

Commonwealth of Massachusetts  
Town of Hingham

BOARD OF HEALTH

**SUPPLEMENTARY RULES AND REGULATIONS FOR THE  
DISPOSAL OF SANITARY SEWAGE**

<u>TABLE OF CONTENTS</u>	<u>PAGE(S)</u>
Section I AUTHORITY TO PROMULGATE	3
Section II DEFINITIONS	3 – 8
Section III REQUIREMENTS FOR A DISPOSAL WORKS CONSTRUCTION PERMIT	9
Section IV APPLICATION REQUIREMENTS	9 – 14
Section V PERMIT RESTRICTIONS	15
Section VI DESIGN REQUIREMENTS FOR SEWAGE DISPOSAL SYSTEMS OR PLANTS	16 – 19
Section VII WASTE WATER TREATMENT PLANTS	20 – 25
Section VIII AS-BUILT PLAN REQUIREMENTS	27
Section IX SUBDIVISIONS	28 – 29
Section X <b>ANR PLANS AND LOT DIVISIONS</b>	30
Section XI VARIANCES	31
Section XII EXPEDITED PROCEDURE FOR REPAIRS AND LOCAL UPGRADE APPROVALS	32
Section XIII REQUIREMENTS FOR LICENSED DISPOSAL WORKS INSTALLERS	33
Section XIV INSPECTION OF SEWAGE DISPOSAL SYSTEM AT THE TIME OF TRANSFER OF TITLE	34

Section XV	ASSESSMENT OF SEWAGE DISPOSAL SYSTEM WITH A NEW WATER SUPPLY WELL, OR THE EXPANSION OF A STRUCTURE ON A SMALL LOT, OR WITH AN ACCESSORY DWELLING UNIT	35
Section XVI	VIOLATIONS AND PENALTIES	35
Section XVII	APPEAL	36
Section XVIII	DISCLAIMER	36
Section XIV	SEVERABILITY	36
Section XV	EFFECTIVE DATE	36

D  
R  
A  
F  
T

## Section I. AUTHORITY TO PROMULGATE

These regulations are adopted in accordance with applicable provisions of the State Environmental Code and under the authority of Chapter 111, Section 31 of the General Laws and any other powers enabling the Town of Hingham Board of Health to adopt regulations as a supplement to Title 5 of the State Environmental Code of the Commonwealth of Massachusetts, and from time to time, in force and effect, amend and restate any previous Supplementary Rules and Regulations in their entirety pursuant to unanimous vote of the Board of Health.

## Section II. DEFINITIONS

Capitalized terms shall have the meanings defined herein or in Title 5 of the State Environmental Code (310 CMR 15.000 et seq.) ("Title 5"). Other words used in these Regulations shall have their normal meaning.

**Abutter:** Any record owner of a Lot any portion of which is located within two hundred and fifty (250) feet of any portion of the Applicant's Lot.

**Accessory Dwelling Unit:** A second self-contained dwelling unit subordinate in size to the principal dwelling on a Lot and incorporated within the principal dwelling. An accessory dwelling unit may or may not be certified or authenticated in accordance with the Hingham Zoning Bylaw that regulate these units.

**Alternative System:** A Sewage Disposal System designed to provide or enhance on-site sewage disposal which either does not contain all of the components of a Conventional System or which contains components in addition to those contained in a Conventional System and which is proposed to the Board for Remedial Use or use in a New Sewage Disposal System. All wastewater treatment Plants are Alternative Systems.

**Applicant:** The owner of the Lot together with any other person authorized by the owner who applies for a Disposal Works Construction Permit.

**ANR Plan:** The proposed division or combining of one or more Lots, or portions thereof, which results in the creation of a proposed Form-A Lot.

**Awarding Authority:** The Hingham Board of Health and as provided in Section XI of these Supplementary Rules the Executive Health Officer of the Town of Hingham.

**Bedroom:** A room in a Structure whose primary intended use is that of sleeping quarters. The following criteria serve for describing a bedroom: possessing privacy; at least one egress window; a ceiling height of at least 7'3"; heating and ventilation; electricity; at least fifty-percent (50%) of its floor space located above

existing grade; 70 sq. foot or more of floor space; and other criteria including but not limited to a dwelling's total room count in accordance to 310 CMR 15.002. For the purpose of this definition, a passageway of less than 48" into a room, whether it possesses a door or not, would provide the room a degree of privacy.

**Board:** The Hingham Board of Health.

**Cellar** (herein sometimes "**Basement**"): The lowest accessible space below a Structure contained by Foundation Walls and a floor, where forty-percent (40%) or more of the Foundation Walls that enclose it lie below natural grade. A Cellar with a ceiling height of at least 7'1" would be considered a "full" Basement.

**Certified Alternative Technology:** Alternative Technology which has been certified by the Massachusetts Department of Environmental Protection ("MDEP") for general or Remedial Use under 310 CMR 15.288.

**Complete:** Acknowledgement by the Executive Health Officer that an application for a Disposal Works Construction Permit or Definitive Subdivision contains all of the required components, and that any preliminary conditions have been fully satisfied prior to timely action by the Executive Health Officer or from the Board.

**Conventional System:** A sub-surface system consisting of a septic tank, a leaching facility (including reserve area) and the piping starting at the exterior Foundation Wall of the Structure and connecting all of the various parts of the system that is designed and constructed in accordance with 310 CMR 15.000 et seq. and designed to utilize gravity flow or pressure dosing and to contain no mechanical parts with the exception of a pump and attendant devices to effectuate pressure dosing, and intended to dispose of sanitary Sewage on a Lot generated by the Structure on that Lot.

**Designing Engineer:** A Registered Professional Engineer or Registered Sanitarian responsible for the design of a particular Sewage Disposal System or Plant.

**Dewatering:** The removal or disturbance of Groundwater in any area of a Lot such that it is likely in the judgement of the Board that the Groundwater at a percolation test site will be lower or the rate of percolation more rapid than it would have been had no such removal or disturbance occurred.

**Direct Abutter:** Any record owner of a Lot any portion of which is contiguous to any portion of Applicant's Lot whether or not separated from the Applicant's Lot by a street.

**Disposal Works Construction Permit** (herein sometimes "**Plant Permit**"): That Permit required for the construction, installation, alteration, Repair or for any other work on a Sewage Disposal System or Plant.

**Divergence:** Either: (i) a discrete instance of non-compliance with one of the requirements of 310 CMR 15.100-15.293 which pursuant to 310 CMR 15.405 may be waived in the discretion of the Awarding Authority; or, (ii) a discrete instance of non-compliance with a requirement of these Supplementary Regulations which similarly may be waived by the Awarding Authority if it is found that such non-compliance is the least environmentally damaging and most reasonable alternative necessary to accomplish the best feasible Repair of a Failed Sewage Disposal System or Upgrade of a Non-Conforming Sewage Disposal System.

**Drain:** Any conduit used for the conveyance of water including, but not limited to: curtain Drains, French Drains, under Drains, leaching catch basins, or stormwater management measures such as retention or detention ponds and infiltration swales.

**Emergency Repair:** Any Repair to an existing Sewage Disposal System necessitated by what the Executive Health Officer has reasonably determined to be a catastrophic system failure that immediately and seriously endangers the health and safety of the public or the environment.

**Expansion of Use:** Anything that increases the design flow of the Structure including, but not limited to the addition of a Bedroom or rooms that exceed the total number of allowable rooms within a Structure per 310 CMR 15.002, or New Construction, or other structural or functional changes that would effectively increase septic flows.

**Failed Sewage Disposal System:** A Sewage Disposal System that endangers the health and safety of the public by the discharge or threatened discharge of sewage onto the surface of the ground or into any gutter, street, roadway, public place, onto another property or into any structure, or as defined in 310 CMR 15.002, or a Sewage Disposal System whose performance was designed and measured with respect to nitrogen loading and whose nitrogen loading performance is materially degraded from the nitrogen loading design level specified in submissions of Applicant's engineers or other professionals at the time a Disposal Works Construction Permit was sought and issued.

**Financial Assurance Mechanism (FAM):** A written agreement and accompanying escrow account that provides for the continued availability of an immediate repair and a replacement fund to be used by the Applicant or owner solely for the immediate repair and replacement of any failing components of a Plant and its Sewage Disposal System.

**Form-A Lot:** A proposed Lot, other than a definitive Subdivision Lot, used or available to use as the site for one or more Structures.

**Foundation Wall:** A wall below the floor nearest grade serving as a support for a wall, pier, column or other structural part of a Structure. A concrete or plastic pillar

located below grade serving to support a Structure would be considered a “Slab Foundation” for the purpose of Title 5 and these Supplementary Regulations.

**Groundwater:** Water found in cracks, fissures and pore spaces in the saturated zone below the ground surface including but not limited to perched groundwater.

