

62.00 PRIVATE WELL REGULATIONS

(A) Purpose

These regulations are intended to protect the public health and general welfare by ensuring that private wells are constructed in a manner which will protect the quality of the groundwater derived from private wells.

(B) Authority

These regulations are adopted by the Nantucket Board of Health, as authorized by Massachusetts General Law, Chapter 111, section 31.

These regulations supercede all previous regulations adopted by the Board of Health pursuant to the construction of private wells.

62.01 DEFINITIONS

(A) Private Well

A private well shall be defined as any dug, driven, or drilled hole with a depth greater than its largest surface diameter developed to supply water intended and/or used for human consumption and not subject to regulation by 310 CMR 22.00.

62.02 PERMIT

(A) The property owner or his designated representative shall obtain a permit from the Health Agent prior to the commencement of construction of a private well. Permits must be obtained for any well that is deepened, reconstructed or repaired for maintenance or other needs. Emergency repairs can be made subject to obtaining the necessary permit at the earliest practicable time. Fee may be waived by the Agent for repairs or maintenance.

(B) Each permit application to construct a well shall include the following:

- (1) the property owner's name and address
- (2) the well driller's name and proof of valid state registration
- (3) a plan with a specified scale, signed by a registered surveyor or engineer, showing the location of the proposed well in relation to

- existing or proposed above or below ground structures
- (4) a description and location of visible prior and current land uses within four-hundred (400) feet of the proposed well location, which represent a potential source of contamination, including but not limited to the following:
 - (a) existing and proposed structures
 - (b) subsurface sewage disposal systems
 - (c) subsurface fuel storage tanks
 - (d) public ways
 - (e) utility rights-of-way
 - (f) any other potential sources of pollution
 - (5) proof that the owner of any property within 400' of the applicant's well site has been notified, by Certified Mail, RRR, of the applicant's intention to install a well
 - (6) a permit fee of \$50.00.
- (C) The permit shall be on site at all times that work is taking place. Each permit shall expire one (1) year from the date of issuance unless revoked for cause. Permits may be extended for one additional six (6) month period provided that a written request is received by the Agent prior to the one year expiration date. No additional fee shall be charged for a permit extension, provided there is no change in the plans for the proposed well.
- (D) Well Construction Permits are transferable.
- (E) Such permits shall be granted of right by the Agent without a hearing upon satisfaction of all rules, obligations and conditions as set forth in these Private Well Regulations, 62.00 et seq. A grant or denial of a permit by the Agent shall be appealable to the Board in accordance with section 67.00 of these regulations.

62.03

PRIVATE WELL PROTECTION ZONES

- (A) In locating a private well, the applicant shall identify all potential sources of contamination which exist or are proposed within four hundred (400) feet of the site. When possible, the well shall be located upgradient of all potential sources of contamination and shall be as far removed from potential sources of contamination as possible, given the layout of the premises.

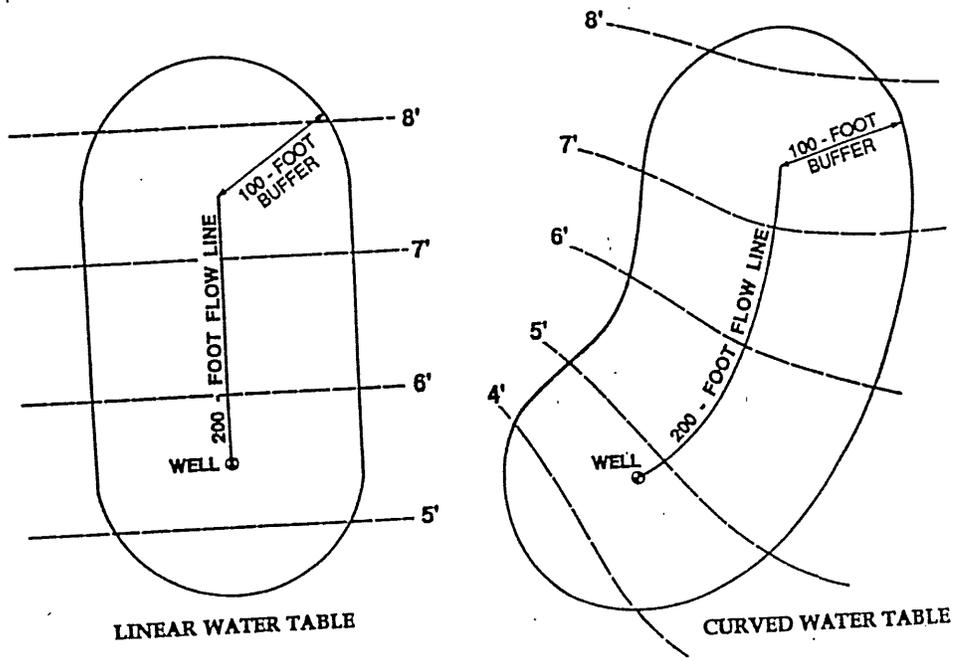
- (B) Each private well shall be accessible for repair, maintenance, testing, and inspection. The well shall be completed in a water bearing formation that will produce the required quantity of water under normal operating conditions.
- (C) No on-site private well permit application shall be approved if the private well is to be within a 100 foot separation distance from existing and proposed leaching facilities and a 300 foot separation distance in a downgradient ground water flow direction from existing or proposed leaching facilities (see attached diagram).
- (D) Ground water flow directions will be determined using the water table map #2 prepared by HWH, Inc. as part of its Nantucket Water Resources Management Plan, March, 1990, or field data submitted by the applicant, (herein incorporated by reference and attached hereto) Board of Health or its agent by measuring the site-specific flow conditions using at least three observation wells in which water table elevations will be measured.
- (E) All wells located in the "dome" areas shown on Map #2, HWH Water Management report, March 1990, on file with the Board of Health ("HWH Map #2") shall be exempt from the 300 foot separation distance in a down gradient ground-water flow direction from existing or proposed leaching facilities but shall maintain a 100-foot separation distance from said facilities. A "dome" is defined as the area within the highest hydrological regional contour line. There are seven (7) "dome" areas on Nantucket.
- (F) The Board reserves the right to impose minimum lateral distance requirements from other potential sources of contamination not listed above. All such special well location requirements shall be listed, in writing, as a condition of the well construction permit.

