

**TOWN OF STOW
BOARD OF HEALTH
PRIVATE WELL REGULATIONS**

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1.0 ~~1.0~~ Purpose and Authority

These regulations are intended to promote the public health and general welfare by ensuring that wells in the Town of Stow are constructed, maintained or decommissioned in a manner that will protect the quality of the groundwater derived from wells. Therefore, the property owner or designated representative of an owner proposing to construct or decommission a well shall obtain a permit from the Stow Board of Health or its agent. These regulations supersede all previous regulations adopted by the Town of Stow Board of Health pursuant to the construction of wells. These regulations are adopted by the Town of Stow as authorized by Chapter 111, Section 31, Massachusetts General Law.

Public water supply wells subject to regulation under 310 Code of Massachusetts Regulations (CMR) 22:00 (the Massachusetts drinking water regulations) are exempt from these regulations. The Town of Stow Board of Health will require a permit for the initial drilling of a well for a public water supply.

2.0 ~~2.0~~ Definitions

Abandoned Water Well: A private well that has not been used for water supply for period of one year or more and which the owner does not intend to use again for supplying water.

Agent: Any person designated and authorized by the Board to implement, in whole or part, these regulations. To the extent provided by the Board, the agent shall have all the authority of the Board and shall be directly responsible to the Board and under its direction and control.

~~Alter a Well, Altered or Well Alteration: A major change in Change the type structural or hydraulic characteristics of construction or configuration of a private water system a well including, but not limited to, the installation of water treatment equipment to mitigate a health-related water quality issue, adding a disinfecting device, deepening of or replacing an existing well, decommissioning, performing Well Yield Enhancement, or hydrofracturing a bedrock well. In addition, a pump repair, pump performing casing extension, replacement, perforation or water line repair.~~

~~Approved Sampler: An individual or replacement shall not be deemed a well alteration entity granted authority by the Board of Health to sample private well water in anticipation of a quality analysis. An Approved Sampler is required to adhere to the Board of Health approved "Best Practices for Water Quality Sampling of Private Wells."~~

Aquifer: A water-bearing geologic formation that contains water in sufficient quantities to potentially supply a well for drinking water or other purposes.

Bentonite Grout: A mixture of bentonite (API Standard 13A) and water in a ratio of not less than one pound of bentonite per gallon of water.

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

Casing: Impervious durable pipe placed in a boring to prevent the walls from caving in and to serve as a vertical conduit for water in a well.

Certified Laboratory: A laboratory certified by the Massachusetts Department of Environmental Protection for the analysis of drinking water and required water quality analytes. ~~Provisional certification is acceptable.~~

Certified Well Driller: Any person certified with the Department of Environmental Protection Well Driller Program to dig or drill wells in the Commonwealth of Massachusetts.

Concrete: A mixture consisting of Portland cement (ASTM Standard C150, type I or API Standard 10, Class A), sand, gravel, and water in a proportion of not more than five parts of sand plus gravel to one part cement, by volume, and not more than six gallons of water per bag (94 pounds) of cement. One part cement, two parts sand, and three parts gravel are commonly used with up to six gallons of water.

Contamination: The presence of any physical, chemical, biological or radiological substance or matter in water at a concentration and for a duration or anticipated duration which, in the opinion of the regulating agency, the Stow Board of Health, would present a threat to the public health, using existing federal and state standards and guidelines where applicable.

Cross Connection: Any physical connection or arrangement between two or more otherwise separate piping systems, one of which contains potable water and the other, water of unknown or questionable safety, whereby water may flow from one system to the other, the direction of flow depending on the pressure differential between the two systems.

Decommission: The processes by which an abandoned private well, test hole and borings are modified to prevent the well, including the annular space outside the casing, from being a

channel allowing the vertical movement of water.

Drilled Well: Any well drilled into bedrock with a casing that is sealed to the bedrock.

Driven (Point) Well: Any private well that is constructed by driving or washing a well screen into the sands and/or gravels of the unconfirmed aquifer to extract water.

Dug Well: Any well excavation dug by man or machine. New dug wells are not allowed.

Geothermal Well: Any drill hole, excavation or opening, deeper than it is wide, constructed into the ground for the purpose of transferring heat as part of a ground-source heat pump system designed and installed with current Massachusetts Department of Environmental Protection guidance documents.

Groundwater: Water that is found in fully saturated soils, sediments and rocks below the surface of the ground. The water table is the upper surface of the ground water system.

Health Advisories: Supplemental information regarding water quality standards issued by Mass DEP as new information regarding water safety is established.

Hydrofracturing: The injection of water and possibly additives or air at very high pressures into the borehole of a bedrock well to increase the inflow of water into the borehole from cracks and fissures in the rock, thereby increasing the well yield.

Irrigation Well: Well used for the sole purpose of watering or irrigation. The well shall not be connected at any time to a dwelling or a building unless it meets the requirements of a Private Drinking Water Well and ~~have~~has the ~~Board's~~Board's written approval.

Major Renovation: An addition of any bedroom(s) or accessory apartment(s) to a property.

Mass DEP: Massachusetts Department of Environmental Protection

Mass DEP Water Quality Standards: Standards for water quality testing from ~~Massachusetts'~~Massachusetts' Primary and Secondary Drinking Water Standards and Guidelines as set forth in the ~~MassDEP's~~MassDEP's Standards and Guidelines for Contaminants in Massachusetts Drinking Water

Monitoring Well: Any drill hole, excavation or opening deeper than it is wide constructed into the ground for the purpose of monitoring or observation of subsurface conditions; not included are wells used on a temporary basis for the purpose of sampling soil vapors or groundwater, if the installation tool is left in the ground less than 72 hours.

