



**Town of Merrimac
Board of Health Regulations
for
PRIVATE WELLS**

TABLE OF CONTENTS

	<u>Page</u>
I. Purpose.....	2
II. Authority.....	2
III. Definitions	2
IV. Well Construction Permit and Fees.....	3
V. Water Supply Certificate.....	4
VI. Well Location and Use Requirements	4
VII. Water Quantity Requirements.....	5
VIII. Water Quality Testing Requirements	5
IX. Well Construction Requirements	6
X. Decommissioning Requirements.....	11
XI. Enforcement	12
XII. Hearing.....	12
XIII. Appeal	12
XIV. Penalties	12
XV. Variance	13
XVI. Conflict.....	13
XVII. Severability	13
XVIII. Effective Date.....	13
XIX. Disclaimer	14

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I. 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.

II. AUTHORITY

These regulations are adopted by the Merrimac Board of Health, as authorized by Massachusetts General Laws, Chapter III, Section 31. These regulations supersede all previous regulations adopted by the Merrimac Board of Health pursuant to the construction of private wells.

III. DEFINITIONS

Agent: Any person designated and authorized by the Board to execute these regulations. The agent shall have the authority of the appointing Board and shall be directly responsible to the Board and under its direction and control.

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 significant quantities of water to wells or springs.

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 Merrimac, Massachusetts, or its authorized agent.

Business of Digging or Drilling: A person who charges a fee for digging or drilling a well, or a person who advertises for hire the availability to dig or drill wells within the Commonwealth of Massachusetts.

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

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

Concrete: A mixture consisting of Portland cement (ASTM Standard C150, Type 1 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. One part cement, two parts sand and three parts gravel are commonly used with up to six gallons of water.

Neat Cement Grout: A mixture consisting of one bag (94 pounds) of Portland cement (ASTM Standard C150, Type 1 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.

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

Private Well: Any dug, driven, or drilled hole, with a depth greater than its largest surface diameter developed to supply water intended and/or used for human consumption or irrigation on private premises

and not subject to regulation by 310 CMR 22.00, or to be used for non-domestic, industrial or monitoring purposes.

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 Management/Division of Water Resources to dig or drill wells in the Commonwealth of Massachusetts.

Sand Cement Grout: A mixture consisting of Portland cement (ASTM Standard C150, Type 1 or QPI 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, or Bentonite (API Standard 13A) shall be added to reduce shrinkage.

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

Structure: A combination of materials assembled at a fixed location to give support or shelter, such as a building, framework, retaining wall, fence or the like.

IV. WELL CONSTRUCTION PERMIT AND FEES

The property owner or his designated representative shall obtain a permit from the Board of Health prior to the commencement of a construction of a private well.

Each permit application to construct a well shall include the following:

- 1) the property owner's name and address
- 2) the well driller's name and proof of valid state registration
- 3) a plan signed and stamped by a Massachusetts Registered "Professional Engineer" or "Registered Sanitarian". The plan shall have a scale no smaller than one inch per forty feet.
- 4) a description and location of visible prior and current land uses within two hundred feet of the proposed well location, which represent a potential source of contamination, including but not limited to the following:
 - a) existing and proposed structures, above and below ground
 - b) subsurface sewage disposal systems
 - c) subsurface fuel storage tanks
 - d) public ways
 - e) utility right-of-way
 - f) any other potential sources of pollution
- 5) A permit fee of one hundred fifty dollars (\$150.00) is required if the flow test is done with the rig on site. An additional fee of \$150 is required for the two-day four-hour flow test. Payment must be received prior to commencement of the two-day flow test.

The permit shall be on site at all times that work is taking place. Each permit shall expire one year from the date of issuance 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. A ten-dollar (\$10.00) fee shall be charged for a permit extension, provided there is no change in the plans for the proposed well.

Well Construction Permits are not transferable.

A plumbing permit shall be obtained prior to any repair, modification or replacement of any existing well used for consumption purposes.

V. WATER SUPPLY CERTIFICATE

The issuance of a Water Supply Certificate by the Board of Health shall certify that the private well may be used as a drinking water supply. A Water Supply Certificate must be issued for the use of a private well prior to the issuance of an occupancy permit for an existing structure which is to be served by the well, and prior to the issuance of a Building Permit for new construction to be served by the well.

