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It is the recommendation of the Board of Health that the Duxbury Public water system is the preferred source of drinking water.

Commonwealth of Massachusetts
Town of Duxbury
Board of Health
2.0 Rules and Regulations for Private Wells

2.01 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.

2.02 AUTHORITY

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

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

2.03 DEFINITIONS

Agricultural wells: wells used for irrigation purposes only, and not tied into any private or public drinking water supply. Not to be used as a drinking water source.

Applicant: Any person who intends to have a private well constructed.

Aquifer: A water bearing geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield.

Board: The Board of Health of the Town of Duxbury, Massachusetts, or its authorized agent.

Certified Laboratory: Any laboratory which has full certification by the Department of Environmental Protection is provided in the most recent edition of "Certification Status of Commercial Environmental Laboratories".

Person: An individual, corporation, company, association, trust, or partnership.

4/15/92

"The Mission of the Town of Duxbury is to deliver excellent services to the community in the most fiscally responsible and innovative manner while endeavoring to broaden our sense of community and preserve the unique character of our town."

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Potable Wells: Wells to be used as drinking water source.

Private Wells: A well located on one lot to serve that lot only, and privately owned by property owner.

Private Well Guidelines: Publication of Department of Environmental Protection/Bureau of Resource Protection/Division of Water Supply.

Pumping Test: A procedure used to determine the characteristics of a well and adjacent aquifer by installing and operating a pump.

Registered Well Driller: Any person registered with the Department of Environmental Protection/Division of Water Resources to dig or drill wells in the Commonwealth of Massachusetts.

Any other definitions shall be those as defined in Department of Environmental Protection, **“Private Well Guidelines”**.

2.04 WELL CONSTRUCTION PERMIT:

2.04.1 The property owner, or his designated representative, shall obtain a Well Construction Permit from the Board of Health prior to the commencement of construction of any private well, potable or agricultural.

2.04.2 Each permit application to construct a private well, potable or agricultural, shall include the following:

2.04.3 (a) Property owner's name and address.

2.04.3 (b) Well driller's name, address, and the State Registration number under MGL Chapter 21, section 16.

2.04.3 (c) A description and location on a plan, with a specified scale, showing the following:

- (1) visible prior and current land uses within two hundred (200) feet of the property line of the lot proposed for a well, which represent a potential source of contamination, including but not limited to existing and proposed structures; subsurface sewage disposal systems; subsurface fuel storage tanks; public ways; utility rights-of-way; and any other potential sources of pollution;

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- (2) the single lot proposed for construction of a private well, noting all dimensions of the lot; the zoning use of the lot; the Assessors Lot Number; the purpose of the proposed well; and, the location of any existing above or below ground structures.

2.04.4 The Well Construction Permit (WCP) shall be on the 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 Board 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.

2.04.5 Well Construction Permits are not transferable.

2.05 WATER SUPPLY CERTIFICATE

2.05.1 No private well shall be used as a drinking water source until the Board of Health has issued a Water Supply Certificate.

2.05.2 A Water Supply Certificate (WSC) must be issued for the use of a potable private well prior to the issuance of a building permit for new construction, which is to be served by the well.

2.05.3 A Water Supply Certificate (WSC) must be issued for the use of a potable private well.

2.05.4 The following shall be submitted to the Board of Health to obtain a Water Supply Certificate:

- (a) A Well Construction Permit
- (b) A copy of the Water Well Completion Report/Pumping Test, as required by the Division of Water Resources (CMR 313, Section 300). (Well Driller's Report)
- (c) A copy of the Water Quality Report required pursuant to 2.08 of these regulations.
- (d) A site plan, drawn to scale, showing lot dimensions; well location; existing or proposed building location; existing or proposed individual subsurface disposal system; all potential sources of contamination existing within two hundred (200) feet of well site; location of all test holes and borings; and, all other well location requirements in section 2.06 of these regulations.

