

REGULATIONS FOR PRIVATE WELLS

Under the authority of M.G.L. Ch. 111, Section 31, to better protect the public health of the inhabitants of the Town of Harwich, the Harwich Board of Health voted to adopt the following Regulations, at its meeting held on December 7, 1988. The following Regulations shall be effective and applicable beginning January 15, 1989.

Definitions:

Abandoned Well: A well that has not been used for water supply for a period of one year or more, unless the owner declares his intention to use the well again for supplying water within one year.

Board of Health: The Board of Health members as defined by the Harwich Town Charter.

Health Agent: Health Agent shall mean the duly appointed Health Agent as defined by the Harwich Town Charter.

Pollution: Adverse effect on water quality created by the introduction of any matter.

Potable: water which is pure, wholesome and free from impurities that may cause disease or harmful physiological effects such that the water is safe for human consumption.

Emergency Repair: An emergency repair shall mean a replacement of an existing part; for example, well point or well casing.

Rented or Leased Property: Any dwelling used for habitation or business purposes by an occupant other than the owner, for the use of which a fee is paid. This includes but is not limited to: campgrounds, motels, bed and breakfasts, inns and other accommodations used on a transient basis, as well as community-type buildings which are rented to community groups.

Well: Any pit, pipe, excavation, spring, casing, drill hole or other source of water to be used for any purpose of supplying water, and shall include dug wells, driven or tubular wells, drilled wells, (artesian or otherwise) and springs, gravel packed, gravel walled wells, gravel developed and wash borings and as further described in the U.S. EPA Manual of Individual Water Supply Systems. For the purposes of these Regulations, it shall include both private potable wells, and non-potable wells.

Well Intended for Human Consumption: Any well supplying water for human consumption, bathing, or washing purposes which is not otherwise regulated

as a “public water system” (community or non-community water supply) under 310 CMR 22.00.

Well Driller: Any person, firm or corporation drilling, constructing, or destroying a water supply well.

Yield: Quantity of water delivered per unit time which may flow or be continuously pumped from the well.

Registration of Well Drillers

1. All well drillers doing business in the Town of Harwich shall annually file with the Board of Health a copy of their current well driller registration certificate issued by the Commonwealth of Massachusetts under MGL Ch. 21 Section 16 and Massachusetts Regulations 313 CMR 3.00.

Well Installation, Alteration and Repair

1. No well shall be installed, altered, or repaired except by a well driller who is registered with the Water Resources Commission, Division of Water Resources under MGL Ch. 21, Section 16 and 313 CMR 3.00.
2. All wells shall be located on the same lot as the building they serve.

Well Construction Permit

1. No well shall be installed, altered, or repaired until a well construction permit has been obtained from the Board of Health. A permit so granted shall expire 6 months from the date of issue unless construction has begun.
2. The fee for this permit shall be fifty dollars (\$50.00).
3. An application for a well construction permit shall be submitted by the drilling contractor or his agent to the Board of Health on forms furnished by the Board. The well driller is responsible for obtaining said permit prior to well construction.
4. The location and design of the water well must be approved by the Board of Health prior to issuance of a well construction permit. Prior to approval, the Board of Health requires the following to be submitted:
 - a. The Assessor’s map, parcel and lot number of the property on which the well will be located.
 - b. Design and capacity of the water system, as described under Well Yield and Water System Design.
 - c. A site plan, drawn by a registered profession civil engineer, registered sanitarian, or registered land surveyor showing the

proposed location of the well in relation to building foundations, property lines, building sewer lines, the subsurface sanitary disposal systems serving the lot, all other septic systems within 200 feet, and any other known potential sources of contamination within 200 feet which could affect the well. Such sources of contamination shall include sanitary landfills; auto junk yards; municipal sewage treatment facilities with on-site disposal of primary or secondary effluent; car washes; road salt stockpiles; dry cleaning establishments; boat and motor vehicles service and repair; cabinet making; electronic circuit assembly; metal plating; finishing and polishing; motor and machinery service and assembly; commercial paint, wood preserving and furniture stripping; sites where pesticides and herbicides are regularly applied, including golf courses and cranberry bogs (but not including pesticide application at single family dwellings); photographic processing; printing; chemical and bacteriological laboratories; transportation terminals; funeral homes; any principal use involving the sale, storage, or transportation of fuel or oil; and any use which involves as an activity the manufacture, storage, use, transportation or disposal of toxic or hazardous materials. To meet this requirement, well location shall be shown on the same plot plan submitted to the Board of Health for approval of septic system installation.