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

- 1) a well construction permit
- 2) a copy of the Water Well Completion Report as required by the Division of Water Resources (310 CMR 3.00)
- 3) a copy of the Pumping Test Report required pursuant to Section VII of these regulations
- 4) a copy of the Water Quality Report required pursuant to Section VIII of these regulations

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

- 1) Issue a Water Supply Certificate.
- 2) Deny the applicant a Water Supply Certificate and specify the reasons for denial.
- 3) Issue a conditional Water Supply Certificate with those conditions which the Board deems necessary to ensure fitness, purity and quantity of water derived from that private well. Said conditions may include, but not be limited to requiring treatment or additional testing of the water.

VI. WELL LOCATION AND USE REQUIREMENTS

In locating a well, the applicant shall identify all potential sources of contamination which exist or are proposed within two hundred feet of the site. When possible, the well shall be located upgradient of all potential sources of contamination and shall be as far removed from potential sources of contamination as possible, given the layout of the premises.

On all new sites, an approved septic design should show the location of the wells.

On existing homes, submit a sketch showing the septic system and setbacks

Each private well shall be accessible for repair, maintenance, testing and inspection. The well shall be completed in a water-bearing formation that will produce the required quantity of water under normal operating conditions.

The following shall be the minimum separation distances allowed in the construction of a well:

<u>COMPONENT</u>	<u>DISTANCE</u> (in feet)
Septic System	
Leaching Facility	100
Septic Tank	50
Cesspool	100
Sewer Line	20
Driveway	15
Street	25
Buildings	10
Property Line	10
Easements or Rights-of-Way	10
Pond or Watercourse	
Drilled Well	25

Water supply lines shall be installed at least ten feet from and two feet above any sewer line. Whenever the water supply lines must cross sewer lines, both pipes shall be constructed of Class 150 Pressure Pipe and shall be pressure tested to assure water tightness.

The Board reserves the right to impose minimum lateral distance requirements from other potential sources of contamination not listed above. All such special well location requirements shall be listed, in writing, as a condition of the Well Construction Permit.

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

VII. WATER QUANTITY REQUIREMENTS

The applicant shall submit to the Board, for review and approval, a Pumping Test Report. The Pumping Test Report shall include the name and address of the well owner, well location, reference to at least two permanent structures or landmarks, date the pumping test was performed, depth at which the pump was set for the test, location of the discharge line, static water level immediately before pumping commenced, maximum draw down during the test, duration of the test, including both the pumping time and the recovery time during which measurements were taken, recovery water levels and respective times after cessation of pumping and the reference point used for all measurements.

In order to demonstrate the capacity of the well to provide the required volume of water, a pumping test shall be conducted in the following manner:

A well test done with the rig on site requires a water flow of five (5) gallons per minute or more. Less than five gallons per minute would require a consecutive two-day, four-hour flow test at five (5) gallons per minute.

Call Board of Health prior to drilling.

VIII. WATER QUALITY TESTING REQUIREMENTS

After the well has been completed and disinfected, and prior to using it as a drinking water supply or as a non-domestic use such as irrigation, a water quality test shall be conducted.

A water sample shall be collected either after purging three well volumes or following the stabilization of pH, temperature and specific conductance in the pumped well. The water sample to be tested shall be collected at the pump discharge or from a disinfected tap in the pump discharge line. The water samples shall be collected by a licensed well driller or by an employee of the certified water quality testing laboratory performing the analysis.

The water quality test, utilizing EPA approved methods for drinking water testing, and not methods for analyzing wastewater, shall be conducted by a Massachusetts certified laboratory and shall include analysis for the following parameters:

<u>PARAMETER</u>	<u>MAXIMUM CONTAMINATION LIMIT (M.C.L.)</u>	
Coliform Bacteria	0/100 ml	Present or Absent
Arsenic	0.05 mg/liter	Health Related
Lead	0.015 mg/liter	Health Related
Nitrate	1.0 mg/liter	Health Related
Turbidity	No Limit	
Chloride	250.0 mg/liter	Secondary Standard - Aesthetic
Color	15 color units	Secondary Standard - Aesthetic
Copper	1.30 mg/liter	Action Level – Aesthetic
Hardness	No Limit	
Iron 0.30 mg/liter		Secondary Standard – Aesthetic