Neat Cement Grout: A mixture consisting of one bag (94 pounds) of Portland cement (ASTM Standard C 150, Type I or API Standard 10, Class A) to not more than six gallons of clean water. Bentonite (API Standard 13A), up to two percent by weight of cement, shall be added to reduce shrinkage. Other additives, as described in ASTM Standard C494, may be used to increase fluidity and/or control setting time.

Potable Water: Water that is tested by a certified laboratory and satisfies state and Town of Stow drinking water standards for culinary and domestic purposes.

Private Drinking Water Well: Any ~~(existing)~~ dug, driven or drilled hole, with a depth greater than its largest surface diameter, constructed or used to supply potable water that is not regulated by 310 CMR 22.00.

Public Water Supply Well: A system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year ~~---~~.

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

Representative Water Sample: A water sample collected in a manner designed to ensure that it represents the actual quality of the water in the well, not affected by contaminants introduced at the site of collection or altered by water treatment devices. Representative water samples shall be collected at the pump discharge or from a tap in the pump discharge line and upstream of any water treatment device. ~~They shall be collected either after purging three (3) well volumes or following the stabilization of the pH, temperature and specific conductance in the pumped well.~~

Sand Cement Grout: A mixture consisting of Portland cement (ASTM Standard C150, Type I or API Standard 10, Class A), sand and water in the proportion of one part cement to three or four parts sand, by volume, and not more than six gallons of water per bag (94 pounds) of cement. Up to five percent, by weight of bentonite (API Standard 13A) shall be added to reduce shrinkage.

Static Water Level: The level of water in a well under non-pumping conditions.

Well: Any drill hole, excavation or opening, deeper than it is wide, constructed into the ground for the purpose of monitoring, observation, injecting or extracting fluids, or for the purpose of transferring heat. Not included are wells used on a temporary basis for the purpose of dewatering excavations, stabilizing hillsides or earth embankments, sampling soil vapors or sampling groundwater, if the installation tool is left in the ground less than 72 hours.

Well Construction/Decommission Permit: The permit required to construct, alter, or decommission a ~~private~~ well in Stow.

Well Seal: An approved arrangement or device used to cap a well, or to establish and maintain a separation between the casing or curbing of a well and the piping or equipment installed therein, the purpose and function of which is to prevent pollutants from entering the well or the upper terminal.

3.0 ~~3.0~~ — Requirements for Wells

- 3.1 ~~3.1~~ No private drinking water well constructed or altered after the effective date of this regulation shall be deemed a source of potable water unless it is constructed in accordance with this regulation, (see Section 5.9).

3.2 ~~3.2~~ For each private drinking water well constructed or altered (see Section 2.0) after the effective date of this regulation, there shall be:

- 1) ~~1)~~ a Well Permit Application
- 2) ~~2)~~ a Well Construction/~~Decommission~~ Permit
- 3) ~~3)~~ a water quality analysis(es), (see Section 5.6)
- 4) ~~4)~~ a Well Completion Report

~~6)~~ 5.) a Private Well Certificate of Compliance

3.3 ~~3.3~~—For each well decommissioned after the effective date of this regulation, there shall be:

- 1) ~~1)~~ a Well Permit Application
- 2) ~~2)~~ a Well ~~Construction~~/Decommission Permit
- 3) ~~3)~~ a Private Well Certificate of Compliance

3.4 ~~3.4~~—The Stow Board of Health (hereafter to be referred to as the Board) shall investigate violations of this regulation or of any permit issued and may take such actions it deems necessary for the protection of the public health.

~~3.5—The Board will make every effort to approve or deny in an expedient manner any permitting documents required to undertake or complete well work.~~

4.0 ~~4.0~~—Well Construction/Decommission Permits

4.1 ~~4.1~~ No person shall engage in the business of construction or decommission of wells within the Town of Stow (hereafter to be referred to as the Town) under these regulations unless certified as a well driller with the Department of Environmental Protection in the Commonwealth of Massachusetts (from here forth to be referred to as Mass DEP). ~~A copy of the well driller's certificate must accompany the application for a well permit.~~

4.2 ~~4.2~~ An application for a Well Construction/Decommission Permit shall be submitted by the property owner, the well driller, or their agent to the Board on a form furnished by the Board.

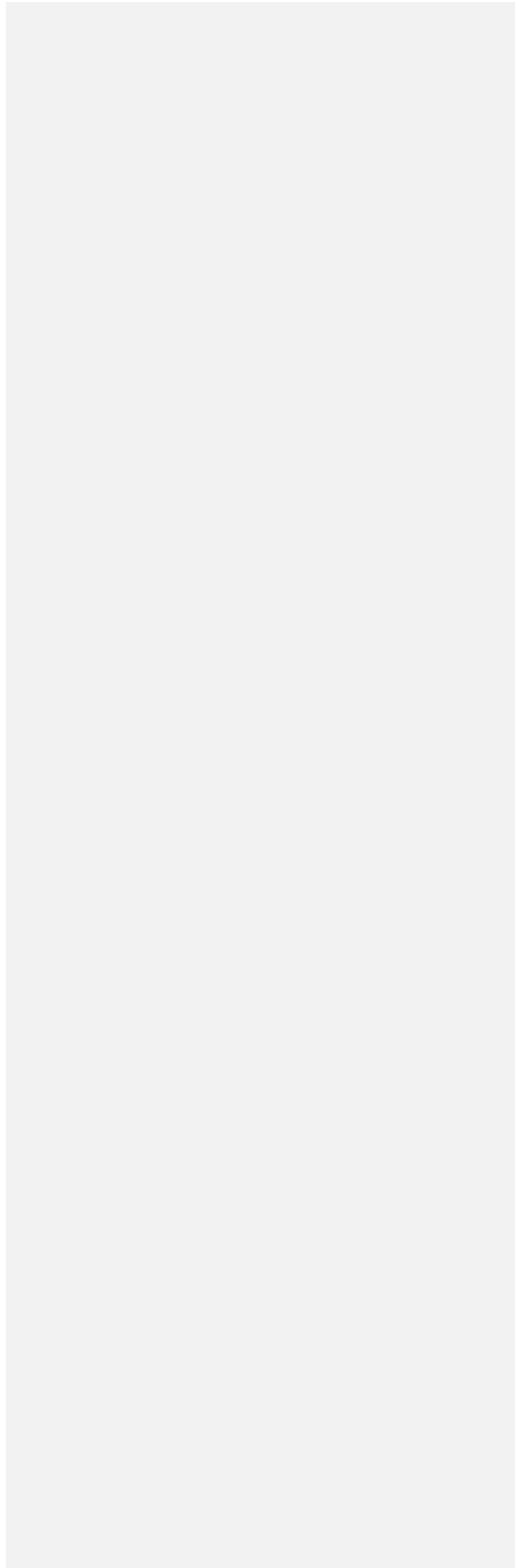
4.3 ~~4.3~~—A Well Construction/Decommission Permit shall be obtained from the Board prior to the construction, decommission or abandonment of any well. The Board shall charge a fee for each Well Construction/Decommission Permit and said fee shall be paid to the Board, or its Agent prior to issuing the permit.

