

TOWN OF NANTUCKET BOARD OF HEALTH REGULATIONS

ON SITE SEWAGE DISPOSAL SYSTEMS

LOCAL REGULATION 64.00

64.00 ON SITE SEWAGE DISPOSAL SYSTEMS

A. Purpose

The purpose of these regulations is to protect the public health and general welfare by regulating onsite soil absorption systems in a manner which will protect the quality of the Town of Nantucket's groundwater and surface waters. These regulations are intended to compliment Title Five of the State Environmental Code.

B. Authority

These regulations are adopted pursuant to the authority granted to the Board by Massachusetts General Laws, Chapter 111 Section 31.

C. Preamble

The Board has determined that the State Environmental Code Title Five - Minimum Requirements for the Subsurface Disposal of Sanitary Sewage is not adequate to protect ground and surface waters from contamination by nutrients, bacteria, viruses, and hazardous materials associated with septic systems effluent, particularly in areas with extremely rapid infiltration rates, and in coastal areas characterized by tidally induced ground water fluctuations, coastal flooding, and shifting sand.

64.01 GENERAL REQUIREMENTS FOR INDIVIDUAL DISPOSAL SYSTEMS.

A. Disposal Works Construction Permit,

No individual on site septic system or other means of sewage disposal, shall be located, constructed, altered, repaired, or installed where a common sanitary sewer is accessible adjoining the property and where permission to enter such sewer can be obtained from the Nantucket Board of Public Works having jurisdiction over it (310 CMR 15.00) or if a common sanitary sewer is not accessible until a permit for an on site system's location, construction, alteration, repair or installation shall have been issued by the Board of Health. A permit shall not be issued for any system of individual sewage disposal when the total volume of the sewage to be disposed of on any lot is in excess of 10,000 gallons per day, or where an on site system is proposed on the lot to be served, until the plans for such system have been approved by the Massachusetts Department Of Environmental Protection in accordance with M.G.L., C 111 section 17. Where sewage flows on a lot exceed 10,000 gallons per day, the Department of Environmental Protection may require additional treatment of the waste prior to its disposal to the ground. The applicant is also obligated to comply with any applicable requirements established by the Division of Water pollution Control pursuant to M.G.L., C.21 section 43, and the Wetlands Protection Act M.G.L., C. 131 section 40. A permit shall not be issued in designated Nantucket Nitrogen, Phosphorous and/or Pathogen Sensitive Areas except as provided in the Town of Nantucket Board of Health Regulations 64.04.

B. Application for Disposal Works Construction Permit.

An application for a Disposal Works Construction Permit shall be submitted to the Board of Health and must be accompanied by a plan stamped by a qualified licensed professional engineer or Registered Sanitarian. The Board shall revoke such permit if conditions different from those set forth in the application are found to exist prior to or during actual construction of the system. The permit so granted shall expire in two (2) years from the date of issue in accordance with Section 51.04 (a) of the Board's regulations if the work authorized by the permit is not completed within two years of the date the permit was issued.

C. Plan of onsite System or Subsurface sewage Disposal System, or Systems.

The submitted plan must show as a minimum: the lot to be served, location and dimensions of the system (including reserve

area), design calculations, existing and proposed contours at one or two foot intervals, location and log of deep observation holes, locations and results of percolation tests, location of any streams, surface and subsurface drains and wetland resource areas within 100 feet of the system, known sources of water supply within 200 feet of the system, location of any proposed well to serve the lot, location of water lines on the property, depth to ground water/maximum ground water elevation in the area of the soil absorption system, and a profile of the system. The plan must be prepared, reviewed and stamped, by a professional engineer, or a registered sanitarian and stamped by a licensed professional land surveyor as required.

D. Use

The use of an individual 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.

E. Building or Plumbing Permits/Subdivision Plans.

No Building Permit, foundation permit, special building permit or plumbing permit shall be issued until a Disposal Works Construction Permit has been first obtained, unless the Board of Health determines that the existing system is adequate for a proposed alteration or addition to an existing dwelling.

F. Certificate of Compliance.

A new individual system and alteration and repairs to an existing individual system shall not be placed in service, nor shall new dwellings or buildings or additions thereto, which must rely on new individual systems for sewage disposal; be occupied until the Board of Health has issued a Certificate of Compliance indicating that said system has been located, constructed, altered, or repaired in compliance with the terms of the permit and the requirements of this regulation. The Board shall require inspection of all construction by a professional engineer or a registered sanitarian and the agent of the Board of Health; and require certification in writing that all work has been completed in accordance with the terms of the permit and the approved plans. Such certification shall include an As-Built plan stamped by the licensed professional engineer or registered sanitarian and stamped by a professional land surveyor as required.