62.04

WELL DESIGN, CONSTRUCTION AND REQUIREMENTS

- (A) Pursuant to 313 CMR 3.00, no person in the business of digging or drilling shall be hired to construct a private well unless such person is registered with the Department of Environmental Management/Division of Water

Need



PRIVATE WELL PROTECTION ZONES

Resources. Any work involving the connection of the private well to the distribution system of the residence must conform to the local plumbing code. All electrical connections between the well and the pump controls and all piping between the well and the storage and/or pressure tank in the house must be made by duly licensed installers, including the installation of the pump and appurtenance in the well or house.

- (B) Well drillers shall notify the Nantucket Board of Health when a well has been installed and cleared. At this time, the well driller will furnish the Board with a locus map or Nantucket Tax Assessor's Map and Parcel plan and/or a copy of the State "Water Well Completion Report". A well location diagram, also showing proper dimensions required to locate well, shall be filed with the Inspector of Buildings.
- (C) Abandoned wells, test holes, and borings shall be decommissioned so as to prevent the well, including the annular space outside the casing, from being a channel allowing the vertical movement of water.

The owner of the private well shall decommission the well if the well meets any of the following criteria:

- (1) construction of the well is terminated prior to completion of the well
- (2) the well owner notifies the Board that the use of the well is to be permanently discontinued
- (3) the well has, after extended use, been out of service for at least three years
- (4) the well is a potential hazard to public health or safety and the situation cannot be corrected
- (5) the well is in such a state of disrepair that its continued use is impractical
- (6) the well has the potential for transmitting contaminants from the land surface into an aquifer or from one aquifer to another and the situation cannot be corrected

The property owner shall be responsible for ensuring that all abandoned wells and test holes or borings associated with private well installation are properly plugged. Only registered well drillers may plug abandoned

wells, test holes, and borings.

62.05

PRIVATE WELL SAMPLING AND TESTING

- (A) The applicant shall submit to the Board a Pumping Test Report which shall include the name and address of the well owner, well location, referenced to at least two permanent structures or landmarks, date the pumping test was performed, depth at which the pump was set for the test, location of the discharge line, static water level immediately before pumping commenced, discharge rate and, if applicable, the time the discharge rate changed, pumping water levels and respective times after pumping commenced, maximum drawdown during the test, duration of the test, including both the pumping time, and the recovery time during which measurements were taken, recovery water levels and respective times after cessation of pumping, the reference point used for all measurements.
- (B) Additional Pump Testing: Private wells proposed to be located seaward of the 4-foot water table contour line as delineated on HWH Map #2 will require completion and recordation of the results of 4-hour pump test at a minimum pumping rate of 7 gallons per minute and a maximum pumping rate of 10 gallons per minute; to determine (for public information purposes) the potential for salt water intrusion or other existing contamination sources. The pump test shall be conducted during high tide conditions.
- (C) A water sample will be taken by an agent of the Board of Health or its designee. The well will be pumped until specific conductance readings have stabilized (or at the end of the 4-hour pump test in the case of the wells downgradient from the 4-foot water table contour).
- (D) The water sample will be secured with a bailer of a peristaltic pump to minimize aeration of the sample.
- (E) pH and specific conductance will be measured in the field.
- (F) Samples will be preserved with ice and will be delivered to a state certified water quality laboratory within 24 hours. Samples will be

analyzed for and meet water quality standards for coliform bacteria, nitrate-nitrogen, iron, sodium, chlorides and where the Board of Health deems necessary additional analyses such as volatile organic compounds (VOC's) and EPA Methods 624, 625. The Board of Health shall make the judgement for the inclusion of VOC analyses based upon potential contamination sources and presumed ground water flow directions (utilizing HWH water resources maps and other more recent available information). For example a proposed private well to be located downgradient of a mapped underground storage tank or an industrial land use should be tested for VOC's.