4.4 ~~4.4~~ All Well Construction/Decommission Permits shall expire one year from the date of issue, unless revoked for cause. Permits may be extended for one additional six 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. After a permit (and/or its six month extension) has expired, a new Well Construction/Decommission Permit application, along with the fee, must be submitted to the Board.

- 4.5 ~~4.5~~—The Well Construction/Decommission Permit shall be displayed on the well site at all times during well construction, alteration, or ~~decommission.~~
decommissioning.

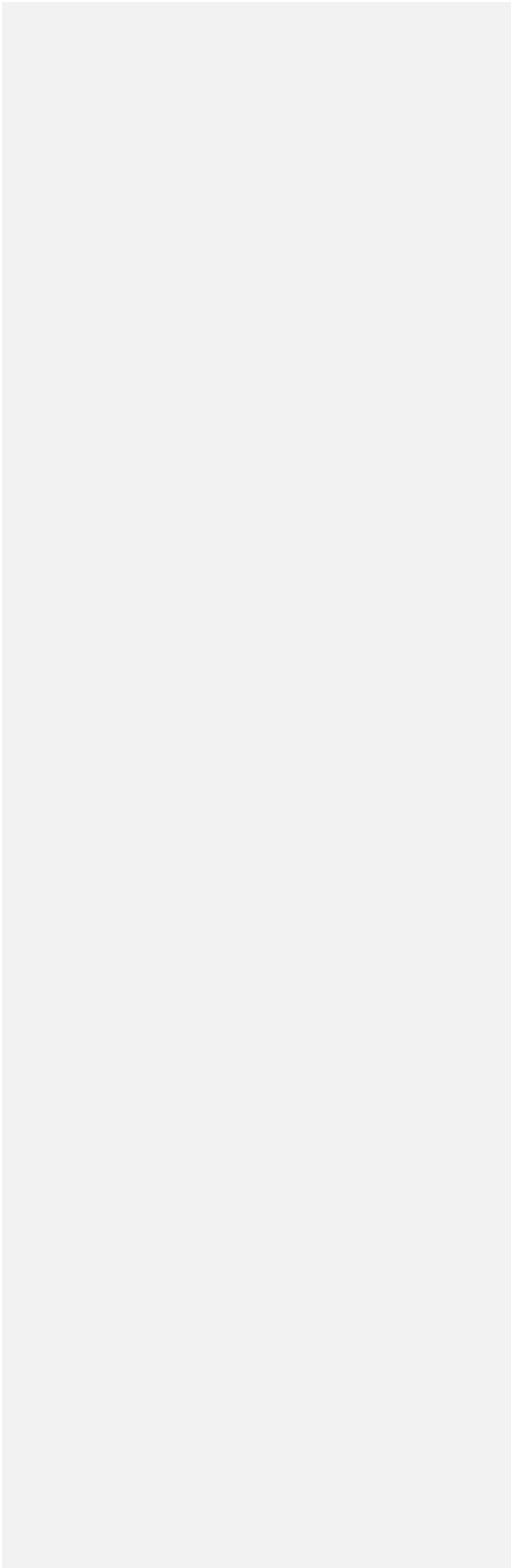
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5.0 ~~5.0~~ Well Construction/Alteration Permit Requirements

- 5.1 ~~5.1~~ The following information shall be submitted by the property owner, the well drill/digger, or their agent with the well construction permit application, prior to the issuance of a permit:
- 1) The ~~general~~ location of the proposed well to include the location of at least one road intersection for reference
 - 2) for new ~~well~~ construction, an approved ~~engineering~~ plan, prepared, stamped and signed by a Massachusetts Registered Professional Engineer ~~or a~~ Massachusetts Registered Sanitary Engineer, ~~Professional Land Surveyor or Registered Sanitarian~~ showing the location of the proposed well, proposed septic system and any possible sources of contamination
 - 3) a description, written on the plan, of any potential source(s) of contamination as identified by the Board within 400 feet of the proposed new well location [see Section 5.2(1), ex: agricultural, industrial, etc.]
 - 4) for repair or replacement of an existing well, a ~~diagram~~ plan drawn to scale ~~(, ideally based on a satellite image of the property),~~ or modification of an existing engineered plan, ~~of showing the expected construction and~~ proposed location of the new well ~~and~~ the location of the existing well and septic system(s) on the lot and septic systems within 100' of the proposed well.
 - 5) the well driller's/digger's name and certificate number as it appears on the Mass DEP Well Driller Certificate
 - 6) the pump installer's name/ address, if known
- 5.2 Well Location and Use Requirements
- 1) ~~4)~~ In establishing the location of a new well, the design engineer and/or the driller shall identify in writing on the plan, [see 5.1(2)], all known sources of potential ground water contamination as determined by the Board, including agricultural fields; animal feed lots; active or closed landfills; dry cleaning establishments; funeral homes; painting, wood preserving or furniture stripping establishments; car wash establishments; automotive service and repair shops; truck and bus terminals; fuel depots; above ground and underground storage tanks; junk and salvage yards; railroad lines or yards; metal plating, finishing, polishing or etching establishments; any known spills of hazardous substances or materials, as defined in federal, state or local laws, bylaws or regulations, or any other similar uses that exist or are proposed within 400 feet of the proposed well site.

