

## A Healthy System...

What you put into your septic system will have a direct effect on whether or not you have a healthy, long-lasting and trouble-free system. Your septic system is not a dispose-all.

- o Conserve water to avoid overloading the septic system. Be sure to repair any leaky faucets or toilets. Use low-flow fixtures.
- o Do not use caustic drain openers for a clogged drain. Instead, use boiling water or a drain snake to open clogs.
- o Do not use septic tank additives, commercial septic tank cleansers, yeast, sugar, etc. These products are not necessary and some may be harmful to your system.
- o Use commercial bathroom cleaners and laundry detergents in moderation. Many people prefer to clean their toilets, sinks, showers, and tubs with a mild detergent or baking soda.
- o Check with your local regulatory agency if you have a garbage disposal unit to make sure that your septic system can accommodate this additional waste.
- o Check with your local regulatory agency before allowing water softener backwash to enter your septic tank.
- o Your septic system is not a trash can. Do not put grease, disposable diapers, sanitary napkins, tampons, condoms, paper towels, facial tissues, plastics, cat litter, or cigarettes into your system. These items quickly fill your septic tank with solids, decrease the efficiency, and will require that you pump out the septic tank more frequently. They may also clog the sewer line to the septic system causing wastewater to back up into your home.
- o Avoid dumping grease or fats down your kitchen drain. They solidify and the accumulation may contribute to blockages in your system.



**A septic system is not a dispose-all**



o Keep latex paint, varnishes, thinners, waste oil, photographic solutions, pesticides, or other waste chemicals out of your system. Even in small amounts, these items can destroy the biological digestion taking place within your septic system.

Septic systems are a very simple way to treat household wastewater and are easy to operate and maintain. Although homeowners must take a more active role in maintaining septic systems, once they learn how their systems work, it is easy for them to appreciate the importance of a few sound operation and maintenance practices.

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Tidewater Soil & Water Conservation District  
P.O. Box 677  
Gloucester, VA 23061  
www.tidewaterswcd.org



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# YOUR SEPTIC SYSTEM - MAINTENANCE IS THE KEY!

Just like your car and your home, the most important thing to remember about your septic system is that it needs routine maintenance in order to continue functioning properly. An improperly functioning system presents potentially dangerous health problems as a consequence of bacterial contamination. Additionally, improperly treated septic discharge creates serious water quality threats to groundwater or nearby streams.

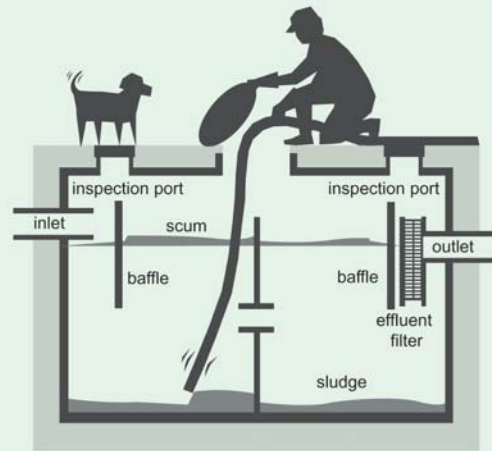
Routine maintenance of your septic system requires periodic inspection to determine the level of undigested sludge that has accumulated in the tank. If left unchecked, the sludge will eventually overflow into the drain field and virtually "clog" the entire system. Avoid Costly Repairs! Have your septic system inspected/pumped out every 5 years! Actually, it's the law!

## Gloucester County Regulations

Gloucester County's Chesapeake Bay Preservation (CBP) Overlay District, adopted in 1991, requires that all on-site septic systems be pumped-out at least once every 5 years. Gloucester County added an alternative to the 5-year pump-out requirement in December of 2003. This alternative allows on-site sewage treatment system owners the option of providing documentation that the system has been inspected by a licensed sewage handler, that the system is functioning properly and that the system does not need to have the accumulated solids (sludge) pumped-out. {Section 5.5-9B (5)}

## THAT'S the LAW !

The most effective maintenance strategy is to perform septic system pump-out every three to five



**Cross-section of a two-compartment septic tank being pumped**

years, but what are your options if your present system is failing or has failed? Time is of the essence - immediate action is needed at the first indication of trouble! Unlike many other things, septic system problems "will not simply go away, they only get worse!"

According to the experts, there is no cause or problem that will not be improved by simply reducing waterflow to the system! Think about it! Less flow into the system means it has to treat less water.

