RULES & REGULATIONS
DISPOSAL OF WASTEWATER
TOWN OF BRIDGEWATER

GENERAL REQUIREMENTS

All subsurface disposal of wastewater in the Town of Bridgewater is subject to the approval of the Board of Health. Approval of such discharges will be considered upon the submission of applications on forms provided by the Board of Health. Each application must be accompanied by a fee according to the following schedule. Checks should be made payable to the Town of Bridgewater with the completed application forms.

FEE SCHEDULE

Percolation Tests $200 (3 hrs) $500 full day

Disposal Applications

Flow rate (gallons per day):
$150 (up to 500 gallons)
$200 (500-1000 gallons)
$300 (1000-2000 gallons)
$400 (2000-10,000 gallons)
$600 (over 10,000 gallons)

Disposal Applications are not transferrable

Fees are applicable to review systems or those being increased in capacity. Fees for repairs are existing systems not requiring the services of a Registered Professional Engineer $150 or $75.00 per component.

Additional inspection necessitated by non-compliance with the approval plan or non-compliance with the general requirements of these rules and regulations or unacceptable construction method shall necessitate an additional $50.00 per inspection until final approval is given. Applications for systems involving flows in excess of 15,000 gpd or industrial waste shall not be considered by the Board of Heath until approved by the Department of Environmental Quality Engineering in accordance with Section 17, Chapter 111 of the General Laws. For State approval, applications for systems in excess of 15,000 gpd or industrial waste must be submitted to the Board of Health for approval in accordance with the rules and regulations.

The following general requirements are necessary in order for an application to be considered.

1 The service of a registered professional engineer experienced in the area of wastewater disposal will be necessary.

2 Duplicate application forms and 5 copies of design plans including all necessary supporting data in accordance with these rules and regulations must be submitted to the Board of Health.

3 An adequate water supply must be available. Private water supplies will require additional approval of the Board of Health in accordance with the rules and regulations for a private water supply system in the Town of Bridgewater. The use of private water supplies will not be allowed unless there are compelling circumstances.

4. Construction of private wastewater disposal systems shall not be accomplished without the contractor first obtaining an installers permit issued by the Board of Health. A test is required to obtain a permit along with 3 references from past jobs.

5 Approved applications shall be indicated by the return of one copy of the application and accompanying data to the applicant signed by the Health Agent or Board of Health.

6 Disapproved and incomplete applications will be returned to the applicant with indicated reasons for disapproval.

7 All permit approvals shall expire after two years from the date of issue unless construction of the individual system is initiated prior to that time.

12 Percolation tests will be allowed as long as outside conditions permit. The Board of Health reserves the right to change the time period should prolonged dry spells or heavy rains significantly alter the water table.

13 Leaching facilities shall be determined in accordance with the following table:

LEACHING SYSTEM DESIGN CRITERIA

Min. per inch	Leaching pits/trenches sq. ft / gallon	Per inch drop	Leaching field sq. ft./gal.
2.0 or less	0.75	2.0 or less	1.50
2.5	0.84	2.5	1.62
3.0	0.93	3.0	1.74
3.5	0.99	3.5	1.82
4.0	1.05	4.0	1.90
5.0	1.12	5.0	2.00
6.0	1.19	6.0	2.12
7.0	1.28	7.0	2.22
8.0	1.36	8.0	2.32
9.0	1.44	9.0	2.42
10.0	1.50	10.0	3.00
15.0	2.25	15.0	3.50
20.0	2.62	20.0	4.00
Over 20	unsuitable	Over 20	unsuitable

USE OF EXISTING SUBSURFACE DISPOSAL SYSTEMS

Where an existing dwelling is demolished and replaced, altered so that the occupant capacity is increased, or converted into a multiple family dwelling, the Board shall require the submission of properly engineered and designed plans which shall comply with these regulations and Title 5 of the State Environmental Code. Repairs to existing sewage systems will require the approval of the Agent of the Board and it will be the responsibility of the licensed installer to submit an as-built plan with the location of the sewage disposal system, water line, wells and/or water course within 150 feet of said system. Distances must be shown from no less than two points as to facilitate the location of all covers and corners of leaching field at a later time. The Board reserves the right to require the services of a registered professional engineer for repair work.