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2) ~~2)~~ Wells shall be subject to the setbacks as set forth in the table, below:

Required Setbacks for Wells (Measured in Feet)			
	Well Type		
	Private Drinking Water	Irrigation and Geothermal	Geothermal Monitoring*
Property line	15 25	15	N/A
Public or private way (edge of road) or common drive	25	25	N/A
100-year floodplain elevation	2 ft. above highest recorded level	2 ft. above highest recorded level	N/A
Body of water	50 25	50 25	N/A
Wetland	50 25	50 25	N/A
Septic tank/pump chamber	50	50 25	N/A
Soil absorption system	100	50 100*	N/A
Building sewer	50 10	50 10	N/A
Sewer line**	50 10	50 10	N/A
Manure storage areas***	100	100	N/A
Structure with a foundation	20	20 10	N/A
Swimming pool and water supply line	25 10	25 10	N/A
Storm drains	20	20	N/A
Active or closed landfill	400	400	N/A
Hazardous waste spill site	400	400	N/A
Above ground storage tank (outside dwelling)	100	100	N/A
Underground storage tank (outside dwelling)	250	250	N/A

* 50 is the requirement for a closed loop system/100 for an open loop system

*offsets for geothermal wells shall comply with the latest version of the DEP Guidelines for Ground Source Heat Pump Wells.

** Plumbing code allows a water line to go under a sewer line if the water line is encased in cement.

***See "Keeping of Horses – Town of Stow Massachusetts Board of Health Regulation" Section C, Manure Management Planning

- a) The Board may grant a variance to the minimum lateral distance requirement. See Section 7.0 Variances.
- b) The Board reserves the right to impose minimum lateral distance requirements

from other potential sources of contamination not listed above.

- c) All such special well location requirements shall be listed, in writing, as a condition of the well construction permit.
 - d) Whenever possible, the well shall be upgradient of sources of potential contamination. The top of the well cap or casing shall be above the ground surface and above any conditions of flooding by drainage or runoff from the surrounding land, unless otherwise adequately protected.
 - e) When a well is located in a floodplain, the well casing shall extend at least (2) feet above the level of the highest recorded level. The top of the well casing shall be reasonably smooth and level.
- 3) ~~3)~~ Each well shall be accessible for repair, maintenance, testing and inspection.
- 4) ~~4)~~ Water supply lines shall be installed at least 10 feet from, and 18 inches above, any sewer line. Whenever water supply lines must cross sewer lines, both pipes shall be constructed of Class 150 pressure pipe and shall be pressure tested to assure watertightness.
- ~~5) Shared wells shall be permitted for a maximum of 12 bedrooms. Systems larger than that are considered public water supplies, are exempt from these regulations, and are regulated by DEP (310 CMR 22:00).~~

5.3 ~~5.3~~ Well Construction Standards

- 1) ~~1)~~ ~~Wells, including dug~~ Private drinking water wells, shall be constructed in compliance with the recommendations of the latest edition of the Manual of Individual Water Supply, ~~U.S. Environmental Protection Agency (U.S. EPA), Water Supply Division (exception: surface springs shall not be used for the purpose of a potable water supply).~~ U.S. Environmental Protection Agency (U.S. EPA), Water Supply Division (exception: surface springs and dug wells shall not be used for the purpose of a potable water supply).
- 2) The annular space, if any, between the protective well casing and the wall of the drilled hole or the surface casing, shall be effectively sealed. The seal is to protect against contamination by surface and/or shallow, subsurface waters.
- 3) ~~3)~~ The well casing shall be covered with a gasketed, watertight well cap or rubber expansion-type well seal, with screened venting to allow air into the well. Casings shall extend a minimum of 24 inches above the highest known flood levels or 18 inches above the ground surface in areas not subject to flooding. In addition, all non-vent openings shall be sealed to exclude the intrusion of contaminants. Vent openings shall be complete with screening. In the case of an artesian well, wherein the hydrostatic pressure of the static water level is such that the water reaches the top of the casing and its well cap, a swing check valve shall be installed on the casing to intercept and divert the water before it reaches the electrical conduit and enters the dwelling.
- 4) ~~4)~~ When well screens are used, the screen length and opening size should be selected to ensure that the water supply will be free from silt, sand and other suspended solids. The well screen shall be stainless steel or PVC. The use of

galvanized steel screen is prohibited.

- 5) ~~5)~~ Pump suction lines, if used, shall not be closer than 100 feet from ~~the~~ soil absorption system or 50 feet from a septic tank/pump chamber (310 CMR 15.03-~~221~~ (1)).
- 6) ~~6)~~ Well pits, to house the pumping equipment or to permit access to the top of a well, shall not be permitted, ~~unless they are registered with Mass DEP.~~

- 7) ~~7)~~ All connections to a well casing made below ground shall be protected by either a pitless adaptor or a pitless unit that complies with the most recent revision of National Sanitation Foundation Standard 56, ventilated "Pitless Well Adaptors".
- 8) ~~8)~~ Cross connections shall be prohibited. No cross connection between a well and a public water supply shall be allowed.
- 9) ~~9)~~ The construction of injection wells for liquid waste disposal shall be prohibited, unless they are registered with Mass DEP.
- 10) ~~10)~~ New driven well points are required to have the top of their casing finished 18" above grade, so as to mark the location of the well and to enable servicing of the well without excavation. The suction line shall be a minimum of four feet below grade. In the event that the well is located in an area where the well casing's protrusion above grade is a pedestrian or vehicle hazard, such may be finished off just below grade in a standard rectangular valve box or similar enclosure.
- 11) ~~11)~~ New point wells located in cellars ~~should have cementing around such wells shall not be allowed.~~

