

TOWN OF STERLING
BOARD OF HEALTH

PRIVATE WELL REGULATIONS

PART ONE – GENERAL

Section I. AUTHORITY

The Sterling Board of Health promulgates these regulations pursuant to Massachusetts General Law, Chapter 111, Section 31. They will become effective on January 1, 1986.

Section II. REGISTRATION OF WELL DRILLERS

Wells shall be constructed only by registered well drillers licensed by the Commonwealth of Massachusetts.

Section III. WELL CONSTRUCTION PERMITS

- a. A well construction permit shall be obtained from the Sterling Board of Health prior to the construction of a water well.
- b. An application for such a permit and a plot plan shall be submitted to the Board of Health by the drilling contractor on the appropriate form. Said permit shall be obtained prior to any well construction.
- c. The location, design and operation of the water well must be approved by the Sterling Board of Health before being used as a potable water supply.
- d. In the case of new construction which will rely on a private well as a source of potable water, the private well must be installed, tested and found to be in compliance with these regulations before the Board of Health will give approval for a building permit to be issued.

PART TWO – WELL CONSTRUCTION

Section I. LOCATION RELATIVE TO CONTAMINANTS & POLLUTANTS

- a. All wells shall be located an adequate horizontal distance from potential sources of contamination and pollution. The following minimum lateral distances shall apply to sources of contamination as listed:

Sources of Contamination	Minimum lateral distances
1. Subsurface disposal fields including the designated reserve area	100 feet
2. Cesspools, seepage pits	50 feet
3. Septic Tank	100 feet
4. Property Lines	25 feet
5. Public Ways	25 feet

- b. Where possible the well shall be up the ground-water gradient (upstream) from sources of contamination.

Section II. CASING

- a. The casing must be at least Schedule 40 pipe.
- b. Well casings or extensions shall extend vertically at least 6 inches about the ground level. This distance shall be increased if the well is in an area subject to flooding.
- c. All casing joints above perforations or screens shall be watertight.

Section III. SEALS

For all wells which terminate in bedrock, a permanent casing shall extend from 6 inches above ground into the bedrock a minimum of 10 feet below bedrock surfaces.

Section IV. DISINFECTION

All wells shall be disinfected following construction, rehabilitation and well or pump repairs before being placed in service. After pumping to waste until water is clear, well and equipment shall be disinfected with a solution containing at least 50 ppm of chlorine solution for at least 24 hours before flushing. All water used in drilling shall be disinfected.

Section V. SURFACE CONSTRUCTION

- a. Openings into the top of the well which are not to provide access shall be sealed. All access openings into the well shall be protected against entrance of surface water.
- b. All wells shall be vented unless they are pumped under negative pressure.

Section VI. WATER QUALITY SAMPLING.

Well drillers or pump installers shall collect water samples. Sampling shall be done immediately following development and disinfection of the well. Bacterial, chemical and physical analyses shall be made and the results shall be submitted to the Sterling Board of Health. Approval of the Board must be obtained before the well water is used. Water quality analyses shall be performed as follows:

- a. A representative sample of at least 100 ml shall be collected at pump discharge, preferably from a tap in the discharge system.
- b. The sample shall be taken in a sterile container, properly labeled with the location, the date and the name of the collector
- c. The sample shall be analyzed in a laboratory certified by the Massachusetts Department of Environmental Quality Engineering.
- d. Bacterial quality: The samples shall be collected after all traces of disinfectant chemicals have been removed. The results of the bacteriological analysis shall be ZERO (0) coliform per 100 milliliters.
- e. Chemical quality: The sample shall be analyzed for and not exceed the following standards:
 1. Nitrates 10 mg per liter
 2. Arsenic 0.05 mg per liter
 3. Sodium 20 mg per liter.Exceeding the sodium standard does not constitute a violation but serves as a notice to the user.
- f. Physical Quality
 1. Color - 15 color units .
 2. Turbidity - one (1) turbidity unit
 3. pH - 6.5 to 8.5
- g. Additional tests for chemicals or organisms may be required by the Sterling Board of Health.

Section VII. YIELD TEST

- a. Test pumping shall be conducted for four hours at a rate at least equal to the expected normal pumping rate.
- b. The pumping test shall be performed by a qualified pump or well drilling contractor.
- c. The results of the yield test shall be submitted to the Sterling Board of Health.
- d. The minimum well yield shall conform to the following table:

Depths of Water in Well	Gallons per Minute for 4 hours
0-150 feet	5 gals/min
150-200 feet	4 gals/min
200-250 feet	3 gals/min
250-300 feet	2 gals/min
300 & Over	1 gal/min

Section VIII. GENERAL ENFORCEMENT

The provisions of Title I of the Massachusetts Environmental Code (310 CMR 11.00) shall govern the enforcement of these regulations.

Section IX. VARIANCE

The Board of Health may vary any provision of these regulations with respect to any particular case when in its opinion (1) the enforcement thereof would do manifest injustice, and (2) the applicant has proved that the same degree of protection can be achieved without strict application of the particular provisions. All variance requests shall be submitted to the Sterling Board of Health in writing and shall be considered and approved or disapproved by said Board of Health.

Section X. SEVERABILITY

If any section or sentence, clause, or phrase thereof shall be held invalid for any reason, the remainder of that section and all other sections shall continue in force.

ALLEN H. HOFFMAN, Chairman
 RICHARG G. McALLISTER
 GEORGE A. FITCH
 STERLING BOARD OF HEALTH