- d. A registered civil engineer or registered land surveyor must determine and mark the location of the well on the lot prior to its installation.
5. For emergency repair, alteration, or replacement of an existing well, the Board of Health may waive the requirements that a site plan be submitted and that the location of the well be staked on the lot.
6. Permit conditions: All permits issued shall be subject to the conditions that all facilities shown shall be constructed in the location approved by the Board of Health. All permits issued shall be subject to the requirements of these Regulations and to such further conditions as the Board of Health shall prescribe.

Well Construction

1. The Board of Health recommends that well construction meet the guidelines outlined in the New England Water Well Drillers Association Ground Water Quality Control Well Construction Guide.
2. The top of a well shall be above ground that is higher than any surface sources of contamination and above any known conditions of flooding by drainage or runoff from the surrounding land, unless located in a flood-proofed well house.

3. Wells must be constructed so as to maintain existing natural protection against all known or potential pollution of the groundwater and to exclude all known sources of pollution from entering the well.
4. All non-yielding holes which are installed in the process of constructing a well must be filled so as to not act as a conduit to the groundwater.
5. A metal tag shall be affixed to the top of the well casing at the time of installation so that the well may later be located if necessary by a metal detector.
6. In areas where salt water or other pollutant intrusion is known or likely to occur, the Board of Health working with a designing engineer, may specify the well screen level, pumping rate, water storage capacity, or any other construction parameter which must be used to ensure that water of adequate quality is obtained.

Well Drillers Report

1. Within 30 days after completion of the construction of any well, the well driller shall submit to the Board of Health a copy of the Water Well Completion Report. The Board of Health will not issue a Certificate of Approval for the well until this report has been received.

Well Destruction

1. Prior to destruction of any well, a well destruction permit must be obtained by the owner or his agent from the Board of Health. The Board of Health will require a site plan showing the well location, including information on the Assessor's map, parcel and lot number for the property on which the well is located, prior to issuance of the well destruction permit.
2. Any abandoned well shall be filled and sealed with clean puddle clay, neat cement grout, or concrete grout in such a manner as to prevent it from acting as a channel for pollution to the groundwater.
3. Within 30 days after completion of the destruction of any private well, the well owner or well driller acting as agent for the well owner shall submit to the Board of Health a report containing the following:
 - a. The name of the owner of the well;
 - b. The geographic location of the well;
 - c. Any preliminary cleaning or re-drilling;
 - d. Types, depths and materials or seals used.

Additional Requirements for Wells Intended for Human Consumption

Well Location:

1. In general, wells intended for human consumption shall be located as far as possible from potential sources of contamination. The following minimum distances are required:

<u>ITEM</u>	<u>DISTANCE FROM WELL</u>
<u>Property Line</u>	10 feet
<u>Roadway</u>	25 feet from edge of road layout (not edge of pavement)
<u>Leaching Catch Basin/Drywell</u>	25 feet, but recommend that this distance be maximized
<u>Utility Rights-of-Way</u>	50 feet, but recommend that this distance be maximized
<u>Septic Tank</u>	50 feet
<u>Septic Leaching Facility</u>	100 feet
<u>Septic Distribution Box</u>	50 feet
<u>Building Sewer</u>	50 feet
<u>Subsurface Drains</u>	25 feet, but recommend that this distance be maximized, as pollutants frequently travel along the outside of Subsurface drain pipes

2. Where, in the opinion of the Board of Health, adverse conditions exist, the above distances may be increased. In certain areas, the Board of Health may require the owner to provide additional means of protection. Where possible, the well shall be located up-gradient from the groundwater sources of contamination.