**Large Plant:** A wastewater treatment Plant with a design flow in excess of two thousand (2,000) gallons per day.

**Licensed Disposal Works Installer:** Any person holding a valid license or permit issued by the Hingham Health Department who may legally install, alter, construct, or Repair a Sewage Disposal System.

**Local Upgrade Approval:** The authority granted by Title 5 and these Supplementary Regulations to approve one or more Divergences to the extent necessary to achieve the best feasible Repair of a Failed Sewage Disposal System or Upgrade of a Non-Conforming System and evidenced by the issuance of a Disposal Works Construction Permit. Under these Supplemental Regulations, there can be no Local Upgrade Approval in situations involving increased design flow.

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

**Maximum Groundwater Elevation:** The elevation determined by the Board to be the level at which Groundwater is or has been closest to the surface of a Lot. Among the evidence the Board may consider in determining Maximum Groundwater Elevation are actual observed Groundwater Elevations occurring during the Wettest Period, indirect evidence such as oxide layers or soil mottling and historical Maximum Groundwater Elevation data in the vicinity of the Soil Absorption Area. In the case of a Failed Sewage Disposal System, the Board may consider evidence of actual observed Groundwater evident at other than the Wettest Period. In years of abnormally small amounts of precipitation the Board may make uniform upward adjustments to observed Groundwater Elevations to account for an abnormally low Groundwater table.

**New Sewage Disposal System (herein sometimes “New Construction”):** The construction or proposed construction on a Lot of a Sewage Disposal System in conformance with the provisions of 310 CMR 15.000 et seq. and these Supplementary Regulations necessitated by (i) the construction or proposed construction of a new Structure on the Lot; or (ii) an Expansion of Use resulting from an addition or proposed addition to an existing Structure on the Lot; or, (iii) any change or proposed change in the use of an existing Structure on the Lot which will result in an increase in design flow.

**Non-Conforming System:** Any system that is not in full compliance with the requirements of 310 CMR 15.000 and these Supplementary Regulations.

**Plant:** A system or facility (other than a **Conventional System** as defined herein) to be used for treating, neutralizing, stabilizing or disposing of wastewater from any Structure and which is not part of or connected to a **common collection** system of sanitary sewers **located within an established sewer district** under the jurisdiction of the **Hingham Sewer Commission**. Included without limitation in this definition are: sewers serving such Plant, 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 reuse, and monitoring wells and systems relating thereto.

**Plant Operations Permit:** A Permit issued by the Board for the operation of a Plant.

**Plant Permit:** A Disposal Works Construction Permit issued for the construction, installation, alteration, Repair or any other work on a Plant.

**Protected Water Body:** Triphammer Pond, Cushing Pond, and all those portions of the Tower Brook, Weir River, Crooked Meadow River, Eel River, Plymouth River, **Fulling Mill Brook and their proximal tributaries or other nitrogen sensitive areas designated by the Board via public process per 310 CMR 15.215.**

**Regulations, Supplementary Regulations** (herein sometimes "**Supplementary Rules**"): The Hingham Board of Health's Supplementary Rules and Regulations for the Disposal of Sanitary Sewage.

**Remedial Use:** **The use of Certified Alternative Technology for the purpose of repairing a Failed Sewage Disposal System or upgrading a Non-Conforming System.**

**Repair:** **Any work on an existing Sewage Disposal System (but not including the construction of a complete replacement system) that allows the system to function as originally designed.**

**Sewage:** The water-carried human or animal wastes from any Structure together with such Groundwater infiltration and surface water as may be present.

**Sewage Disposal System:** A system or **facility** that is designed and constructed for the purpose of disposing **of wastewater from any Structure and which is not part of or connected to a common collection system of sanitary sewers located within an established sewer district** under the jurisdiction of the **Hingham Sewer Commission**. A Sewage Disposal System includes, without limitation, **all piping from the exterior Foundation Wall of the Structure connecting to all various parts of the system. Conventional Systems, Alternative Systems and Plants also comprise a Sewage Disposal System.**

**Small Plant:** A Sewage Disposal System that utilizes Certified Alternative Technology to treat a design flow of two thousand (2,000) gallons per day or less.

**Soil Absorption Area:** The primary and reserve area on a Lot to be used for a Soil Absorption System.

**Soil Absorption System:** A system of trenches, galleries, chambers, pits, field(s) or bed(s) together with effluent distribution lines and aggregate which is installed in appropriate soils to receive effluent from a septic tank and transmit it to the soil interface for treatment in a biological mat and disposal to the underlying soils.

**Structure:** Anything constructed or erected at a fixed location on the ground typically supported by a Foundation Wall to give support or provide shelter for any common use and occupancy.

**Subdivision:** The division of a track of land into two or more Lots.

**Surface Water Supply:** Accord Pond, Fulling Mill Pond, Accord Brook, and the Old Swamp River, including their proximal tributaries.

**Title** (herein sometimes “**Deed**”): The legal recorded history of a track of land or Lot, which includes information on ownership; property lines; Structures; easements; covenants; restrictions; rights; adverse possessions; and liens relative to the property.

**Treatment Plant Building:** That part of a Plant which houses the devices or facilities which are used to treat, neutralize, stabilize or disinfect Sewage.

**Upgrade:** The modification of one or more components of a Sewage Disposal System or the design and construction of a replacement Sewage Disposal System which is intended to bring a Non-Conforming System into conformance with 310 CMR 15.000 and these Supplementary Regulations to the maximum feasible extent. An Emergency Repair or Repair is not an Upgrade. An Upgrade does not involve an Expansion of Use.

**Variance:** An affirmative vote of the Board of Health, which is not a Divergence, that allows a New Sewage Disposal System to be constructed or an existing Sewage Disposal System to be Upgraded or Repaired: (i) without complying fully with the requirements of 310 CMR 15.000 et seq. if such vote is subsequently approved by the Massachusetts Department of Environmental Protection; or, (ii) without complying fully with the requirements of these Supplementary Regulations.

**Wastewater:** Sewage, industrial waste, other wastes or any combination of the three (3).

**Wettest Period:** That period of time during each calendar year deemed by the

Board in its reasonable discretion to be the time when the Groundwater table is closest to the surface of the ground.

### **Section III.            REQUIREMENTS FOR A DISPOSAL WORKS CONSTRUCTION PERMIT**

A Disposal Works Construction Permit must be sought and obtained:

- A. When the construction of a **New Sewage Disposal System (which includes any addition to a Structure or change in use that increases the design flow of the Sewage Disposal System)** is proposed; or,
- B. When the **Upgrade of a Non-Conforming System or Repair of a Sewage Disposal System or Plant** is proposed; or,
- C. When the Executive Health Officer or the Board orders the Repair of a Failed Sewage Disposal System; or,
- D. When the potential occupancy capacity of a existing Structure is increased; or,
- E. When a greater volume of sewage is proposed for **an existing Sewage Disposal System than that volume for which the existing Sewage Disposal System** was originally designed to accept.

### **Section IV.            APPLICATION REQUIREMENTS**

To be deemed Complete, the application for a Disposal Works Construction Permit must contain the following information as appropriate:

- A. The application for a Disposal Works Construction Permit must be filled out and signed by the record owner of the Lot. If application is made by someone other than the owner, the application shall be signed by both the record owner of the Lot and the Applicant.
- B. An application fee must be paid at the time of submission of the application for a Disposal Works Construction Permit. This fee is non-refundable.
- C. In the case of the construction of a New Sewage Disposal System **or the proposed creation of a Subdivision**, the Applicant shall also deposit with the Health Department at the time of application the sum set forth in the Board's Schedule of Fees under "Sewage Disposal Permit Deposit", "**Small Plant Permit Deposit**", "**Large Plant Permit Deposit**" or "**Proposed Sub-division Deposit**", as applicable, in the form of a certified or bank check made payable to the "Town of Hingham" to be

held by the Town Treasurer and from which fees and other expenses shall be deducted which may be incurred by the Board of Health for the hiring of consultants for the purpose of witnessing percolation tests, Groundwater Elevations and other soil and site conditions or providing other expert advice concerning the proposed Sewage Disposal System application.

