Chapter 291. WELLS

[HISTORY: Adopted by the Board of Health of the Town of Orange effective 5-4-1990. Amendments noted where applicable.]

§ 291-1. Purpose.

The purpose of this regulation is to ensure housing units, not accessible to the public water supply, of safe drinking water from private wells, and to insure the safe destruction of abandoned private wells and to provide for the protection of the Town’s groundwater resources. Private well contamination, in the past, has led to exposure to contaminated drinking waters.

§ 291-2. Authority.

The authority for this chapter is as follows: MGL c.111, §§ 31, 122, 122A, 127, 143, 155, 187, 188, 310 CMR 11.02: “board of health may make responsible health regulations”; and MGL c.40, § 54, requires that “no building permit be issued to a property without a potable water supply. Water Supply Officials are responsible for regulating and monitoring public water.” “The regulation of private wells is the responsibility of local boards of health.”


As used in this chapter, the following terms shall have the meanings indicated:

ABANDONED WELL
A well that meets any of the following criteria:

A. Construction was terminated prior to completion of the well;

B. The well owner declares that use of the well has been permanently discontinued;

C. The well is in such a state of disrepair that its continued use is impractical, or

D. The well has the potential for transmitting contaminants from the land surface into an aquifer or from one aquifer to another and the situation cannot be corrected.

AGENT
Any person authorized in writing, including minutes, by the Board to act under these regulations
No agent may vary any provision of these regulations. No agent may vary any provision of these regulations without the approval of the Board.

BOARD OF HEALTH
The Board of Health, or its authorized agent.
PRIVATE WELL
Any non-public well serving less than 15 houses and serving fewer than 25 people as defined in 310 CMR 22.02.

WATER SUPPLY CERTIFICATE
A certificate issued by the Board of Health which authorized the use of a private well as a supply of drinking water.

WELL
Includes any dug, driven or drilled well, or any other source of water, to be used for the purpose of supplying water in the Town.

WELL DRILLER
Any person, association, partnership, company, corporation, or trust that constructs a well and is licensed by the Division of Water Resources.

§ 291-4. Permission to construct or destroy private well.
A private well construction or destruction permit shall be obtained from the Board of Health prior to construction or destruction of any private well.

§ 291-5. Abandoned wells.
A well that is abandoned shall be destroyed to protect the groundwater supply and to eliminate potential physical hazards.

§ 291-6. Registration of well diggers and drillers.
No person shall construct or destroy a private well within the boundaries of __________, unless registered with the Division of Water Resources as required by state regulation 313 CMR 3.00. A copy of the well driver’s certificate of registration must accompany the application or permit.

§ 291-7. Location of wells.
A. Well location criteria shall include the following minimum lateral distances from the well site to the following:

<table>
<thead>
<tr>
<th>Item</th>
<th>Required Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsurface sewage disposal field (in use, abandoned or reserve area)</td>
<td>150</td>
</tr>
<tr>
<td>Cesspool — seepage pit</td>
<td>150</td>
</tr>
<tr>
<td>Septic tank</td>
<td>50</td>
</tr>
<tr>
<td>Sewer line with watertight joints</td>
<td>25</td>
</tr>
<tr>
<td>Defined property line</td>
<td>25</td>
</tr>
<tr>
<td>Public way (from defined property line)</td>
<td>50</td>
</tr>
<tr>
<td>Subsurface fuel storage tank</td>
<td>150</td>
</tr>
<tr>
<td>Driveways</td>
<td>15</td>
</tr>
</tbody>
</table>
Item | Required Distance (feet)
---|---
Swamps, marshes, wetlands, floodplains, brooks, streams, ponds, lake or seasonal streams **NOTE: This distance shall be measured laterally from the high-water mark or wetland determination bound. Any work proposed in a wetland buffer zone requires permission of the local Conservation Commission prior to issuance of a permit to construct a well.** | 25
Dwelling or other structure | 25
Surface or subsurface drains | 25
Utility right-of-way | 100
Gas line or overhead electric distribution line | 25
Stables, barnyards, feedlots, manure piles, manure storage tanks | 150

B. Where deemed necessary or appropriate by the Board of Health for the protection of the waste supply or public health, the above distances may be increased, or reasonable means of protection may be required or both. The Board may impose minimum lateral distance requirements from other potential sources of contamination not listed above. All such requirements shall be added by the Board as conditions of the well construction permit.