5.4 ~~5.4~~ Water Quantity and Pumping Test

- 1) ~~1)~~ The well driller shall submit to the Board a Well Completion Report for review and approval within 30 days following the construction of a well or well alterations.
- 2) ~~2)~~ In order to demonstrate that the well capacity can provide the required volume of water, ~~a pumping test for the facility it serves, the method found in the most recent version of the Mass DEP's "Model Board of Health Regulations for Private Wells," section VII, shall be conducted. A minimum of five gallons per minute (GPM) for four hours is required.~~
- 3) ~~3)~~ Following the pumping test, the water level in the well must be shown to recover to within eighty-five ~~(85)~~ percent of the pre-pumped static water level within a twenty-~~four~~ (24) hour period.

5.5 ~~5.5~~ Disinfection and Other Sanitary Requirements

All private drinking water and irrigation wells shall be disinfected following construction, rehabilitation, or well or pump repair before the well is placed in service. The well shall be pumped to waste (not to the septic system) until the water is as clear as possible. Thereafter, the well and the pumping equipment (and plumbing, if installed) shall be disinfected with a solution containing at least fifty (50) parts per million (ppm) of chlorine. The well shall remain in contact with the chlorine solution for a minimum of 24 hours before the well is pumped to waste (not the septic system, wetlands, or a surface body of water) and the water is found to be free of chlorine.

5.6 ~~5.6~~ Well Sampling Procedure

- 1) Water samples taken to evaluate water quality following the construction of a private drinking water well or well alterations shall be collected by an employee of a

Massachusetts certified laboratory-, Approved Sampler or the Board of Health/Health Agent. All water samples shall be collected in accordance with current professional standards and practices. Collection of the initial sample shall occur following the well development and the disinfection process for that well (Section 5.5).

- 2) An initial representative water sample for laboratory analysis shall be collected at the pump discharge or from a tap in the pump discharge line. The sample must be collected upstream of any water treatment device. ~~A water sample shall be collected either after purging three (3) well volumes or following the stabilization of the pH, temperature and specific conductance in the pumped well.~~
- 3) The initial representative sample for new well construction or well alteration (see Section 2.0) shall be tested by a certified laboratory and analyzed for the following parameters:

<u>Ammonia</u>	<u>Parameters</u>	<u>Hardness</u>	<u>Potassium</u>
<u>Arsenic</u>	<u>Iron</u>	<u>Radon</u>	
<u>Chloride</u>	<u>Lead</u>	<u>Sodium</u>	
<u>Color</u>	<u>Magnesium</u>	<u>Sulfate</u>	
<u>Ammonia</u>	<u>Hardness</u>	<u>Potassium</u>	<u>Radon</u>
<u>Arsenic</u>	<u>Iron</u>	<u>Sulfate</u>	<u>Sodium</u>
<u>Chloride</u>	<u>Magnesium</u>	<u>Total dissolved solids</u>	<u>Total coliform bacteria</u>
<u>Color</u>	<u>Hardness</u>	<u>Zinc</u>	
<u>Conductivity</u>	<u>Iron</u>		
<u>Copper</u>	<u>Lead</u>		
<u>EPA 524.2</u>	<u>Magnesium</u>		
<u>Fluoride</u>	<u>Manganese</u>		
<u>Gross Alpha Screen</u>	<u>Nitrate</u>		
	<u>Nitrite</u>		
<u>Copper</u>	<u>Odor</u>		
<u>EPA 524.2 (VOC's)</u>	<u>pH</u>		
<u>Gross Alpha Screen</u>			
<u>Manganese</u>			

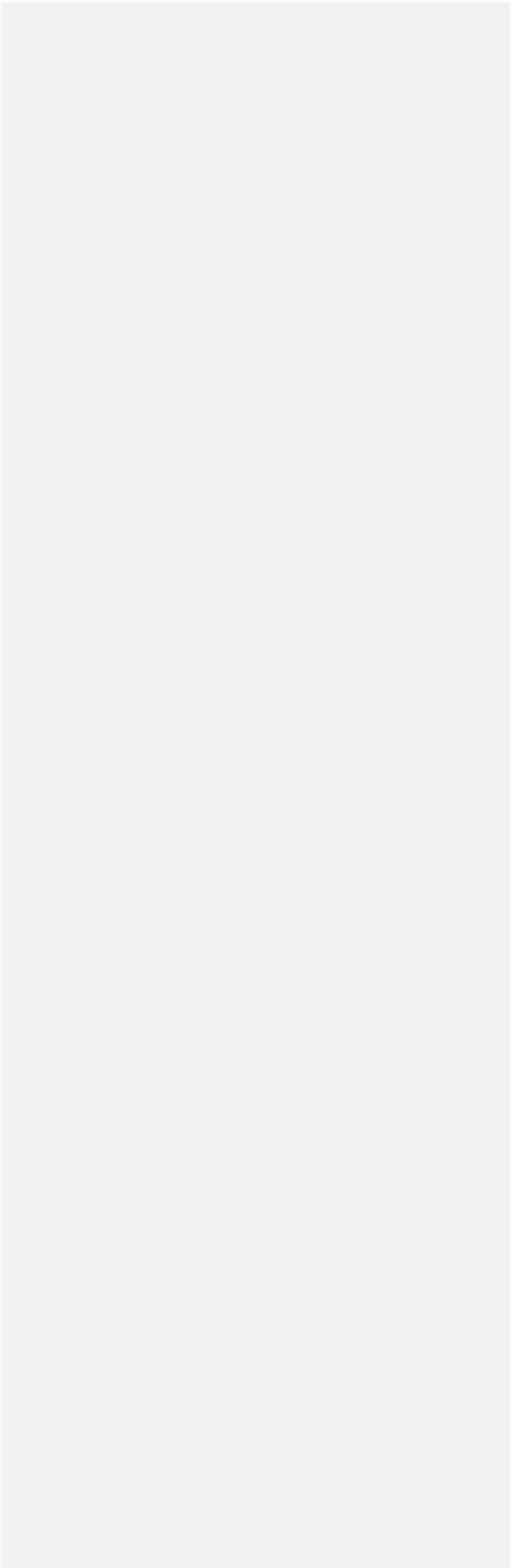
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- a) All analyses shall be performed in accordance with U.S. EPA methods for drinking water analysis. The federal standards of maximum contaminant levels (mcl) have been adopted by the state and incorporated into the guidelines for private water supplies (310 CMR 22:00).
- b) If the Gross Alpha Screen detects radiation of 15 pCi/L or more, then the water must be analyzed for radium and uranium concentrations.
- c) ~~A second representative sample~~ EPA Method 537.1 shall be used to test PFAS compounds.
- 4) ~~Prior to the issuance of an occupancy permit the well shall be tested for laboratory analysis of potability, total coliform bacteria, and any other parameters~~ parameter deemed appropriate by the Board ~~shall be collected from~~

