

A GUIDE TO OPERATING & MAINTAINING YOUR SEPTIC SYSTEM

Information from the Ontario Onsite Wastewater Association and Core Earthworks

What you Need to Know...

The way you treat your septic system will influence how long the system lasts and how well it functions. If you own or rent a property served by an on-site sewage system, you need to think about how your actions affect the system. You need to be careful about what substances you flush down the drain and how often your septic tank is cleaned out and inspected. These decisions will affect the health of your septic system.

In order to avoid the inconvenience and cost associated with the repair or replacement of a failed septic system, you should know how to properly operate and maintain your septic system.

How your Septic System Works...

A typical on-site sewage system consists of two major parts: a septic tank and a leaching bed area. Septic tanks should have two chambers and are generally constructed of concrete, steel, fibreglass or polyethylene, are watertight and are buried underground. The purpose of the septic tank is to separate solids from liquids in the wastewater stream and begin the process of breaking down contaminants. Solids settle at the bottom of the tank and scum floats to the top of the tank. This process occurs without oxygen, so the tank needs to be sealed. Typical leaching Bed System Wastewater from the septic tank then flows to the leaching bed area through a distribution box or header line. Leaching beds (sometimes called tile beds, disposal areas or absorption areas) consist of underground perforated pipes or clay tiles which evenly distribute wastewater over natural soil or imported fill. The purpose of the leaching bed is to further treat the wastewater through a process in which bacteria requiring oxygen digest and remove impurities such as suspended solids, organic chemicals, viruses and/or bacteria. The leaching bed disposes of the filtered wastewater into the natural soil and, ultimately, into the groundwater.



Signs of Septic System Problems...

There are a number of common signs of trouble with septic systems. These include:

- » toilets or drains which are backed up or run more slowly than usual
 - » foul odours in the house or drinking water
 - » sogginess in the ground around the septic tank or leaching bed area
 - » surface flooding of sewage or septic tank effluent around the septic system
 - » activated alarm signals (lights or bells) on special treatment units
 - » dosing pumps which run constantly or not at all (Note: not all systems have pumps)
 - » unusually green or thick grass growing in or around the leaching bed area
 - » significant algae growth in or around nearby lakes or water bodies
 - » high levels of nitrates, bacteria or other contaminants in wellwater
- Toilets and Drains are NOT Garbage Cans ! Some items you flush down a toilet or pour down a drain can significantly reduce the ability of the beneficial bacteria in a septic system to break down and treat domestic sewage. Harmful chemicals and substances will kill bacteria and render a septic system useless. Bulky or hard-to-break down products can clog pipes, quickly fill septic tanks and decrease the effectiveness of the system. Septic tank additives/starters may be harmful to septic systems and are not necessary to begin or continue septic tank operation.

NEVER put the following items or substances into a septic system:

- » fats, oils and grease,
- » gasoline, antifreeze,
- » varnishes, paints and solvents,
- » caustic drain and toilet bowl cleaners,
- » photographic solutions, bleach, pesticides,
- » nail polish remover,
- » cat box litter,
- » tampons, sanitary napkins, diapers, paper towels, facial tissues, condoms,
- » plastics,
- » coffee grounds, egg shells and other kitchen waste or
- » cigarette filters.



Tips on Maintaining Your Septic System ...

There are a number of steps property owners can take to improve the functioning of their septic system and extend its life:

- » conserve water and reduce wasteflow into the system by installing water saving features in plumbing fixtures, using dishwashers and laundry machines only with full loads, taking shorter showers rather than full baths, fixing leaky faucets and avoiding the use of garbage disposal units — too much water will overload a septic system
- » ensure septic tanks are inspected at least every two years by a qualified person and pump tanks out at least every 3 - 5 years (or sooner since frequency depends on tank/household size). These actions can be combined
- » do not impair access to the septic tank so that proper maintenance and servicing can occur
- » reduce the use of phosphate-based detergents, soaps and cleaners to minimize algae growth in nearby lakes and rivers. Phosphates can impair water quality and fish habitat
- » avoid the construction of parking areas, patios, tennis courts or decks in the area of or over the leaching bed. The extra traffic or weight can crush pipes or compact the soil or fill material. Construction can also limit oxygen from getting into the soil or fill
- » have an effluent filter installed in the septic tank to reduce the amount of solids entering the leaching bed and prevent clogs
- » do not use snowmobiles over the leaching bed area in winter since this reduces the natural insulation of the bed provided by the snow cover
- » avoid planting trees or shrubs on the leaching bed area since roots can clog the perforated pipes and shade the leaching bed area, thereby limiting evapotranspiration
- » minimize grass watering around the leaching bed area. Extra water can reduce the bed's ability to absorb and treat wastewater from the house
- » exercise caution about wasteflows from water treatment units, furnace condensate discharges and water softener back washes. These substances can harm the septic system, especially in large quantities
- » direct rainwater runoff from roofs, patios and driveways away from the leaching bed area and septic tank access ports to avoid system overload.



Tank Inspection and Cleaning

Having your septic tank inspected regularly is one of the least costly ways to avoid the inconvenience and expense of doing a major septic system repair. Inspections can determine if the outflow to the leaching bed is clogged because of a back-up in the tank, if too much solid or scum material is in the tank or whether the tank needs to be pumped more frequently. Because they contain deadly gases, septic tanks should only be inspected by firms specializing in this work. How often you need to pump the tank depends on the size or capacity of the tank, the flow of wastewater entering the tank and the volume of solids in the wastewater stream. Generally, this should occur every 3 - 5 years, but factors can change during the life of the septic tank. More people living in the house or the addition of a high water use appliance can exceed the capacity of the existing tank, requiring more frequent pump outs. Summer and early fall are the best times to pump out a septic tank. Pumping at this time of the year leaves sufficient time before winter for the tank to refill and bacterial activity to become re-established. As well, the ground around the tank will not be frozen (allowing easier access) and higher water tables which typically occur in the spring will have receded.

If You Suspect You May Have Septic Problems

If you suspect your septic system is not working, call us. We will identify the nature of the problem and recommend further action. Core Earthworks is licensed by the province of Ontario to install and repair septic systems. If your septic system needs a significant repair or replacement, will discuss your options with you and retain any necessary municipal permits. We guarantee that all work will be done to your satisfaction and with strict adherence to code. If your septic system need replacing, we can show you a range of new and innovative on-site sewage disposal options that will improve the efficiency of your septic system so, with proper maintenance, you won't need to worry.

For More Information, Contact:

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