C. The well shall be located upgradient of all potential sources of contamination and shall be as far removed from potential sources of contamination as the general layout of the premises and surroundings permit. Furthermore, wells shall not be located in topographically low areas where surface water runoff could accumulate. Additionally, every well shall be located so that it will be reasonably accessible with proper equipment for repair, maintenance, testing, and inspection.

D. The generalities of the aforesaid notwithstanding, no one shall position, locate, drill or dig a well or cause the same to be done in such a manner as to limit the use or enjoyment of any neighboring property in any manner whatsoever.


A. An application for a well construction or destruction permit shall be submitted by the property owner or owner's agent to the Board of Health on a form provided by the Board of Health.

B. A description of the property sufficient to identify and locate the property on the ground, the location of the existing or proposed private well, to be destroyed or constructed, and a general summary of any possible sources of contamination shall be submitted to the Board of Health with the permit application.

C. The application for a well destruction permit shall be accompanied by a plot plan with dimensions identifying the location of the well.

D. The application for a well construction permit shall be accompanied by an extended plot plan which will show dimensions from a distance of within 200 feet of the proposed well site to the following (NOTE: Best available adjacent plot information will be required. Acceptable information sources shall include Board of Health records, on-site inspection, or other official records.):

1. Existing and proposed structures.
2. Surface waters and surface drainage courses.
(3) Subsurface sewage disposal, field, trenches, or pits, and adjoining septic tanks, or cesspools.

(4) Subsurface fuel storage tanks.

(5) Other potential sources of pollution an experienced well driller should reasonably be expected to recognize.

(6) Property lines, and abutting land owners.

(7) Public way.

(8) Topographically, the well shall be located above the elevation of any proposed septic system or known source of contamination within reason.

E. The Board of Health will charge a fee, to be set by the Board of Health, for a well construction permit or a well destruction permit.

F. The Board of Health may require well location and construction modifications where reasonable health threats exist or when unusual hardships exist and equivalent water quality protection may be provided.

G. Well construction may proceed upon approval of application permit.

H. All permits for well construction and destruction shall expire at the end of 12 months from the date of issuance. Permits may be extended for an additional six months if a written request is received by the Board of Health prior to the expiration date. No additional fee shall be charged for an extension provided there is no change in the plans for the proposed well. After the permit has expired, a new application and a new application fee must be submitted.


All wells shall be constructed in compliance with the sections of the Private Well Guidelines of the Department of Environmental Protection’s Division of Water Supply. October 30, 1989, that apply to well construction and well decommissioning (pages 22 to 67 and pages 92 to 101). The Guidelines constitute part of these regulations and are incorporated herein by reference.

§ 291-10. Reports required for water supply certificate.

The following shall be required for a water supply certification which shall be required for the operation of a new well and/or the issuance of a building permit in the Town of Orange:

A. For homes which will be served by private wells the following must be provided within 30 days of well completion:

   (1) A completed and approved application permit referred to in § 291-7.

   (2) A well construction permit issued by the Board of Health to document that the application has been approved.

   (3) A copy of the Water Well Completion Report as required by the Division of Water Resources is to be provided by the well driller.

   (4) Water quality analysis.

      (a) A water quality analysis that meets the minimum acceptable standards listed below:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coliform bacteria</td>
<td>Nondetected</td>
</tr>
<tr>
<td>Sodium (Na)</td>
<td>20 mg/l</td>
</tr>
<tr>
<td>Chloride (Cl)</td>
<td>250 mg/l</td>
</tr>
<tr>
<td>Nitrate nitrogen (NO₃)</td>
<td>10 mg/l</td>
</tr>
<tr>
<td>Nitrate nitrogen</td>
<td>0.001 mg/l</td>
</tr>
</tbody>
</table>

(b) Additional or repeated tests may be required by the Board where, in the opinion of the Board, it is necessary for the protection of the public health, safety and welfare.

(c) In addition, the following water quality tests and standards will be required to be conducted for the informational benefit of the landowner:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron (Fe)</td>
<td>0.3 mg/l</td>
</tr>
<tr>
<td>Manganese (Mn)</td>
<td>0.05 mg/l</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 to 8.5</td>
</tr>
<tr>
<td>Total hardness</td>
<td>180 mg/l</td>
</tr>
<tr>
<td>Turbidity</td>
<td>5 units</td>
</tr>
<tr>
<td>Color</td>
<td>15 units</td>
</tr>
</tbody>
</table>

(d) The results of such tests shall also be provided to the owner of the property to be served by the well and all tests shall be performed by a DEP-approved laboratory. The Board of Health may require additional water quality tests where reasonable contamination threats are known to exist.