- D. A list of **Abutters** of Applicant's Lot and evidence satisfactory to the Board that notice that an application has been made for a Disposal Works Construction Permit has been given to said Abutters by certified mail, return receipt requested, shall accompany the application.
- E. If a wetlands line is located on the plan which accompanies the application, or if the Board or the Executive Health Officer questions the possible presence of wetlands on the Lot or within **two hundred** (200) feet of a Sewage Disposal System or Plant, confirmation in writing by the Conservation Commission **is required** that:
- 1) A final Order of Conditions or final **negative** **d**etermination has been obtained and all appeals periods lapsed in accordance with the applicable provisions of chapter 131 Section 40 of the Massachusetts General Laws, and
  - 2) A final Order of **C**onditions or final **negative** **d**etermination has been obtained and all appeals periods lapsed in accordance with the applicable provisions of the Wetlands Protection By-Laws of the Town of Hingham promulgated pursuant to Chapter 40 of the Massachusetts General Laws.
- F. Evidence satisfactory to the Board showing that the Lot on which the New Sewage Disposal System or Plant will be located has a supply of potable water sufficient in quantity with adequate pressure and a quality that has been determined to not endanger the health of any potential user. If the supply of water is from a well to be drilled on the Lot, it must be in existence, drilled and tested by a laboratory approved by the Board and licensed by the Department of Environmental Protection. The water tested must meet the Commonwealth of Massachusetts Minimum Drinking Water Standards. A well drillers log and report shall also be submitted. If the potential water supply is other than a well on the Lot, then **an unconditional and binding** letter of commitment **in form and substance satisfactory to the Board** from the person or utility that will provide the water service must accompany the application.
- G. If a Lot on which a New Sewage Disposal System or Plant is proposed to be built is part of a subdivision, evidence that the subdivision plan has been recorded in the Plymouth County Registry of Deeds or filed with the recorder in the Plymouth County Land court must be submitted **with the application.**
- H. Prior to dividing a facility (as defined under Title 5) or Lot, any existing Sewage Disposal System shall be inspected in accordance with 310 CMR 15.301(8). The**

division of a facility or Lot should not occur unless: (i) the Board has determined the proposed division will not put the existing Sewage Disposal System into noncompliance with Title 5 and these Supplementary Regulations, and (ii) the Applicant has demonstrated to the satisfaction of the Board that the proposed division of property will not prohibit the Upgrade to the existing Sewage Disposal System, if the system has failed or deemed highly likely to fail a Title 5 inspection. A Failed Sewage Disposal System must be Upgraded in accordance with 310 CMR 15.305 and these Supplementary Regulations.

- I. In connection with an application for Disposal Works Construction Permit for a Conventional Sewage Disposal System where the Board reasonably concludes that such a system cannot be built in full compliance with Title 5 and these Supplementary Regulations, in lieu of denying the application or entertaining an application for a Variance, the Board in its reasonable discretion may permit the Applicant to file an application for a Plant Permit. In any case where the maximum daily design flow of a proposed Conventional System exceeds two thousand (2,000) gallons of sewage per day, the Board in its reasonable discretion may require the Applicant to file an application for a Plant Permit and treat any Application for a Conventional System as withdrawn.
- J. Percolation test results, soil observations, and findings as to the Maximum Groundwater Elevations are required to accompany the application. At least two percolation tests must be performed in the primary Soil Absorption Area and two percolation tests performed in the reserve Soil Absorption Area. Four Deep Observation Holes (two in the primary area and two in the reserve area) must also be dug to a minimum depth of ten feet or six feet below the bottom of the proposed Soil Absorption Area, whichever is deeper, unless this depth is unattainable because of bedrock. If a seepage pit is proposed as the Soil Absorption System on a Lot, one percolation test and an observation hole are required in the location of each proposed pit and also in the reserve area for each pit. All percolation tests and Groundwater elevation observation tests must be witnessed by the Executive Health Officer or a representative authorized to act in his or her behalf. Dewatering of soil to perform a percolation test is not permitted.
- K. All percolation test results and Groundwater elevation observations shall be considered valid for two years if accompanied by a plan submitted by the Designing Engineer conducting the tests which plan shall show the Lot lines, Groundwater elevations, the accurate location of test pits on the Lot, ties from the test pits to the nearest permanent monument, results of percolation tests, soil logs of deep test pits and the engineer's opinion based on conditions observed at the time of the testing.
- L. Three (3) copies of plans submitted by a Registered Professional Engineer, signed, dated and certified with the stamp of the person responsible for the design. The plans must be drawn to scale not less than 1" = 20' and at a minimum, contain the

following information:

- 1) Name and address of owner, **property address**, assessor's **Map and Lot** number;
- 2) Lot lines and dimensions established by a Professional Land surveyor **or Registered Professional Engineer**;
- 3) Location of street, Structure, garage, out-buildings, driveway;
- 4) Accurate perpendicular distance from street and both sidelines to building;
- 5) Proposed elevation of top of foundation, cellar floor, garage floor;
- 6) Existing proposed street centerline grade;
- 7) Location and dimensions of Sewage Disposal System and **reserve** area;
- 8) Location and results of all soil observation pits and percolation tests conducted by the Designing Engineer;
- 9) Location and log of deep observation holes and the Maximum Groundwater Elevation in the area of the primary reserve areas. Soil logs shall be professionally and neatly presented on typical soil log forms **that** may be either bound in booklet form or presented on plan sheets with the project plans. When presented with the project plans, the logs shall be appropriately referenced on the plan index sheets and a common base elevation above mean **sea** level shall be shown for each line of soil logs. The soil surface and strata for each soil log will indicate the relative elevation above the common base elevation. Each soil log shall contain the following information: project name, Lot number, owner, soil technician, supervising Registered Professional Engineer, data for each change in soil description and stratus depth for each change in soil in accordance with requirements set forth above, depth and elevation of Groundwater, rock, ledge, bottom of test hole, test hole number, percolation rate, coordinates to the nearest 0.10 feet tied by transit and tape to permanent monumentation, the name of the witnessing agent representing the Board of Health and the elevation above Mean Sea Level of the ground surface;
- 10) Elevations of ground surface at test pit, bottom of test pit and of any rock formations or other impervious strata, observed Groundwater encountered, and percolation test;
- 11) Profile of the Sewage Disposal System, including invert elevations at building Drain, inlet and outlet from septic tank, inlet and outlet from distribution box,

- invert of leach lines and bottom elevation of the **Soil Absorption Area**. A horizontal base line with a designated elevation located below the bottom of the test pits must be carried through the profile cross-section and test data sections;
- 12) Cross-section of Sewage Disposal System showing all construction details;
  - 13) Existing and proposed grading at building corners, front Lot corners, Soil Absorption Area and at such other areas where the existing ground contours are being changed. All proposed and existing contours shall be shown at two-foot intervals with flow arrows;
  - 14) Design calculations;
  - 15) Location of all Structures within **two hundred** (200) feet of a Plant;
  - 16) Location of all surface and subsurface Drains within one hundred (100) feet of the Sewage Disposal System or of the Plant;
  - 17) Location of water courses, streams, brooks, ponds, lakes, swamps, marshes, wetlands as defined in Chapter 131 Section 40 of the Massachusetts General Laws or the Town of Hingham's Wetlands Protection By-Law, flood plain and any mean high tidal water within two hundred (200) feet of the Sewage Disposal System;
  - 18) Location of existing wells, including any wells owned **or operated** by the **municipal water utility serving the Town of Hingham** and any suction lines and **Surface Water Supply** within five hundred (500) feet of the Sewage Disposal System or Plant. Location of any Protected Water **Body** within three hundred fifty (350) feet of the Sewage Disposal System or Plant. Any water service line on the Lot shall also be given;
  - 19) The location of existing Sewage Disposal Systems on Lots Directly Abutting Applicant's Lot;
  - 20) A bench mark reference within one hundred fifty (150) feet of the Lot shall be permanently established;
  - 21) A north arrow;
  - 22) Location of all underground utilities, including electric, telephone, gas, **communications** cable, fuel oil lines and underground tanks;
  - 23) All easements on the Lot;

24) A nitrogen load analysis that calculates total nitrogen and nitrate-nitrogen concentrations at the property line in a method acceptable to the Board, and

25) Any and all other data required by Title 5 of the State Environmental code or these Supplemental Regulations or as requested by the Board of Health. If a plan has been submitted to the Board and a change is later incorporated, such change or modification shall be made by revision change and dated so that it can be easily distinguished from the original plan. After more than two (2) revisions from the original plan, an additional fee will be charged to the Applicant to review any additional changed or modified plans.

M. If, upon review of the foregoing, the Executive Health Officer or the Board determines that further information is needed before the application will be deemed Complete, additional testing may be required to further identify the soil or Groundwater elevation or determine its extent; or to locate, test, and evaluate well water proposed for domestic use. Such additional testing as shall be required may be sieve analysis, hydrometer analysis, on site permeability tests and Groundwater observation wells. The Executive Health Officer or the Board in its discretion may also require additional information and studies to be performed at the site, or adjacent to the site as related thereto such as: hydrological studies and calculations for the mean annual, ten-year, and 100-year storm incident for which the high water determination shall be shown on the submitted plans and the corresponding hydrological calculations submitted; environmental studies; water quality studies and analyses; and other studies and analyses related to the designs and performance of the Sewage Disposal System or Plan (herein collectively called "Additional Studies"). Based on the extensiveness of the information, an additional fee may be charged to the Applicant to review any Additional Studies.