Water Quality

1. Prior to approval of the well, the owner or his agent, shall take a water sample(s) from the well and submit it to a state certified testing laboratory for analysis, with the cost to be borne by the owner. The results of all analyses shall be submitted to the Board of Health. At a minimum, water must be tested for the following chemical and bacteriological standards: total coliform, nitrate-nitrogen, pH, conductivity, sodium and iron.
2. The Board of Health will determine potability of the well water using as guidelines the National Interim Primary and Secondary Drinking Water Standards and the US EPA Maximum Contaminant Levels (MCLs). The Water Quality Standards for common parameters are as follows:

<u>Item</u>	<u>Primary Standards</u>
Total Coliform	0 colonies/100 ml. MF
Nitrate	10 ppm
<u>Item</u>	<u>Secondary Standards</u>
pH	recommend pH above 5.0
Sodium	20 ppm
Iron	0.3 ppm

3. In locations where potential sources of contamination are believed to exist, or where geologic or hydrologic conditions require more restrictive or additional standards than those outlined above, additional water testing and special standards may be required by the Board of Health to ascertain that water meets the Maximum Contaminant Levels set for public water supplies by the US EPA under the Safe Drinking Water Act and 1986 SDWA amendments. Such testing may include EPA methods 601, 602, 502, 503, 624, 625 analyses for purgeable halocarbons, and purgeable aromatics, analyses for petroleum hydrocarbons or pesticides or any other analysis the Board of Health deems necessary to ascertain water quality.
4. When the Board of Health deems it necessary, the Health Agent or any other agent of the Board of Health may be present to witness the taking of a water sample and/or may take the water sample and deliver it to the testing laboratory him/herself.

5. The Board of Health further recommends that all well owners have their wells tested at a minimum of every two years, and at more frequent intervals when water quality problems are known to exist.

Well Yield and Water System Design

1. Before approval, every well shall be pump tested to determine yield. The pump test shall include a drawdown test at a maximum pumping rate of 5 gallons per minute for 1 hour.
2. The design of the water system, including well, pump, storage tank, and other accessories must be adequate to provide a water capacity in gallons per minute which equals the number of water fixtures installed; in addition, capacity (gpm) must not be less than the peak demand for the largest fixture installed. For the purposes of this Regulation, a fixture is defined as a water outlet, and includes faucets, sinks, toilets, bathtubs, washing machines, dishwashers and the like.
3. In areas where salt water or other pollutant intrusion exists or is believed likely, and where the Board of Health (in conjunction with a designing engineer, as outlined under Well Construction) has determined a well pumping rate which must be used to prevent further contamination, the Board of Health may specify design criteria for the building, and water system served by the well, so that the water storage tank, number of fixtures and habitable space are compatible with the pumping capacity of the well.

Submission of Well Water Test Results

1. Prior to the issuance of a Certificate of Approval for a well intended for human consumption, the results of all water quality and yield tests shall be submitted to the Board of Health. The owner of the property which the well will service, or the well driller acting as agent for the owner, shall certify, on a form provided by the Board of Health the following:
 - a. The location, and date the sample was taken, and the laboratory at which it was analyzed;
 - b. That the water sample whose analysis results were submitted to the Board of Health was taken from the well for which approval is being sought, and;
 - c. The results of the yield test performed by the well driller.

Well Approval

1. New wells shall not be placed into use for human consumption until the Board of Health has approved the potability and quantity of the water provided, and issued a Certificate of Approval for the well to the owner of the property which the well serves.

