

TOWN OF CHATHAM
Board of Health
BOH-90-2

PRIVATE WELL REGULATIONS

Under the authority of M.G.L. Ch. 111, Sec. 31, to better protect the public health of the inhabitants of the Town of Chatham, the Chatham Board of Health voted to adopt the following regulation at its meeting held on October 15, 1990. The following regulations shall be effective and applicable beginning January 1, 1991.

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SECTION 1 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. (See Sections 4.4.4 and 4.5).

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.

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.

Repair or alteration of a well: the term repair shall mean when a well is rebuilt or reconditioned in the same place and position as the previous well.

Replacement of a well: this term shall describe a well that is drilled to replace a well serving an existing structure that has failed because of soil conditions or mechanical failure and the position of the well is not drastically changed; i.e., within a radius of not more than 15 feet from the original well.

New Construction of a well: this term shall apply to any well that is drilled to serve either an existing dwelling where a well must be relocated because of a septic system relocation, poor water quality, poor yield, etc., or to any well that is to serve a newly constructed building.

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 purpose of these regulations, it shall include both private potable wells, and non-potable wells. The term "private well" shall mean any well not owned or operated by the Town of Chatham.

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 Drillers: any person, firm or corporation drilling, constructing, repairing or destroying a water supply well.

SECTION 2 REGISTRATION OF WELL DRILLERS

2.1 All well drillers doing business in the Town of Chatham shall annually file with the Board of Health a copy of their current well driller registration certificate issued by the Commonwealth of Massachusetts under M.G.L. Ch. 21, Sec. 16 and Massachusetts Regulations 313 CMR 3.00.

SECTION 3 WELL INSTALLATION, ALTERATION AND REPAIR

3.1 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 M.G.L. Ch. 21, Sec. 16 and 313 CMR 3.00.

3.2 All wells shall be located on the same lot as the building they serve.

SECTION 4 REQUIREMENTS

4.1 Well Construction Permit

4.1.1 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.

4.1.2 The fee for this permit shall be set by the Board of Health.

4.1.3 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.

4.1.4 The location and design for a new construction water well (as defined above) 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 assessors map, parcel, lot number and street address (if available) of the property on which the well is to be located.

b. A Site plan, drawn by a registered professional land surveyor and a registered professional engineer or a registered sanitarian, showing the proposed location of the well in relation to building foundations, property lines, building sewer lines, the subsurface sanitary disposal system(s) serving the lot, all other septic systems within 100 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 vehicle 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; photographic processing; printing; chemical and bacteriological laboratories; transportation terminals; funeral homes; and 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 and transportation or disposal of toxic or hazardous materials. To meet this requirement, well location may be shown on the same plot plan submitted to the Board of Health for approval of septic system installation.

c. A registered land surveyor must determine and mark (stake) the location of the well on the lot prior to its installation.

4.1.5 For repair, alteration, or replacement of an existing well, the Board of Health will require that a site plan drawn by the homeowner or the well driller including as many of the requirements as described in Sec. 4.1.4 (b) as possible be submitted prior to the beginning of work. All other applicable sections of this regulation must be adhered to and required reports submitted within 30 days. A formal Signature of Approval will be issued after all reports are submitted and reviewed by the Board or it's Agent.

4.1.6 Monitoring and Irrigations wells. A site plan drawn by a registered professional land surveyor and a registered engineer or a registered sanitarian, or a licensed well driller will be required as per Section 4.1.4 (b).

4.1.7 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 feels may be necessary for the protection of the public health.

4.1.8 Signature of Approval. When the Board of Health has received copies of all site plans, reports and water tests and is satisfied that the well will function in the best interests of the public health, the Board of Health or it's Agent

shall affix a Signature of Approval to a copy of the Well Construction permit and mail it to the owner of the property.

4.2 Well Construction

4.2.1 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 Code.

4.2.2 The top of a well shall be 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.

4.2.3 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.

4.2.4 All non-yielding holes which are installed in the process of construction a well must be filled so as to not act as a conduit to the groundwater.

4.2.5 The top of the well must be located above the surface of the ground or 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.

4.3 Well Drillers Report

4.3.1 Within thirty (30) days after completion of any well (productive or non-productive), a registered well driller shall submit to the Board of Health a copy of the Water Well Completion Report as required by the Department of Environmental Management/Division of Water Resources containing the name of the owner of the well, the geographic location of the well (this shall be given accurately to enable easy plotting on a U.S. Geological Survey Topographic (1:25,000) Map, well depth, depth to bedrock or refusal, casing type, casing size and casing length, well screen type, well screen length, and depth at which well screen is set, static water level, and drilling logs describing the material penetrated. The Board of Health will not issue a Signature of Approval for the well until this report has been received.

