

# TOWNSEND BOARD OF HEALTH

## WELL REGULATIONS

EFFECTIVE SEPTEMBER 24, 2012

The Townsend Board of Health regulations for wells are repealed and replaced with the following:

### 1. Purpose

These regulations are adopted to promote the public health and general welfare by ensuring private wells are constructed so as to protect the quality of groundwater derived from them.

### 2. Authorization

These regulations are adopted pursuant to MGL c. 111, § 31 as amended.

### 3. Definitions

As used in these regulations, the following terms shall be defined as follows:

#### **ABANDONED WATER WELL**

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

#### **AGENT**

The Nashoba Associated Boards of Health (hereinafter "Nashoba") or any other duly authorized individual or entity, serving as the agent for the Board of Health, as provided by MGL c. 111, § 27A.

#### **AGRICULTURAL WELL**

The use of water for crop irrigation, golf courses and Water Park purposes; requires a water test in compliance with Townsend Board of Health regulations. There shall be no plumbing connected to the house. It must be identified by a firmly attached yellow metal tag having the shape of a four-inch equilateral triangle bearing the legend "WATER UNSAFE" in letters not less than 7/16 inch in height.

#### **APPROVED WATER SOURCE**

Town water or private well meeting the requirements of these regulations.

#### **AQUIFER**

A water-bearing, geologic formation that contains water in sufficient quantities to supply a well.

#### **AQUIFER RECHARGE AREA**

An area around the aquifer, which supplies a recharge of water to the aquifer.

**DEP**

Massachusetts Department of Environmental Protection, a state agency.

**EPA**

United States Environmental Protection Agency.

**IRRIGATION WELL**

The use of water for crop irrigation, golf courses and Water Park purposes; requires a water test in compliance with Townsend Board of Health regulations. There shall be no plumbing connected to the house. It must be identified by a firmly attached yellow metal tag having the shape of a four-inch equilateral triangle bearing the legend "WATER UNSAFE" in letters not less than 7/16 inch in height.

**MCL**

Maximum contamination levels.

**ug/L**

Micrograms per liter.

**mg/L**

Milligrams per liter.

**ml**

Milliliters.

**NONPOTABLE WATER**

Water not intended for human consumption; must meet potable water guidelines.

**pCi/L**

PicoCuries per liter.

**PERSON(S)**

An individual, corporation, company, association, trust, partnership or any other entity.

**POINT OF ENTRY**

A water treatment unit that is placed in the dwelling serving all interior and exterior water fixtures that remediate the water and makes it potable.

**POTABLE WATER**

Water that is safe and fit for human consumption.

**ppb**

Parts per billion.

**ppm**

Parts per million.

**PRIVATE WELL**

An approved well water source serving one dwelling.

**REMEDIATION SYSTEM**

Permits required prior to installation through the Plumbing Department; system design is per plumbing code.

**SHALLOW WELL**

Well with a depth of less than 100 feet and not constructed in conformance with artesian well practices.

**VARIANCE**

A written request specifying the section of the rules and regulations from which a variance is being sought

**WELL**

A bored, drilled or driven shaft, or dug hole with a depth greater than its largest surface dimension.

**WELL DRILLER**

Any person who is licensed by the Water Resources Commission (as defined by Chapter 620 of the Acts of 1956 as amended) to construct wells.

**WETLANDS**

Any watercourse, including streams, brooks, ponds, swamps or any other wetlands as defined in MGL c. 131, § 40, or in the General Wetlands Bylaw in the Town of Townsend, MA. Editor's Note: See Ch. [138](#), Wetlands.

**4. Requirements for Private Wells**

- A. No private well shall be deemed a source of potable water unless it is constructed in accordance with these regulations. No well shall be destroyed except in accordance with these regulations.
- B. Each private well constructed after the effective dates of these regulations shall require:
  - (1) A well construction permit.
  - (2) A water quality analysis approved by the Board per § [160-9](#), Water quality.
  - (3) A well driller's report.
- C. Each private well destroyed after the effective date of these regulations shall require:
  - (1) A well destruction permit.

(2) A well driller's or contractor's report of destruction.

- D. The Board or its agent shall investigate violations of these regulations or of any permit issued and may take such actions as it deems necessary for the protection of the public health.

