND SETBACKS.

Table 3.1 DISPOSAL WORKS SEPARATIONS AND SETBACKS

	SEPTIC TANK	LEACHING FIELD OR PIT	BUILDING SEWER	PRIVY
Well or Suction Line	50	150	-	100
Property Line	10	30*	-	50
Dwelling	10	20	-	35
Surface Water Supply**	100	150	100	100
Watercourse***	25	100	-	200
Saltwater Body (Applies in Coastal District)	100	200	-	200
Seasonal High Water Table (Applies in Coastal District)	-	5	-	-

## NOTES:

\* If abutting “parcel” is a road, the Board of Health may require less setback for leaching field or pit.

\*\* Includes reservoirs, cisterns, or tributaries to reservoirs including open and subsurface drains.

\*\*\* Includes streams, ponds open and subsurface drains, swamps.

(5.1) Mounded Subsurface Disposal System. A mounded subsurface disposal system will not be permitted for new construction. A mounded subsurface disposal system will be permitted as a repair to a failed system in an existing house at the discretion of the Board of Health.

(6) Use. The use of a sewage disposal system shall be in compliance with the terms of the permit issued therefore and shall not exceed the design capacity of the system. Design capacity shall not be reduced for seasonal use.

(7) Building or Plumbing Permits. No building permit or plumbing permit shall be

issued until a Disposal Works Construction Permit has first been obtained, unless the Board of Health determines that the existing sewage disposal system is adequate for a proposed alteration or addition to an existing dwelling.

(7.1) Subdivision Plans. The location of all subsurface disposal systems within 150 feet of a new subdivision must be shown on all new subdivision plans submitted to the Planning Board. No subdivision shall be approved or endorsed by the Planning Board until such percolation tests and deep observation holes as may be required by the Board of Health have been completed and test results approved by the Board of Health.

(8) Certificate of Compliance. A new sewage disposal system and alteration or repairs to an existing system shall not be placed in service, nor shall new dwellings or buildings or additions thereto, which must rely on new sewage disposal systems for sewage disposal, be occupied until the Board of Health has issued a Certificate of Compliance indicating that said disposal system has been located, constructed, altered or repaired in compliance with the terms of the permit and the requirements of the Board of Health. The Board of Health shall require inspection of all construction by the designer or by an agent of the Board of Health and require him to certify in writing that all work has been completed in accordance with the terms of the permit and the approved plans. Such written certification by the designer is mandatory for all work approved by the DEP with the additional provision that a copy of the written certification must be submitted to the DEP by the designer.

(9) Fees. Fees for application for permits are shown on the Approved Board of Health Fee Schedule which is posted in the Board of Health Office.

(10) Inspection. The Board of Health shall be notified 24 hours prior to the beginning of construction and prior to the covering of any subsurface disposal system. The Board of Health may inspect the system at any stage of construction and require necessary modification if conditions are encountered that were not originally observed. The inspection shall be performed within a reasonable period of time by the Board of Health or its agent.

(11) Discharge to Watercourse. Sanitary sewage, gray water, the effluent from any sewage system or other polluting water, shall not be discharged into or allowed to flow by means of pipes, drains, etc. into any lake, pond, stream, tidal water, watercourse, or open or covered drain tributary thereto, unless approved by DEP.

(12) Connection to Common Sanitary Sewer. See 310 CMR Title 5 Para. 15.02 (12).

(13) Volume of Sanitary Sewage. Each unit of the disposal system shall be designed to treat adequately the estimated volume of sanitary sewage to be discharged from the premises to be served. The volume of such flow should be based on the estimated

maximum contributory population and the resultant maximum expected daily quantities of sewage as determined from the Table in 310 CMR 15.02 (13) SEWAGE FLOW ESTIMATES. No cooling water, ground water, discharge of roof drains, or other uncontaminated water shall be discharged to the sanitary sewage disposal system.

(13.1) Bedrooms. A den, study, library, office, or any comparable use that in the judgment of the Board of Health or its agent, is capable of being used as a bedroom, shall be considered as a bedroom in calculating sewage flows.

(13.2) Residential Flow Limit. All residential lots shall be permitted 110 gallons of wastewater flow per day per 15,000 square feet of residential land.

(13.3) Allowable Land Area. Land occupied by wetlands, ponds, streams, rivers, creeks, lakes, marshes, swamps, bogs, flood plains or other wet areas shall not be included in the area required for compliance with the Board of Health regulations on allowable waste water generation per area. Although the Board of Health and/or the Conservation Commission may request to inspect the property, it is the responsibility of the property owner to identify such land.

(13.4) Limited Retail or Wholesale Business District. In the Limited Retail or Wholesale Business District wastewater flow shall not exceed 7.33 gallons per 1,000 square feet of parcel area.

(14) Type of System. See 310 Title 5 Para. 15.02 (14).

(15) Drainage. See 310 CMR Title 5 Para. 15.02 (15)

(16) Cover Material. See 310 CMR Title 5 Para. 15.02 (16).

(17) Construction in Fill. See 310 CMR Title 5 Para. 15.02 (17).

(18) Multiple Use. See 310 CMR Title 5 Para. 15.02 (18).

(19) Maintenance. See 310 CMR Title 5 Para. 15.02 (19).

(19.1) Chemical Treatment. No chemical treatment of subsurface disposal systems shall be permitted, including acid or hydrocarbon products.

(20) Discharge to Surface of Ground. See 310 CMR Title 5 Para. 15.02 (20).

(21) Flow Measurement. See 310 CMR Title 5 Para. 15.02 (21).

(22) Reserve Area. See 310 CMR Title 5 Para. 15.02 (22).

### 3.03 Location.

(1) General. The location and installation of each individual sewage disposal system, or other means of disposal, shall be such that with responsible maintenance it will function in a satisfactory manner and will not create a nuisance or discharge into any watercourse of the Commonwealth. In determining a suitable location for the system, consideration shall be given to the size and shape of the lot, slope, natural and adjusted drainage, existing and known future water supplies, depth to ground water, presence of impervious material, soil classifications, and reserve area. The leaching system must be installed in close proximity to the percolation test site; in fragile areas the system must be installed within 10 feet of the percolation test site. No Disposal Works Construction Permit shall be issued until a representative of the Board of Health has performed a site examination, witnessed deep observation holes and, unless waived by the Board of Health, a witnessed percolation test.