<u>PARAMETER (cont.)</u>	<u>MAXIMUM CONTAMINATION LIMIT (M.C.L.)</u>	
Manganese	0.05 mg/liter	Secondary Standard – Aesthetic
Odor	3 Threshold Odor Number	Aesthetic
pH	250.0 mg/L – 20 mg/liter	Mass. DEP Guideline
Sodium	250.0 mg/L – 20 mg/liter	Mass. DEP Guideline
Radon in Water	10,000 pCi/l	Mass. DEP Proposed Guideline
VOC Screening	EPA Method 524.2	

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

- 1) a copy of the certified laboratory's test results
- 2) the name of the individual who performed the sampling
- 3) where in the system the water sample was obtained

Testing Frequency

Testing shall be conducted:

- 1) upon initial installation
- 2) at transfer of property
- 3) periodically – annually for bacteria and nitrate/nitrite; and all others, once every ten (10) years
- 4) rental properties – at change in tenancy or every two (2) years, whichever is sooner.

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 the public health, safety and welfare. All costs and laboratory arrangements for the water testing are the responsibility of the applicant.

IX. WELL CONSTRUCTION REQUIREMENTS

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.

Any work involving the connection of a private well to the distribution system of the residence must conform to the local plumbing code. All electrical connections between the well and the pump controls must be made by a licensed electrician, and all piping between the well and the storage and/or pressure tank in the house must be made by a pump installer or a registered well driller, including the installation of the pump and appurtenance in the well or house.

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

A. General Well Design and Construction

All private water supply wells shall be designed such that:

- 1) The materials used for the permanent construction are durable in the specific hydrogeologic environment that occurs at the well site.
- 2) No unsealed openings will be left around the well that could conduct surface water or contaminated groundwater vertically to the intake portion of the well or transfer water from one formation to another.

Permanent construction materials shall not impart toxic substances, taste, odors or bacterial contamination to the water in the well.

The driller shall operate all equipment according to generally accepted standards in the industry and shall take appropriate precautions to prevent damage, injury or other loss to persons and property at or about the drilling site.

Well construction design shall insure that surface water does not enter the well through the opening or by seepage through the ground surface. Construction site waste and materials shall be disposed of in such a way as to avoid contamination of the well and the aquifer. During any time that the well is unattended the contractor shall secure the well in a way as to prevent either tampering with the well or the introduction of foreign material into the well.

Well yield shall be measured and recorded at least every fifty feet during drilling.

All water used for drilling, well development or to mix a drilling fluid shall be obtained from a source which will not result in contamination of the well or the water-bearing zones penetrated by the well. Water shall be conveyed in clean, sanitary containers or water lines and shall be chlorinated to an initial concentration between 50 mg/l and 100 mg/l. A free chlorine residual of 10 mg/l shall be maintained in any water used at the drill site. Water from wetlands, swamps, ponds and other similar surface features shall not be used.

All drilling equipment, including pumps and down hold tools, shall be cleaned and disinfected prior to drilling each new well or test hole.

All drilling fluids shall be nontoxic. Drilling fluid additives shall be stored in clean containers and shall be free of material that may adversely affect the well, aquifer or the quality of water to be pumped from the well. Surfactants should be biodegradable. The use of biodegradable organic polymers shall, when possible, be avoided. All wells, including those that have been hydrofractured, shall be developed in order to remove fine materials introduced into the pore spaces or fractures during construction. One of more of the following methods shall be used for development:

- | | |
|-----------------|--------------------|
| 1) over pumping | 4) jetting |
| 2) backwashing | 5) airlift pumping |
| 3) surging | |

The completed well shall be sufficiently straight so that there will be no interference with installation, alignment, operation or future removal of the permanent well pump.

B. Well Casing

Private water supply wells shall be constructed using either steel or thermo-plastic well casing. The casing shall have an I.D. of at least six inches and shall be of adequate strength and durability to withstand anticipated formation and hydrostatic pressures; the forces imposed on it during installation; and the corrosive effects of the local hydrogeologic environment.

Steel casing shall be used with cable tool drilling or when the casing is installed in an open drill hole in which formation materials may suddenly collapse against the casing.

All casing used in the construction of private water supply wells shall be free of pits, breaks, gouges, deep scratches and other defects. If previously used casing is installed, it shall be decontaminated and disinfected prior to installation.