2. A Certificate of Approval for a well will not be issued until:
 - a. the well water has been shown to meet the water quality criteria outlined in the Regulations, and;
 - b. the capacity of the water system, in gallons per minute, has been demonstrated to equal the number of fixtures installed.
3. In addition, for wells installed at newly constructed buildings, the Board of Health shall require that a certified plot plan, drawn by a registered land surveyor or registered professional civil engineer, be submitted to the Board of Health. Such plot plan must show the actual location of the well on the lot as cross tie distances from lot corners, and must show the location of the septic system, as installed, in relation to the well. The plot plan must also identify, by Assessor's Map, parcel and lot number, the property on which the well is located. This information may be included in the certified plot plan required by the Building Inspector which shows the location of the foundation on the lot.
4. The Board of Health shall not approve a Building Permit or Certificate of Occupancy until it has issued a Certificate of Approval for the well serving that building.
5. Wells which fail to meet some or all of the requirements in these Regulations may be approved by the Board of Health after a hearing at which a variance from these standards may be granted.

Existing Wells Serving Rental Properties

1. The owner of every well intended for human consumption serving property which is rented or leased shall have its water tested at a state certified laboratory for the water quality parameters outlined above, at a minimum of once every two years. Where water quality problems are known or suspected to exist, the Board of Health may require more frequent testing, or testing for additional parameters.
2. Results of all water quality tests shall be made available to all tenants of the property and to the Board of Health, by the owner of the property.
3. In cases where the well water does not meet the water quality standards outlined above, the Board of Health may require the property owner to provide an alternative approved source of drinking water for the tenants.

Test of Water Quality Upon Transfer of Real Estate

1. Prior to selling, conveying or transferring title to real property in the Town of Harwich, the owner thereof shall have tested the water of every private potable well serving that property. A water sample from each well shall be submitted to a state certified laboratory for testing for the parameters outlined under Water Quality, above. This water quality test

shall be performed not more than 60 days prior to transfer of the property. Results of the water test shall be submitted to the Board of Health prior to property transfer on a form provided by the Board of Health on which the owner will certify that the sample was taken from the well serving the property being transferred.

2. In addition, the owner shall give copies of all water test results of which he has knowledge (regardless of age of results) for the private potable well in question to any buyer and/or broker identified with the transfer. In the event that there is no buyer at the time the water is tested, a copy of all water test results must be given by the owner to the buyer before the property is put under agreement.
3. This Regulation shall not apply to the conveyance or devise of a property to a surviving spouse or to any of the heirs or devisees of the property owner, and further, shall not apply to a sale under power of sale in a bonafide mortgage affecting the property.

Variance and Enforcement Procedure

1. The Board of Health may vary the application of any provision of this article with respect to any particular case when, in its opinion, the enforcement thereof would do manifest injustice; provided that the decision of the Board of Health shall not conflict with the spirit of these minimum standards nor with the protection of human health and environmental quality.
2. Every request for a variance shall be made in writing and shall state the specific variance requested and the reasons therefore. Any variance granted by the Board of Health shall be in writing. Any denial of a variance shall also be in writing and shall state the reasons for the denial. A copy of any variance granted shall be available to the public at all reasonable hours in the office of the Town Clerk or the Board of Health while it is in effect.
3. Any variance or other modification authorized to be made by these Regulations may be subject to such qualification, revocation, suspension or expiration as the Board of Health expresses in its grant. A variance or modification authorized to be made by these Regulations 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 11.00 for orders and hearings.
4. As a condition of granting a variance, the Board of Health may require a restriction to be recorded at the Registry of Deeds when, in the opinion of the Board of Health, knowledge that the well does not meet minimum

standards would benefit future potential customers of water supplied by the well.

5. So far as the Board of Health may provide, each section of these rules and Regulations shall be construed as separate. If any section, Regulation, paragraph, sentence, clause, phrase or word of these rules and Regulations shall be declared invalid for any reason, the remainder of these rules and Regulations shall remain in full force and effect.
6. The provisions of Title 1 of the State Environmental Code (310 CMR 11.00) shall govern the enforcement of these Regulations.

Adopted 12/7/1988
Effective: 1/15/1989

HARWICH BOARD OF HEALTH

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