(2) Site Examination. See 310 CMR Title 5 Para. 15.03 (2).

(3) Deep Observation Hole. See 310 CMR Title 5 Para. 15.03 (3).

(4) Percolation Test. See 310 CMR Title 5 Para. 15.03 (4).

(5) Percolation Test Procedures. See 310 CMR Title 5 Para. 15.03 (5)

(6) Required Depth of Pervious Material. See 310 CMR Title 5 Para. 15.03 (6)

(7) Distances. See 310 CMR Title 5 Para. 15.03 (7). See also Table 3.1 herein. See also Para 3.00 herein.

3.04 Building Sewers in Unsewered Areas. See 310 CMR Title 5 Para. 15.04.

3.05 Grease Traps. See 310 CMR Title 5 Para. 15.05.

3.06 Septic Tanks. See 310 CMR 5 Para. 15.06

3.07 Dosing Tanks. See 310 CMR Title 5 Para. 15.07.

3.08 Siphons. See 310 CMR Title 5 Para. 15.08

3.09 Pumps. See 310 CMR Title 5 Para. 15.09.

3.10 Distribution Boxes. See 310 CMR Title 5 Para. 15.10.

3.11 Leaching Pits. See 310 CMR Title 5 Para. 15.11

- 3.12 Leaching Galleries. See 310 CMR Title 5 Para. 15.12.
- 3.13 Leaching Chambers. See 310 CMR Title 5 Para 15.13.
- 3.14 Leaching Trenches. See 310 CMR Title 5 Para 15.14.
- 3.15 Leaching Fields. See 310 CMR Title 5 Para 15.15
- 3.16 Privies and Chemical Toilets. See 310 CMR Title 5 Para 15.16.
- 3.17 Humus Toilet. See 310 CMR Title 5 Para 15.17.
- 3.18 Miscellaneous Disposal. See 310 CMR Title 5 Para. 15.18.
- 3.19 Transportation and Disposal of Privy, Cesspool and Septic Tank Contents. See 310 CMR Title 5 Para. 15.19.

#### SECTION 4. DISPOSAL WORKS INSPECTION UPON SALE OR TRANSFER

4.01 Inspection Requirement. Sewage disposal systems must be inspected prior to the transfer of residential or commercial real estate which contains a sewage disposal system. It is the responsibility of the owner to have the inspection performed. The inspection must be conducted not more than 60 days prior to transfer and must be performed by a registered professional engineer or sanitarian. If it is determined that the system constitutes a danger to the Public Health, the Board of Health shall order the owner to make repairs or to replace the system.

4.02 Inspection Report. The registered professional engineer or sanitarian shall, within seven days of the inspection, file a Certificate of Compliance/Inspection Form with the Board of Health, with copies to the Seller and Buyer stating whether the system is in Good, Marginal or Failed condition.

4.03 Failed or Marginal Systems. If the inspector finds evidence of sewage on the ground surface or evidence of sewage draining into any wetlands, or if the inspector determines that the system is Marginal, the Board of Health shall determine within 14 days after receiving the Inspection/Certificate, whether or not the system constitutes a danger to the public health and should be repaired or replaced. By the end of the 14 day period, the Board of Health must notify the owner by certified mail whether or not the system must be repaired or replaced.

4.04 System Replacement. If the inspector determines that the system is Failed, and/or if system repair or replacement is ordered, the notice of repair or replacement shall also specify the date by which the repair or replacement has been accomplished. After the repair or replacement has been accomplished, the Board of Health must inspect and signify in written form that satisfactory repair or replacement has been accomplished.

4.05 Enforcement. If the repair or replacement is not completed by the date specified by the Board of Health, the Board may impose fines and/or repair or replace the system at the expense of the owner. In addition to any other remedy, the Board of Health may take any enforcement action deemed appropriate, including but not limited to Criminal Prosecution, to seek a lien in accordance with Chapter III, Section 31, or Civil Action in the courts of the Commonwealth for injunctive relief or money damages or both or both Civil and Criminal enforcement. The Board of Health is authorized to issue notices of violation, cease and desist orders, or other administrative enforcement orders to compel compliance with the terms of these regulations.

4.06 Exclusions. This requirement does not apply to a transfer to a surviving spouse or to any other member of the immediate family of the owner, a transfer involving a sewage disposal system having been installed and having received final inspection approval by the Board of Health or its agent within 24 months of the date of transfer (provided no additional living space has been added to the structure within the 24 month period), and a sale under a power of sale contained in a bonafide mortgage affecting the property.

SECTION 5. DESIGN, OPERATION AND MAINTENANCE OF SMALL WASTE WATER TREATMENT FACILITIES

5.00 Scope. This section does not apply to sewage disposal systems which handle less than 2,000 gallons per day. In addition, the regulations in this Section do not, and are not intended to cover all aspects of engineering design, operation, and maintenance of Small Waste Water Treatment Plants. Rather they outline the specific Board of Health Interests and Policies that may not be adequately reflected in other existing regulations, policies and manuals. Where local regulations or specifications herein are more strict, they shall prevail. Where regulations or specifications or guidelines of other political subdivisions or agencies of jurisdiction or as included herein are more strict, they shall prevail.

Permit Requirements.

- (1) Disposal Works Construction Permit. No system or facility to be used for treating, neutralizing, stabilizing or disposing of wastewater from homes, public buildings, commercial or industrial buildings, or any types of establishments, shall be located, constructed, installed, operated, altered, or repaired until a Disposal Works Construction Permit for such shall have been issued by the Board of Health. No construction of any building or facility which relies on such wastewater systems or facility shall be allowed until a Disposal Works Construction Permit shall have been issued by the Board of Health to the Responsible Party. Responsible Party shall mean the developer, project proponent, condominium association, or any other party approved by the Board of Health.
- (2) Disposal Works System. Such system, or facility, as regulated herein shall include but not be restricted to, sewers serving such facility, wastewater pumping stations, wastewater treatment works, all wastewater treatment operations, sludge treatment and management, disinfection, advanced waste treatment, subsurface disposal and land treatment, wastewater recycling and re-use.
- (3) SWWTP Designation. Such system, or facility as regulated herein shall be referenced as Small Wastewater Treatment Plant (SWWTP).
- (4) Certificate of Compliance and Operations Permit. No SWWTP as permitted herein shall be placed in service, nor shall new buildings or facilities or additions to existing building or facilities which rely upon such SWWTP be occupied or used until the Board of Health has issued a Certificate of Compliance and an Annual Operations Permit. (The definition of operations permit are the conditions set forth in this regulation and any other conditions that may be set forth by the Board of Health).
- (5) Service Area and Limitations. The SWWTP shall not serve a volume of sewage flow from any subject project in excess of the aggregate volume that would be

generated by each lot, which could have been constructed on it, a septic system installed and operated in full compliance with Title V, the State Environmental Code and regulations of the Board of Health.