G. Fees.

Fees for the issuance of a construction permit, issuance of a Certificate of Compliance, and test pit/percolation test observation

shall be charged by the Board of Health at the time an application is made, and shall be in accordance with the fee schedule adopted by the Board of Health.

H. Conditions for Permit Issuance.

In addition to the obligation to meet the general requirements above, and those set forth in Title Five of the State Environmental Code hereby incorporated by reference, no certificate of compliance and no permit for the construction of an individual system shall be granted unless the additional standards set forth in sections 64.02 through 64.06 and all other applicable Town of Nantucket Board of Health Regulations are met.

**64.02 DETERMINATION OF MAXIMUM GROUND WATER ELEVATION-
DEPTH TO GROUNDWATER.**

- A. On any lot there will be at least two deep observation holes in the area to be used for leaching plus any additional number of deep observation holes which in the opinion of the Health Agent will be necessary to determine the consistency (or lack thereof) of the character of the soil. The observation holes shall be examined to a depth of at least 6 feet below the bottom of the proposed leach facility, but in no case shallower than 10 feet total depth, unless this depth is unattainable because of existing site conditions as determined by an agent for the Board. Ground water elevations/depth to groundwater shall be determined as set forth in Board of Health Regulation 50.00.
- B. All deep observation holes shall be witnessed by the Board of Health or its designated agent.
- C. Maximum groundwater elevation/depth to groundwater shall be determined for all soil absorption system (SAS) repairs, expansions and/or new construction of onsite sewage disposal systems.

64.03 LOCATION OF SOILS ABSORPTION SYSTEMS.

- A. All soil absorption systems located in non Nitrogen Sensitive areas shall be designed and located so that at least five (5) feet of naturally occurring pervious material remains below the bottom of the system. The bottom of the system shall be constructed at least five (5) feet above maximum ground water elevation/depth to ground water (Town of Nantucket Board of Health Regulations 50.00 Definitions) as determined by soils tests conducted by a Certified Soil Evaluator and witnessed by an Agent for the Board of Health. Soil absorption

systems shall be located in accordance with the Town of Nantucket Board of Health Regulation 64.04

- B. All soil absorption systems located within a Nitrogen Sensitive area that incorporate Innovative/Alternative technologies with enhanced nitrogen/phosphorous removal shall be designed and located so that at least five (5) feet of naturally occurring pervious material remains below the bottom of the system. The bottom of the system shall be constructed at least five (5) feet above maximum ground water elevation/depth to ground water (Town of Nantucket Board of Health Regulation 50.00 Definitions) as determined by soils tests conducted by a Certified Soils Evaluator and witnessed by an Agent for the Board of Health. Soils absorption systems shall be located in accordance with the Town of Nantucket Board of Health Regulations 64.04.
- C. All soil absorption systems located within Nitrogen Sensitive areas shall be designed and located so that at least six (6) feet of naturally occurring pervious material remains below the bottom of the system. The bottom of the system shall be constructed at least six (6) feet above maximum ground water elevation/depth to ground water (Town of Nantucket Board of Health Regulations 50.00 Definitions) as determined by soil tests conducted by a Certified Soils Evaluator and witnessed by an Agent for the Board of health. Soil absorption systems shall be located in accordance with the Town of Nantucket Board of health regulations 64.04
- D. Repair/upgrades of existing failed on site sewage disposal absorption systems that service an existing structure which is not within a Nitrogen Sensitive Area, where no addition of habitable space is proposed, shall not require innovative/alternative technologies, and shall be constructed to meet the minimum separation of five (5) feet above maximum ground water elevation/depth to ground water (Town of Nantucket BOH Regulations 50.00 Definitions) as determined by soil tests conducted by a Certified Soil Evaluator and witnessed by an agent for the Board of Health. Soil absorption systems shall be located in accordance with the Town of Nantucket Board of Health regulations 64.04.
- E. No system shall be permitted within coastal wetlands resource areas, including but not limited to coastal wetlands as defined in Chapter 136 of the Nantucket Code and regulations adopted there-under, except as provided in 64.03C

- F. No system shall be permitted within the V or VE zones shown on the "FEMA Maps" for the Town of Nantucket. Systems approved by the Board or it's designated agent may be constructed within other special flood hazard areas (100-Year flood zones) if designed to minimize the release of contaminants from the disposal system into the flood waters. Disposal systems in these areas shall include the following features:
1. Vents shall extend at least 1 foot above the 100 year flood elevation.
 2. Access ports for all components of the system shall be watertight and shall either have bolted lids or shall extend above the level of the 100 year flood.
 3. Where sewage or effluent pumping is necessary, electrical switching shall be provided to prevent to the pumps from operating during periods of inundation.
 4. No plumbing fixtures below the 100 year flood elevation shall be connected to the disposal system except by means of an ejector pump connected to the gravity waste plumbing of the structure at a point above the flood level.