Installation of water well casing shall be done in a manner that does not alter the shape, size or strength of the casing and does not damage any of the joints or couplings connecting sections of the casing. A standard drive shoe shall be used when casing is installed. The drive shoe shall be either welded or threaded to the lower end of the string of casing and shall have a beveled metal cutting edge forged, cast or fabricated for this specific purpose.

Upon completion of the installation procedure, the entire length of the casing above the intake shall be watertight.

For wells completed above grade, the casing shall extend at least twelve inches above the proposed finish ground surface unless the well is located in a flood plain. For wells constructed in a flood plain, the casing shall extend at least two feet above the level of the highest recorded flood. The top of the casing shall be reasonably smooth and level.

1. Steel Casing

Steel casing shall consist of schedule forty pipe that complies with materials standards approved by the American Water Works Association.

Segments of steel casing shall be coupled by using threaded casing, couplings, or by welding the joint. Recessed or reamed and drifted couplings shall be used on threaded casing, and no threads shall be left exposed once the joint is completed. When welded casing joints are used, they shall conform to the most recent revision of AWWA C. 206, "Standard for Field Welding of Steel Water Pipe". The weld shall be at least as thick as the wall thickness of the well casing and shall be fully penetrating. When completed, a welding casing joint shall have the tensile strength equal to or greater than that of the casing.

2. Thermoplastic Casing

Thermoplastic casing used in the construction of private water supply wells shall be capable of withstanding pressures equal to or greater than 200 pounds per square inch and shall conform to the most recent revision of ASTM Standard F480, "Specification for Thermoplastic Water Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR)". In addition, the casing and couplings shall meet the requirements of the most recent revision of National Sanitation Foundation Standard Number 14, entitled "A Plastics Piping System Components and Related Materials". Materials complying with Standard Number 14 can be recognized by the marking "NSF-WC".

Thermoplastic casing shall be stored in such a manner as to prevent deform-contamination, sagging or bending. Storage of thermoplastic casing and couplings in direct sunlight shall be avoided.

Thermoplastic casing shall be installed only in an oversized drill hole and shall not be driven, pushed or forced into a formation. Thermoplastic casing shall be joined by mechanical means only. When pulling back thermoplastic well casing to expose a well screen, the force applied shall not exceed the casing weight.

3. Concrete Casing

Dug wells are not recommended and shall be permitted only as a last resort, upon receipt of a special request and an explanation as to why a drilled well cannot be installed. Upon approval, the following shall be observed:

Concrete water well casing consists of either precast concrete pipe or concrete which has been poured in place. This type of casing shall be used only for the construction of dug wells.

Precast concrete pipe shall be at least three inches thick, meet or exceed ASTM C67 Class III specifications, and be free of blemishes. Joints between pipe segments shall be sealed with a continuous, solid ring rubber gasket having a circular cross section with a diametrical tolerance of plus or minus on-sixty-fourth of an inch. Gaskets shall be of sufficient volume to substantially fill the recess provided when the pipe joint is assembled. (A properly sized gasket will form a pressure-tight seal when it is compressed between pipe segments.)

C. Well Screen

A well screen is necessary for all drilled wells that are completed in unconsolidated formations. Wells completed in bedrock do not require a screen unless the bedrock formation is brittle in nature or has a potential for collapse. The well screen aperture openings, screen length and diameter shall be selected so as not to limit the aquifers' water-yielding characteristics while preventing access of soil particles that would detract from well efficiency and yield.

D. Grouting and Sealing

When required, private wells drilled in bedrock shall be grouted from the top of the weathered rock interface to fifteen feet into competent bedrock. Either neat cement or sand cement grout shall be used and it shall be emplaced using standard grouting techniques as described in the DEP Private Well Guidelines.

When required, wells completed with the casing extending above grade shall have a surface seal designed to eliminate the possibility of surface water flowing down the annular space between the well casing and the surrounding backfilled materials. The surface seal shall be:

- 1) A cement cap extending at least two feet in all directions from the well casing. The cement cap shall be at least four inches in thickness and shall have a finish slope leading away from the well casing. The cement cap shall finish at the proposed finish grade.
- 2) A surface seal shall be installed to extend from the cement cap to a depth of five feet below the proposed finish grade. The surface seal shall be installed to a thickness of one and one half inches around the outside of the well casing for the full five feet in length.