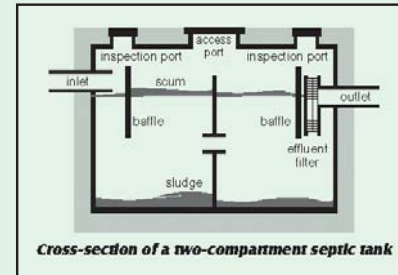
How can the homeowner reduce flow to the system? That's easy! Fix leaks, install water saving toilets, reduce tank water level, limit dishwasher use to full loads, install water flow controls on showers and wash only full loads. Another option is to spread out laundry washing to avoid overloading the system. If drastic measures are needed, you can always use a laundromat for washing clothes.

You should also call a certified licensed sewage handler or call your local county health department for their assistance. The Gloucester County Health Department, Environmental Services Septic Permits Department can be reached at: (804) 693-6130.

# Septic System 101 The Basics

## HOW IT WORKS

A typical septic system contains two major components: a septic tank and an absorption or drain field (see Fig. 1). The septic tank is usually made of concrete, fiberglass or plastic, is buried in the ground and should be watertight. The drain field, often referred to as the absorption drain field, the disposal field or leachfield, is a series of underground perforated pipes designed to evenly distribute the septic system discharge. These drainpipes may be buried 18 inches to several feet in the ground.



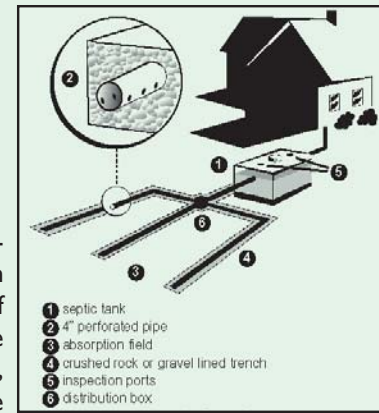
**Cross-section of a two-compartment septic tank**

**Fig. 2**

All septic tanks have baffles at the inlet and outlet to insure proper flow patterns. Most septic tanks have a single compartment, although some

tanks are divided and some systems may even have a second or auxiliary tank. While most septic tanks are designed to hold a minimum of 750 - 1000 gallons of sewage, the size of the tank may vary depending upon the number of bedrooms in the home and state or local regulatory requirements (see Fig. 2).

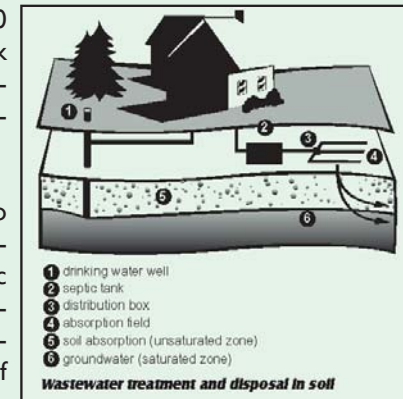
The primary purpose of the septic tank is to separate the solids from the liquids and to promote the biochemical digestion of the organic solids which accumulate as sludge at the bottom of the tank. Naturally occurring microorganisms accomplish the decomposition of most of the solids. The liquid portion of the sewage passes out of the septic tank where it enters the drain field piping system and is eventually absorbed by the soil. The drain field soil acts as a natural filter to remove many of the harmful



**Fig. 1**

plug the openings (perforations) in the drain field pipes and usually creates an instant puddle of foul smelling, black liquid in your yard or inside your home! And even worse, the poorly treated discharge water may find its way into a local stream or the groundwater system. Remember, most of us in this rural County use groundwater as our source of drinking water.

Bacteria and viruses from a failing system can contaminate your drinking water and present a serious health problem. Failing systems can also degrade water quality in streams and lakes through bacterial contamination or nutrient overload, which leads to algal blooms.



**Wastewater treatment and disposal in soil**

**Fig. 3**

requirement designed with your health and local water quality in mind.

bacteria and viruses before they reach the groundwater system (see Fig. 3).

## THE PROBLEM...

Septic system trouble occurs when the undigested portion of the solid sewage accumulates in the tank and is eventually flushed into the drain field piping system. The drain field (absorption field) is designed to handle LIQUIDS, not sludge! Sludge will

One excellent way to **prevent this problem** is to prevent the sludge from fouling the drain field! How does one do this? Simple! Only dispose of liquids that your system is designed to treat. More importantly, **have a licensed sewage handler pump the accumulated sludge from the bottom of the septic tank on a regular basis!** Your County requires a 5 year pump-out, a