#### 5.02 Submittals.

- (1) Applications, Reports, Plans, Data, Documents. A copy of all applications, reports, plans, specifications, data, and supporting documents required by these regulations and by the regulations of any other agency in connection with the approval or operation and maintenance of the subject facility shall be submitted to the Board of Health. In the case of requests for a Board of Health action, such materials shall be submitted a minimum of 90 days prior to the date upon which an action by the Board of Health is desired. In the case of submittals to other agencies, all materials shall be submitted to the Board of Health at the time of submittal to that agency. A Board of Health Disposal Works Construction Permit will not be issued prior to approval by the Massachusetts Department of Environmental Protection. Other submittals shall be made in accordance with schedules as specifically designated by the Board of Health. Two (2) copies of all Reports/Information shall be given to the Board of Health.
- (2) Disposal Works Permit Fee and Professional Review Fee. Prior to the issuance of a Disposal Works Construction Permit by the Board of Health for installation of a SWWTP or any other sewage disposal system not covered by Title 5 of the Massachusetts State Environmental Code, an independent registered civil/sanitary engineer will be retained by the Board of Health to conduct a review of the planned sewage disposal system. To offset the cost of this review to the Town, the applicant will be assessed a fee, commensurate with the complexity of the planned disposal system and the time required to adequately review the plans and specifications, and the expected impacts to the groundwater and surface waters. (Two percent of the design and construction costs of the plant or \$3,000.00, whichever is greater). The applicant will pay the fee at the time of application. Any unused portion of the fee shall be refunded after the successful review of the first annual operations report by the Board of Health.

#### 5.03 General Project Planning Requirements. Certain basic principles shall be considered early in the planning and design process in order to ensure that the SWWTP development process will meet all requirements.

- (1) Environmental Compatibility. The plans for the proposed system or facility shall take into account all aspects of Public Health and environmental quality protection. Efforts shall be taken to preserve public and private water supplies

and their zones of contributions, watershed or recharge areas to surface water bodies, potential water supplies, private property, wetlands, wildlife habitat, recreational sites, historic sites and natural beauty. The design shall be prepared so as to have the least possible adverse impact on the public health and the environment. The project proposal shall include evidence that the wastewater system or facility will result in the least adverse impact on the public health or the environment as compared with other possible wastewater management alternatives for the project.

- (2) General Discharge and Treatment Requirements. No discharge from a SWWTP shall result in degradation of ground or surface waters in a manner inconsistent with their proposed use. The existing characteristics of the immediate and final receiving waters must be considered to ensure against degradation beyond all applicable federal, state, and local water quality standards. There shall be no discharge into any wetland, stagnant waters, lakes or streams.
- (3) Hydrogeological Investigation. The applicant shall submit a hydrogeological survey report, prepared by a qualified geotechnical engineer or hydrogeologist, to show the impact of the subsurface discharge of the SWWTP on groundwater. The report shall include a determination of the flow direction, contaminate levels, nutrient loading to public water supplies as well as the surface water bodies, extent of wastewater discharge plume, ground and surface waters affected, and the location of public and private water supplies as well as all expected effects on these supplies. This analysis shall be performed for the SWWTP design plan and also for any other wastewater treatment or disposal strategy for the project to be served.
- (4) Wetland and Flood Plains. No portion of the SWWTP shall be located within 100 feet of the wetlands or the “100 year” Flood Plain, as defined by the state and local authorities. No portion of the subsurface disposal works for a SWWTP shall be located less than 100 feet from a wetland or the “100 year” Flood Plain. No component of the treatment plant, except for underground piping, shall be constructed less than four (4) feet above the highest estimated groundwater level as calculated by the USGS methodology. Such distances are considered “minimum” and may be increased by the Board of Health if site specific conditions warrant.
- (5) General Siting and Design Requirements. SWWTP design shall include attenuation of odor or noise problems, to both protect the operator and public.
- (6) Distances. No portion of the SWWTP shall be located less than the following distances stated to the components list as follows:

MINIMUM ACCEPTABLE SEPARATION DISTANCES IN FEET

COMPONENT	SUBSURFACE SEWER OR FORCE MAIN	LEACHING AREA
Public & Private Wells	400	400
Water Supply Lines	25	25
Subsurface Drain	25	100
Subsurface Water*	100	100
Wetland*	100	100
Catch Basin	25	25

\*These distances may be required to be greater if the hydrology evaluation indicates that contamination will occur at the stated distance.

- (7) Ultimate Disposal of Sludge and Solids. Provision for final or ultimate disposal of sludge and solids shall be in a manner approved by the Board of Health, prior to the issuance of any Board of Health permit. The estimated quantity must be stated. If the sludge and solids are to be disposed of off-site, the final destination must be established prior to the issuance of any permit. The applicant must demonstrate, to the satisfaction of the Board of Health, that the destination for the sludge and solids is in compliance with all applicable federal, state and local regulations and also that it will reliably be available for such purpose for the length of time that its use is required for the SWWTP.
- (8) Treatment Plant Reliability. The SWWTP shall be planned and designed so as to provide for maximum reliability at all times. The facility shall be capable of operating satisfactorily during power failures, reduced power periods, peak loads, flooding, equipment failure, and maintenance shutdowns. The Board of Health shall receive a written certification from the engineer and/or equipment supplier that the SWWTP is capable of meeting all effluent limits. Following completion of the SWWTP the manufacturer should review and certify in writing to the Board of Health that the equipment installed is capable of providing the treatment level required. Multiple units or dual compartments with unit drains may be required for all processes, including

disinfection facilities, so that draining, cleaning, repairing or replacing and other maintenance can be provided without omitting any treatment processes, in zones of contributions, recharge or watershed areas, or other sensitive areas determined by the Board of Health.

