

## SEPTIC SYSTEM FAILURE

Neglect or abuse of your septic system can cause it to fail. Failing septic systems can:

- cause a serious health threat to your family and neighbors
- degrade the environment, especially lakes, streams and groundwater
- reduce the value of your property
- be very expensive to repair
- affect the quality of the public water supply on which thousands of people rely for drinking water

Be alert to these warning signs of a failing system:

- sewage surfacing over the drainfield (especially after storms)
- lush, green growth over the drainfield
- slow draining toilets or drains
- sewage odors

Contact the sanitarian at the Albemarle County Health Department (972-6259) if you suspect your system is not working properly, or if you have further questions.

## TIPS TO AVOID TROUBLE

Do learn the location of your septic system and drainfield. If your system has a flow diversion valve, learn its location and turn it once a year or have the septic contractor do it for you. Flow diverters can add many years of life to your system.

Do have your tank pumped out and the system inspected every 3 to 5 years by a licensed septic contractor.

Do keep records of pumping, inspections, and other maintenance.

## MORE TIPS TO AVOID TROUBLE

Do practice water conservation. Repair dripping faucets and leaking toilets; run washing machines and dishwashers only when full; avoid long showers; and use water-saving features in faucets, shower heads and toilets.

Don't use a garbage disposal unit in the kitchen sink unless the septic system is specifically designed to handle the extra solids load.

Don't allow anyone to drive or park over any part of the system. The area over the drainfield should be free of trees or shrubs. Roots may clog and damage your drain lines.

Don't use commercial septic tank additives. These products usually do not help and some may hurt your system in the long run.

Don't use your septic system as a trash can by dumping nondegradables down your toilet or drains. Also, don't poison your septic system and the groundwater by pouring harmful chemicals down the drain. They can kill the beneficial bacteria that treat your wastewater.

Keep the following materials out of your septic system:

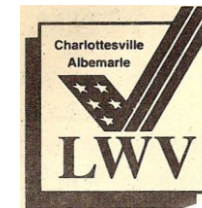
Nondegradables: *grease, disposable diapers, plastics, tampons and applicators, condoms, dental floss, paper towels, cigarette butts, coffee grounds, etc*

Poisons: *gasoline, oils, paints and varnishes, thinners, pesticides, herbicides, antifreeze, photographic solutions, etc*

*Funding for this brochure provided by Albemarle County.  
References provided by Action For Housing, Inc:  
Printed on Recycled Paper*

# A Resident's Guide To Septic Systems

Prepared by  
The League of  
Women Voters of  
Charlottesville  
and Albemarle  
County



## SEPTIC SYSTEMS EXPLAINED

Septic systems are individual wastewater, treatment systems that use the soil to treat small wastewater flows, usually from individual homes. They are typically used in rural or large lot settings where centralized wastewater treatment is impractical.

There are many types of septic systems in use today. While all septic systems are individually designed for each site, most septic systems are based on the same principles.

## A CONVENTIONAL SEPTIC SYSTEM

A septic system consists of **septic tank**, **distribution box**, and **drainfield**, all connected by pipes called conveyance lines.

Your septic system treats your household wastewater by temporarily holding it in the septic tank where heavy solids and lighter scum are allowed to separate from the wastewater. This separation process is known as primary treatment. The main function of the septic tank is to remove solids from household wastewater so that the effluent can more readily filter through the soil in the drainfield. The solids stored in the tank are decomposed by bacteria and later removed, along with the lighter scum, by a professional septic tank pumper.

After the partially treated wastewater leaves the tank, it flows into a distribution box, which separates the flow evenly into a network of drainfield trenches. Drainage holes at the bottom of each line allow the wastewater to drain into gravel trenches for temporary storage. This effluent then slowly seeps into the subsurface soil where it is further filtered and treated by organisms in the soil and by physical and chemical reactions with the soil (secondary treatment). Eventually the effluent reaches the groundwater below. A properly functioning septic system does not pollute the groundwater.

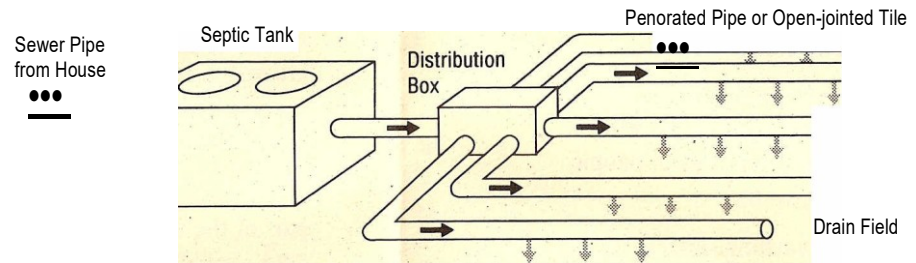


Figure 1: Diagram of a typical underground Septic System

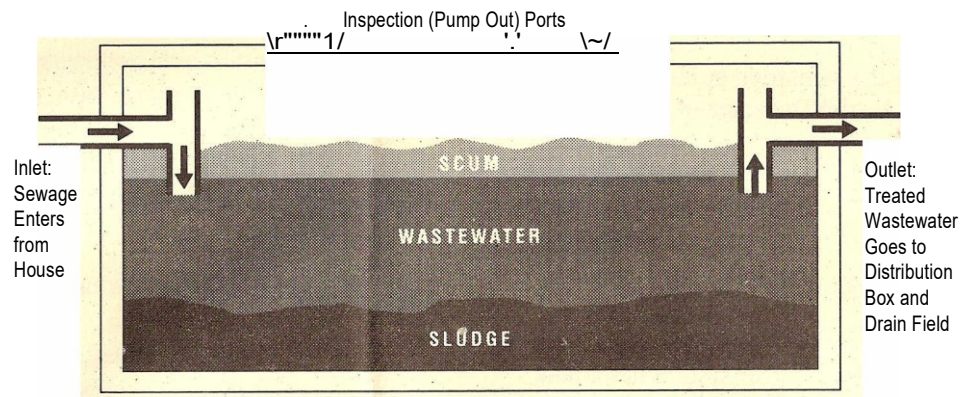


Figure 2: Cross section of Septic Tank

## CARING FOR YOUR SEPTIC SYSTEM

Septic systems must be maintained regularly to continue working. The accumulated solids in the bottom of the septic tank should be pumped out every three to five years to prolong the life of the system. If the tank is not cleaned periodically the soil may become completely clogged with solids. The wastewater cannot then pass through the soil layer and may either rise to the surface or back up from the tank into the house.