#### **5. Well Construction or Destruction Permits.**

- A. In order to enforce the provisions of Article 2, Regulation 4 of the State Sanitary Code (Water Supply), a permit from our agent shall be required for development of a suitable source of potable water prior to the start of any construction on a building where water will be consumed and connection to a public water supply cannot be made.
- B. No person shall engage in the business of construction or destroying private wells within the Town of Townsend unless they are registered as a well driller with the Commonwealth of Massachusetts.
- C. An application for a well construction or destruction permit shall be submitted by the well driller to the Board or its agent on a form furnished by the Board or its agent.
- D. The location and design of a proposed private well, along with a description of possible sources of contamination, including but not limited to landfills, toxic waste dumps and underground storage tanks within 500 feet; septic systems; drains; lot lines; wells; streets; utility rights-of-way; buildings; barns; and wetlands that are within 200 feet of the proposed well shall be submitted to the Board or its agent as part of the application for a well construction permit.
- E. The location and design of the abandoned private well that is abandoned shall be submitted to the Board or its agent as part of the application for a well destruction permit.
- F. Fees for a well construction or destruction permit will be determined by the Board and collected as part of normal procedure.

#### **6. Well Driller's Report**

Within 30 days after completion of the construction of any well, the well driller shall submit to Board or its agent a report containing the following information:

- A. The name of the owner of the well;
- B. The address of property served (including street number, assessors map, block and lot number);
- C. The depth, size and method of construction of the well;

- D. The location as shown on a sketch plan which shall show the distance from the well to at least two permanent landmarks;
- E. The static water level;
- F. The yield of the well after eight hours of pumping;
- G. The well driller's log information; and
- H. The method of sealing, including the materials used.

**7. Well Location**

- A. In establishing the location of a well, the well driller shall identify sources of contamination, which exist within 500 feet of the proposed well site. The following minimum, lateral distances in feet from contamination sources shall apply:

<b>Source of Contamination</b>	<b>Minimum Lateral Distance (feet)</b>
Slab or foundation	10
Common way	10
In ground pool	25
Property line	25
Public way	25
Wetlands	50
Septic tank	50
Leaching facility	100
Expansion area	100
Cesspool	100
Active or closed landfill	500
Hazardous waste site	500

- B. The above distances may be increased or special means of protection may be required when deemed necessary in the opinion of the Board or its agent. These distances or special requirements shall be noted on the well construction permit.
- C. Wherever possible, the well should be up gradient of sources of contamination. The top of a well shall be higher than any surface source of contamination and above any known condition of flooding, drainage, or runoff from the surrounding land, unless otherwise adequately protected.

## **8. Well Construction Standards**

- A. Wells shall be constructed in conformance with the recommendations of the latest edition of the Manual of Individual Water Supply Systems, published by the United States Environmental Protection Agency (Office of Drinking Water). (Exception: springs shall not be used as a potable water supply.)
- B. Shallow wells are prohibited.

## **9. Water Quality**

- A. A water sample suitable for analysis shall be collected by the Board or their agent, or a MA DEP certified lab employee.
- B. All analysis shall be performed in accordance with the current U.S. EPA methods by a laboratory certified by the Massachusetts DEP. All fees for the water testing are the responsibility of the applicant.
- C. The Board or its agent shall review water quality analysis. The Board or its agent may also use professional judgment when assessing the results of the well water prior to approval of that well. When the results indicate a potential health hazard (i.e., possible gasoline contamination, etc.), the Board or its agent may, at its discretion, disapprove the well for use as a water supply.
- D. The following items shall be analyzed as part of the Townsend Board of Health well water test for potability standards. A well shall not be fit for human consumption (not potable) if it exceeds any of the following maximum contamination levels (MCL):

Test Parameter	MCL
Total coli form	0 per 100 ml
Fecal coli form	0 per 100 ml
E.coli	0 per 100 ml
Arsenic	0.01 mg/L
Calcium	NS
Copper	NS
Iron	NS
Lead	0.015 mg/L
Magnesium	NS
Manganese	NS
Potassium	NS
Sodium	NS
Alkalinity	NS
Chlorid	NS
Chlorine	0 mg/L
Color	NS
Conductivity	NS
Fluoride	NS
Hardness	NS
Nitrogen as ammonia	NS
Nitrate-N	10 mg/L
Nitrite-N	1 mg/L
Odor	NS

Test Parameter	MCL
pH	NS
Sulphate	NS
Turbidity	NS
Sediment	NS
Radon	10,000 pCi/L
*NS = No standard	
<b>Volatile Organic Compounds (EPA Method 524.2)</b>	
Test Parameter	MCL
Benzene	5 ug/L
Carbon tetrachloride	5 ug/L
1,1-Dichloroethylene	7 ug/L
1,2-Dichloroethane	5 ug/L
p-DichloroBenzene	5 ug/L
Trichloroethylene	5 ug/L
1,1,1-Trichloroethane	200 ug/L
Vinyl chloride	2 ug/L
Monochlorobenzene	100 ug/L
ortho-Dichlorobenzene	600 ug/L
trans-1,2-Dichloroethylene	100 ug/L
cis-1,2-Dichloroethylene	70 ug/L
Chloroethane	NS
2,2-Dichloropropane	NS