- (9) Disinfection. The SWWTP must be designed and constructed to allow for disinfection of the SWWTP effluent by ultraviolet irradiation or ozonation. The use of disinfection equipment shall be determined by the Board of Health.
- (10) Odor Control. The SWWTP must be designed and constructed to allow for odor control by activated carbon filtration. The use of this odor control equipment shall be determined by the Board of Health.

#### 5.04 Subsurface Disposal Facilities.

- (1) Groundwater. The bottom interface of any subsurface disposal or leaching facilities shall be located a minimum of four (4) feet above the maximum elevation of the groundwater or saturated soil zone as determined by the USGS methodology, where appropriate. However, this vertical separation distance between the bottom of the leaching facility and top of the maximum groundwater level must be maximized to the extent possible. This elevation shall include consideration of the mounding effect of the groundwater caused by the discharge of the SWWTP effluent. Such analysis shall be calculated using generally acceptable analytical or numerical methods. When geological conditions permit, the “Hantush” formula and procedure may be used. When the assumptions of that procedure cannot be met to derive a reliable result, it shall be required to utilize such method as finite difference equations for groundwater flow and elevation.
- (2) Distance to Impervious Layer. The bottom interface of any subsurface disposal or leaching facilities shall be located a minimum of ten (10) feet above the elevation of an impervious soil layer. Impervious soil shall be defined as having a percolation rate of greater than 20 minutes per inch.
- (3) Thickness of Permeable Soil. A depth of at least four (4) feet of naturally occurring permeable soil shall be maintained below the bottom of the leaching area. To be considered permeable, the soil shall have a percolation rate of 20 minutes per inch or less.

#### 5.05 Ground Water Monitoring.

- (1) Installation. The permittee shall install at a minimum, groundwater monitoring wells in accordance with the following:

One up-gradient cluster of three monitoring wells.

Two down-gradient clusters of three monitoring wells each.

One monitoring well for ground water level only near the center of the leaching works.

Screen depths for the cluster wells shall be set at elevations such that at least two screen depths will yield samples at time of seasonal low groundwater (e.g. September sampling period). Such locations shall be as approved by the Board of Health and as indicated appropriate from the results of the hydrogeological investigation. Monitor wells shall be installed and in place prior to issuance of the Certificate of Compliance and Annual Operations Permit. Additional monitoring wells or requirements may be required at the discretion of the Board of Health. Monitoring shall begin one year before the startup of the SWWTP to give background information on the groundwater quality. All parameters in section 5.06 shall be analyzed once during that year and those parameters listed as Daily, Weekly, or Monthly in section 5.06 shall be analyzed quarterly of that year.

(2)Ground Water Elevation. The permittee shall determine and provide the Board of Health with elevations of the water table to the nearest one-hundredth of a foot in all monitor wells on a monthly basis, in continuous graph form, along with the current separation distance between the bottom of the leaching facility and the water table.

5.06 Effluent Limits and Testing Requirements. Effluent limitations shall be as required by DEP regulations for Class I groundwaters. All groundwaters are considered to be in this classification unless proved to be otherwise following procedures set forth by DEP.

- (1) Wastewater.
- (2) Treatment Plant Effluent. The effluent to the treatment plant shall be sampled and tested weekly for 5-day Biochemical Oxygen Demand (B.O. D.) and Total Suspended Solids.

TEST FREQUENCY	PARAMETERS
DAILY	Flow Specific Conductance PH
WEEKLY	5-day Biochemical Oxygen Demand (BOD) Total Suspended Solids (TSS) Coliform Bacteria Fecal Coliform Bacteria
MONTHLY	Total Kjeldahl Nitrogen Ammonia Nitrogen Nitrate Nitrogen Total Dissolved Solids Sodium
SEMIANNUALLY	Oil and Grease Volatile Organic Compounds (USEPA Procedure #624)
ANNUALLY	Arsenic Barium Cadmium Chromium Flouride Lead Total Trihalomethanes Copper Zinc Mercury Selenium Silver
5 YEARS	Pesticides Radioactivity

All sampling and analyses, except for the daily and weekly frequency tests which will commence at time of plant startup, shall be performed initially at 60 days after plant startup and the stated frequency thereafter.

- (3) Ground Water Monitor Wells. Monitor wells testing in the up-gradient and down –gradient wells shall be performed semiannually in the months of April and September for all parameters designated above as semiannually, monthly, weekly, or daily. Testing for other parameters shall occur during the month of April at the stated frequency. The Board of Health may review the sampling frequency and the testing parameters and may modify either or both if it deems it necessary. This review may be initiated on an annual basis by the Board of Health or may be initiated upon request from the permittee.

### 5.07 Operation.

(1) Operator. A certified Waste Water Treatment Plant Operator having the Grade appropriate for the plant shall be retained by the permittee. Such operator shall spend a minimum of three (3) hours per day at the plant. When conditions warrant as may be determined by the Board of Health, additional hours shall be required. Such operator shall be designated the Chief Operator and shall be responsible for the operation of the SWWTP. The Board of Health shall receive a copy of the responsible party's contract with the operator.

(2) Back-up Operator. A second Certified Waste Water Treatment Plant Operator, having the same grade as the Chief Operator shall be available in the absence of the Chief Operator. The Board of Health shall receive a copy of the responsible party's contract with the Back-up Operator.

(3) Operational Guarantee. Prior to issuance of the Certificate of Compliance and Annual Operations Permit, the permittee shall provide security in an amount specified by the Board of Health to guarantee the operation of the SWWTP for a period of at least one year. The security shall provide for salaries, operational costs, and cost operation of the plant, or in event of a plant failure to operate, an amount sufficient to cover the costs of hauling 100% of the waste water to another facility for disposal for a one year period.

5.08 Reporting. A registered sanitary engineer shall be hired by the responsible party to oversee the plant operations and make quarterly site inspections, as well as prepare a quarterly and annual written report. The report shall summarize operating results, plant status, problems experienced, and any plant modification necessary. The engineer shall also appear before the Board of Health on an annual basis to discuss the facility's performance and other pertinent issues. Two (2) copies of all reports and laboratory data shall be sent to the Board of Health. In addition, all groundwater monitoring reports required through the DEP permit conditions shall also be sent to the Town and summarized in the engineering report. All data should be in a continuous graph form where appropriate.