E. Pumps and Pumping Equipment

All pumps shall be installed at or below the frost line with a pitless adapter or in some other heated and protected sanitary location. Above ground pumps shall be installed in sheltered, dry, accessible locations and shall be protected from freezing.

Shallow well pumps shall be installed as near the well or water source as possible to minimize suction lift.

Deep well pumps shall be installed directly over the well. Submersible and helical rotor pumps must be installed in the well. A deep well jet pump may be offset from the well.

F. Wellhead Completion

Well casing shall not be cut off below the land surface unless a pitless adapter or pitless unit is installed; or an abandoned well is being permanently plugged. Well casing terminating above grade shall extend at least twelve inches above the proposed finish grade at the wellhead except when the wellhead is located in the flood plain. When a well is located in a flood plain, the well casing shall extend at least two feet above the level of the highest recorded flood. The top of the well casing shall be reasonably smooth and level.

Any well, except a dug well, that does not terminate at the base of the pump shall be equipped with a sanitary seal or weather-tight cap designed to prevent surface water and foreign matter from entering the well. A flowing artesian well shall be equipped with a shut-off valve and backflow preventable so that the flow of water can be stopped completely when the well is not in use.

All wells, except flowing artesian and dug wells, shall be vented. The opening of the vent pipe shall be covered with a twenty-four mesh, corrosion-resistant screen and shall be large enough to prevent water from being drawn into the well through electrical conduits or leaks in the seal around the pump when the pump is turned on. The vent pipe shall terminate in a downward position at or above the top of the casing.

All connections to a well casing made below ground shall be protected by either a pitless adapter or a pitless unit that complies with the most recent revision of National Sanitation Foundation Standard Number 56, entitled "Pitless Well Adapters".

Above grade connections into the top or side of the well casing shall be at least twelve inches above the proposed finish grade or two feet above the level of the highest known flood, whichever is higher. Above grade connections shall be sealed so that they are watertight.

The ground immediately surrounding the well casing shall be sloped downward and away from the well in all directions to eliminate the possibility of surface water ponding.

G. Disinfection

Upon completion of well construction, the well contractor shall disinfect the well. If a pump is to be installed by the well contractor immediately upon completion of the well, the contractor shall disinfect the well and pumping equipment after the pump is installed.

If the pump is not installed upon completion of the well, the pump contractor shall, upon installation, disinfect the well and the pumping equipment. The pump contractor shall also disinfect the entire water supply system after any maintenance work or repair work is done to the pump.

When a well is disinfected, the initial chlorine concentration shall be 100 mg/l throughout the entire water column.

For newly constructed or altered wells in which the pump is not immediately installed, the chlorine concentration used to disinfect the well shall be 100 mg/l. Upon installation of the pump, disinfection of the well, the pumping equipment and distribution system, if connected, shall be accomplished with a chlorine concentration of 100 mg/l.

The disinfectant solution shall remain, undisturbed, in the well for a minimum of two hours. After all of the chlorine has been flushed from the water supply system, a water sample shall be collected by, and submitted to, a Massachusetts certified laboratory. For new wells, the sample shall be tested pursuant to

Section VI of these regulations. For wells which have undergone repair, the sample shall be tested for coliform bacteria and any other parameters deemed appropriate by the Board.

X. DECOMMISSIONING REQUIREMENTS

Abandoned wells, test holes and borings shall be decommissioned so as to prevent the well, including the annular space outside the casing, from becoming a channel allowing vertical movement of water.

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

- 1) Construction of the well is terminated prior to the completion of the well.
- 2) The well owner notifies the Board that the use of the well is to be permanently discontinued.
- 3) The well has, after extended use, been out of service for at least three years.
- 4) The well is a potential hazard to public health or safety and the situation cannot be corrected.
- 5) The well is in such a state of disrepair that its continued use is impractical.
- 6) 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.

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.

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

Abandoned wells or borings shall be completely filled with clean sand. The clean sand shall not leach chemicals, either organic or inorganic, that will adversely affect the quality of the groundwater where it is applied.