N. Should the Applicant's initial deposit required under paragraph 3 of this Section be insufficient to pay the consultants' fees to witness tests or to review the Additional Studies required by the Board, the Board in its discretion may require additional amounts as may be necessary to be deposited by Applicant before any decision is issued. Such additional deposits shall not exceed the maximum amounts set out below:

<u>TYPE OF SYSTEM</u>	<u>DEPOSIT AMOUNT</u>
Conventional System on single lot:	\$ 5,000.00
Small Plant:	\$ 20,000.00
Large Plant:	\$ 100,000.00
Subdivision:	The greater of \$ 50,000.00, OR \$ 5,000.00 times the number of lots proposed for the sub-division.

After all Board consultant fees and expenses have been accounted for and paid, the Board will return any unused deposit balance to the Applicant. A final report of said account will be made available to the Applicant if so requested.

- O. The Board will notify the Applicant any time it designates a consultant for whose fees and expenses the Applicant is obligated to reimburse the Board. Notification will include information concerning the consultant's qualification and current professional activities. If the Applicant believes the consultant designated by the Board lacks the applicable professional qualifications or has a conflict of interest, the Applicant (within twenty-one days of receiving the Board's notification) may appeal the Board's consultant designation to the Board of Selectmen in accordance with the provisions of Section 53G of Chapter 44 of the Massachusetts General Laws. In the event that no decision is made by the Board of Selectmen within one month following the filing of the appeal, the choice made by the Board of Selectmen will stand.
- P. The application shall not be deemed Complete until certified as such on the face of the application by the Executive Health Officer whose determination shall be conclusive absent a finding of gross and manifest error by the Board of Health after a written request for such a determination by the Applicant.
- Q. When the Board of Health approves an application with conditions and where said conditions must be completed prior to the issuance of a Disposal Works Construction Permit, the Board shall establish a date certain by which the conditions must be Complete. Failure by the Applicant to complete the conditions established by the Board in the time allotted may result in the rescinding of the Board's conditional approval and denial of the Permit.

## **Section V. PERMIT RESTRICTIONS**

A Disposal Works Construction Permit is issued in the name of the owner of the Lot but may be utilized only by the Licensed Disposal Works Installer of record.

- A. A Permit will become void automatically and without further action or notice if the work under the Permit is not completed within twelve (12) months from the date of issue of such Permit.
- B. A Permit may be suspended or revoked by the Board of Health after notice to the Licensed Disposal Works Installer if the conditions set forth in the application have changed prior to or during work under the Permit.
- C. Upon request and the furnishing of a revised plan or additional documentation, the Board shall renew discussion on a suspended Permit. The Board shall consider all proposed corrective measures, including any reasonable request for regulatory

relief, and the imposition of any additional requirement deemed appropriate as a condition for lifting the suspension. No additional fee will be assessed the holder of a suspended Permit for the Board to renew discussion as described in this section.

- D. A Permit may be extended for up to twelve (12) additional months if the work under the Permit has not been completed within twelve (12) months of the Permit's issue due to unexpected circumstances, including the suspension of the Permit, upon written request and in the sole discretion of the Board.

**Section VI. DESIGN REQUIREMENTS FOR SEWAGE DISPOSAL SYSTEMS AND PLANTS**

All sewage disposal systems shall adhere to the following design standards.

- A. The determination of the minimum daily sewage flow to be used for the design of Sewage Disposal Systems shall be in accordance with Title 5 (310 CMR 15.203).
- B. A Sewage Disposal System or Plant must be located upon the same Lot as the Structure to be served by it.
- C. All components of a Conventional System or Alternative System (including all Plants) shall be located no greater than two hundred (200) feet from the Structure to be served by it provided, however, that in non-residential applications, the Board, upon specific written request of the Applicant together with the furnishing of such engineering and other identifiable proof that the location of a component of the Sewage Disposal System or Plant farther than two hundred (200) feet from the Structure to be served will not result in increased risk of malfunction of the system, early obsolescence of the system or environmental degradation, may in its discretion waive the two hundred (200) foot limitation.
- D. No Sewage Disposal System may be located on the same Lot as a private well intended as the water supply for the Structure if the square footage of the Lot is less than 40,000 square feet.
- E. No Sewage Disposal System or Plant shall be constructed within one hundred (100) feet of the normal annual high water level of any great pond, brook, river, swamp, or of a wetland as defined by Massachusetts General Law Chapter 131, Section 40 or the Town of Hingham Wetlands Protection By-Law, or of any mean spring tidal level in coastal areas all as reasonably determined by the Board.
- F. No Sewage Disposal System or Plant shall be constructed within:

- 1) Four hundred (400) feet of a public water supply well or wellfield, as defined in Massachusetts drinking water regulation, 310 CMR 22.02 or surface water supply as defined herein;
  - 2) Two hundred and fifty (250) feet of any private potable well;
  - 3) One hundred (100) feet of any private non-potable well;
  - 4) Two hundred (200) feet of any Surface Water Supply or proximal tributary thereto;
  - 5) One hundred and fifty (150) feet of any Protected Water Body;
  - 6) Twenty five (25) feet of any surface or subsurface Drain when the Drain elevation is higher than the proposed Soil Absorption System;
  - 7) Fifty (50) feet of any surface or subsurface Drain when the Drain elevation is equal to or lower in elevation than the proposed Soil Absorption System;
  - 8) One hundred seventy five (175) feet of any surface or subsurface Drain which discharges into a Surface Water Supply or tributary thereto; and
  - 9) One hundred twenty five (125) feet of any surface or subsurface Drain which discharges into a Protected Water Body.
- G. No Sewage Disposal System shall be designed to discharge more than 110 gallons of design flow per day per twelve thousand five hundred (12,500) sq. ft. in Lot area, except for those Lots located entirely or partially within the North Sewer District (as delineated by the Acts of 1945, c. 591, s. 2) where only ten thousand (10,000) sq.ft. in Lot area is required for every 110 gallons of daily design flow.
- H. A Sewage Disposal System shall be designed so that the proposed discharge will not exceed 10mg/l total nitrogen and 10mg/l nitrate-nitrogen at the property boundary in Lots located entirely or partially within a state-designated Zone II water supply protection area or designated "Area Dependent on Private Wells" per Title 5 policy.
- I. Certified Alternative Technology approved for general use by the Massachusetts Department of Environmental Protection ("MDEP") may only be employed to meet the nitrogen loading requirements of these Supplementary Regulations or as required by the Board. The proposed Sewage Disposal System utilizing Certified Alternative Technology in all other respects must comply fully with the technical standards and operational responsibilities established by MDEP and the requirements of Title 5 and these Supplementary Regulations unless in each other instance of non-compliance, a Variance has been sought and obtained as provided

herein and in Title 5.

Any Certified Alternative Technology approved for general use by MDEP and proposed to satisfy the requirements of these Supplementary Regulations must meet the following requirements:

- 1) Effluent discharge concentrations shall meet secondary treatment standards and not exceed 30 mg/L Biochemical oxygen demand ("BOD"), 30 mg/L Total suspended solids ("TSS"), a minimum of 85% of influent BOD and TSS shall be removed and the effluent pH shall not vary by more than 0.5 standard units from that of the influent stream;
- 2) Total nitrogen concentrations in the effluent shall not exceed 25 mg/L and not less than 40% of the influent nitrogen concentration shall be removed; and
- 3) An influent and effluent monitoring system designed and operated to the reasonable satisfaction of the Board and which provides for monitoring and reporting at least quarterly.