5.09 Enforcement. The Board of Health shall review annually, or as necessary, the operations permit and may suspend, modify, revoke, or add additional conditions prior to the issuance of the annual operating permits.

5.10 Violations. Violations of this regulation are subject to penalties of Massachusetts General Laws Chapter 111, Section 31 after a Board of Health hearing. Each violation shall constitute a separate penalty and each day shall constitute a separate violation.

5.11 Variances. While it is recognized that certain modifications or exceptions may be necessary where justified in unusual situations, any such modifications or exceptions may only be provided by application for a variance to the Board of Health. Any variances to these regulations issued by the Board of Health shall comply with the provisions outlined in the State Environmental Code, Title 5.

## SECTION 6. TANKS AND CONTAINERS FOR THE STORAGE OF FLUIDS OTHER THAN WATER

### 6.00 Above Ground and In-Cellar Storage Tanks.

- (1) Cement Pad. All above-ground storage tanks shall be placed on a 30-inch x 72-inch x 4-inch cement pad. All in-cellar storage tanks shall be placed on a cement pad of this size if the cellar floor is not concrete which is at least 4 inches thick.
- (2) Wall Clearance. All above-ground and in-cellar storage tanks shall have at least a 3 inch clearance from the walls of any building.

### 6.01 Underground Storage Tanks.

- (1) Requirements. All underground storage tanks without exception shall be subject to the requirements of 527 CMR 9.00 and this regulation. When the provisions of 527 CMR 9.00 differ from this regulation, the provisions of this regulation shall supersede 527 CMR 9.00.
- (2) New Underground Residential Tanks. New installations of underground residential storage tanks are prohibited unless specifically authorized by Board of Health Special Permit.
- (3) Replacements for Underground Residential Tanks. Replacements for existing underground residential storage tanks shall be above-ground tanks or in-cellar tanks unless an underground replacement tank is specifically authorized by Board of Health Special Permit.
- (4) Permits. No work shall be started for installation of new underground tanks, for replacement of underground tanks, for upgrade or substantial modification of underground tanks, for removal of underground tanks, for temporary removal from service of underground tanks, for return to service of underground tanks, or for abandonment of underground tanks until new, renewal or revised permits, applications for approval, certificates and plot plans required by 527 CMR 9.26 for the Fire Department have been submitted to, and approved by the Board of Health.
- (5) Permits for Existing Tanks. The owner of every existing underground storage tank which has not been licensed by the Board of Health shall apply to the Board of Health for a permit to maintain such storage tank. Every application to the Board of Health shall be accompanied by the data which is required by 527 CMR 9.26 (3) for the Fire Department.
- (6) Existing Farm or Residential Noncommercial Motor Fuel Tanks. The Fire Chief shall notify the Board of Health in writing of all existing farm or residential tanks

of 1,100 gallons capacity or less used for storing motor fuel for noncommercial purposes which have not been licensed and which have been exempted from the permit process by the Fire Chief under 527 CMR 9.26(3) (d)(i). Owners of all such tanks shall obtain a permit from the Board of Health and provide all documentation which would have been required by 527 CMR 9.26(3) had the tanks not been exempted.

- (7) Existing Residential or Commercial Heating Oil Tanks for Domestic Use. The Fire Chief shall notify the Board of Health of all existing residential or commercial tanks storing or having stored heating oil (fuel oil) for domestic use on the premises which have not been licensed and which have been exempted from the permit process by the Fire Chief under 527 CMR 9.26 (3)(d)(ii). Owners of all such tanks shall obtain a permit from the Board of Health and provide all documentation which would have been required by 527 CMR 9.26(3) had the tanks not been exempted.

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## SECTION 7.00 GENERAL REGULATIONS

7.01 Change of Use. Any lot undergoing a change of use must meet all the provisions of the regulations of the Board of Health in effect at the time of the change of use.

### 7.02 Town Landfill.

(1) Location. Assessor's Map 16, Lots 234 and 245 have been designated as the Town Landfill. The Landfill is located on Old Stage Road, which is off State Road.

(2) Household Refuse and Recycling. Landfill procedures, fees and hours for dropping off household refuse and recycling materials are as posted in the Board of Health Office.

(3) Construction/Demolition Materials. Landfill procedures, fees and hours for dumping construction and demolition materials are as posted in the Board of Health Office.

(4) Grass and Leaves. Grass cuttings and leaves are considered recycle items and as such will be accepted at the Landfill at no charge.

7.03 Littering. Litter laws apply to persons disposing of household refuse and construction/demolition waste illegally. It is illegal to leave refuse and/or waste at the landfill gate.

7.04 Swine. No person shall keep any swine within 25 feet of any public way or of his property line, or within a distance of 100 feet of any dwelling house not his own without a permit from the Board of Health.

7.05 Barns. No person shall construct a barn for the purpose of housing, grazing or raising livestock, horses and other animals without a permit from the Board of Health.

7.06 Tents. No person shall set up a tent on any property without an Application for Tent Permit approved by the Board of Health. Applications for Tent Permit must be accompanied by written permission for the tent granted by the property owner. The source of potable water and the available privy or disposal works must be identified. The fee for this permit is as shown on the Approved Board of Health Fee Schedule posted in the Board of Health Office.

7.07 Night Soil Removal. No person shall hire a septage handler to remove nightsoil without an application to remove nightsoil approved by the Board of Health. The fee for this permit is as shown on the Approved Board of Health Fee Schedule posted in the Board of Health Office.

7.08 Food Establishment Permit. No person shall operate a food establishment without an approved application for permit to operate a food establishment. The fee for this permit is as shown on the Approved Board of Health Fee Schedule posted in the Board of Health Office.

7.09 Plumbing Permit. No person shall install plumbing materials without an approved application for plumbing permit. All applicants for plumbing permits must have a current copy of their insurance policy on file at the Board of Health. The fee for this permit is as shown on the Approved Board of Health Fee Schedule poste in the Board of Health office.

**TOWN OF WEST TISBURY BOARD OF HEALTH REGULATIONS**  
**Board of Health Regulation, Section 17**

**THE CONTENT AND APPLICATION OF FERTILIZER FOR TURF**  
**ON MARTHA'S VINEYARD, TOWN OF WEST TISBURY**

**SECTION 1. FINDINGS**

1.1 This Section details the public health and ecological foundations for the regulation of the use of fertilizer on turf in West Tisbury.