2.05.5 Upon the receipt and review of the above documents the Board of Health shall make a final decision on the application for a Water Supply Certificate. A final decision shall be in writing and shall comprise on of the following actions:

- (a) Issue a Water Supply Certificate within four (4) business days of receipt of a complete submission for a Water Supply Certificate under 2.05.3 of these regulations.

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- (b) Deny the applicant a Water Supply Certificate and specify, in writing, the reasons for the denial and the action required for compliance.

2.06 WELL LOCATION AND USE REQUIREMENTS

2.06.1 Each private well shall be accessible for repair, maintenance, testing, and inspection.

2.06.2 The physical location of private well shall be marked on the property by a durable boundary marker, placed 8" above finished grade, unless other permanent and visible identification is present.

2.06.3 The placement of all private wells shall meet the following criteria for offsets, unless exceptions are noted for agricultural wells:

- (a) At least two hundred (200) feet from any potential source of contamination;
- (b) At least five (5) feet from any property line.
- (c) A minimum of twenty-five (25) feet from the edge of the travel way of any public or private road.
- (d) All wells within 100 feet from a wetland, as defined by MGL Chapter 131, section 40, and within the 100-year flood plain, shall be approved by the Duxbury Conservation Commission.
- (e) A minimum of ten (10) feet from a building sewer constructed of durable corrosion resistant material with watertight joints.
- (f) A minimum of fifty (50) feet from a septic tank.
- (g) A minimum of one hundred fifty (150) feet from a leaching facility, except a private well for irrigation use only may be a minimum of one hundred (100) feet.
- (h) Water supply lines shall be installed to meet requirements of Title 5 of the State Environmental Code in relation to distance from sewer lines.

2.06.7 No private well, or its associated distribution system, shall be connected to the distribution system of a public water supply.

2.07 WATER QUANTITY REQUIREMENTS

2.07.1 The applicant shall submit a Pumping Test Report to the Board for review and approval. (see attached form)

2.07.2 In order to demonstrate the capacity of the well to provide the Required Volume of water, a pumping test shall be conducted. In addition, the following information shall be submitted:

- (a) the volume of water necessary to support the household's daily needs, as determined by using the following equation: Number of bedrooms x 200 gallons per bedroom equals the number of gallons needed daily.

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(b) the additional equipment or type well capable of delivering one (1) gallon per minute.

2.08 WATER QUALITY TESTING REQUIREMENTS

2.08.1 After the well has been completed and disinfected, and prior to using it as a drinking water supply, a water quality test shall be conducted. The water sample for this test shall be collected by the well driller or lab personnel.

2.08.2 The water sample to be tested shall be collected at the pump discharge or from a disinfected tap in the pump discharge line or another acceptable location. In no event shall a water treatment device be installed prior to sampling.

2.08.3 The Water Quality test, utilizing EPA approved methods for drinking water testing and not methods for analyzing wastewater, shall be conducted by a certified laboratory and shall include analysis for the parameters listed on the Water Quality Test Report, Commonwealth of Massachusetts Drinking Water Standards. (see attached form)

2.08.4 Following a receipt of the water quality test results, the applicant shall submit a Water Quality Report to the Board which includes:

- (a) a copy of the certified laboratory test results
- (b) The name of the individual who performed the sampling
- (c) Where in the system the water sample was obtained

2.08.5 The Board reserves the right to require re-testing of the parameters on the Water Quality Test Report, or testing for additional parameters when, in the opinion of the Board, based on knowledge of a potential source of contamination 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.

2.08.6 Copies of all water quality tests performed shall be filed at the office of the Board of Health by the owner. The applicant may direct the lab to send copies to the Board.

2.08.7 A Water quality test of a potable well shall be required any time the property on which the well is located changes ownership. The seller shall be required to have the test performed and results presented to the buyer.

2.08.8 Agricultural wells used for irrigation only are exempt from some requirements of the water quality test of 2.08.3, as indicated on the Water Quality Report. (see attached form)

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2.09 WELL CONSTRUCTION REQUIREMENTS

2.09.1 Pursuant to 313 CMR 3.00, no person in the business of digging or drilling shall construct a well unless registered with the Department of Environmental Management/Division of Water Resources.