- J. Soil Absorption Systems shall not be constructed in soils where the Maximum Groundwater Elevation or mean high tidal water is less than five (5) feet below the bottom of the Soil Absorption System except that if the percolation rate of the soil in the Soil Absorption System is between two (2) and five (5) minutes per inch, and at least six (6) feet of naturally occurring permeable material must exist between the bottom of the Soil Absorption System and the Maximum Groundwater Elevation and/or mean spring tidal water.
- K. When more than one leaching trench is installed, the spacing between leaching pipes shall not be less than eight (8) feet on center or six (6) feet from sidewall to sidewall, whichever is greater. The area between said trenches shall not be used for part of the reserve area.
- L. A reserve Soil Absorption Area sufficient to replace the capacity of the primary Soil Absorption Area must be provided with New Construction. The reserve area must meet all the same requirements as the primary area.
- M. Construction of Soil Absorption Systems in clean granular fill is permissible only:
- 1) Where the impervious material can be excavated to pervious material (determined by a percolation test) and be replaced with clean fill, and where at least five (5) feet of the underlying naturally occurring pervious strata is above the Maximum Groundwater Elevation, except that at least six (6) feet of the underlying naturally occurring pervious strata must be above the Maximum Groundwater Elevation if the percolation rate of the pervious material is between two (2) and five (5) minutes per inch;

- 2) Where the fill has been either mechanically or hydraulically compacted or has been allowed to settle for a minimum period of twelve (12) months; and
  - 3) The excavation has been inspected by the Designing Engineer prior to the placement of the fill and he or she has certified to the Board that the provisions of this section have been complied with. The reserve area as well as the primary Soil Absorption Area shall be prepared in the same manner and at the same time, however, as an alternative, it would be sufficient, after inspection, to refill the excavated soils back into the proposed reserve area rather than install Title 5 compliant sand and any Sewage Disposal System component.
- N. No reduction in the design of the Soil Absorption Area is permitted because the proposed use of a Sewage Disposal System is periodic or seasonal.
- O. A separate Soil Absorption System is not permitted for gray water discharges from a Structure.
- P. In any new construction involving a New Sewage Disposal System, the bottom of the cellar floor must be at least eighteen (18) inches above the Maximum Groundwater Elevation.
- Q. The proposed grading of any Lot shall divert surface water away from the Structure so as to prevent standing or trapped water detrimental to the Structure, Sewage Disposal System or Plant, or abutting property. The driveway serving any new Structure or addition to a Structure with a garage under or attached to the Structure or addition must be constructed so that surface water from the street will not drain into the garage or the Structure. Conditions which would result in prolonged standing of water within the immediate vicinity of a Structure or Sewage Disposal System or Plant in any season is not acceptable and the Board must be satisfied that such conditions will not exist.
- R. To facilitate periodic inspection and maintenance of septic tanks, at least one manhole shall be required to be brought up to within twelve (12) inches of finish grade, or up to finish grade if beneath a paved surface.
- S. Any proposed Sewage Disposal System that contains a vent, stack or similar device through which gases may be released to the atmosphere shall be sufficiently camouflaged or rendered inconspicuous and fitted with a filtering system which eliminates noxious or unpleasant odors satisfactory in design and operation to the Board.
- T. The stone used in a Soil Absorption Area shall consist of washed crushed stone or washed gravel ranging from 3/4 of an inch to 1 and 1/2 inches in size and free from

iron, fines, and dust. It shall extend the full width of the trench or bed, shall not be less than either (8) inches deep beneath the bottom of the distribution lines, and shall extend at least to the top of the distribution pipes. The stone shall be covered with at least a two (2) -to- four (4) inch layer of washed crushed stone or washed gravel ranging from 1/8 of an inch to 1/2 of an inch in size and free from iron, fines and dust.

- U. Tees and Wyes will not be permitted in the **Soil Absorption** Area.
- V. All piping which constitutes a part of the Sewage Disposal System or connects a Structure to a public sewer system shall consist of a minimum 4-inch cast iron or schedule 40 PVC pipe or other material acceptable to the Executive Health Officer or the Board. The minimum pipe size allowed for a Plant shall be six (6) inches in diameter and of a material acceptable to the Executive Health Officer or the Board.
- W. Septic tanks shall be constructed of reinforced concrete. Tanks containing built-in concrete sanitary tees shall be allowed. Concrete baffles are not allowed. Septic tanks shall have a liquid capacity of no less than fifteen hundred (1500) gallons. **Any proposed repositioning and reuse of an existing septic tank shall require an inspection from an approved Department of Environmental Protection Title 5 "System Inspector" to determine that the septic tank has retained its structural integrity and can function as originally designed.**
- X. A New Sewage Disposal System must be constructed prior to the commencement of the construction **or expansion** of the Structure it is to serve. Upon written request of Applicant, together with the furnishings of such proof of: (i) unremarkable subsurface soil conditions throughout the entire **Soil Absorption Area**; **and (ii) compelling circumstances that make full compliance with this provision impractical or unreasonable**, the Board or the Executive Health Officer in its or his **or her** discretion may waive all or portions of this requirement.

## **Section VII. WASTEWATER TREATMENT PLANTS**

### **A. Permit Requirements:**

No Plant shall be located, constructed, installed, operated, altered or Repaired until a Plant Permit for such Plant shall have been issued by the Board. No construction of any Structure **that** relies upon such a Plant shall be commenced until a Plant Permit shall have been issued by the Board.

### **B. Application Requirements:**

To be deemed to be Complete, an application for a Plant Permit for Plants of any size must contain all the information required by Section IV of these Regulations

and Title 5 of the State Environmental Code as well as the information required in this Section. For situations not specifically addressed by these three references, the best engineering practice as reasonably determined by the Board shall govern.

- 1) Required soil percolation testing shall include the following:
  - (a) Four (4) percolation tests in the primary Soil Absorption Area and four (4) percolation tests in the reserve Soil Absorption Area;
  - (b) Eight (8) deep observation holes, four (4) in the primary area and four (4) in the reserve area, dug to a minimum depth of ten (10) feet or six (6) feet below the bottom of the proposed Soil Absorption Area, whichever is deeper, unless this depth is unattainable because of bedrock;
  - (c) One (1) soil boring in the primary Soil Absorption Area and one (1) soil boring in the reserve Soil Absorption Area;
  - (d) If a seepage pit is proposed as the Soil Absorption System on a Lot, one (1) percolation test, one (1) observation hole and one (1) soil boring is required in the location of each proposed pit and also in the reserve area for each pit;
  - (e) Dewatering of soil to perform a percolation test is not permitted; and
  - (f) All percolation tests, deep observation holes and Groundwater elevation tests must be witnessed by the Executive Health Officer or a representative authorized to act in his behalf.
- 2) The applicant shall submit a detailed estimate of the cost of constructing a Plant, the estimated useful life of each major component of the Plant, the estimated annual operating cost of the Plant, the estimated annual maintenance cost of the Plant, and the estimated cost of replacing the Plant.
- 3) A Plant Permit application must contain a Financial Assurance Mechanism (FAM) suitable to the Board.

The Board may waive the FAM requirement if: (i) the Plant Permit application involves a Small Plant for Remedial Use, and (ii) the Applicant has provided satisfactory evidence that the Plant will be constructed, operated and maintained in accordance to the standards and responsibilities established by MDEP applicable to the Certified Alternative Technology being proposed.

#### C. Permit Restrictions:

The following requirements shall apply to wastewater treatment Plant permits.

- 1) No Plant Permit will be granted for a Plant that serves more than one (1) Lot.
- 2) A Plant Permit is issued in the name of the record owner of the Lot upon the Plant is to be built or Repaired. Such Plant Permit is effective only so long as the Lot remains in the name of the owner to whom the Plant Permit was issued and is not transferable without the approval of the Board. A Plant Permit will become void automatically and without further notice or action if; (i) Title to the Lot is transferred to a person or entity other than the Applicant or (ii) the work under the Plant Permit is not complete within twenty-four (24) months from the date of issue of such Plant Permit. Further, any Plant Permit issued can be **suspended or** revoked by the Board after notice to the Applicant if the conditions set forth in the application have changed prior to or during work under the Plant Permit.
- 3) A Plant Operations Permit is issued in the name of the record owner of the Lot on which the Plant is constructed after the owner has proven to the reasonable satisfaction of the Board the owner's capabilities, financial and otherwise, to maintain and operate the Plant. The Plant Operations Permit is not transferable without the approval of the Board.
- 4) A Plant Operations Permit shall run for one (1) year with the yearly expiration date of May 31<sup>st</sup>. Prior to May 1<sup>st</sup> of each year, the Applicant must file an application for renewal of his Plant Operations Permit on a form specified by the Board together with the prescribed filing fee. **The applicant also must furnish a copy of a current maintenance and repair contract with a remaining term no shorter than the term of the Operations Permit being requested and which provides that a responsible and technically qualified firm or individual will provide all necessary maintenance and repairs (including timely emergency repairs) of the Plant and testing and reports concerning the Plant and which contract is otherwise in form and substance satisfactory to the Board. A copy of the reports concerning the Plant for the previous year also shall accompany the renewal application.**  
**In the case of Large Plants, each application also must be accompanied by the annual financial report in form and substance required by Title 5. Prior to May 15<sup>th</sup> of each year, the Executive Health Officer shall review the application together with the performance of the Applicant for the previous year and make a recommendation to the Board as to whether the Plant Operations Permit should be renewed, not renewed, or renewed with conditions. If the Executive Health Officer shall recommend that the Plant Operations Permit not be renewed or be renewed with conditions, he or she shall transmit a copy of such report to the Applicant and shall schedule a timely hearing before the Board which hearing shall comply with the provision of 310 CMR 11.**

D. Design Requirements:

All requirements of Section VI of these Supplementary Regulations apply unless modified as follows:

- 1) The determination of the minimum daily sewage flow to be used for the design of a Plant shall be that set out in 310 CMR 15.203.
- 2) No discharge from a Plant will be permitted into any great pond, stream, brook, river, swamp or wetland as defined by Massachusetts General Laws Chapter 131, Section 40 or by the Town of Hingham Wetlands Protection By-Law, or into any coastal waters.
- 3) No septic tank shall be constructed further than fifty (50) feet from the Treatment Plant Building.
- 4) No component of a Large Plant shall be constructed within one hundred (100) feet of a property boundary of the Lot on which it is proposed to be built nor within one hundred (100) feet of any Structure (with the exception of the Treatment Plant Building itself).
- 5) No Soil Absorption System shall be constructed in soils where the Maximum Groundwater Elevation or mean high tidal water is less than five (5) feet when mounded below the bottom of the Soil Absorption System, except that if the percolation rate of the soil in the Soil Absorption System is between two (2) and five (5) minutes per inch, at least six (6) feet of naturally occurring permeable material must exist between the bottom of the Soil Absorption System and the mounded Maximum Groundwater Elevation and/or mean springy tidal water.
- 6) No discharge into sand beds is permitted under these Regulations.
- 7) All effluent shall be disinfected by means of either ultraviolet irradiation or ozonation, utilizing such techniques and processes as the Board in its reasonable judgment deems necessary to achieve a level of disinfection the Board determines to be satisfactory.