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

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

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

1.5 The Island of Martha's Vineyard in its entirety has significant amounts of glacially deposited coarse, sandy soils that are subject to rapid water infiltration, percolation, and leaching of nutrients into its groundwater that flow ultimately into the Island's harbors, embayment's, salt ponds and coastal resources, including the water and wetland resources of West Tisbury. Additionally, soils associated with terminal moraine and glacial till contribute to rapid runoff into streams feeding coastal water bodies. These unique geologic, topographic and hydrographic characteristics require innovative soil management practices. The adoption of specific turf and

soil fertilization requirements across the Island, including West Tisbury, is necessary to protect the water and wetland resources of the Island, including West Tisbury's.

1.6 The six towns comprising Martha's Vineyard have engaged the Massachusetts Estuaries Project ('Estuaries Project') to undertake analyses of many of the harbors, embayment's, salt ponds and coastal resources in the Island towns and to prepare reports detailing the nutrient loading from multiple sources, including fertilizers. The Estuaries Project considers fertilizers a locally controllable source of water degradation. This is very significant as it is anticipated that the State will require all Massachusetts towns to bring the nutrient levels of their coastal ponds, harbors and other water resources to within recognized acceptable water quality standards established in the federal Clean Water Act.

1.7 As of the date of the enactment of this Regulation, Estuaries Project reports have been completed for West Tisbury Great Pond, Farm Pond, Lagoon Pond, Sengekontacket Pond and Tisbury Great Pond. In addition, the Massachusetts Department of Environmental 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 Daily Loads" or "TMDLs"). (TMDLs for Tisbury Great Pond are under consideration as of the date of the enactment of this Regulation.) Similar studies are currently underway for Cape Pogue, Chilmark Pond, Katama Bay, Menemsha Pond, Oak Bluffs Harbor, Oyster Pond, Pocha Pond, Squibnocket Pond and Tashmoo Pond. In due course, TMDLs will be established for all of these participating water bodies.

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.

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.

1.10 The West Tisbury 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.

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 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 fertilizers for the enhancement of lawn quality.

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

## **SECTION 2. PURPOSE**

This Regulation provides for a reduction of nitrogen and phosphorus going into West Tisbury's Water Resources by means of an organized system of education, licensure, regulation of practice, and enforcement. The Regulation is intended to contribute to West Tisbury'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.

## **SECTION 3. AUTHORITY**

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

## **SECTION 4. DEFINITIONS**

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

"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.

"Application Fee" means a fee in the amount of \$100.

"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 West Tisbury Board of Health whose members are elected by the voters of West Tisbury to oversee public and environmental practices through the actions of its Health Department.

"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 West Tisbury Wetland Protection Bylaws and Regulations) is permitted without an Order of Conditions or a Negative Determination from the West Tisbury Conservation Commission.

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

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

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

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

"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.

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

"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.

"License" means that documentation issued by West Tisbury authorizing the individual or commercial entity holder to apply Fertilizer in West Tisbury.

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

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

“Martha’s Vineyard Lawn Fertilizer Working Group” means the group of individuals from the six Island towns, including landscape professionals, golf course superintendents, Conservation Commissioners, Selectmen, Board of Health Commissioners/**members** and Health Agents, and Martha’s Vineyard Commission members, who met and consulted with members of the public representing these and other constituencies to draft this Regulation.

"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.

“Participating Town” means an Island town that has voted to adopt regulations governing the use of Fertilizer that are substantially similar to this Regulation.

“Property Owner” means the owner of record of the Turf or Soil to which Fertilizer is applied (and, for the avoidance of doubt, includes West Tisbury).

“Relevant Employee” means a person engaged (as an employee, agent, contractor or otherwise) by a Landscape Professional who applies Fertilizer to Turf or Soil.

“Resource Area” means an area subject to protection under the Commonwealth’s Wetland Protection Act or the West Tisbury Wetland Protection By-Laws or Regulations.

"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.

"Soil" means the upper-most layer of the earth's surface, comprised of mineral and organic matter, which can host biological communities.

"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.

"West Tisbury" encompasses the land and water of the Town of West Tisbury on the island of Martha’s Vineyard, County of Dukes County.

“Turf” means grass-covered Soil held together by the root system, and includes turf used for sports and recreational activities as well as for lawns and utility areas.

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

## SECTION 5. TURF PERFORMANCE STANDARDS

### 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.

5.1.4 No person shall apply Fertilizer containing more than 0.5 pounds of nitrogen per 1000 square feet of Turf *per application*, provided, however, that a single application of Fertilizer between April 15 and June 1 and a single application of Fertilizer in September may contain up to .75 pounds of nitrogen per 1000 square feet of Turf. Cumulative applications of Fertilizer must not exceed 3.0 pounds of nitrogen per 1000 square feet of Turf per year. Fertilizer shall not be applied within 4 weeks of a prior application. For the purposes of this Regulation, Fertilizer applied 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;

(c) Compost Tea; and

(d) pelletized organic Fertilizer whose phosphate content by weight is no greater than 25% of its nitrogen content by weight.

## 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.

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

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

## 5.3 Fertilizer on Golf Courses

5.3.1 The performance standards set out in Section 5 (not including Section 5.1.6) apply to Fertilizer applied on Golf Courses except as modified in this Section 5.3.

5.3.2 Applications of Fertilizer to Golf Courses shall not be made between December 15 and the following April 15<sup>th</sup>.

5.3.3 Liquid Fertilizer may not be applied more often than **every two weeks**, provided that it is applied at a rate not to exceed 0.1 pound of nitrogen per 1000 sq. ft. per application.

5.3.4 The performance standards set out in Section 5.2.2 do not apply to putting greens and tee boxes in the Buffer Zone in existence at the effective date of this Regulation.

## 5.4 Exemptions: The following activities are exempt from Section 5:

5.4.1 Application of Fertilizer to home vegetable and flower gardens, landscape ornamentals, shrubs, trees, bushes, and container plants.

5.4.2 Application of Fertilizer for Agricultural or Horticultural use.

5.5 **Precedence:** To the extent that the Commonwealth of Massachusetts or West Tisbury 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.