~~a house tap prior to issuing a certificate of occupancy. The second sample should include all of the same parameters as the initial sample, and that test shall comply with the exception of radon, uranium or EPA 524.2, most current Mass DEP's "Standards and Guidelines for Contaminants in Massachusetts Drinking Water."~~

- 5) For well alterations (as defined in Section 2.0), only one water analysis including all of the parameters in Section 5.6(3) is required.
- 6) ~~6)~~ Analytical tests for pesticides, PCBs and inorganics (metals) other than those specified in 5.6(3) can be added or deleted, as public knowledge increases or at the request of the Board, when conditions (e.g., prior land use) may indicate the need for such testing.
- 7) ~~7)~~ All costs and laboratory arrangements for collection of water samples and testing are the responsibility of the property owner.

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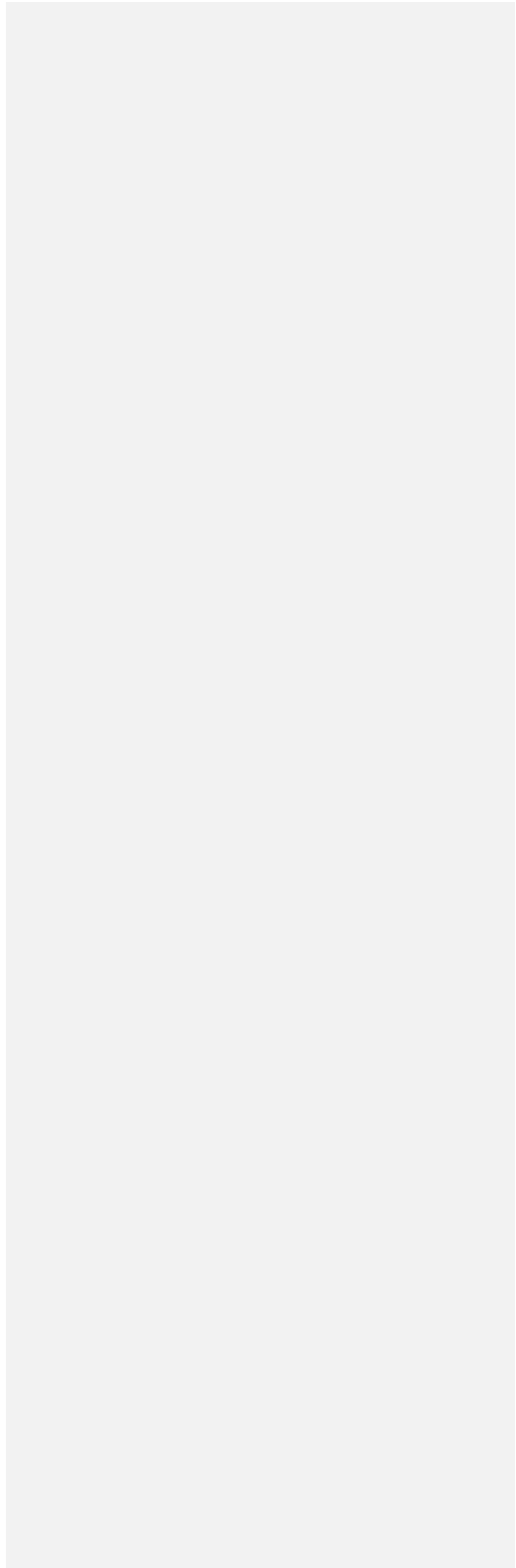


- 8) ~~8)~~ Prior to granting of a certificate of occupancy for a major renovation (addition of bedrooms or accessory apartments) to the dwelling, the owner shall have a sample from every private drinking water well serving that property ~~be~~ collected and tested by a certified laboratory using the parameters listed in the Water Quality section of this document [Section 5.6(3)]. This water quality testing shall have been performed not more than ~~one (1) year~~ two (2) years prior to granting of the above building permits and results of the water quality testing shall be submitted to the Board to meet the requirement for building occupancy. The Board of Health/Health Agent, a Massachusetts certified laboratory or Approved Sampler must draw the water sample.
- 9) ~~9)~~ 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 public health, safety, welfare and the environment. All costs and laboratory arrangements for the water testing are the responsibility of the property owner. The Board may choose to collect the water sample or may require that the sample be collected by an employee of the certified laboratory performing the analysis or other persons approved by the Board.
- 10) ~~10)~~ — Following a receipt of the water quality test results, the property owner or designated representative shall submit ~~a Water Quality Report~~ the following information to the Board, including:
- a) ~~a)~~ — a copy of the certified laboratory's test results
 - ~~b) the name and contact information of the individual who performed the sampling~~
 - ~~c) where in the system the water sample was obtained~~
 - b) 5.7 — water well completion report from the well driller