D. Sludge Removal:

All sludge must be disposed of off-site. The removal of the sludge must be accomplished during normal business hours on Monday through Friday except in emergency situations. The Board will review the Applicant's plan for sludge

removal, including the method of transport, the route to be used, the frequency of removal, destination and license status of the proposed sludge hauler. Each time that sludge is removed from the site, a copy of the receipt must be provided by the Plant Operations Permit holder to the Health Department Office.

E. Spare Parts:

The Applicant must provide the Board with a list of major parts for a Large Plant and their estimated useful life. The Applicant must store on the premises a duplicate of each part having an estimated useful life of less than five (5) years. The Board will review this list and determine whether the estimated useful life of each part is acceptable and will then cause an inspection to be made prior to the issuance of the Plant Operations Permit to see that the duplicates are stored in the Treatment Plant Building. As part of the annual financial report required by the guidelines, the holder of the Plant Operations Permit must itemize the expenses for the operation, maintenance and repair of the Plant and specifically detail what parts were replaced during the year. Replacements for the spare parts used must be acquired as soon as possible. The spare parts list will be reviewed and expanded at the end of the first five (5) years of operation of the Permit.

F. Monitoring Requirements:

1) Treatment Plant Influent:

An Influent Monitoring Program will be developed to the reasonable satisfaction of the Board on a case by case basis.

2) Treatment Plant Effluent:

The monitoring of effluent from a Small Plant shall be in accordance to the Certified Alternative Technology utilized and in accordance with the requirements of the Massachusetts Department of Environmental Protection (MDEP).

The effluent from a Large Plant shall be sampled and tested by a laboratory approved by the Board and licensed by MDEP as follows:

Daily:	Flow, pH and Specific Conductances.
Weekly:	5-Day Biochemical Oxygen Demand (B.O.D.), Total Suspended Solids (T.T.S.), Coliform Bacteria and Fecal Coliform Bacteria.
Monthly:	Total Kjeldahl Nitrogen, Ammonia Nitrogen, Nitrate Nitrogen, Sodium and total dissolved solids.
Semi-annually:	Oil and grease, and Volatile Organic Compounds

(USEPA Procedure # 624 to be utilized).

Annually: Arsenic, barium, cadmium, chromium, fluoride, lead, copper, zinc, mercury, total trihalomethanes, selenium and silver.

Every five (5) years: Pesticides and radioactivity.

All samples and analyses, except for the daily and weekly frequency tests which will commence at the time of Plant start-up, shall be performed initially at sixty (60) days after Plant start-up and then at the stated frequency thereafter. All sampling reports shall be delivered to the Health Department Office within seven (7) days of receipt by the Plant Operations Permit holder. The Board may add to the testing parameters or frequency if it has reason to believe that the discharge limitations for Class I and Class II Groundwater contained in 314 Code of Massachusetts Regulations 6.06 are not being met.

4) Groundwater Monitoring Wells:

The Applicant must install, at a minimum, one (1) cluster of three (3) monitoring wells up-gradient from the Plant and two (2) clusters of three (3) monitoring wells down-gradient from the Plant. Screen depths for the cluster wells shall be set at elevations such that at least two (2) screen depths will yield samples at the time of the lowest Groundwater elevation. The locations of the monitoring wells shall be approved by the Board. Monitoring wells shall be installed and in place prior to issuance of the Certificate of Compliance and the Plant Operations Permit. Sampling shall be performed in accordance with guidelines with the Groundwater elevations being measured to the nearest tenth of a foot. On an annual basis, the Board, either on its own motion or upon written request from the holder of the Plant Operations Permit, may review the sampling frequency and the test parameters and may make such modification to either as it deems to be appropriate.

Small Plants are generally excluded from this requirement unless the Board in its reasonable judgment deems it necessary to require groundwater monitoring as a condition for a Plant Operations Permit.

5) Surface Sampling:

The Board may, if there is the presence of a Surface Water Supply on or adjacent to the Lot on which the Plant is proposed, require that periodic sampling and testing of the Surface Water Supply be performed by the Plant Operations Permit holder.

G. Financial Responsibility:

- 1) Based on data submitted with the Plant Permit application as well as on other reasonable estimates made by the Board, the Board shall require a system of financial responsibility for the Plant in the form of a Financial Assurance Mechanism (FAM). The Applicant shall, prior to the commencement of construction under the Plant Permit, make an initial deposit of funds in a specially segregated escrow account for such purpose, equal to the Board's reasonable estimate of the annual cost of operation and maintenance of the Plant, plus an amount equal to fifty percent (50%) of the Board's reasonable estimate of the cost to replace the Plant and all applicable components of the Sewage Disposal System. Said escrow account shall be maintained by the Town of Hingham and fully-funded prior to the commencement of operation of the Plant. Any expenditure of funds from the escrow account during the year shall be accounted for in a report and must be shown to have been replaced within twelve months.

Any state-imposed FAM escrow account amount that possess identifiable funds linked to the annual cost of operation and maintenance of the Plant plus the cost to replace the Plant and all applicable components of the Sewage Disposal System may be applied to the fifty percent (50%) escrow account requirement of these Supplementary Regulations.

- 2) Any material or substantive change to an existing Plant would necessitate a review of the existing FAM and possible rebalancing of the required funds within the escrow account.
- 3) The Board may require the owner of a Plant, including a Plant previously given a waiver by the Board from the financial responsibility requirement, to establish a FAM should the Board determine in its reasonable judgment that the Applicant or the owner of the Plant has failed to adhere to the established standards and responsibilities for constructing, operating and maintaining the Plant.
- 4) Prior to the commencement of operation of the Plant, the owner of the Lot on which the Plant is located and the owner of all premises served by the Plant shall record in the appropriate Registry of Deeds a covenant and restriction in form and substance satisfactory to the Board binding and enforceable against the premises and the owner from time to time thereof, to maintain the Plant. The covenant and restriction shall run in favor of and be enforceable by the Town of Hingham and shall be superior in title to any liens (including mortgages, labor and mechanics liens and the like) on or interests in the premises, except for the lien for real estate taxes. The covenant and restriction shall be enforceable against any or all of: The operation and maintenance fund; the premises; or the owner from time to time thereof, as the Town may elect in its discretion.

## Section VIII. AS-BUILT PLAN REQUIREMENTS

### A. Certification:

The Designing Engineer for the Sewage Disposal System or Plant shall make such inspections required by the Board and shall determine that the Sewage Disposal System or Plant has been constructed in accordance with the approved plans, the provisions of Title 5 of the State Environmental Code, **these Supplemental Regulations, any condition imposed by the Board, and applicable industry standards.** The Designing Engineer shall make certification to the Board on a form required by the Board, a copy of which is attached to these Regulations, within two (2) weeks from the completion of construction. Further, the Designing Engineer shall provide, within two (2) weeks of completion of construction, two (2) copies of the "as-built" plans, scale 1" = 20'.

### B. As-Built Plans:

Two (2) "as-built" plans to scale 1" = 20' shall be submitted to the Board showing **at a minimum**, the following:

- 1) The Lot being built on;
- 2) **Each** Structure **on the Lot** and the **Sewage Disposal System** as it was placed on the Lot with the shortest distance from the **principle** structure to the sideline at the road and the shortest distance from the **principle** Structure to the Lot line;
- 3) At least two tie distances shall be shown to the covers of the septic tank, distribution box and leaching structures from foundation corners. A distance from a foundation corner to where the building sewer leaves the foundation shall be shown;
- 4) Elevations of the top of the concrete foundation cellar floor, garage floor, if any;
- 5) Plans to scale and stamped by the Designing Engineer;
- 6) The location of all underground utilities;
- 7) The finished grading on the Lot; **and**
- 8) The topography (in two-foot contours) of the Lot.