## SECTION 6. EDUCATION, LICENSURE AND ADMINISTRATION

## 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

(b) administer an assessment to determine a Professional Landscaper's or a Property Owner's proficiency with respect to this Regulation and the Martha's 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

6.2.1 No Landscape Professional shall apply Fertilizer in West Tisbury without a License issued 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, West Tisbury shall forward a "Notice of Issuance of Fertilizer License" to each other Participating Town nominated by the Applicant.

6.2.4 When West Tisbury 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.

6.2.5 A License shall indicate the License number and expiration date and shall be signed by the Licensee.

6.2.6 Licenses shall be effective on issue and shall continue in effect for three calendar 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 West Tisbury 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;
- (c) the employer provides supervision appropriate to ensure that the Relevant Employee complies with this Regulation; and
- (d) the employer retains documentation sufficient to establish compliance with 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.

**6.3 Services to be Performed by a Third Party:** The Board of Health may appoint from time to time a third party to perform on its behalf the responsibilities and services set out above in Sections 6.1 and 6.2.

#### **6.4 Liability**

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.

6.4.2 A Landscape Professional is liable for violations of this Regulation by its Relevant Employees.

6.4.3 Notwithstanding Sections 6.4.1 and 6.4.2, any person who applies Fertilizer in violation of this Regulation may be held liable.

#### **6.5 Enforcement**

6.5.1 The Health Agent and the Board of Health may enforce this Regulation or enjoin violations thereof through any lawful process, and the election of one remedy by the Board of Health shall not preclude enforcement through any other lawful means.

6.5.2 Subject to Section 6.5.3, a person who violates any provision of this Regulation is subject to:

(a) in the case of a first violation within a consecutive 36-month period, a written warning;

(b) in the case of a second violation within a consecutive 36-month period, a fine in the amount of \$50.00;

(c) in the case of three or more violations within a consecutive 36-month period, a fine in an amount of \$300.00 per violation, unless the Town proceeds by criminal complaint or indictment under Section 6.5.6, in which case the maximum fine for the third and subsequent violations is provided therein; and

(d) in the case of a Licensee (or a Relevant Employee), and subject to the notice and hearing provisions of Section 6.5.4, suspension of the License (or that of his/her employer, as the case may be) for 180 consecutive days or revocation of that License.

6.5.3 A Licensed Professional who applies Fertilizer without having a valid License is subject to:

(a) in the case of a first violation within a consecutive 36-month period, a written warning;

(b) in the case of two or more violations within a consecutive 36-month period, a fine in the amount of \$300.00 unless the Town proceeds by criminal complaint or indictment under Section 6.5.6, in which case the maximum fine for the second and subsequent violations is provided therein.

6.5.4 The Board of Health may suspend or revoke a License issued pursuant to this Regulation or any other applicable law. Such revocation or suspension may only take place after a hearing held by the Board of Health of which the Licensee shall be given seven (7) days written notice. Such notice shall be deemed given upon certified return receipt mailing same to the address listed on the License application.

6.5.5 The Board of Health is authorized to penalize any person who violates these regulations by issuing a ticket under the noncriminal disposition process provided for in Massachusetts General Laws Chapter 40, Section 21D, and the Town's noncriminal disposition by-law, Sections 1-2, 1-3, 1-4, 1-5 and 1-6 of the Code of the Town of West Tisbury. If noncriminal disposition is elected, then any person who violates any provision of

this Regulation shall be subject to the penalties provided in Sections 6.5.2 and 6.5.3, as applicable, per violation or, in the case of a continuing violation, per day for each day of violation. Each day or portion thereof shall constitute a separate offense. If there is more than one violation, each shall constitute a separate offense.

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

## **SECTION 7. SEVERABILITY CLAUSE**

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

## **SECTION 8. AMENDMENTS**

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

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 Vineyard Commission, as conforming to the guidelines for the Fertilizer Management District of Critical Planning Concern.

## **SECTION 9. EFFECTIVE DATE**

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

## **SECTION 10. INTERIM PROVISIONS**

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

SECTION 8. DEFINITIONS

The words, terms, or phrases listed below for the purpose of this regulation shall be defined and interpreted as follows:

Approving Authority: The legally constituted body having the rightful power to permit, certify, or approve.

Building Sewer: The pipe which begins 10 feet outside the inner face of the building wall and extends to a public sewer, septic tank, or other place of sewage disposal.

Cellar Wall: The inside of the cellar wall above the footings and below the ground surface.

Cesspool: A covered pit with open-jointed lining in its bottom portions into which raw sewage is discharged, the liquid portion of the sewage being disposed of by seeping or leaching in the surrounding porous soil, and the solids or sludge being retained in the pit to undergo partial decomposition before occasional or intermittent removal.

Coastal District: Land which lies below the 10 foot (MSL) contour or within 500 feet of mean high water as defined by the “decision of the Martha’s Vineyard Commission Designating the Coastal District”, December 22, 1975 (Section 2.00).

Coastal Wetland: Any bank, marsh, swamp, flat or other lowland subject to tidal action.

Cover Material: The earth materials placed on top of leaching facilities to bring the area to finish grade.

Designer: The person authorized by law to prepare plans for subsurface sewage disposal facilities for submittal to public agencies.

Deep Observation Hole: An open pit dug to permit the examination of the soil and to determine the ground water elevation.

Disposal Works Installer: Any person, firm, corporation, or contractor, who installs, alters, constructs, or repairs individual sewage disposal systems.

Distribution Box: A watertight structure which receives settled sewage and distributes it in substantially equal portions to two or more lines leading to a leaching area.

Distribution Line: The pipe used for dispersion of sewage into leaching trenches or leaching fields.

Dosing Tank: A watertight structure placed between a septic tank and distribution box, and equipped with a siphon or a pump designed to discharge settled sewage intermittently to a leaching facility and to provide a rest period between such discharges.

8-1

Fill: The earth materials placed beneath and around a leaching facility.

Grease Trap: A watertight structure in which grease is separate from sewage.

Gray Water: Sanitary sewage, excluding the waste discharges from water closets, i.e.: any water-carried putrescible waste resulting from the discharge of laundry tubs, washing machines, sinks, showers, dishwashers, or any other source.

Ground Water Elevation: That elevation at which water is observed weeping or flowing from the walls of or standing in a deep observation hole.