4.4 Well Destruction

4.4.1 Prior to destruction or abandonment 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 hand-drawn site plan showing the well location, including information on the assessors map, parcel, lot number and street address for the property on which the well is located, prior to issuance of the well destruction permit. The well destruction permit shall be returned to the Board of Health within 30 days of the well destruction for final Signature of Approval and shall contain specific information regarding how the well was sealed and by whom.

4.4.2 Any abandoned well shall be filled and sealed with clean puddled clay, neat cement grout, or concrete grout in such a manner as to prevent it from action as a channel for pollution to the groundwater.

4.4.3 Wells located inside houses may be sealed using capping measures. Well pipes should be sealed above floor level so as to prevent accidental

contamination. The Board recommends that the well be marked as a water well so that future owners will know of its purpose.

4.4.4 No cross connections between public and private water supplies are allowed.

4.5 Existing Wells Not Used for Human Consumption

4.5.1 The owner of well(s) that are used for other purposes than human consumption must declare his or her intention to continue to use the well for these purposes; or to declare his intent to abandon the well; or to declare his intent to re-activate the well for human consumption.

4.5.2 Re-activating a well previously used for human consumption shall be considered a repair and will require a well permit. Re-activating a well never before used for human consumption that will now be used for human consumption shall be considered new well construction and subject to this regulation.

SECTION 5 ADDITIONAL REQUIREMENTS FOR WELLS INTENDED FOR HUMAN CONSUMPTION

5.1 Well Location

5.1.1 New construction of private wells shall be permitted only if a protection zone around the proposed well does not include any septic systems. The protection zone shall be a 100 foot setback around the well and an imaginary line extending 150 feet upgradient (see attached figure); or where sufficient hydrogeologic information is available and actual zones of contribution can be defined to the satisfaction of the Board of Health. Replacement, alteration or repair of an existing well can be done without the required zone of protection if the new well is no closer to any source of contamination than the original well.

5.1.2 Groundwater flow directions will be determined using the USGS Chatham Water Table Map (1988), or by measuring the site-specific flow conditions using at least three (3) observation wells in which water table elevations will be measured.

5.1.3 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:

Property line	10 feet
Roadway	25 feet from edge of road layout (not edge of pavement)
Leaching catch basin/drywell	50 feet (recommend that this distance be maximized)
Utility rights of way	25 feet (recommend that this distance be maximized)
Septic tank	50 feet
Septic Leaching facility	100 feet(recommend that

Septic distribution box
Building Sewer
Subsurface drains

this distance be
maximized)
50 feet
50 feet
50 feet (recommend
that this distance be
maximized)

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

5.2 Water Quality

5.2.1 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.

5.2.2 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 United States EPA Maximum Contaminant Levels (MCLs). The water quality standards for common parameters are as follows:

Primary Standards

Total Coliform	0 colonies/100 ml. MF
Nitrate	10 ppm (5 ppm recommended)

Secondary Standards

pH	recommend above 5.0
Sodium	20 ppm
Iron	0.3 ppm

5.2.3 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 outline 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 U.S. 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. Costs for such tests will be borne by the applicant.

5.2.4 When the Board of Health deems it necessary, the Health Agent or 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.

5.2.5 The Board of Health further recommends that all well owners have their wells tested for normal parameters at a minimum of every two years and at more frequent intervals when water quality problems are known to exist. The Board strongly recommends that any well to be used for drinking water be tested for purgeable halocarbons, purgeable aromatics, petroleum hydrocarbons and pesticides when first installed and every five (5) years thereafter.

5.2.6 Prior to issuance of a Signature of Approval for a well intended for human consumption, the results of all water quality shall be submitted to the Board of Health. The owner of the property which the well will serve or the driller acting as agent for the owner, shall certify, on a form provided by the Board of Health, the following information:

- 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.

5.3 Well Approval

5.3.1 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 Signature of Approval for the well to the owner of the property which the well serves.

5.3.2 The Board of Health shall require for all new construction wells that a certified plot plan, drawn by a registered land surveyor 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 assessors 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 or on septic plans. Certified plot plans will not be required for well repairs or well replacement.

5.3.4 The Building Inspector shall not approve a Building permit or a Certificate of Occupancy until the Board of Health has issued a Signature of Approval for the well serving that building.

5.3.5 Wells which fail to meet the requirements in this regulation may be approved by the Board of Health after a hearing at which a variance from these standards may be granted.

5.4 Wells Serving Rental Properties

5.4.1 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. Should the owner fail to have the test done, a tenant may have the water tested with the cost of such test to be reimbursed by the owner.

5.4.2 Results of all water quality tests shall be given to the tenants of the property and to the Board of Health, by the owner of the property.

5.4.3 In cases where the well water does not meet the water quality standards outlined in this regulation, the Board of Health may require the property owner to post in a readily visible place on the premises a copy of the water quality report and/or provide an alternative approved source of drinking water for the tenants.

