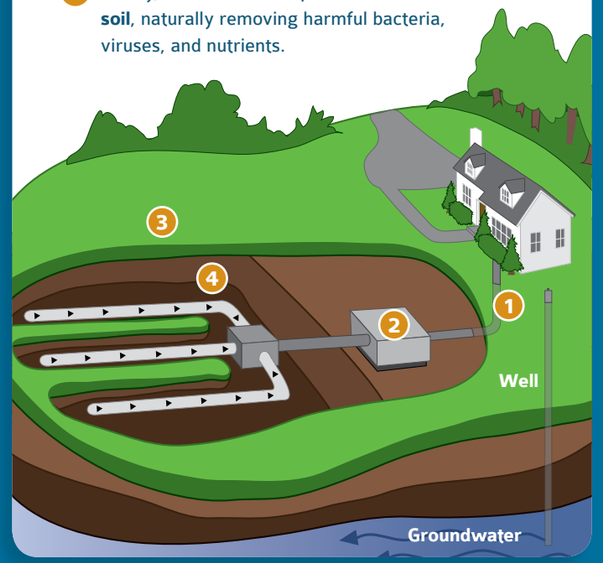
How does a septic system work?

This is a simplified overview of how a septic system works.

1. All water runs out of your house from one main **drainage pipe** into a septic tank.
2. The **septic tank** is a buried, water-tight container usually made of concrete, fiberglass or polyethylene. Its job is to hold the wastewater long enough to allow solids to settle down to the bottom (forming sludge), while the oil and grease floats to the top (as scum). Compartments and a T-shaped outlet prevent the sludge and scum from leaving the tank and traveling into the drainfield area.
3. The liquid wastewater then exits the tank into the **drainfield**. If the drainfield is overloaded with too much liquid, it will flood, causing sewage to flow to the ground surface or create backups in toilets and sinks.
4. Finally, the wastewater percolates into the **soil**, naturally removing harmful bacteria, viruses, and nutrients.



SepticSmart Helps Protect Your Home and Family

If you have a septic system, it's extremely important to keep up with its proper care and maintenance. The U.S. Environmental Protection Agency's SepticSmart initiative helps ensure that we all know how to do our part to safeguard our community's health and protect the environment. It can also protect your family and keep you from spending thousands of dollars repairing or replacing a damaged system.

For more information on how you can be SepticSmart, please visit:

www.epa.gov/septicsmart

EPA

EPA-832-B-12-003
September 2012

Do your Part— Be SepticSmart!

A simple guide to the proper care and maintenance of your septic system.

Why is it important to properly maintain my septic tank?

It saves you money.

Malfunctioning systems can cost $3,000-$7,000 to repair or replace compared to maintenance costs of about $250-$500 every three to five years.

It protects the value of your home.

Malfunctioning septic systems can drastically reduce property values, hamper the sale of your home, and even pose a legal liability.

It keeps your water clean and safe.

A properly maintained system helps keep your family's drinking water pure, and reduces the risk of contaminating community, local, and regional waters.

It keeps the environment clean.

Malfunctioning septic systems can harm the local ecosystem by killing native plants, fish, and shellfish.

Do I have a septic system? If so, how can I find it?

Here are a few tips to determine if you have a septic system and how to locate it.

You most likely have a system if:

- You are on well water.
- The water line coming into your house does not have a meter.
- Your neighbors have a septic system.

You can find your septic system by:

- Looking on the "as built" drawing for your home.
- Checking in your yard for lids or manhole covers.
- Using an inspector/pumper, who can also help you find exactly where the system is located.

What can I do to help maintain my system?

Protect it and Inspect it.

A typical septic system should be inspected at least every three years by a licensed contractor and your tank pumped as recommended by the inspector (generally every three to five years).

Think at the Sink.

- Your septic system contains a living collection of organisms that digest and treat waste. Pouring toxins down your drain can kill these organisms and harm your septic system.
- Oil-based paints, solvents, and large volumes of toxic cleaners should not enter your septic system. Even latex paint cleanup waste should be minimized.
- Eliminating the use of a garbage disposal can reduce the amount of fats, grease, and solids entering the septic tank and ultimately clogging the drainfield. Increased disposal use results in more frequent pumping.

Don't Overload the Commode.

A variety of household products can clog and potentially damage septic system components.

Do not flush:

- Feminine hygiene products
- Condoms
- Diapers
- Cigarette butts
- Coffee grounds
- Cat litter

For a complete list, visit **www.epa.gov/septicsmart**.

Don't Strain your Drain.

It's simple. The less water you use, the less water that enters the septic tank, which decreases its workload. Here are a few easy ways to save water:

- Run dishwasher and washing machine only when full.
- Repair leaky toilets and pipes.
- Use high-efficiency toilets and faucets.

For more information on how you can save water, visit EPA's WaterSense program, **www.epa.gov/watersense**.

Shield your Field.

It's equally important to protect your drainfield.

- Do not park or drive on your drainfield.
- Plant trees the appropriate distance from the drainfield to keep roots from growing into the system.
- Keep roof drains, sump pumps and other rainwater drainage systems away from the area. Excess water slows down or stops the treatment process.

How do I know if my septic system is not working properly?

Mind the Signs!

Here are a few signs of septic system malfunction. If you discover any of these warning signs, call a licensed septic tank contractor immediately. One call could save you thousands of dollars.

- Wastewater backing up into household drains.
- A strong odor around the septic tank and drainfield.
- Bright green, spongy grass appearing on the drainfield, even during dry weather.