2.09.2 Construction, maintenance, or repair of a private well shall be in accordance with “Private Well Guidelines” of the Department of Environmental Protection/Bureau of Resourced Protection/Division of Water Supply.

2.09.3 Any work involving the connection of the private potable well to the distribution system of the residence must conform to the local plumbing code. A licensed plumber shall connect the private potable well to the distribution system, with the plumbing inspector to check for the cross-connections.

2.09.4 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 a pump installer or registered well driller, including the installation of the pump and appurtenance in the well or house.

2.09.5 A physical connection is not permitted between a water supply which satisfies the requirements of these regulations and other water supply that does not meet the requirements of these regulations without prior approval of the Board.

2.10 DECOMMISSIONING REQUIREMENTS

2.10.1 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. Test holes to be filled and packed prior to completion of finished well and done during location search do not require a “decommissioning”.

2.10.2 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.

2.10.3 In the case of new well construction, all test holes and borings shall be plugged before the well driller completes work at the site.

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

- (a) construction of the well is terminated prior to completion of the well
- (b) the well owner notifies the Board that the use of the well is to be permanently discontinued
- (c) the well is a potential hazard to public health or safety and the situation cannot be corrected
- (d) the well is in such a state of disrepair that its continued use is impractical

2.105 The DEP Private Well Guidelines section entitled, "Decommissioning Abandoned Wells, Test Holes and Dry or Inadequate Borings" shall be followed by registered well drillers.

2.106 A Well Decommissioning Report shall be submitted to the Board of Health by the registered well driller within thirty days. (see attached form)

2.11 REGISTERING EXISTING PRIVATE WELLS

2.11.1 Within one (1) year of the effective date of these regulations, owners of all existing private wells, both potable and agricultural, shall register such wells with the Board of Health and provide such information as is contained in the Private Well Registration Report. (see attached report form) Upon the transfer of property, the seller (current owner) shall be responsible to register any well on the property.

2.12 ENFORCEMENT

2.12.1 The Board shall investigate violations of these regulations and/or violations of any Water Supply Certificate conditions, and may take such actions as the Board deems necessary for the protection of the public health and the enforcement of these regulations.

2.12.2 If an investigation reveals a violation of these regulations, or the Water Supply Certificate conditions, the Board shall order the private well owner to comply with the violated provision(s).

2.12.3 These orders shall be in writing and served in the following manner:

- (a) personally, by any person authorized to serve civil process, or;
- (b) by any person authorized to serve civic process by leaving a copy of the order at the well owner's last and usual place of abode, or;

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- (c) by sending the well owner a copy of the order by registered or certified mail, return receipt requested, if the well owner is within the Commonwealth, or:
- (d) if the well owner's last and usual place of abode is unknown or outside the Commonwealth, by posting a copy of the order in a conspicuous place and by advertising in a newspaper or general circulation within the town.

2.13 HEARING

2.12.1 The private well owner to whom any order has been served may request a hearing before the Board by filing with the Board within seven (7) days after the order was served, a written petition requesting a hearing on the matter.

2.13.2 Upon receipt of such petition, the Board shall set a time and place for such hearing and shall inform the well owner thereof in writing. The hearing shall be commenced not later than thirty (30) days after the day on which the order is served.

2.13.3 The board, upon application of the well owner, may postpone the date of hearing for a reasonable time beyond such 30-day period if in the judgement of the Board the well owner has submitted a good and sufficient reason for such postponement, and there is no danger to public health.

2.13.4 At the hearing the well owner shall be given the opportunity to be heard and to show why the order should be modified or withdrawn.

2.13.5 After the hearing, the Board shall sustain, modify, or withdraw the order and shall inform the well owner in writing of its decision. If the Board sustains or modifies the order, it shall be carried out within the time period allotted in the original order or in the modification.

2.13.6 Every notice, order, or other record prepared by the Board in connection with the hearing shall be entered as a matter of public record in the office of the Board of Health.