5.5 Test of Water Quality Upon Transfer of Real Estate

5.5.1 Prior to selling, conveying, or transferring title to real property in the Town of Chatham, the owner thereof shall test 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 in this Regulation. This water quality test shall be performed not more than 180 days nor less than five (5) working days prior to transfer of the property. Results of the water tests shall be submitted to the Board of Health prior to property transfer on a form provided by the Board on which the owner will certify that the sample was taken from the well serving the property being transferred.

5.5.2 In addition, the owner shall give copies of all water test results of which he has knowledge (regardless of age or 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. In the event that the water is not tested by the owner, the buyer will be required to do so.

5.5.3 This regulation shall not be effective at the conveyance or devise of the property to the surviving spouse or, in the case of joint ownership, the property is conveyed to one of the original owners.

SECTION 6 VARIANCE AND ENFORCEMENT PROCEDURES

6.1 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.

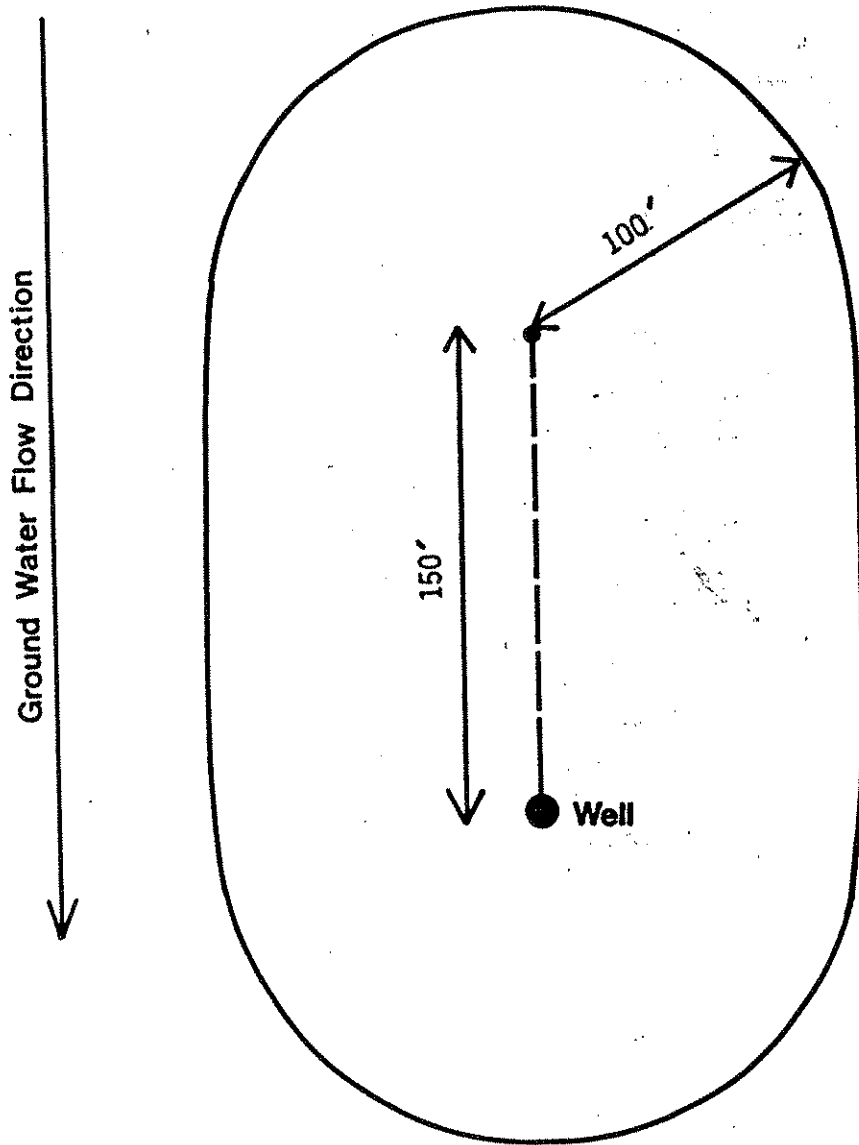
6.2 Every request for a variance shall be made in writing and shall state the specific variance requested and the reasons therefore. Further, all variances shall be listed on the Site Plan submitted as a final plan. Any variance shall be made in writing and shall state the reasons for acceptance or denial. A copy of any variance granted shall be available to the public at all reasonable hours in the office of the Board of Health while it is in affect.

6.3 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.

6.4 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 consumers of water supplied by the well.

6.5 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.

6.6 The Provisions of Title 1 of the State Environmental Code (310 CMR 11.00) shall govern the enforcement of these regulations.



PRIVATE WELL PROTECTION ZONE