5.7 Water Quality

- 1) ~~1)~~ Private drinking water wells in Stow must meet ~~all local~~ water quality requirements for the parameters listed in Section 5.6(3) based on ~~MassDEP's~~ MassDEP's standards, guidelines, and health advisories for contaminants in drinking water. Based on the ~~Water Quality Reports information~~ submitted, ~~including these information~~ from surrounding properties and the ~~Board's~~ Board's knowledge of water contaminants in the area, the Board will make an assessment of the suitability of the well for drinking water use. In any case where a private drinking water well does not meet such standards, guidelines, and health advisories, the Board may take ~~action~~ actions as it deems necessary for the protection of public health, safety or welfare including, but not limited to, requiring the property owner to provide water treatment or an alternative source of drinking water.
- 2) ~~2)~~ The water sample(s) shall be ~~collected and~~ analyzed by a certified laboratory. A copy of the water quality results shall be sent to the Board ~~prior to issuance of a Private Well Certificate of Compliance.~~

- 3) ~~3)~~ The Board may require that additional or repeated analyses be performed on the well water based on the results of the initial analyses. Any such additional requirements shall specify the chemical constituents or chemical fraction (e.g. pesticide/PCB, extractables, etc.) for analysis.



4) ~~4)~~ Approval must be obtained in writing before the well shall be placed into service as a drinking water supply. Such written approval shall be the Private Well Certificate of Compliance issued by the Board. The Board may also use professional judgement, such as knowledge of water testing results/land uses, when assessing the results of the water quality analysis prior to approval of that well. When the results indicate a potential health hazard (e.g. possible gasoline contamination), the Board may, at its discretion, disapprove the well for use as a water supply.

~~5) 5)~~ Prior to selling, conveying or transferring title to real property, the owner shall have tested the water of every private well serving the property. A water sample from each well shall be submitted to a Massachusetts certified laboratory for testing the parameters listed in section 5.6 (3) of this document. The water quality test results shall be submitted to the Board of Health no less than thirty (30) days prior to transfer of ownership and are valid for a period of two (2) years from the sample date to the date of property transfer. The Board of Health/Health Agent, a Massachusetts certified laboratory or Approved Sampler must draw the water sample. (This section of the regulation will become effective on July 1, 2024)

~~5) 6)~~ If a water test is required by covenant with a property owner, the property owner or designated representative shall forward a copy of the test results to the Board within thirty (30) days in compliance with the covenant regulation.

~~6) 7) 6)~~ In the event the Board determines that a well constitutes a health hazard, such well shall immediately be removed from service. Further, this well shall be brought into compliance with the provisions of this regulation before returning to service or the well shall be decommissioned.

~~5.8~~ Well Completion Requirements

~~4) 8.)~~ In the event the water test results indicate a primary drinking water standard has been exceeded, treatment to meet the standard must be installed; treatment systems employed for the removal of a contaminant shall be point of entry and whole house supply. Any use of a treatment system for the purpose of achieving compliance with any drinking water standard shall require retesting to demonstrate effectiveness and shall require notification on the property record at the Registry of Deeds of the existence and need for operational equipment in order to provide potable water. The backwashing discharge from any treatment equipment cannot discharge into the onsite sewage disposal system. Treatment for coliform bacteria is not allowed.

~~5.8~~ Well Completion Requirements

~~7) 1)~~ Within thirty (30) days after the completion of the construction of any well, the well driller shall submit to the Board a Well Completion Report showing the following information on a plan delineating the boundaries of the lot:

- a) ~~a)~~ name and address of owner ~~of the~~ of the well
- b) ~~b)~~ date of construction of the well
- c) ~~c)~~ the address of the property served and/or the lot and map number assigned by the ~~assessor's~~ assessor's office

d) ~~d)~~ the depth, size and method of construction of the well

- e) ~~e)~~ the static water level from the ground or top of the casing
- f) ~~f)~~ the yield of the well, and the Well Test Data section must be completed
- g) ~~g)~~ the well driller's/digger's log information

~~h) the well location referenced to at least three permanent structures or landmarks~~

~~2) The Well Completion Report shall be signed by an authorized representative of the well driller's/digger's company and shall constitute a statement of compliance with all requirements of these regulations.~~

~~5.85.9~~ 5.9—Well Alterations

All well alterations as defined in Section 2.0 shall meet all the requirements for new well construction included in this regulation, with the exception that only ~~one Water Quality Test Report will be required.~~ an initial water sample shall require analysis in accordance with section 5.6(3).

~~5.95.10~~ ~~5.10~~ Private Well Certificate of Compliance

- 1) ~~4)~~ The issuance of a Private Well Certificate of Compliance by the Board shall certify that the well may be used as a drinking water supply. A Private Well Certificate of Compliance must be issued for the use of a well prior to the issuance of an occupancy permit for an existing structure or prior to the issuance of a building permit for new construction to be served by the well.
- 2) ~~2)~~ The following shall be submitted to the Board to obtain a Private Well Certificate of Compliance:
 - a) ~~a)~~ a well construction/decommission permit
 - b) ~~b)~~ a copy of the Well Completion Report as required by the Mass DEP
 - c) ~~c)~~ a copy of all water quality analytical test results
- 3) ~~3)~~ Upon receipt and review of the above documents, the Board shall make a final decision on the application for a Private Well Certificate of Compliance. A final decision shall be in writing and shall comprise one of the following actions:
 - a) ~~a)~~ issue a Private Well Certificate of Compliance
 - b) ~~b)~~ deny a Private Well Certificate of Compliance and specify the reasons for the denial, as well as suggestions regarding how to address the issue to secure approval

6.0 ~~6.0~~ Well Decommissioning

Abandoned wells, test holes, or borings shall be decommissioned or sealed to protect the groundwater supply and to eliminate potential physical hazards. ~~A Certificate of Decommission shall be issued and kept on file by the Board in accordance with these regulations~~ Abandonment of wells requires a permit from the Board of Health and the submission of a well completion report for the decommissioning. Abandonment is not required if the Board of Health approves the use of the well as an irrigation well.

