



Board of Health

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ADOPTED AUGUST 18, 1993
AMENDED APRIL 2, 1997

SEPTIC SYSTEM REPAIR PROCEDURE GUIDELINES

While this handout is specific for the replacement of a "failed" septic system, the procedure is identical to that followed for voluntary septic system upgrades or replacements, as well as new construction (except as noted).

Step 1 – Confirm that the system has failed.

The Department of Environmental Protection (DEP) Title 5 *Subsurface Sewage Disposal System Inspection Form* can also be used to determine the cause of a septic system problem. A backing-up sanitary drain may not always indicate a failed system. This detailed inspection by a State-certified inspector can usually identify the cause of a system problem. A broken or clogged pipe can be easily repaired. A leaching field with sewage above the ground or sewage backing up into the distribution box usually indicates a failed system and requires that the septic system be brought up to current standards as set by the State regulations, Title 5, and the local Sherborn regulations. A cesspool with sewage above the ground or backing up above the inlet pipe also requires replacement with a system meeting current regulations.

Step 2 – Minor Repair

For a clogged pipe, no notice is required to the Board of Health to have the blockage removed. For a broken pipe or other broken part of the system, a repair permit is required from the Board of Health. This will usually require hiring the services of a septic system installer licensed in Sherborn. [Note – A list of currently licensed installers is available from the Board of Health office. Being licensed by the Board is only an indication that the listed installers have done satisfactory work in the past.] One must apply for a permit with details of the repair work to be performed and a plan showing the location of the well and septic system included. An application fee must be paid and construction inspection appointments scheduled with the Board of Health Agent as required. The application procedure can usually be handled by the installer retained to perform the repair.

FOR A FAILED SOIL ABSORPTION SYSTEM (i.e. LEACHING FIELD, LEACHING PIT, CESSPOOL, ETC.), THE ENTIRE SYSTEM MUST BE REPLACED WITH ONE MEETING THE CURRENT REGULATIONS OF THE STATE AND THE TOWN OF SHERBORN.

Step 3 – System Replacement

When a system has failed and must be replaced, the procedure is very similar to the design, approval, and installation of a new system. The differences are noted below:

A) Designer

The system must be designed to meet the current State and local regulations. State regulations dictate that this design be prepared by a professional licensed by the State to design septic systems. One is strongly encouraged to retain the services of such a professional once it has been determined that the existing system has failed. The Board of Health cannot make recommendations for these professional services and cannot perform these design services.

B) Testing

To prepare a design, site and soil information is necessary. This includes the depth to groundwater (with calculated adjustments for periods of low rainfall) and the percolation rate of the soil. (The percolation rate is the rate at which the soil will allow water to flow through it and is determined from standardized testing procedures. The results are expressed in “minutes per inch”.) The depth to the groundwater is determined by digging “deep holes” which typically will be 10-12 feet deep and up to 20 feet deep for out-of-season testing. The deep holes are utilized to view soil morphology and groundwater levels. “Deep hole” testing and percolation rate tests shall be performed after November 1st and completed before April 29th (for “deep holes”) or June 30th (for percolation rate). (For details of the testing season, see the Sherborn Board of Health Regulations, Section 5.1.)

For *emergency repairs/replacements*, a variance can be requested to allow testing to be conducted “out-of-season”. When carefully performed, percolation tests performed out-of-season can be valid. Deep hole tests require that an adjustment factor specific to the date of the test be calculated by the design engineer, and be based on standardized well water levels in the area and accepted engineering calculations.

C) Design Review and Approvals

The project must first be submitted to the Conservation Commission for review and determination of wetlands impact. After the Conservation Commission has released their written determination and all design documentation has been completed, it must be submitted to the Board of Health for review by the Agent. This review is to assure that the documentation submitted meets all aspects of the State and local Board of Health regulations. If corrections are required, the Agent will specify to the design engineer where the design or documentation is deficient, and the engineer will be expected to make changes and re-submit the plans for the Agent’s review. If upon re-submittal there are still deficiencies, errors, or unacceptable changes, the Agent will advise the design engineer. There is an escalating level of additional fees for plan review after the first re-submittal.

Due to site limitations, groundwater levels, percolation rates, or other reasons, it may not be possible to design a system meeting all current State and local regulations. Variances to the regulations are usually not granted for new construction, but for repairs/replacements variances may be granted. A variance may be granted when a failure to grant the variance would create a “Manifest injustice”, such as causing the dwelling to be unusable due to lack of a proper septic system. In order for the Board to grant a variance, it must be able to find that the proposed plan,

while not meeting the regulations in specified ways, affords environmental protection equal to a plan meeting the regulations in all specifics. A Variance Hearing must be held in order to grant a variance from the regulations (See the separate Board of Health handout, *Variance Procedure Guideline – State or Sherborn Regulations*.) If variances are sought to the State regulations as well as to the local regulations, a separate fee and variance application must be made to the State. The State may not grant a variance if the local Board of Health has not also voted to grant the variance. Application to the State for variances, if necessary, follows the local Variance Hearing.

Following Conservation Commission determinations, and after the Agent has completed his review(s) and has determined that the design and documentation meets the State and local regulations with whatever variances, if any, having been granted, the Agent presents the plans to the Board of Health at a public meeting with his recommendation for approval. The Board must then vote on the plan.

D) Construction

Construction of the system must be by a septic system installer currently licensed by the Sherborn Board of Health. When issued, installer licenses are for the calendar year. The design engineer is responsible to see that the system is installed in accordance with the approved plans. Appointments must be made by the installer or design engineer with the Board of Health Agent to witness and inspect the work at specific stages of the construction. If the installation cannot be made in compliance with the approved plans, the applicant, via his/her engineer, is required to submit plan changes for review and approval, and not proceed until approval is granted. The installer and/or the design engineer should be made responsible for the timely submittal of required gravel tests, grading plans, and “as-built” plans with all required certifications. The Board of Health Agent cannot issue a Certificate of Compliance until all required test results, plans, and documentation have been submitted and are deemed satisfactory.

E) Timing

The entire process of inspection, Conservation Commission determination, site testing, variances (if any), design, review, approval, and construction is extremely time consuming. Meeting seasonal testing schedules, applying for variances, performing witnessed tests, etc. are all sequential processes in that one cannot be performed until the prior step is completed satisfactorily. An applicant should be prepared to have the entire process take anywhere from three months to one year.