



## SEPTIC SYSTEMS

# Smart Ways to Keep Your On-site Sewage System Working for You

**Gary Steinhardt,  
Jeff Bradford**

*Agronomy Department,  
Purdue University*

**Alice Quinn**

*Indiana Department of  
Health*

### Introduction

On-site sewage systems protect public health by treating sewage where wastewater treatment plants are not available. Simple steps to take care of small problems can potentially save the homeowner considerable expense and aggravation in repairs and or replacement costs. Here are some steps to manage your system so that it performs as designed and does not become a costly source of great frustration.

### Inspect and Clean

- Become familiar with your on-site sewage system. Homeowners should know where the on-site system is located. A map of the components is an important document to have available for any problems that might arise. Get in the habit of looking for problems when mowing or working in the yard. Soft, wet spots, surfacing effluent, sewage smells, gurgling drains or malfunctioning components demand immediate attention. Homeowners should consult a septic professional as soon as possible. Problems do not improve with time.
- Have the system inspected by a professional if you suspect there is a problem. The Indiana Onsite Wastewater Professionals Association maintains a list of on-site system inspectors. Check with your local health department to see if there are other requirements for inspection and/or maintenance in your county. Inspectors can examine your system and identify problems before they become major. EPA suggests an inspection every three years, but this is only a suggestion.
- Have the septic tank pumped and completely cleaned every three to five years. The recommended time interval can vary depending on the number of occupants in the home, water usage and lifestyle. The septic tank allows physical separation of sewage into three components: sludge, FOG (fats, oils, greases) and the liquid portion of the sewage called effluent. Sludge and FOG are impossible to digest. The heavy sludge sinks to the bottom of the tank while the FOG floats on the tank contents, creating a scum layer. In between the sludge and scum is the

effluent. The effluent requires more treatment. Effluent flows or is pumped to the soil absorption field for further treatment in the soil. Accumulation of sludge and FOG in the tank reduces the capacity of the tank to separate wastewater. This accumulation can cause early failure of the system if sludge or scum flows out of the tank.

- Newer systems or those with a newly installed septic tank include an outlet filter in the septic tank. An outlet filter prevents solids from leaving the tank and protects the soil absorption field from damage. This filter helps to prevent premature failures. It should be cleaned at least every time when pumping and cleaning the tank, but more often depending on lifestyle and number of people in the home. It is a good idea to inspect this filter more frequently when it is newly in place, perhaps a year or six months, to establish required interval and to prevent possible sewage backup. It is possible for homeowners to compete this cleaning, but it's better if a professional who knows the system performs this vital service.

### Think at the Sink

- Be very careful using a garbage disposal, and consider other methods of disposing of household garbage. Material ground up in a garbage disposal does not break down in the septic tank. These items do not decompose. Instead, they add to the sludge in the bottom of the septic tank. Eventually this accumulation limits the capacity of the tank to treat sewage. Accumulated solids require cleaning and pumping sooner than would otherwise be the case. Dispose of trash, including garbage and coffee grounds, in the trash receptacle.
- Do not dispose of flour, milk products, oil or cooking grease down the drain. The septic tank cannot treat them. Hardened oil and other food wastes should be disposed of in household trash.
- Be careful with household chemicals. Some household chemicals, such as bleach in concentrated form or quaternary ammonia, will have an adverse impact on the beneficial organisms in the septic tank.

### Careful at the Commode

- Do not flush any non-degradable products down the commode. These add to the sludge and scum already in the septic tank.
- Flushable diapers, flushable wipes, dental floss, cigarette butts, kitty litter, paper towels, feminine hygiene items, family planning aids – and many more not mentioned – might or might not plug up your plumbing, but they certainly will still be floating in the scum when the pumper truck arrives.
- Do not flush prescription drugs down the commode. Drugs can adversely affect organisms needed for the on-site treatment process and can persist in groundwater and travel to groundwater ponds and streams as well as drinking water sources.

### Do Not Strain the Drain

- Conserve water in every way possible. Low flow toilets, water-limiting showerheads, shut off valves for showers, short showers, water-conserving washers, and many more lead to a longer life for an on-site sewage system.
- Fix leaks immediately when they appear. Even a small leak can add hundreds of gallons of water each day to an on-site sewage system. Not only is this a poor use of clean water, but it can accumulate over time and overwhelm the absorption field.
- Schedule your high water use activities, such as laundry and showers, so they do not occur at the same time. Too much wastewater at one time can overwhelm any on-site sewage system.

### For More Information from Purdue Extension

HENV-1-W, *What is an on-site sewage (septic) system failure? And what to do about it.*

HENV-105-W, *Cleaning an On-site Sewage System.*

HENV-106-W, *Keep the 'Dirty Dozen' Out of Your On-site Sewage System (Septic Tank).*

HENV-107-W, *Operating and Maintaining an On-site Sewage System.*