

SUBSURFACE DISPOSAL SYSTEM REGULATIONS

Sterling Board of Health
One Park Street
Sterling, Massachusetts 01564

RULES AND REGULATIONS FOR OBTAINING A DISPOSAL WORKS CONSTRUCTION PERMIT

Acting under the authority of Chapter 111 Section 31 Massachusetts General Laws the Sterling Board of Health (BOH) hereby adopts the following regulations governing the procedure for obtaining a Disposal Works Construction Permit in the Town of Sterling. This document incorporates all Board of Health amendments and additional requirements to 310 CMR 15.00 Title 5 (revised). The effective date is March 31, 1995, amended December 8, 2022.

I. APPLICATIONS FOR LOT TESTING

Applications for testing land must be obtained from (and submitted to) the Board of Health along with the appropriate fees. The applicant must request an appointment for the dates and time of the inspections with the Board of Health Agent. Fees must be paid before any appointments are made.

II. SOIL TESTING AND SOIL EVALUATIONS

- a. Soil Evaluation. Soil evaluations shall be witnessed by a member of the BOH or its Agent. Deep Observation Holes that have been excavated to determine the estimated seasonal high groundwater elevations in the naturally occurring parent materials (by soil morphology or direct observation) shall be valid for a period of five (5) years from the date of the test. If within that five year period a design plan for a septic system is submitted to and approved by the Board of Health, then that design plan will be valid for a period of three years from the date of approval in accordance with 310 CMR 15.02(2). A minimum of two deep observation test holes are required on all designs or repair construction.
- b. Results of deep observation holes will be assumed to be representative of the conditions within a circular area having a radius of 40 feet and whose center is at the site of the deep observation hole. At its discretion, the Board of Health may require additional deep observation holes within this circular area in order to verify the consistency of these conditions.
- c. The use of observation pipes to determine maximum ground water elevations cannot be substituted for deep observation holes. Filled sites including changes in original geological materials shall not be acceptable as 'naturally occurring pervious soil'.
- d. Percolation Test. Percolation tests shall be witnessed by a BOH member or its Agent. The percolation test hole shall be separate from the deep observation test hole. A percolation test shall be deemed valid for an indefinite period if the soils within the site evaluated and adjacent land remain undisturbed and unaltered. Results of a percolation test will be assumed to be representative of the soil conditions within a circular area having a radius of 40 feet and whose center is at the site of the percolation test. At its discretion, the Board of Health may require

additional percolation tests within this circular area in order to verify the consistency of the observed soil conditions.

- e. Bedrock. Weathered or decomposed bedrock constituting 50% or more by volume of the composite material will be considered as bedrock. Although showing good permeability, percolation values of such compositions will not be acceptable. The Health Agent is authorized to make such judgments.

III. PLAN

- a. Two (2) copies of a site and subsurface disposal plan, together with Disposal Works Application and fee, is to be submitted to the BOH. In addition to the requirements of 310 CMR 15.220(4) the plan must show the location of the following items:

- Cellar drains
- Street drains within 100 feet of the proposed Soil Absorption System (SAS), septic tanks, and pump chambers and lot lines.
- Septic system locations on adjacent lots within 100 feet of the proposed SAS and within 100 feet of all lot lines.
- Location of any wells on adjacent lots within 100 ft. of lot lines.
- The location of all storm water treatment facilities such as detention or retention basins, storm water leaching basins or dry wells shall be shown on the site plan.

NOTE: If items are not appropriate, a statement regarding the status of each item must be placed on the plan along with the source of the information (e.g. town water service as recorded by the DPW).

- b. The plan of the proposed septic system must include the following additional requirements and specifications enumerated in 310 CMR 15.000 et seq:

- 1. Soil Evaluation and Percolation Data.

The sewage disposal plan must show the location and results of ALL soil evaluation observations and percolation tests performed on this parcel of land within the period of the past 10 years.

IV. SYSTEM DESIGN

- a. The following minimum size leaching facilities are required:

Leach bed	1,000 square feet with a minimum of 12" of stone beneath the lateral pipes.
Leach trenches	150 feet total length, 3 ft. wide with 1 ft of stone, or an equivalent sized layout with 750 sq.ft. minimum leaching area
	If provided within the DEP approval notice, the regulation above necessitating 12" of stone beneath lateral distribution pipes for alternative technology such as Presby systems and Perc Rite systems will not need a variance. These technologies must have equivalent leaching capacity as specified in the above leaching bed or leaching trenches.