The invalidity of any part or provision of these rules and regulations shall not affect the validity of any other part or provision otherwise valid and these rules and regulations shall remain in effect as amended from time to time except for those parts or provisions which are determined to be invalid.

ADOPTION: The above regulation (including therein the title thereof) pursuant to all powers of authority of the Board, is unanimously adopted by the Board of Health of the Town of Bridgewater in meeting assembled this 7th day of June, 1989 to be effective on or after June 22, 1989 and shall before said date to be published in a newspaper circulated in this Town and a copy thereof shall be deposited in the office of the Town Clerk within (10) days after the effective date.

BOARD OF HEALTH
Brian Penney (Chairman)
Eric Colon
Sandra Wright

8. The Board of Health shall be notified when the construction of the disposal system has been completed to the following stages in order that an inspection may be made by the Agent of the Board of Health:
a. When excavation is completed prior to the installation of any fill or stone.
b. When the pea stone around the pipes has been installed prior to final backfilling of the system. The design engineer must also be notified at this time so that he can make his inspection to prepare the as-built plan. The Board reserves the right to require a joint inspection by the Agent and design engineer.
c. The engineer shall notify the Board of Health within 24 hours of his inspection that the installation meets or does not meet the design requirements.
9. Installer's permits may be revoked by the Board of Health for failure to comply with these rules and regulations.
10. Three copies of the as-built drawings must be provided to the Board of Health within 7 working days of his final inspection.

DESIGN REQUIREMENTS

The following information is provided for guidance in the design of necessary facilities.
1. The minimum requirements of the State Environmental Code Title 5, as amended, shall be complied with subject to the additional requirements indicated herein.
2. Preferences for the type of leaching facility shall be in the following order:
   a. Leaching pits or galleys
   b. Leaching trenches or chambers
   c. Leaching fields
3. When pits, galleys, or trenches are used for the primary sewerage system, a minimum of two separate units will be required.
4. Detailed cross-sectional drawings and hydraulic profiles of the building sewer, distribution box, septic tank and subsurface leaching system shall be furnished with appropriate dimensions indicated.
5. No subsurface disposal system shall be allowed to be constructed within 150 feet of any private groundwater supply or know source of surface water supply or tributary body of water leading to a water supply.
6. No subsurface disposal system for single or two family dwellings shall be constructed within 75-feet of any wetlands or previously filled wetlands or vegetated wetland area. No subsurface disposal system for commercial, industrial or multiple dwellings containing more than two units shall be constructed within 100-feet of any wetland or previously filled wetland or vegetated wetland area. Detention or retention ponds shall be considered wetlands.
7. All covers on septic tanks and leaching pits shall be 18 to 24 inches in diameter. Access covers shall be easily removable for pumping and general maintenance. All covers shall be no more than 12-inches below finish grade.
8. A layout plan of each lot at a scale not less than 1-inch equals 20-feet shall be provided. This plan shall, as a minimum contain the following items: location of house and garage, layout of subsurface disposal system, location of water line, driveway, foundation drain or drains where needed; pertinent elevations, elevation of road, cellar floor, top of foundation, garage floor, hydraulic profile of subsurface system from house foundation to the bottom of the subsurface leaching system, grade elevations present and proposed at 1-foot contour intervals. Logs or test pits in disposal and reserve area and percolation test results must also be shown.
9. A suitable area must be designated as being reserved for expansion of the disposal system as may be necessary in the future. A 100% expansion of the leaching system must be provided.
10. There shall be a minimum of 12-inches of stone under all leaching systems. Leaching trenches must have a minimum depth of 24-inches of stone under piping. Maximum width of trenches shall be 4-feet. When the area between the trenches is to be designated as the reserve, the distance between the trench walls must be three times the effective width of the trenches.
11. Site grading for each subsurface disposal system shall be indicated in a manner which will provide for proper drainage away from the proposed dwelling and from the subsurface leaching system. Such grading shall be compatible with existing and proposed street grades. Grading shall be designed to prevent adverse subsurface drainage conditions from developing on adjoining property. Where necessary easements must be indicated and provided.
12. A semi-permanent bench mark must be established on all lots and maintained until after the final inspection by the Town of Bridgewater and the design engineer. The bench elevation shall be based upon the USGS Datum, if so requested by the Board.
13. All plans must be legibly stamped and signed by the registered professional engineer responsible for the design.
14. Each residential dwelling unit shall have its own separate sewage disposal system and all sewage systems must be located on the same lot as the building they are serving.
15. Where a high groundwater exists, filling may be allowed to raise the base of the leaching system if the existing groundwater is at least 2 feet below original ground level in the primary and reserve area.
16. All subsurface disposal systems shall be constructed 4-feet above the maximum groundwater table.
17. A minimum of 1000 sq. feet for leaching fields and 600 sq. feet for leaching chambers counting bottom area only will be required. A minimum of 600 sq. feet counting bottom and side area will be required for leaching pit, leaching trench or leaching galley construction. Ends of leaching trenches shall not be used for computing required leaching area. For purposes of design, a leaching chamber shall be any precast leaching medium that has less than 2-feet of casting below the piping entrance. A leaching galley shall be any precast leaching medium that has more than 2-feet of casting below the piping entrance.
18. Minimum sizes also apply to all commercial establishments.
19. All piping shall be a minimum of 4-inches in diameter. Piping to septic tank shall have a minimum pitch of ¼-inch per foot. All piping to septic tanks, distribution boxes and pump chambers shall consist of cast iron or schedule 40 PVC. All other piping must be approved by the Board.
20. The ends of all distribution lines shall be capped unless a header is used to vent system.
21. Leaching systems installed under paved areas and all pumped systems shall be vented. All covers under paved areas will have manholes installed on grade.
22. As-built drawings stamped and signed by the design engineer must show location of all piping. Ties from at least two points shall be provided to located all covers, ends of leaching trenches and far corners of leaching field. All invert and foundation elevations must be shown along with location of any wells or water supplies on the lot or adjacent lots.
23. On systems over 2,000 G.P.D. the Board may require the installation of observation wells for sampling and monitoring purposes. The number of wells required and the extent and frequency of monitoring will be determined by the Board.
24. The use of concrete walls or impervious barriers because the slope requirements of Title 5 Section 15.03 cannot be met shall not be allowed.

