The Village of South Barrington

YOUR SEPTIC SYSTEM

Your septic system is perhaps the least understood component of your home. It is also one of the most important systems within your home. A failed system can create a serious public health hazard requiring repairs costing several thousand dollars.

The following information has been compiled by your Building Department in an effort to help you maintain your septic system and to help reduce the number of septic failures.

Your septic system has two basic components: the septic tanks and the seepage field. Village Code requires that two tanks and approximately 200 linear feet of seepage field per bedroom be installed for each home. Household wastes are collected in the PVC waste water plumbing system throughout the house and transported through the foundation wall into two septic tanks. Most of the solid material settles to the bottom of the tanks while the liquids flow out of the top into the seepage field.

The tanks are large enough to accumulate substantial amounts of heavy solids. Decomposition of this sludge is achieved by bacterial and other natural processes. Lighter particles and grease rise to the surface, forming a scum mat that is retained in the tank. Baffles are provided in the tank to prevent this floating scum from entering the seepage field.

The partially treated sewage, or effluent, flowing from the tank into the seepage field still contains large numbers of harmful bacteria and organic matter in a finely-divided state or in solution. The final treatment and disposal of this effluent occurs in the seepage field. This field is made up of a grid of long, perforated plastic pipes buried in shallow, gravel-filled trenches. The affluent is absorbed into the soil through the walls of these trenches.

Every gallon of water used in the home must ultimately be absorbed into the ground in your backyard. The ability of the soils to absorb this effluent is critically important to the success or failure of your septic system. Protection of the septic field area is extremely important before, during and after construction.

The shallow top soils and silt layers, typical of this area, are underlain by clays of low permeability. At best, these soils are only moderately suitable as septic fields. These soils have little to no tolerance for abuse.

When septic systems are improperly designed, installed or maintained liquid wastes may overflow onto the ground surface or the plumbing in the home may back up. These overflows not only create offensive odors, they are also a health hazard. Sewage may contain organisms that cause dysentery, infectious hepatitis, typhoid and paratyphoid, or other infectious diseases. In addition, ponded sewage creates breeding places for some kinds of mosquitoes and other insects. Remember that a failed septic system is more than just your problem. It is a neighborhood and Village problem.

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PROPER USE OF YOUR SEPTIC SYSTEM

Avoid disposing of inert, toxic, or nonbiodegradable substances in your system.

Inert and nonbiodegradable substances, such as plastic in disposable diapers, sand or clay from cat box litter, filters from cigarettes, bulky wastes, sanitary napkins, paper towels, and facial tissues, human and animal hair should not be disposed of in your septic system. These items quickly fill your septic tank, decrease its efficiency, and cause the additional expense of having to pump your tank more frequently.

Special care should be taken to avoid putting any liquid fat, oil, or grease down the kitchen sink drain. Fats and grease solidify and accumulations may contribute to blockage within the system.

Similarly, the excessive use of garbage disposal units in your kitchen sink should be avoided, as disposals increase the amount of solids into the septic tank, which may necessitate more frequently pumping.

Keep toxic and hazardous chemicals out of your septic system. Small amounts of paints, varnishes, thinners, waste oils, photographic solutions, pesticides, and any other organic chemicals should be disposed of in your regular garbage collection. Normal use of household cleaners, disinfectants, and bleaches will have no appreciable adverse effect on the system. However, since essential organisms might be adversely affected by large doses of chemicals and disinfectants, moderation should be the rule.

Conserve – reduce water flow into your system.

Extra water going into your septic system increases the hydraulic load on the absorption field, reducing its ability to drain away waste waters. This condition occurs naturally during periods of heavy rainfall or melting snows, which cause saturated soil conditions and high water tables. A septic system has a limited capacity. It is advisable to conserve water whenever possible. One means of reducing water flow to your system is through water conservation.

Water-saving devices offer an inexpensive and lasting approach to conserving water in your home. These include water-saving showerheads rated at 3 gallons per minute or less, water-saving toilets that use 3.5 gallons per flush and low-flow faucet aerators for your sinks. These devices can save thousands of gallons of water each year.

Other helpful conservation hints include:

1) Stop leaks. Food coloring can be used in the toilet tank to detect leaks into the bowl. Leaking faucets should be promptly repaired or replaced.

2) Operate the washing machine and the dishwasher with full loads. Try to spread laundry over the week rather than doing multiple loads in close succession. This enables the system to handle the water you use more efficiently.

3) Educate family members, especially children, about water-saving practices.

Preventive Maintenance

You should understand that the septic system is not a public sewerage system; and, in the absence of a local management authority, its maintenance is YOUR responsibility.

Septic tanks and seepage fields are frequently damaged when trucks or other equipment drive over them. An accurate diagram of the system enables the homeowner to keep all vehicles away from the critical areas. If you do not have an as-built drawing of the septic system, contact your septic installer, your builder, or the Building Department.

To facilitate cleaning and maintenance, you should have a diagram of your septic tank system showing the location of the house, the septic tank clean-out for ease in pumping, the piping, and the first box of the seepage field. You might also place a marker on the ground above the septic tank access cover.

Failure to pump out your septic tank regularly is the most frequent cause of damage to seepage fields. When the tank is not emptied, solids build up until they are carried into the seepage field, where they block the flow of the liquid into the soil. When this happens, the seepage field fails and must be reconstructed. The tank should be pumped out every two years. If you have a large family and use your garbage disposal often, the tank should be pumped more frequently.

Village Ordinance prohibits you from running your water softener discharge, sump pump, or furnace condensates into the septic field. This can add thousands of gallons of water per year to the septic field causing premature failure. The salt used in regenerating the ion exchange medium will damage certain soil structures in the seepage field causing the void space between soil particles to clog up. The clayey soils typical of this area are especially susceptible to this type of damage. The salt water also has a deteriorating effect on the concrete septic tanks.

Don't place enzymes or yeasts into your septic system to aid bacteria. None of these products have been shown to have any significant value in improving performance or preventing failures.

Don't place harsh chemicals in your system. Many organic chemicals are available under various brand names as septic system cleaners. These chemicals may be toxic and generally are nonbiodegradable. Used to unblock sewage systems, they become significant and unnecessary sources of water pollution and ground water contamination.

Village Ordinance prohibits the installation of automatic lawn sprinkler systems in or near septic fields. This additional water places an unnecessary burden on the seepage field. All downspout and sump pump discharges must be directed away from the septic field through underground pipes.

Great care must be taken when landscaping in or around the septic field. Topsoil cannot be removed from the field area without causing a premature failure. Additional soils should not be added to the field area as this will decrease the efficiency of the field. Trees, shrubs or gardens should not be planted on top of the tanks or the field. Most species of trees will die within a few years if installed in the septic field area. The tanks and drop boxes are located very near to the surface of the ground and can easily be damaged. All landscaping must be completed before the field is put into use. A wet field is easily damaged by compaction.

A HEALTHY SEPTIC SYSTEM

A healthy septic system is YOUR responsibility. It should be a matter of great concern to each homeowner. An "out-of-sight, out-of-mind" attitude will certainly lead to a premature system failure. When in doubt, STOP. Don't dump it or flush it. Some common sense with a little water conservation and periodic pumping of your tanks should be all that you need to maintain a healthy septic system.