6.1 ~~6.1~~ Well Decommission Requirements

Abandoned wells, test holes or borings shall be ~~either:~~

- a) ~~a)~~ sealed with non-hazardous, impervious materials, that shall be permanently in place with all exposed casing materials, pumping equipment, and distribution lines removed with the excavation returned to the existing grade ~~of the~~ of the surrounding land ~~OR,~~

~~b) sealed with a welded cap so as to prevent surface water or contaminants from entering the well.~~

6.2 ~~6.2~~—The following information shall be submitted with each well decommission application, prior to issuance of a well decommission permit:

- 1) ~~1)~~ the specific location of the well to be decommissioned shown on a plot plan
 - 2) ~~2)~~ the design method and construction of the well to be decommissioned
 - 3) ~~3)~~ a written statement from the property owner that the well is abandoned.
-

6.3 ~~6.3~~ Within 30 days after the decommissioning of any well, the well driller shall submit to the ~~Board~~ DEP a ~~Well Decommission~~ water well completion report containing the following:

- 1) ~~1)~~ the date of decommission of the well
- 2) ~~2)~~ the name and address of the owner of the well
- 3) ~~3)~~ the address of the property served
- 4) ~~4)~~ the method of sealing, including materials used
- 5) ~~5)~~ the person or persons who sealed the well

6.4 ~~6.4~~—The Well ~~Decommission~~ Completion Report shall be ~~signed by an authorized representative of the driller's firm~~ filed with DEP and shall constitute a statement of compliance with all requirements of these regulations.

7.0 ~~7.0~~—Variances

7.1 ~~7.1~~—The Board may grant a variance to the application of these regulations with respect to any particular case when, in its opinion, the enforcement thereof would do manifest injustice.

7.2 ~~7.2~~—Variances for the construction of new wells and alterations of existing wells do not require a public hearing.

7.3 ~~7.3~~ Variance requests shall be in writing to the Board and include all the ~~informa-~~ tion/information reasons and proposed measures necessary to assure the protection of the public health and environment. The variance request will appear on the agenda of the next regularly scheduled meeting of the Board. Within fourteen (14) days of the next regularly scheduled meeting, the Board shall grant, modify, or deny a variance in writing and state the reasons for any denial.

8.0 ~~8.0~~—Penalties/Enforcement

8.1 ~~8.1~~ Any person who violates any provision of these regulations, or who fails to comply with any Order by 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 (\$10) nor more than five hundred (\$500.) dollars. Each day's failure to comply with an Order shall constitute a separate violation.

8.2 ~~8.2~~ Any person who wishes to contest an order by the Board or fines associated with it, has a right to request a public hearing before the Board by filing within ~~14~~ seven (7) days following the

receipt of a written order. A written petition requesting a hearing upon the matter may be submitted to the Board, which shall set a time and place for such a hearing and shall inform the petitioner thereof in writing. Any person aggrieved by the decision of the Board may seek relief, ~~therefor~~ therefrom in any court of competent jurisdiction, as provided for by the laws of the Commonwealth of Massachusetts.

9.0 ~~9.0~~—Board of Health Water Testing Recommendations

~~9.1~~—The Board recommends that homeowners have their well water tested ~~every two years (in accordance with the exception most recent recommendations of radon, uranium, and EPA-524.2) and that testing for other compounds be performed if there are compelling reasons (e.g. toxic spills or underground tank leaks). It is recommended that testing for radon be performed every 10 years. Samples of well water taken by homeowners to provide ongoing monitoring of their well water quality do not have to be collected by an employee of a certified laboratory.~~

9.1 ~~9.2~~—The Board recommends that prior to selling, conveying, or transferring title to real property, the owner (or prospective buyer) have a sample of the water of every private drinking water well serving that property collected and tested by a certified laboratory using the parameters listed in the Water Quality section of this document [Section 5.6(3)]. The Board also requests that results of the water quality testing be submitted to the Board prior to property transfer or the start of construction. It is recommended that the owner give copies of all available water quality test results of which he/she has knowledge (regardless of age of results) for the well in question to any buyer and/or broker involved in the transfer. Mass DEP.

9.2 ~~9.3~~—The Board also recommends testing the yield of the well and submission of a new Pumping Test Report prior to selling, conveying, or transferring title to real property to ensure the yield is appropriate for that parcel of property [Section 5.4(3)]~~)).~~ The Board requests that all results of yield testing be submitted to the Board prior to property transfer.

10.0 ~~10.0~~—Disclaimer

The issuance of a Private Well Certificate of Compliance shall not be construed as a guarantee by the Board that the water supply system will function satisfactorily, nor that the water supply will be of sufficient quality or quantity for its intended use.

11.0 ~~11.0~~ Severability

If any provision 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.

~~Mary McDowell~~ Marcia Rising, _____ Date
Chairperson _____
_____ Date
Stow Board of Health

Merrily Evdokimoff _____

_____ Date _____
Stow Board of Health _____ Mary McDowell _____ Date

Marcia Rising _____ Date
Stow Board of Health

Revised: 2/8/24, 2/10/22, 5/21/2015; 4/21/2011; 4/22/04; 2/26/96, 4/13/23
Approved: 12/06/95