- b. All design calculations / capacity shall be complete and provided on all plans.
- c. All pipes from the foundation through and including the perforated lateral pipes shall be 4" schedule 40 PVC. Smaller diameter schedule 40 PVC or SDR 21 may be used for force main pipes in systems dosed with a pump or in pressure dosed soil absorption systems.
- d. All leaching facilities shall be vented through the end of the leaching system.
- e. Septic tanks and pump chambers: all septic tanks and pump chambers shall be monolithic precast concrete units. The cover plate, manhole risers and all pipe openings shall be properly sealed to prevent leakage in or out of the tank. For a system (S.A.S.) repair or system replacement, all tanks must be upgraded to full compliance. Septic tanks must be a minimum of 2000-gallon two-compartment tank or two tanks in series with rubber boots at inlet and outlet to seal against infiltration or exfiltration.
- f. A DEP-approved effluent tee filter or equivalent Department approved technology is required at the outlet of all septic tanks. Annual maintenance of these is required and shall be noted on the plan. Note that a manhole must also be brought to finish grade.
- g. Leaching facilities shall be constructed with the following minimum separation distance (d) to estimated seasonal high groundwater:

Design Flow(gallons per day)	Distance (d) Feet
0-1,499	Title 5 (CMR 15.212)
1,500-2,999	5 ft
3,000-4,999	6 ft
greater than 5,000	7 ft

- h. For leaching facilities located in the Aquifer and Water Resources Protection District, the minimum separation distance (d) shall not be less than 6 feet as required in Section 4.6.j of the Aquifer and Water Resources Protection by-law.
- i. No new construction leaching facility may be constructed in fill in an area where a deep observation hole test reveals the maximum ground water elevation to be less than 2 feet from the surface of the ground.
- j. Interceptor drains shall not be approved for lowering the ground water on a proposed parcel.
- k. Shared systems may be allowed as provided in 310 CMR 15.290-293. The Board of Health is authorized to hire consultants to conduct peer review when warranted, and applicants shall reimburse the Town for additional review and approval charges associated with Town Counsel, engineering, clerical or environmental permitting peer review.
- l. Location of Leaching Facilities
 - 1. Proximity to Water Bodies, except where Title 5 requires a greater distance, leaching facilities shall not be located closer than 100 feet to a water body.

2. Areas Subject to Vehicular Traffic. Neither the primary leaching area nor the reserve area may be located under an area subject to vehicular traffic. Areas subject to vehicular traffic include, but are not limited to, driveways, parking lots and loading docks.
 3. Leaching facilities shall be a minimum of 20' from ground source heat pump wells.
- m. The area between leach trenches may not be proposed for use as the reserve leaching area.
 - n. The area between leaching galleys may not be proposed for use as the reserve leaching area.
 - o. The following activities are prohibited within a designated reserve area and land within 10 feet of the limits of a designated reserve area:
 1. Permanent structures and buildings
 2. Driveways, paved patios, decks, and platforms
 3. Plantings of trees or shrubs with a mature height greater than six (6) feet, or
 4. Temporary buildings or structures having a footprint of greater than 50 square feet.

V. SYSTEM INSPECTIONS AT TIME OF TRANSFER

- a. All inspections required per 310 CMR15.301 shall be witnessed by a member of the Sterling Board of Health and/or their Agent.
- b. Inspectors shall record if a filter exists in the system and shall specify the maintenance that is needed by the property owner.
- c. A complete copy of the inspection report shall be submitted to the Board of Health within 30 days of the inspection date.
- d. Estimated seasonal high groundwater must be determined through a soil evaluation (Deep Observation Hole) by a DEP approved soil evaluator and witnessed by a member of the Sterling Board of Health and/or their Agent. Results of deep observation holes will be assumed to be representative of the conditions within a circular area having a radius of 40 feet and whose center is at the site of the deep observation hole. If a soil evaluation subsequent to 1995 has not previously been conducted on the site within the area of the soil absorption system, then a current soil evaluation must be performed and witnessed by the Health Agent or Alternate Inspector. ESHGW (Deep Observation Hole) determined prior to April 1995 are deemed to be invalid.