(e) The water samples submitted for testing must be collected by a representative of the certified water testing laboratory or by an agent of the Board of Health.

(5) A Certificate of Yield by the well driller or pump installer, that water quantity standards have been met as required below:

(a) Yield test pumping shall be conducted at a rate at least equal to the pumping rate expected during normal well use and shall be conducted for a minimum of four hours.

(b) Minimum well yield.

[1] The required minimum well yield will vary depending on the depth of the well. Overall, a well is required to yield 110 gallons per bedroom per day as per Title V. In specifics, the minimum well yield shall conform to the following table.

<table>
<thead>
<tr>
<th>Depths of Well (feet)</th>
<th>Gallon/Minute for 4 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 150</td>
<td>4</td>
</tr>
<tr>
<td>150 to 200</td>
<td>3</td>
</tr>
<tr>
<td>200 to 250</td>
<td>2</td>
</tr>
<tr>
<td>250 to 300</td>
<td>1</td>
</tr>
<tr>
<td>300 and deeper</td>
<td>1/2</td>
</tr>
</tbody>
</table>

[2] In no instance shall a well be permitted with a yield of less than 1/2 gallon/minute.

(6) Upon receipt of all the above documents, the Board of Health shall determine whether the water supply meets all the water quantity and water quality requirements for private water supplies in the Town of Orange.

(a)
Upon an affirmative determination, the Board of Health shall issue a water supply certificate.

(b) Upon a negative determination, or if the Board deems it necessary to protect the public health, safety and welfare, the Board shall issue a water supply disapproval letter which requires additional water quality analysis, or quantity testing, or both.

(c) The Board may, at its discretion, issue a conditional water supply certificate. A conditional certificate shall set forth the conditions which the Board deems necessary to ensure fitness, purify, and quantity of the water derived from that well. This may include, but not be limited to, requiring treatment of the water or regular testing. In the event of failing the above-required water quality test, the proponent may prove that the standards are met after treatment. The Board of Health must be satisfied that the type of treatment is appropriate, and that the treatment will be maintained.

§ 291-11. Change of ownership or use.

Prior to a change in ownership or use, all wells must have their water tested as required in § 291-10D. Proof of water quality testing and a copy of the report(s) must be submitted to the Board of Health or its agent as well as to the purchaser, no later than 30 days before a change of ownership of a well, or a change in use. There shall be a filing fee, which shall be established by the Board of Health, for the filing of this report.

§ 291-12. Abandoned wells.

All abandoned wells shall be destroyed in compliance with the DEP Private Well Guidelines, October, 1989. The Guidelines constitute part of this regulation and are incorporated herein by reference.


The Board of Health incorporates by reference and makes a part hereof as part of their regulations, the DEP Private Well Guidelines, October, 1989.


Whosoever violates any of these rules and regulations shall, upon conviction, be fined not less than $10 nor more than $300, except when otherwise provided by law.


In the event that an provision of this regulation shall be deemed invalid, unreasonable, or unenforceable by any court of competent jurisdiction, such provision shall be stricken from the regulation or modified so as to render it reasonable, and the remaining provisions shall continue in full force and effect and be binding so long as such remaining or modified provisions reflect the intent of the parties and are valid under existing state law.

These regulations or any portion 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 petitions.


A. The Board of Health may vary the application of any provision of these regulations with respect to any particular case when, in the Board's opinion, both of the following conditions are fulfilled:

   (1) The enforcement thereof would do manifest injustice; and
   
   (2) The applicant has proven that the same degree of environmental protection, and protection of the public health, safety and welfare, can be achieved without strict application of the particular provision. The alternative means of protection shall be detailed and documented by the applicant to the satisfaction of the Board.

B. Every request for a variance shall be made in writing and shall state the specific variance sought and the reasons therefor.

C. Any variance granted by the Board shall be in writing. Any denial of a variance shall also be in writing and shall contain a brief statement of the reasons for denial. A copy of each variance shall be conspicuously posted for 30 days following its issuance and shall be available to the public at all reasonable hours. No work shall be done under any variance until 30 days elapse from its issuance, unless the Board certifies in writing that an emergency exists.

D. Any variance may be subject to such qualification as the Board expresses in its grant of the variance. A variance may 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 Title 1 of the State Environmental Code (CMR 310.11.00) for orders and hearings.

§ 291-18. Effective date.

This regulation shall go into effect on May 4, 1999.