Test Parameter	MCL
o-Chlorotoluene	NS
p-Chlorotoluene	NS
Bromobenzene	NS
1,3-Dichloropropene	NS
1,2,4-Trimethylbenzene	NS
1,2,3-Trichlorobenzene	NS
n-Propylbenzene	NS
n-butylbenzene	NS
Naphthalene	NS
Hexachlorobutadiene	NS
1,2-Dichloropropane	5 ug/L
Ethylbenzene	700 ug/L
Styrene	100 ug/L
Tetrachloroethylene	5 ug/L
Toluene	1,000 ug/L
Xylenes (total)	10,000 ug/L
Dichloromethane	5 ug/L
1,2,4-Trichlorobenzene	70 ug/L
1,1,2-Trichloroethane	5 ug/L
Methyl Tertiary Butyl Ether	70 ug/L
Chloroform	NS
Bromodichloromethane	NS
Chlorodibromomethane	NS

Test Parameter	MCL
Bromoform	NS
m-Dichlorobenzene	NS
Dibromomethane	NS
1,1-Dichloropropene	NS
1, 1 -Dichloroethane	NS
1,1,2,2-Tetrachloroethane	NS
1,3-Dichloropropane	NS
Chloromethane	NS
Bromomethane	NS
1,2,3-Trichloropropane	NS
1,3,5-Trimethylbenzene	NS
p-Isopropyltolune	NS
Isopropylbenzene	NS
t-Butylbenzene	NS
sec-Butylbenzene	NS
Fluoro Trichloromethane	NS
Dichlorodifluoromethane	NS
Bromochloromethane	NS
1,1,1,2-Tctrachloroethane	NS
*NS = No standard	

1. Arsenic levels shall not exceed 0.01 mg/L.
2. Radon shall not exceed 10,000 pCi/L.

- A. Adsorption and absorption filters such as charcoal or any filtering device, which would become radioactive waste as a result of their use, shall not be used to remove radon.
- 3. When treatment is required to remove a contaminant, after treatment is employed, a retest sample must be taken in accordance with the Townsend BOH Well Regulations and the results submitted to the Townsend BOH.
- 4. When treatment is not being employed to remove a contaminant, which exceeds the Townsend BOH posted MCLs, two consecutive tests are required. The laboratory results of both tests, consecutively, must be in compliance with the Townsend BOH posted MCLs. Only one sample shall be taken within a twenty-four-hour period.
- 5. All treatment employed to remove contaminants and make all water potable shall be a point-of-entry system.
- E. The Board recommends that all owners/users of private wells test the water at three-year intervals to assure continued safety.
- F. Well testing will be required of all wells prior to transfer of property title or within three years prior to such transfer. Laboratory results of well water test are valid for three years from the date the sample was taken. Well testing shall be in compliance with this section.
- G. The Board or its agent may require additional analysis for items not specified in Subsection [D](#) above.
- H. The Board or its agent must approve the water quality of every well as discussed above. The Board has a review period of up to 45 days from the date they receive the water report. This report is required prior to the issuance of a permit for the construction of a building or structure which would necessitate the use of water therein, to be supplied by said well.

9.1 Variance Process; Violations and Penalties.

- A. The applicant shall request their variance in writing to the Board of Health.
- B. The Board of Health may require the applicant to notify the abutters of the specific section(s) of the rules and regulations from which the applicant is seeking a variance and the reason why said variance(s) is being requested.
- C. The Board of Health reserves the right to act on the following provisions:
  - (1) The Board may set a hearing date and time to discuss the requested variance(s) with the owner and/or their engineer/agent.

(2) The Board may request abutters be notified by certified mail, return receipt requested, at least 10 days prior to the hearing date. Return receipts are to be provided to the Board at such hearing.

(3) An emergency well installation variance may be applied for by the applicant and must comply with this section.

D. Whoever violates these regulations shall be punished by a fine of not more than \$1,000 for which a penalty is not otherwise provided for, in any of the applicable General Laws. Fines are payable to the Town of Townsend, MA.

Christopher Genoter, Chairman

Michelle Dold, Vice-Chairman

James Le'Cuyer, Clerk

Cc: Town Clerk  
DEP, Division of Water Pollution Control, 1 Winter Street, Boston, MA 02108