VI. AVAILABILITY OF WATER

In accordance with Chapter 40, Section 40 of the Massachusetts General Laws, the Building Inspector for Sterling requires proof that a proper water supply is serving the property before issuing a building permit. On those lots which require a private well, the well must be installed and a lab test report from a State approved laboratory must be submitted to the Board of Health in accordance with the Sterling Board of Health Private Well Regulations.

VII. VARIANCE PROCEDURES AND LOCAL UPGRADE APPROVALS (310 CMR 15.401 through 15.422)

- a. For the purposes of this section, abutters are defined as those parties within 100' of the parcel in question. A certified abutters list would be obtained from the Sterling Assessors. Abutters shall

be notified using Certified Mail-Return Receipts Requested, and proof of Certified Mail receipts must be provided by the applicant to the BOH at the Public Hearing at the applicant's expense.

- b. The applicant or applicant's engineer must provide written documentation justifying hardships for all variance requests.
- c. An applicant or his/her representative must appear at the Board of Health variance hearing to present proposed plans and respond to questions.
- d. Variances to the Sterling Subsurface Disposal System Regulations will be addressed as prescribed in 310 CMR 15.411
- e. Local Upgrade Approval requests for ground water offset shall be addressed as prescribed in 310 CMR 15.411

VIII. PERMITTING

- a. A fee schedule for activities relative to a Subsurface Disposal System and Title 5 inspections shall be established and periodically reviewed by the BOH. The BOH will review fees annually, and shall conduct a public hearing to make changes. A simple majority vote of the Board is needed to revise the fees for the following system evaluations and permit categories:
 - 1. Deep observation hole tests
 - 2. Percolation tests
 - 3. Septic system construction and repair permits under 2000 gallons per day
 - 4. Septic system construction and repair permits 2000 gallons per day or greater
 - 5. Septic system repair permits
 - 6. Disposal System Installer license
 - 7. Septage Hauler license
 - 8. Inspections at the Time of Transfer (310 cmr 15.300 – 15.340)
 - 9. System re-inspection for all circumstances.
- b. No individual shall engage in the pumping, transferring, storing and/or hauling of septage, sewage, or wastewater system residuals from onsite wastewater systems, portable toilets, or wastewater treatment facilities within the Town of Sterling without first being granted a Septage Hauler Permit by the Sterling Board of Health.
- c. The Sterling Board of Health, through an adjudicatory hearing process, may suspend, revoke or refuse to renew the permit or registration of any person who violates any provision of its regulations or the State Environmental Codes.
- d. Notification of the Board of Health is required before initiating emergency repairs of more than simple pumping. All emergency repairs must be permitted and inspected by the Board of Health or its Agent.
- e. The Board of Health, and/or their Agent shall have the authority to place written conditions upon any Disposal Works Construction Permit at the time of issuance. Said conditions shall become part of the permit.

- f. Within 30 days of the final required inspection by the BOH member or its agent, the as-built plan and any associated paperwork must be submitted by both the engineer, and the installer must certify in writing that the system was constructed in compliance with Title 5, the approved design plans, and all local requirements; and that any changes from the design plans have been reflected on the as-built plans.
- g. Any installer who fails to certify/sign the Certificate of Compliance within the State or local deadline, at the discretion of the Board of Health may not be allowed to undertake any additional work requiring review/approval of the Sterling Board of Health, until documentation is completed and a Certificate of Compliance is issued on any outstanding projects.
- h. Any engineering company or sanitarian that fails to submit the as-built plan or sign/certify all documents required for the Certificate of Compliance (i.e. retaining wall certifications, pump chamber as-built, site plan as-built, etc.) to be issued by the above mentioned deadline, may at the discretion of the Board of Health not be allowed to submit any additional plans for review/approval to the Sterling Board of Health until work is completed and compliance issued, on any outstanding projects.
- i. A copy of the as-built design shall be submitted by the designer in electronic format, in addition to a full size hard paper copy both copies shall bear the stamp of the designer.
- j. Installers of the Disposal System shall submit a hard 8.5" x11" paper copy of the installed system using permanent locating references and all water source locations.
- k. The Agent must be notified at least 72 hrs. in advance of any proposed inspection request associated with all local or state septic system regulations.

IX. 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.

Adopted March 23, 1995
Revised June 8, 1995
Revised July 14, 2011
Revised December 8, 2022

A True Copy
Attest:

Sterling
Town Clerk

STERLING BOARD OF HEALTH:

Allen H. Hoffman Catherine Lynne Martin Anne Marie Catalano