**C. Certificate of Compliance:**

The Executive Health Officer will certify that the Sewage Disposal System is Complete and sign a Certificate of Compliance when the following criteria have been satisfied:

- 1) All Inspections have been made and documented;
- 2) A Certificate of Construction has been signed by the Designing Engineer; and
- 3) The required As-Built Plans have been submitted.

**Section IX. SUBDIVISIONS**

**A. Preliminary Plan:**

Any person who submits a Preliminary Plan of a Subdivision to the Planning Board of the Town of Hingham shall also submit to the Board the following:

1. A copy of the plan of the Subdivision as submitted to the Planning Board along with the required fee;
2. A narrative description of the proposed use to be made of the property, including without limitation the maximum square footage of Structures proposed to be constructed, the possible uses for which the Structures may be used, and a reasonable estimate of the maximum daily sewage flow generated from the subdivision based on the square footage and use to be made of such Structures;
3. Copies of any and all applications, studies and reports filed with any federal, state or local governmental authority regulating any environmental aspect of the subdivision (herein a "Filing") together with any comment, response, communication or Permit issued by any such authority on such Filing together with a narrative of the status of each such pending Filing and a narrative describing any other Filing needed to Complete construction of the improvements in the subdivision. If a Final Environmental Impact Report (E.I.R.) requires a Plant to be built, evidence by the Applicant that the land subdivided will remain in a common ownership must be submitted;
4. Either: (i) a letter of commitment satisfactory to the Board that sewerage of the Lots in the subdivision has been approved by the Sewer Commission of the

Town of Hingham and by the Department of Environmental Protection, Division of Water Pollution Control, and the location and results of deep observation holes to determine the Maximum Groundwater Elevation at a minimum frequency of one per Lot, or (ii) the location and results of percolation tests, deep observation holes to determine Maximum Groundwater Elevation, soil logs and soil observations to a depth of ten (10) feet at a minimum frequency of one (1) per Lot. Such tests shall be performed and reported on by a Registered Professional Engineer skilled in sewage disposal;

5. Evidence satisfactory to the Board that each Lot has an acceptable source of potable water supply. This evidence shall be either in the form of an unconditional and binding letter of commitment in a form and substance satisfactory to the Board, from the public water supplier for the Town of Hingham agreeing to furnish water service to the Lots or a hydrogeological evaluation of the Subdivision performed by a qualified engineer or geologist which proves to the reasonable satisfaction of the Board that a potable source of water sufficient in quantity and quality for each Lot in the subdivision exists; and
6. The location of any existing Sewage Disposal Systems within fifty (50) feet of any proposed Drain in the Subdivision.

Upon examination of the Subdivision Preliminary Plan, test results, soils observations and an on-site inspection, the Board may approve such Preliminary Plan, may approve it with modifications or may disapprove such Preliminary Plan. All approvals or disapprovals shall be transmitted to the Planning Board of the Town of Hingham.

B. Definitive Plan:

Any person who submits a Definitive Plan of a Subdivision to the Planning Board of the Town of Hingham shall also submit a Definitive Plan to the Board along with the required fee. To be considered Complete, the plan must include the following:

1. A final copy of the Definitive Plan of the Subdivision as submitted to the Planning Board;
2. All materials required for a Preliminary Plan;
3. The location and elevation of all drainage basins and pipes showing how the surface drainage is to be handled, including streams, ponds, wetlands, open or subsurface Drains, outcroppings of ledge and other topographical features needed to evaluate the site. If leaching catch basins are proposed, percolation test results in the vicinity of the catch basins as well as Maximum

Groundwater Elevation results must be shown; and

4. The results of a Title search of the proposed Subdivision property including copies of all applicable Deeds duly recorded at the Registry of Deeds and/or Land Registration Office since the initial adoption of the Town of Hingham Zoning Bylaws.

Upon examination of the plans, test results, engineer's report and Title information, the Board shall determine whether the Subdivision Definitive Plan submitted complies with the provisions of Title 5 of the State Environmental Code and with these Supplemental Regulations. The Board may approve the Definitive Plan, approve the Definitive Plan with modifications or may disapprove such Definitive Plan. In the case of disapproval, the Board shall state its reasons. All approvals or disapprovals shall be transmitted to the Planning Board of the Town of Hingham.

Approval with or without modification by the Board of a Subdivision plan shall in no way supersede the necessary individual Lot approval as required pursuant to these Regulations and Title 5 of the State Environmental Code and in no way shall supersede or impinge upon the responsibility or duties of the Hingham Planning Board in accordance with the Subdivision Control Law and regulations enacted pursuant thereto.

## **Section X. ANR PLANS AND LOT DIVISIONS**

Any person who submits an ANR Plan (Form-A Lot application) to the Planning Board of the Town of Hingham to divide a Lot that contains an existing Structure served by a Sewage Disposal System or proposed Sewage Disposal System shall submit to the Board the following:

1. A copy of the proposed ANR Plan as submitted to the Planning Board along with the required fee;
2. The location of all existing or proposed Structures, Sewage Disposal Systems and potable wells on the ANR Plan;
3. The results of a Title search of the ANR Plan property including copies of all applicable Deeds duly recorded at the Registry of Deeds and/or Land Registration Office since the adoption of the Town of Hingham Zoning Bylaws; and
4. A list of Abutters to the ANR Plan property, including the abutting property owners' names and addresses, the assessor's Map and Lot number, and Title reference information to each abutting property.

Upon review of the submitted plans and Title information, the Board shall assess whether the ANR Plan would place the Lot's existing Sewage Disposal System or proposed Sewage Disposal System into non-compliance with the provisions of Title 5 of the State Environmental Code and these Supplemental Regulations. If determined by the Board to be in non-compliance, the existing Sewage Disposal System will be deemed a Failed Sewage Disposal System, and any proposed Sewage Disposal System will have its Disposal Works Construction Permit rescinded. The owner of a Lot with a Structure serviced by a Failed Sewage Disposal System will be duly notified that the Structure cannot be inhabited or occupied until the Sewage Disposal System is in compliance.

An assessment by the Board relative to an ANR Plan shall in no way supersede or impinge upon the responsibility or duties of the Planning Board of the Town of Hingham in accordance with the Subdivision Control Law and regulations enacted pursuant thereto.

## **Section XI. VARIANCES**

The Board may vary the application of any provision of these Regulations (except where expressly forbidden elsewhere herein and/or by applicable laws or regulations of the Commonwealth of Massachusetts) with respect to any particular case when, in its opinion: (i) the enforcement thereof would do manifest injustice; and (ii) the Applicant has proved that the same degree of environmental protection required under these Regulations can be achieved without strict application of the particular provision. With regard to a Variance for a New Sewage Disposal System necessitated by construction of a new Structure or an addition to an existing Structure, enforcement of the provision from which the Variance is sought must be convincingly shown to deprive an Applicant of substantially all beneficial use of the Lot in order to be manifestly unjust.

Every request for a Variance shall be made in writing on the form provided and filed with the Board and shall cite the specific variance sought and the reasons therefor. Such request shall be accompanied by a filing fee payable to the Town of Hingham. In addition, the Board may require Additional Studies in connection with the consideration of any variance request and the cost of consultant review of same shall be paid by the Applicant before any decision is issued. The Applicant shall give notice, in such form as may be determined by the Board, to all Abutters and owners of land within two hundred fifty (250) feet of the Applicant's land, the same to be certified mail and at the expense of the Applicant; and the Applicant shall furnish to the Board proof that such mailing was made not less than ten (10) days before the date of the Board's meeting at which the Variance request shall be listed on its posted agenda.

Request for Variance may be acted upon by a majority vote of the members of the Board. The Applicant shall be furnished a copy of the action of the Board on any application for a Variance. Any Variance granted by the Board shall be in writing. Any

Variance granted may be made subject to such qualifications, revocation, suspension or expiration as the Board may impose in its written grant. Any denial of a Variance shall also be in writing and will contain a brief statement of the reasons for the denial. A copy of each Variance shall be on file and a copy shall be available to the public at all reasonable hours in the office of the Board of Health while it is in effect.

Any Variance or other modification authorized by the Board may otherwise be revoked, modified or suspended, in whole or in part, only after the holder thereof has been notified in writing and has been given an opportunity to be heard, in conformity with the requirements of 310 CMR 1.00 and M.G.L Chapter 30A, provided however, that upon and after receipt of such notice by the holder, no work shall be performed under the Variance or other modification until final disposition of the matter in issue.