64.04 PERFORMANCE STANDARDS FOR LEACHING FACILITIES

- A. No soils absorption system shall be installed within 300 feet of any designated Nantucket Nitrogen, Phosphorous and/or Pathogen Sensitive Area (Board Regulations 50.00).
- B. Nitrogen Loading Limitations:
1. No system serving new construction in nitrogen sensitive areas as defined in Regulation 50.00 shall be designed to receive or shall receive more than 110 gallons of design flow per day per 10,000 square feet of lot area.
 2. In all non Nitrogen Sensitive Areas serving new construction in areas where the use of both on-site systems and drinking water supply wells is proposed to serve the facility may be designed to receive or may receive more than 110 gallons of design flow per day per 10,000 square feet of lot area from residential uses provided that any cumulative flow exceeding 330 gallons of design flow per day demonstrates a minimum 25% TN effluent reduction.

C. Phosphorous loading limitations:

- 1. No system serving new construction in nitrogen sensitive areas shall be designed to received or shall receive more than 440 gallons of design flow per day per acre.**
- 2. All on-site leaching facilities for new construction and repairs/upgrades shall be located a minimum of 300 feet from the edge of the down gradient surface water body, unless documented that water recharge beneath subject on-site system is not directed to the adjacent surface water body. All on-site system leaching facilities for repairs/upgrades shall be located a minimum 300 feet from the edge of the down gradient freshwater surface water body or demonstrate maximum feasible compliance.**

D. Pathogen Loading Limitations.

E. System Weight Loading Criteria.

- 1. All such systems shall be installed to withstand H-20 Wheel Loading.**

F. Nitrogen Loading limitations and Required Inspections within the Nantucket Harbor Watershed Protection District

- 1. All conventional septic systems located within the Nantucket Harbor Watershed protection Districts Zones A & B (Fig 1) shall be inspected every five years from the date of these amended regulations. Inspection Reports shall be filed with the Nantucket Health Department.**
- 2. All properties within the Nantucket Harbor Watershed Protection District not currently connected to municipal sanitary sewer lines shall have installed upon new construction, septic system expansion, repairs, upgrades and transfers of property, a Department of Environmental protection approved Nitrogen Reducing Technology waste water disposal system.**

G. Nantucket Harbor Watershed Protection District hydraulic & technical septic system failure replacement requirements.

- 1. Properties with septic systems exhibiting hydraulic failure by inspection within the Nantucket Harbor Watershed Protection District Zones A & B shall have their systems repaired with Department of Environmental protection approved nutrient reducing technology components within six (6) months of the date of inspection.**

2. Properties within the Nantucket Harbor Watershed Protection District Zones A & B with septic systems exhibiting by inspection, groundwater separation distances less than 6 feet shall have their system repaired with Department of Environmental Protection approved nutrient reducing technology components within twelve (12) months of the date of these amended regulations.
3. All properties located within the Nantucket harbor Watershed Protection District Zones A & B not currently connected to municipal sewer lines and exhibiting technical failure criteria as defined in Board of Health Local Regulation 50.00 Definitions, and located within documented sewer needs areas as described within the Town of Nantucket Community Waste Water Management Plan (CWMP), may apply for the existing Administrative Consent Order as documented within Local Regulation 59.00 ADMINISTRATIVE CONSENT ORDER thru the Nantucket Board of Health until final waste water determinations are documented.
4. Properties located within the Nantucket Harbor Watershed Protection District Zones A & B demonstrating a separation distance from the bottom of the leach facility to ground water in excess of 15 feet may seek a waiver from the Board of Health from Subsections 1 thru 4 of Section G of these Regulations

64.05 SEPTIC SYSTEM ACCESS.

- A. A minimum of one access hole and one inspection hole and cover for septic tanks and leach pits shall be provided and brought to grade for new construction. Access and covers for any pump chambers shall be at grade.
- B. Access and inspection hole covers must be a minimum diameter of eighteen (18) inches. The cast iron ring and cover must be of medium or heavier duty weight and must withstand a minimum of H-20 wheel loading.

64.06 RELIEF PROCEDURES.

- A. Any lot referred to in a deed or shown on a plan duly recorded at the Nantucket Registry of Deeds or filed in the land registration office before the effective date of this regulation August 31, 1990 shall comply with Sections 64.03 A and 64.04 of this regulation to obtain maximum feasible compliance, meaning that soil absorption systems shall be located as close to the regulation distance requirements as

lot size allows.

