

SEPTIC SYSTEM SENSE

Is The Honeydipper on Your Honey-Do List?

Did you know that your septic system will safely and effectively remove chemical and microbial pollutants from your household wastewater *for the lifetime of your home*? It's true—provided that you operate and maintain your system properly, and that it was properly designed and constructed in the first place. All too often, however, septic systems are “out of sight and out of mind” until it is too late, and the homeowner is saddled with a very costly and disruptive reconstruction project—not to mention the possibility of a serious environmental contamination problem. Fortunately, proper septic-system maintenance is relatively easy and inexpensive.

Septic-System Basics

Septic systems are relatively simple; they typically include a septic tank and a drainage field. Septic systems are designed to remove pollutants from household sewage—wastewater from bathing, dishwashing, toilets, and laundry. Household plumbing diverts this wastewater to a “septic tank” buried in the ground. Inside the septic tank, heavier solids settle to the bottom and lighter materials rise to the top, leaving liquid in the middle. Microorganisms present in the sewage slowly digest the organic solids. The liquid, which stays in the septic tank for about two days, gradually exits the tank through an outlet to the drainage field. The drainage field is a series of underground, perforated pipes in a bed of gravel. As the liquid drains, a biological film on the gravel removes chemical and bacterial pollutants. In the soil below, additional pollutants as well as viruses are removed through filtration and adsorption processes.

Proper Operation and Maintenance of Septic Systems

According to the New Jersey Department of Environmental Protection (NJDEP), you can help to avoid problems with your septic system simply by following a few rules of thumb:

- **Familiarize yourself with your septic system.** Just knowing some basic facts about your system will be of great help in maintaining it properly. A drawing of your system with pertinent information may be available from the Health Department, or a septic-system professional can determine the type of system you have, the size/location of your tank and drainage field, the location of your pump-out access, and whether your laundry and sump pumps discharge to your septic.
- **Have your septic tank pumped at least once every 3 years** by a licensed septic professional. Pumping removes solids that build up in the system over time. Eventually these solids will interfere with the operation of the system and can permanently reduce its effectiveness by clogging the drainage field. NJDEP recommends more frequent pumping for older systems with tanks smaller than 1,000 gallons. It's helpful to keep a record of your septic-system maintenance.
- **Keep the area above the septic system clear.** Avoid this area when paving, placing sheds or other structures, planting trees or other vegetation with extensive root structures, directing flow from downspouts, and driving or parking vehicles or trailers. Not only can these activities interfere with the proper operation of the system, they can also inhibit access for maintenance or repairs. Grass is the best vegetative cover to use above drainage fields.
- **Avoid overloading your system.** Excessive use strains your system. Water conservation can help, and leaky faucets and toilets are typical culprits. In addition,

disconnect discharges to your septic from sump pumps, floor drains, and downspouts. Finally, spreading out water use also helps relieve overloading, so avoid simultaneous dishwashing and bathing during the day, and try doing laundry a little at a time instead of over just one or two days.

- **Be careful about what you flush down your drains and toilets.** Never flush toxic substances down your drains or toilets. Motor oils, paints, varnishes, solvents, degreasers, photographic solutions, pesticides, and the like can seriously contaminate the environment and damage your septic system and plumbing. Cooking oils, fats, and grease will also cause problems and should not be flushed or poured down drains. Don't add a garbage grinder to a home with a septic system because the ground-up material can significantly strain the system. Minimize the use of harsh products for cleaning sinks and toilets; try baking soda instead. Finally, don't flush non-degradable items such as sanitary napkins, latex/rubber prophylactics, disposable diapers, paper towels, cigarette filters, and cat litter. These items can clog the septic system or cause blockages in your plumbing.

A Failing Septic System

Contact a septic professional if you observe any of the following warning signs of septic-system failure:

- **Slow-draining toilets or toilet backups.** If the toilet itself isn't clogged, slow draining could mean that the septic system cannot treat the wastewater quickly enough and that the septic tank requires pumping and/or the drainage field is clogged. It could also indicate a blockage in the pipe leading from the house to the septic tank.
- **Abnormally lush vegetative growth or wetness on the ground surface in the area of the drainage field.** Often accompanied with sewage odors, this situation can result from a clogged or undersized drainage field. Temporarily high water usage or a shallow water table can also cause these symptoms.
- **Sewage seeping into the basement.** This symptom could indicate a break in the pipe leading from the house to the septic tank, or, particularly for older systems, the presence of a shallow water table.

If any of the above symptoms recur before the normally scheduled septic-tank pumping, or if a septic professional determines that your septic system is not functioning properly, it is important to act quickly and responsibly as follows:

- **Contact the Health Department.** The Health Department will help you to ascertain possible corrective measures and the need for any approvals or permits.
- **Don't add commercial additives to septic tanks or drainage fields.** Although there are many products marketed with claims of increasing or restoring the capacity and performance of septic tanks and drainage fields, NJDEP has determined that these products are usually either unnecessary or potentially detrimental to septic systems. Human wastes contain an adequate variety and quantity of microorganisms to maintain proper operating conditions in the septic tank.

The above is summarized from "A Homeowner's Manual for Septic Systems," which contains a wealth of other information and is available for free download from NJDEP's website at: <http://www.state.nj.us/dep/dwq/pdf/septicmn.pdf>