**Section XII. EXPEDITED PROCEDURE FOR REPAIRS OF A FAILED SEWAGE DISPOSAL SYSTEM REQUIRING A VARIANCE FROM THESE REGULATIONS**

In situations involving applications for a Disposal Works Construction Permit to Repair a Sewage Disposal System or to Upgrade a Non-conforming System which requires a Divergence but does not require a Variance from the provisions of Title 5, but which does require a Variance from these Regulations, the Applicant may in his application elect to proceed under this expedited procedure:

- A. The Applicant shall file an Application for a Disposal Works Construction Permit and request a Variance on the forms prescribed by the Board and comply with the provisions of Section IV hereof. If the Applicant proposes the use of Certified Alternative Technology for Remedial Use, the Applicant shall include an official Certificate of Approval for such Alternative Technology from the Massachusetts Department of Environmental Protection with its Application;
- B. The Applicant shall give notice to Abutters as provided in Section X hereof except that, in cases of Repair which are deemed an Emergency Repair by the Executive Health officer, notice to Abutters need not be given. The notice shall state that an application for a Disposal Works Construction Permit has been made by the Applicant, that a Divergence is necessary, that the Applicant is proceeding under this expedited procedure and that the Abutter has fourteen (14) days in which to provide the Executive Health Officer with either written comments or request a public hearing before the Executive Health Officer relative to the requested Divergence and application;
- C. The Applicant in its application may elect to proceed on the written record as submitted or request a hearing before the Executive Health Officer;
- D. If either the Applicant or an Abutter has requested a hearing, the Executive Health

Officer shall cause appropriate notice of the time and place of the hearing to be given to the Applicant, Abutter(s) and the public, shall review the file and either grant the Permit (including allowing such Divergences as are necessary) or refer the matter to the Board which shall then schedule a public hearing on the application and proceed in due course;

- E. Any request for a Divergence involving non-compliance with the setback requirements to property lines or to a private water supply contained in either Title 5 or these Supplementary Rules shall not be considered by the Executive Health Officer but shall be considered by the Board at one of its regular public meetings after notice to Abutters and the public as is otherwise provided by law; and,
- F. Any person aggrieved by a decision of the Executive Health Officer to grant a Permit under this Section may within ten (10) days of the granting of such Permit appeal to the Board which shall then review the record and in its discretion take additional evidence.

### **Section XIII.            REQUIREMENTS FOR LICENSED DISPOSAL WORKS INSTALLERS**

No person shall engage in the construction, alteration, installation, Repair or do any work upon a Conventional System or on a Plant Sewage Disposal System without first obtaining a Disposal Works Installer's Permit from the Board of Health.

All Applicants for a Disposal Works Installer's Permit must take an examination at the Health Department office. Applicants must achieve a grade of at least seventy-five percent (75%) on this examination in order to obtain a Disposal Works Installer's Permit. A Disposal Works Installer's Permit shall expire annually on December 31st. There shall be a fee charged each year to receive or renew a Permit.

Permit holders may not subcontract out the construction, alteration, installation or Repair work on a Sewage Disposal System or Plant unless the subcontractor also has passed the examination and has received a Disposal Works Installer's Permit. Permit holders are responsible for all work performed on a Sewage Disposal System or Plant by an employee or person under his or her direction.

The Board may sanction, revoke or decline to renew an individual's Disposal Work Installer's Permit if that individual, although hired to do so, has by his actions willfully refused to carry out the work on any Sewage Disposal System or Plant that is specified in the plans approved by the Executive Health Officer or the Board of Health, or proceeded in violation of an order issued by the Executive Health Officer or the Board, or installed or Repaired a Conventional System or Plant Sewage Disposal System without a Disposal Works Construction Permit having been issued.

**Section XIV.            INSPECTION OF SEWAGE DISPOSAL SYSTEM  
AT THE TIME OF TRANSFER OF TITLE**

Upon transfer of Title of any property within the Town of Hingham having a Structure utilizing a Sewage Disposal system, the seller shall, at the execution of the purchase and sale agreement or within a reasonable time thereafter, but in no case in less than twenty four (24) hours prior to closing:

- A. Disclose to the Buyer in writing the complete report of an inspection made of the Sewage Disposal System by an approved Department of Environmental Protection "System Inspector" made in accordance with the provisions of Title 5 310 CMR 15.301 - 15.303 of the State Environmental Code. As part of all system inspections in the Town of Hingham the following is required:
  - 1. Septic tanks, distribution boxes, cesspools, overflow pits, pump chambers, sewer manholes must be located and shown on a plan by a minimum of two (2) swing ties from permanent above ground structures. All cesspools and septic tanks must be pumped during the time of inspection in the presence of a System Inspector. Pumping should occur after all required effluent levels have been observed,
  - 2. Maximum Groundwater elevations must be determined by an approved Soil Evaluator (as defined in Title 5 310 CMR 15.022 of the State Environmental Code) utilizing soil mottling criteria and other approved Title 5 methods and historical data within the past ten years, and
- B. Provide evidence that an approved Massachusetts Department of Environmental Protection "System Inspector" has filed with the Board of Health within thirty (30) days of the inspection a completed and approved D.E.P. inspection form as required in Title 5 15.302; and
- C. Provide evidence to the Board that the Sewage Disposal System has been properly inspected at or within twelve (12) months prior to the transfer of title to the Structure served by the Sewage Disposal System; and
- D. Provide evidence to the Board that a Sewage Disposal System or Plant employing Certified Alternative Technology has been properly inspected and has a valid maintenance and repair contract. A Title 5 certificate may be extended beyond one-year from the transfer of title for an additional six-months upon receipt of a current Plant testing report.

**Section XV.**

**ASSESSMENT OF SEWAGE DISPOSAL SYSTEM WITH A NEW WATER SUPPLY WELL, OR THE EXPANSION OF A STRUCTURE ON A SMALL LOT, OR WITH AN ACCESSORY DWELLING UNIT**

A Title-5 inspection of the Sewage Disposal System by an approved Department of Environmental Protection "System Inspector" made in accordance with the provisions of Section XIII (A) of these Regulations, and the submission of a Sewage Disposal System plan by a Design Engineer showing the location of the Soil Absorption Area (including any reserve area) shall be required when:

- A. A new private well is intended as the water supply for the Structure;
- B. The Lot is twenty five thousand (25,000) sq. ft. or less and
  - 1. reconstruction, alteration or repair of a Structure occurs to an extent where the square footage footprint of the existing Structure on the Lot is increased by more than thirty-three-percent (33%) from its original dimension, or
  - 2. reconstruction, alteration or repair of a Structure occurs that increase the number of Bedrooms; and
- C. The Structure contains or is proposed to contain an Accessory Dwelling Unit.

**Section XVI.**

**VIOLATIONS AND PENALTIES**

It shall be a violation of these Supplementary Regulations for any person to operate, or for any owner of a Lot on which a Plant exists to cause or suffer to be operated, a Plant for which a validly issued and unexpired Plant Operations Permit is not currently in force.

Any person who violates this provision of these Supplementary Regulations after notice of such violation shall be subject to a fine of one hundred dollars (\$100.00) per day for each of the first seven (7) days of such violations and three hundred dollars (\$300.00) per day for each day in excess of seven days. Each day or portion thereof during such period of violation shall constitute a separate offense for purposes of computing fines.

The fines provided for in this section are in addition to, and not in limitation of, other rights or remedies the Board may have to enforce applicable laws, regulations, these Supplementary Regulations, covenants and others rights and powers.

**Section XVII. APPEAL**

Appeal shall be made in accordance with applicable State statutes.

**Section XVIII. DISCLAIMER**

By the issuance of any Permit under these Regulations or approvals, pursuant to these Regulations, the Board of Health of the Town of Hingham or any agent, servant, or employee of it or any person acting for it, does not assume any responsibility for the successful operation of any Sewage Disposal System or Plant. No liability is incurred by the Town by reason of approval for construction of individual Sewage Disposal system or Plant plans. Approval by the Board of Health of a Sewage Disposal System or Plant is based on plans and specifications supplied by the Applicant. No guarantee is intended or implied by reason of any advice given by the Board of Health or representative thereof.

**Section XIX. SEVERABILITY**

Should any section, paragraph, sentence, clause or phrase of these **Supplemental** Regulations be declared unconstitutional or invalid for any reason, the remainder of said Regulations shall not be affected thereby.

**Section XX. EFFECTIVE DATE**

These Supplementary **Regulations were adopted by unanimous vote of the Town of Hingham Board of Health on Month date, 2019 and are to be in full force and effect on and after September 1, 2019. A summary explanation of these Regulations shall be published in a newspaper of this town and a copy thereof shall be deposited in the Office of the Town Clerk.**

HINGHAM BOARD OF HEALTH  
Kirk Shilts, Chairman  
Peter Bickford  
Elizabeth Eldredge

*(voted draft for public posting 5/16/19)*