B. In the event that a pre-existing lot cannot comply with the 300 foot horizontal set back requirement set forth in Section 64.04 A and/or the six (6) foot separation requirement set forth in section 64.03 A of these regulations, then , in that event, the Board may, in it's sole discretion grant to said lot an exemption from said requirements upon the following conditions:

B.1. The applicant shall submit to the agent of the Board of Health a design plan stamped by a licensed professional engineer, registered sanitarian, and licensed professional land surveyor as required, showing the location of the proposed soils absorption system on said lot, the location of all wells, soils absorption systems and water bodies within 300 feet of said soils absorption system, or as far from said locus as deemed necessary to determine that compliance with this section cannot be met, and the groundwater gradient and direction of flow for said lot (as determined by use of Horsley Whitten & Heggimin Report of March 1990 on file with the Board of Health, the United States Geologic Survey Map HA 615, or more detailed map duly adopted by the Board at a Public Hearing.

B.2. For pre-existing vacant lots held in contiguous ownership prior to the effective date of this regulation, August 31, 1990, the applicant shall also file a stamped plan with such design and location information showing maximum feasible compliance with the 300 foot down gradient set back requirements and/or 6 foot vertical separation from ground water requirement for contiguous lots abutting the subject lot.

B.3. Failed soil absorption systems on an improved lot shall, if necessary, be relocated on said lot at the time said soils absorption systems are replaced to the maximum set back distances attainable up to 300 feet and/or maximum vertical separation distance attainable up to 6 feet with incorporation of I/A (innovative/alternative) technology.

B.4. Adjustments to pre-existing lot lines shall not subject said lot to compliance with the 300 foot setback requirements on the condition that such adjustments do not create an additional "buildable" lot and the distance between the soils absorption system on said lot and water body is not diminished.

B.5 In addition to these requirements, on site systems constructed within the 100 year flood zone as shown on the current FEMA map shall be subject to the engineering design requirements for "mounded" systems as set forth in Section 64.03 A of this regulation.

- C The applicant may design a system using design flows for a smaller number of bedrooms than are presumed in this definition by granting to the approving authority, a deed restriction limiting the number of bedrooms to the smaller number.

64.07 SPECIAL VARIANCE.

- A. The Board of Health, in its sole discretion. May issue a variance from the strict application of these regulations to any particular case in accordance with its procedures and its regulations set forth below.
- B. Prior to granting a variance from its regulations, the Board of Health shall conduct a hearing to consider granting a variance from the strict application of its regulations. The Board of Health may grant a variance, with or without conditions, upon its finding that :
 - 1. the person requesting the variance has established that enforcement of the provisions of these Regulations from which a variance is sought would be manifestly unjust, considering all the relevant facts and circumstances of the individual case; and
 - 2. The person requesting a variance has established that a level of environmental protection that is at least equivalent to that provided under these Regulations can be achieved without strict application of the provision of these Regulations from which a variance is sought.
- C. Pursuant to its regulations and other applicable law, The Board of Health shall enact rules and regulations pertaining to its hearings and its review hereunder. Said rules and regulations shall be known as the "Nantucket Board of Health Special Variance Regulations", and shall be on file with the Town Clerk of the Town of Nantucket.

64.08 ENFORCEMENT

Without limiting any other available remedies or penalties, the Board of Health may punish any person or entity that violates these regulations by assessing a penalty of \$300.00. Each day or part thereof during which such violation occurs or continues shall constitute a separate offense. As an alternative to criminal prosecution or civil action, the non-criminal disposition procedure set forth in M.G.L. c40, Section 21D, and Sections 1-2,-1-3,1-4,1-5, and 1-6 of the Code of the Town of Nantucket may be used with 5 and 1-6 of the Code of the Town of Nantucket may be used with a penalty of \$300.00 for each violation, each day or part thereof during

which such violation occurs or continues constituting a separate offense.

Approved: December 1, 2004

Whitey Willeaur – Chairman

Brian Chadwick

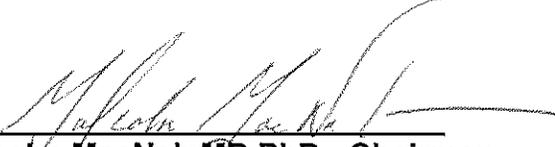
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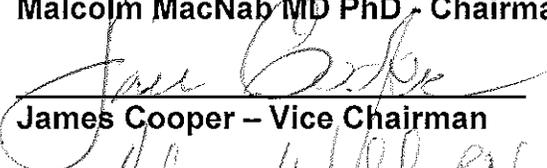
Michael Glowacki

Douglas Bennett

Effective date: January 1, 2005

Amended: June 14, 2006


Malcolm MacNab MD PhD - Chairman


James Cooper – Vice Chairman


Helene Weld RN


Stephen Visco


Rick Atherton

Amended: August 20, 2015
Effective: September 1, 2015