2.13.7 If a written petition for a hearing is not filed with the Board within seven (7) days after the day an order has been served or if after a hearing, the order has been sustained in any part, each day's failure to comply with the order as issued or modified shall constitute an additional offense.

2.14 APPEAL

Any person aggrieved by the final decision of the Board may seek relief therefrom within thirty (30) days in any court of competent jurisdiction, as provided by the laws of the Commonwealth

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2.15 PENALTIES

Any person who violates any provision of these regulations, or who fails to comply with any order of the Board, for which a penalty is not otherwise provided in any of the General Laws shall upon conviction be fined not less than ten nor more than five hundred dollars. Each day's failure to comply with an Order shall constitute a separate violation.

2.16 VARIANCE

2.16.1 The Board may, after a public hearing, grant a variance to the application of these regulations, when, in its opinion, the enforcement thereof would do manifest injustice, and the applicant has demonstrated that the equivalent degree of protection will still be provided to the private water supply without strict application to particular provisions of these regulations.

2.16.2 Every request for a variance shall be made in writing and shall state the specific variance/waiver sought and the reasons therefore. The writing shall contain all the information needed to assure the Board that, despite the issuance of a variance/waiver, the public health and environment will be protected.

2.16.3 Any grant or denial of a variance shall be in writing and shall contain a brief statement of the reasons for approving or denying the variance.

2.16.4 Any variance may be subject to such qualifications, revocation, suspension, condition, or expiration as is provided in these regulations or as the Board expresses in its grant of the variance. A variance may otherwise be revoked, modified or suspended in whole or in part, only after the holder thereof has been notified in writing, including reasons for such action, and has been given an opportunity to be heard, pursuant to section 2.13 of these regulations.

2.17 SEVERABILITY

If any provisions of these regulations or the application thereof is held to be invalid by a court of competent jurisdiction, the invalidity shall be limited to said provision(s) and the remainder of these regulations shall remain valid and effective. Any part of these regulations subsequently invalidated by a new state law or modification of an existing state law shall automatically be brought into conformity with the new or amended law and shall be deemed to be effective immediately, without recourse to a public hearing and the customary procedures for amendment or repeal of such regulation.

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2.18 EFFECTIVE DATE

2.18.1 These regulations were adopted by vote of the Duxbury, Massachusetts Board of Health, at their regularly scheduled meeting held on Thursday, March 12 , 1992 and are to be in full force and effect on and after April 15, 1992.

2.18.2 Prior to the effective date, notice of the adoption of these regulations shall be published in a newspaper of local circulation.

2.18.3 A copy of these regulations shall be filed with t he Department of Environmental Protection/Division of Water Supply, the Duxbury Board of Health Office, and with the Town Clerk of Duxbury.

2.18.4 These regulations or any portions thereof may be amended, supplemented or repealed from time to time by the Board, with notice as provided by law, on its own motion or by petition.

2.19 DISCLAIMER

The issuance of a private well permit shall not be construed as a guarantee by the Board, or its agents, that the water system shall function satisfactorily nor that the water supply will be of sufficient quantity for its intended use.

4/15/92

ATTACHMENT

REQUIRED WATER QUALITY REPORT

1. coliform
2. nitrate
3. turbidity
4. Benzene
5. Carbon Tetrachloride
6. para-Dichlorobenzene
7. 1,2 Dichlorethane
8. 1,1 Dichloroethylene
9. Trichloroethylene
10. Vinyl Chloride
11. sodium
12. alkalinity
13. calcium
14. chloride
15. color
16. copper
17. hardness
18. iron
19. magnesium
20. nitrogen (ammonia)
21. nitrogen (nitrite)
22. odor
23. pH
24. potassium
25. sediment
26. sulfate
27. total dissolved solids

Samples taken from wells completed in crystalline bedrock shall also be analyzed for:

1. radon
2. arsenic
3. selenium

Additionally, in areas where current or historical land use includes agriculture, the sample shall be analyzed for:

1. pesticides
2. herbicides
3. arsenic