SITE APPROVAL

Prior site approval must be obtained for all normal installations by performing percolation tests and test pit excavations in the presence of the design engineer and the Agent for the Board of health. Perc tests will be valid for 2 years. Waivers may be granted at the time the disposal application is submitted at the written request of the applicant. Perc tests dated over 5 years will not be considered for waivers. The following shall be required as a minimum:

a. All percolation tests shall be made at the proposed elevation of the bottom of the disposal system.

b.Percolation tests may be required for proposed expansion in areas in addition to the testing required for the initial construction area.

c. At the time of the percolation test it will be required that the design engineer establish a semi-permanent bench mark and record the water table from the same.

d. On any system where there is a percolation rate of more than 12 minutes per inch or where an overnight soak was required or where de-watering was used to accomplish percolation or if in the opinion of the Agent the soil varies to the extent that there is not enough soil of the approved rate for both the leaching and reserve areas, it will be necessary to excavate the leaching and reserve areas into the water table and replace with clean sand or gravel having a perc rate of less than 2 minutes per inch.

e.The location of all pertinent test pits and their ground elevation must be submitted to the Board by the design engineer within 7 working days of the test. Multiple tests for subdivisions will be allowed 15 working days to submit plans.

f. Test holes will be required on each site to a depth of note less than 10-feet in order to determine soil characteristics, existence of ledge, groundwater elevation, etc. Two test holes will be required in the initial disposal area and one will be necessary in the expansion area.

g. Soil with a percolation rate of more than 20 minutes per inch will be considered unacceptable. Such soil will be determined impervious and construction will not be allowed. Soil with a percolation rate of more than 15 minutes per inch shall not be allowed on systems over 1200 gallons per day.

h.When the percolation hole is on the shelf adjacent to the test pit or on an island as in a de-watered percolation test the distance between the edge of the percolation hole and the edge of the nearest banking will be no less than the depth of the test pit at the banking.

i.Percolation tests shall not be allowed in fill.

j. All tests shall be performed in accordance with the requirements of Title 5 of the State Environmental Code Regulation 5.03.

k. Additional percolation tests may be required at the discretion of the Agent where the sol characteristics are variable or where large disposal systems are necessary.