- (G) The quality of the drinking water must meet accepted U.S. Public Health Service Standards. This requirement may be met by the installation of filters or softeners.
- (H) The Board of Health reserves the right to inspect the "water systems" utilized for supplying and/or furnishing water which is located between the well and the building structure or area to be served anytime during construction, installation or yield test of the well.
- (I) Following a receipt of the water quality test results, the applicant shall submit a Water Quality Report to the Board which includes:
 - (1) a copy of the certified laboratory's test results
 - (2) the name of the individual who performed the sampling
 - (3) where in the system the water sample was obtained

The Board reserves the right to require retesting of the above parameters, or testing for additional parameters when, in the opinion of the Board, it is necessary due to local conditions or for the protection of the public health, safety, and welfare. All costs and laboratory arrangements for the water testing are the responsibility of the applicant.

62.06

RELIEF PROCEDURE - PRE-EXISTING LOTS

- (A) Whenever a person has submitted a subdivision, or preliminary subdivision plan followed within 7 months by a definitive plan, or a plan referred to in M.G.L. Ch. 41, sec. 81P,

as the case may be, the land shown on such plan shall be governed by the provisions of the state environmental code and board of health regulations, if any, which differ from the code which are in effect at the time of first submission of the plan. Such provisions shall apply while the plan is processed until rejected, or if approved, until 3 years from the date of filing pursuant to M.G.L. Ch.111 sec. 127P.

- (B) Any lot not covered by clause (A) which is shown or 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 24, 1990, shall comply with section 62.03 (A) of the regulation to the maximum extent possible, meaning that wells shall be located as close to the regulation distance requirements as lot size and contours permit. As a minimum requirement, said lot shall comply with current State Sanitary Code Regulations and local regulations in effect prior to August 24, 1990.

In the event that a pre-existing lot cannot comply with the 300 foot separation requirement set forth in Section 62.03 (A), then, in that event, the Board of Health, or its agent, shall in any case grant to said lot an exemption from the 300 foot separation requirement upon the following conditions:

- (1) The applicant shall submit to the Board of Health a design plan stamped by a Professional Engineer or Land Surveyor showing the location of the proposed well, the proposed or existing leaching facilities on said lot, locations of all wells and leaching facilities within 400 feet of the proposed well, or as far from the locus as deemed necessary to determine that compliance with this section cannot be met, and the ground water gradient and direction of flow for said lot (as determined by Map #2, HWH Water Management Report, March, 1990 on file with The Board of Health).
- (2) For pre-existing, vacant lots being held in contiguous ownership prior to the effective date of this regulation, the applicant shall also file a stamped plan with such design and location information showing maximum compliance with the 300 foot separation

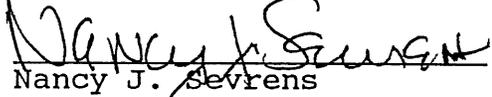
requirement for contiguous lots abutting the subject lot.

- (3) Failed leaching facilities on an improved lot shall, if necessary, be relocated on said lot to the maximum separation distance attainable at the time the facilities are replaced up to 300 feet.
- (4) Adjustments of pre-existing lot lines shall not subject said lot to compliance with the 300 foot separation requirement on the condition that such adjustments do not create an additional "buildable" lot and the distance between the well and leaching facility on said lot is not diminished.

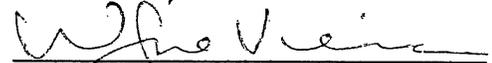
NANTUCKET BOARD OF HEALTH



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Carl Borchert

August 22, 1990

Date Signed

August 23, 1990

Date Published

62.05

AMENDMENT TO PRIVATE WELL REGULATIONS

Section 62.05 PRIVATE WELL SAMPLING AND TESTING is hereby amended by deleting the existing section G and inserting instead the following:

(G) The quality of the drinking water must meet accepted Massachusetts Drinking Water Standards, October 1989, Department of Environmental Protection. This requirement may be met by the installation of filters or softeners.

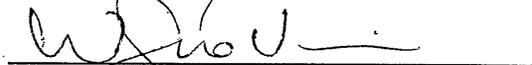
NANTUCKET BOARD OF HEALTH



Bernard D. Grossman, Chairman



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August 29, 1990

Date Signed

August 30, 1990

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