H-20 Loading: Standard H-20 loading as specified by the American Association of State Highway Officials.

Hazardous Material: A product of waste, or combination of substances which because of quantity, concentration, or physical, or chemical, or infectious characteristics, poses in the Board of Health's judgment a substantial present or potential hazard to the human health, safety, or welfare, or the environment when improperly treated, sorted, transported, used or disposed of, or otherwise managed. Any substance deemed a hazardous waste in Massachusetts General Laws, Chapter 21C, shall also be deemed a hazardous material for the purpose of these regulations.

Humus Toilet: A self-contained toilet from which no liquid or solid waste materials are regularly discharged and from which a humus-like end product is produced.

Impervious Material: Material having a percolation rate greater than 30 minutes per inch, including but not limited to bedrock, peat, loam and organic matter.

Individual Sewage Disposal System: A subsurface sewage disposal system owned and operated by a person as defined in these regulations.

Industrial Waste: Any water carried or liquid waste resulting from any process of industry, manufacture, trade, or business, or from the development or recovery of any natural resource.

Invert: The lowest portion of the internal cross section of a pipe.

Leaching Facility: An approved structure used for the dispersion of sewage effluent into the soil. These include leaching pits, galleries, chambers, trenches, and fields as described in 310 CMR 15.11 through 15.15.

Lot: An area of land in one ownership, with definite boundaries.

Maximum Ground Water Elevation: Maximum ground water elevation means the height of the ground water table when it is at its maximum level or elevation. This level is usually reached during the months of December through April, and allowances should be made therefore at other times of the year.

8-2

Mean High Water: The average of the (tidal) high waters over a 19 year period.

Multiple Compartment Tank: A septic tank containing more than one settling compartment in series.

Open Drain: Any ditch used for the conveyance of water.

Owner: Every person who alone, or jointly, or severally with others (a) has legal title to any dwelling or (b) has care, charge or control of any dwelling or dwelling unit as agent, executor, executrix, administrator, administratrix, trustee, lessee, or guardian of the estate of the holder of legal title. Each such person thus representing the holder of legal title is bound to comply with the provisions of these minimum standards as if he were the owner. Owner also means every person who operates a rooming house.

Percolation Test: A means of determining the suitability of soil for the subsurface disposal of sewage.

Person: Every individual, partnership, corporation, firm, association, or group, including a city, town, county, the Commonwealth, or other governmental unit, owning property or carrying on an activity regulated by this regulation.

Privy: A structure used for the disposal of excreta without water transport. It consists of a shelter built above a pit or vault in the ground into which excrement is deposited.

Reserve Area: An additional area of at least equal capacity as the original sewage disposal area, suitable for subsurface sewage disposal, and upon which no permanent structure will be constructed.

Sanitary Sewage: Any water-carried putrescible waste resulting from discharge of water closets, laundry tubs, washing machines, sinks, showers, dishwashers, or any other source.

Sanitary Sewer: A pipe which carries sewage without storm, surface, or ground waters.

Scum: A mass of solids floating at the surface of a septic tank.

Septage: That material removed from any part of an individual sewage disposal system.

Septic Tank: A watertight receptacle which receives the discharge of sewage from a building sewer, and is designed and constructed so as to permit the retention of scum and sludge, digestion of the organic matter, and discharge of the liquid portion to a leaching facility.

Sewage: Sewage means sanitary sewage.

Sewage Disposal Area: The area used for subsurface dispersion of the liquid portion of sewage.

8-3

Subsurface Drain: Any underground conduit used for the conveyance of water, including curtain drain.

Swamp: An area where ground water is at or near the surface of the ground for a significant part of the growing season or where run-off water from surface drainage frequently collects above the soil surface.

Tank, Commercial: Any tank used to store product for resale or business related use. Any tank which is not included as a residential tank.

Tank, Owner/Operator: The person(s) who owns a tank system or the person(s) leasing the tank and in control of the daily operations of the facility. In either case, the party listed as owner/operator on the registration of the tank shall be responsible for adherence to tank regulations.

Tank, Residential: Any tank used solely to store fuel for heating purposes and is connected to a heating unit.

Tank Underground: Any storage containment system for gasoline, fuel, or lubrication oil or other hazardous materials, any part of which is buried below the ground.

Watercourse: Any natural or manmade stream, pond, lake, wetland, coastal wetland, swamp, or other body of water and including wet meadows, marshes, swamps, bogs, and areas where ground water, flowing or standing surface water or ice provide a significant part of the supporting substrate for a plant community for at least five months of the year.

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**TOWN OF WEST TISBURY BOARD OF HEALTH REGULATIONS**  
**Board of Health Regulation, Section 17**

THE CONTENT AND APPLICATION OF FERTILIZER FOR TURF  
ON MARTHA’S VINEYARD, TOWN OF WEST TISBURY

## SECTION 1. FINDINGS

1.3 This Section details the public health and ecological foundations for the regulation of the use of fertilizer on turf in West Tisbury.

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

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

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

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

1.6 The six towns comprising Martha's Vineyard have engaged the Massachusetts Estuaries Project ('Estuaries Project') to undertake analyses of many of the harbors, embayment's, salt ponds and coastal resources in the Island towns and to prepare reports detailing the nutrient loading from multiple sources, including fertilizers. The Estuaries Project considers fertilizers a locally controllable source of water degradation. This is very significant as it is anticipated that

the State will require all Massachusetts towns to bring the nutrient levels of their coastal ponds, harbors and other water resources to within recognized acceptable water quality standards established in the federal Clean Water Act.

1.7 As of the date of the enactment of this Regulation, Estuaries Project reports have been completed for West Tisbury Great Pond, Farm Pond, Lagoon Pond, Sengekontacket Pond and Tisbury Great Pond. In addition, the Massachusetts Department of Environmental 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 Daily Loads” or “TMDLs”). (TMDLs for Tisbury Great Pond are under consideration as of the date of the enactment of this Regulation.) Similar studies are currently underway for Cape Pogue, Chilmark Pond, Katama Bay, Menemsha Pond, Oak Bluffs Harbor, Oyster Pond, Pocha Pond, Squibnocket Pond and Tashmoo Pond. In due course, TMDLs will be established for all of these participating water bodies.

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.

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.

1.10 The West Tisbury 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.

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 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 fertilizers for the enhancement of lawn quality.

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