The clean sand shall be introduced at the bottom of the well or boring and placed progressively upward to a level approximately four feet below the surface of the ground. The remaining four feet at the top of the well or boring shall then be filled with concrete, and the exposed casing shall be cut at a level six inches below the surface and covered with a concrete slab. This concrete slab shall be at least six inches thick and shall be at least two feet greater in diameter than the well casing or bore hole wall.

Upon decommissioning any well, the well driller shall submit to the Board a "Report of Decommission" within ten days of completion. The report shall include the following:

- 1) name, address and telephone number of the owner
- 2) name, address and telephone number of the well driller
- 3) location of well
- 4) reason for abandonment
- 5) all of the well characteristics
- 6) list of plugging materials used
- 7) plugging procedure used

XI. ENFORCEMENT

The Board shall investigate violations of these regulations and/or the 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.

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).

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

- 1) personally, by any person authorized to serve civil process;
- 2) by any person authorized to serve civil process by leaving a copy of the order at the well owner's last and usual place of abode;
- 3) by sending the well owner a copy of the order by registered or certified mail, return receipt requested, if the owner is within the Commonwealth; or
- 4) if the well owner's last and usual place of abode is unknown or outside of the Commonwealth, by posting a copy of the order in a conspicuous place on or about the premises and by advertising it for at least three out of five consecutive days in one or more newspapers of general circulation within the municipality wherein the private well affected is situated.

XII. HEARING

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 days after the day the order is served, a written petition requesting a hearing on the matter. Upon receipt of such a petition, the Board shall set a time and place for such a hearing and shall inform the well owner thereof in writing. The hearing shall be commenced not later than thirty days after the day on which the order was served. The Board, upon application of the well owner, may postpone the date of the hearing for a reasonable time beyond such thirty-day period if, in the judgment of the Board, the well owner has submitted a good and sufficient reason for such postponement.

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 modification.

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 Town Clerk and in the office of the Board of Health.

If a written petition for a hearing is not filed with the Board within seven 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.

XIII. APPEAL

Any person aggrieved by the final decision of the Board may seek relief there from within thirty days in any court of competent jurisdiction, as provided by the laws of this Commonwealth.

XIV. PENALTIES

Any person who violates any provisions 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 nor more than five hundred dollars. Each day's failure to comply with an Order shall constitute a separate violation.

XV. VARIANCE

The Board may, after a hearing, grant a variance to the application of these regulations when, in their 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.

Every request for a variance shall be made in writing and shall state the specific variance sought and the reasons therefore. The writing shall contain all of the information needed to assure the Board that, despite the issuance of a variance, the public health and environment will be protected. Notice of the hearing shall be placed on the Board's posted agenda as an individual item for discussion.

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. A copy of each variance shall be conspicuously posted for thirty days following its issuance and shall be available to the public at all reasonable hours in the office of the Board of Health and the Town Clerk. No work shall be done under any variance until thirty days elapse from its issuance, unless the Board certifies in writing that an emergency exists.

Any variance may be subject to such qualification, 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 and has been given an opportunity to be heard, pursuant to Section XI of these regulations.

XVI. CONFLICT

In cases where a provision of this regulation is found to be in conflict with a provision of any zoning, building, fire, safety or health code of the Town of Merrimac or the Commonwealth of Massachusetts, the provision which, in the judgment of the Merrimac Board of Health, establishes the higher standard for the protection and promotion of the health and safety of the people shall prevail.

XVII. SEVERABILITY

If any provisions of these regulations or the application thereof are 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 customary procedures for the amendment or repeal of such regulation.

XVIII. EFFECTIVE DATE

These regulations were adopted by vote of the Merrimac, Massachusetts Board of Health at their regularly scheduled meeting held on April 19, 2007, and are to be in full force and effect on and after April 19, 2007. Before said date, these regulations shall be published and a copy thereof be placed on file in the office of the Town Clerk and the office of the Board of Health and filed with the Department of Environmental Protection, Division of Water Supply, in Boston.

These regulations or any portion(s) 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.

XIX. DISCLAIMER

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

MERRIMAC BOARD OF HEALTH

Unanimously voted at April 5, 2007 open meeting to adopt these revised Well Regulations.

Effective April 5, 2007

A TRUE COPY ATTEST

A handwritten signature in black ink, appearing to read "Patricia E. True".

PATRICIA E. TRUE, Town Clerk
Merrimac, Massachusetts