ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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You and Your Septic System

A Homeowner's Guide to Septic System Maintenance

Your septic system is a highly efficient biological system that can effectively digest and disperse your household sewage and other organic wastes. Properly designed, installed and maintained, it should give you many years of trouble-free service, **but only if it is properly maintained.** The key to the life and service of any septic system is proper maintenance.

How Does Your Septic System Work?

A septic system is designed to condition untreated liquid household waste (sewage) so that it can be readily dispersed and percolated into the subsoil. Percolation through the soil accomplishes much of the final purification of the effluent, including the destruction of disease-producing bacteria.

Your septic tank is the first step in the process of sewage conditioning. Without it, the untreated sewage would quickly clog the receiving soil and prevent the purification process of leaching and soil percolation. Septic tanks serve three functions:

- Removal of solids.
- Bacterial action.
- Sludge and scum storage.

In the first step, as sewage enters the septic tank, its rate of flow is reduced so that the larger solids sink to the bottom or rise to the surface. These solids are retained in the tank, and the clarified effluent with suspended and dissolved solids is discharged.

Bacterial action is the second function. The solids and the liquids in the tank are partially decomposed by bacteria and other natural processes. These bacteria are called anaerobic because they thrive in the absence of free oxygen. This decomposition of sewage under anaerobic conditions is termed "septic," hence the name of the system (and the cause of the odor).

Storage is the third function of your system. Sludge is the accumulation of solids at the bottom of the tank, while scum is a partially submerged mat of floating solids that may form at or near the surface. Space must be provided in the tank to store the residues during the intervals between cleaning. Otherwise, the sludge and scum will eventually be scoured from the tank and will clog the leach field and receiving soil. PERIODIC CLEANING OF YOUR TANK IS ESSENTIAL TO ITS PROPER FUNCTION.

Finally, the treated effluent from the septic tank is discharged to the leach field where it percolates through suitable gravel and finally into the subsoil for further purification.

Remember: A properly maintained septic system will adequately treat your sewage. A septic system failure is unhealthy, illegal if not corrected and a nuisance. Also, replacing an existing system can be costly! The life of the system can be prolonged by proper maintenance and frequent tank pumping.

What You Can Do to Properly Maintain Your Septic System

First and foremost, inspect your septic tank every year. If the sludge and surface scum combined are as thick as 1/3 the liquid depth of your tank, have the tank pumped out by a licensed pumper. Your tank should be pumped out **at least every two to three years**.

Do not flush bulky waste or grease into the system. It can plug the sewer and/or distribution lines.

Do not flush toxic materials into the system. Paint thinner, gasoline, pesticides, chlorine, drain cleaners and other caustic or toxic substances can kill the naturally-occurring bacteria in the tank and impair its function. If in doubt, don't flush it.

Conserve water. Too much water can overload your system and adversely affect its function.

Don't allow vehicles or livestock on your leach field. The weight can compact the soil and/or break pipes.

Any soggy areas around the system, or disagreeable odors, could indicate system failure. Have it checked.

Additional Suggestions

Minimize or eliminate use of kitchen "disposal" units, which grind up food wastes and place a burden on the septic tank, especially if the original septic design did not accommodate one.

If water treatment system backwash has been directed into the home septic system, check to make sure that the additional volume from the discharge can be accommodated by your septic system. Unfortunately the majority of treatment systems are installed after the home and septic system are built. The additional water to the septic tank and leaching field may cause problems with septic system operation or may overload the existing leaching area and result in premature failure. Additionally, some experts believe that the brine from backwashing may have detrimental effects on bacteria growth and may influence the soil's ability to infiltrate water.

Maintaining a Record

On the next page, is a template for creating a permanent maintenance record of your septic system for your files.

For More Information

For more information, please contact the DES Subsurface Systems Bureau at (603) 271-3501 or go on-line at http://des.nh.gov/organization/divisions/water/ssb/index.htm for detailed information.

Septic System Maintenance Record for: _____

First, in the space below, make a sketch of the location of your septic tank in relation to your house. Measure and record on your sketch the distances from the house foundation to the septic tank or cesspool cover, to the distribution box, leaching system and to other permanent features such as nearby trees or rocks.

Date System Installed: _____ Installer: _____

Record of Pumping Service / Maintenance	
Date	**Septic Service Provider**

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