

Let's Get SepticSmart!

More than 1.3 million homes in Michigan depend on septic systems to treat wastewater. If not maintained, failing septic systems can contaminate groundwater and harm the environment by releasing bacteria, viruses, and household toxics to local waterways. Proper septic system maintenance protects public health, the environment, and saves the homeowner money through avoided costly repairs.

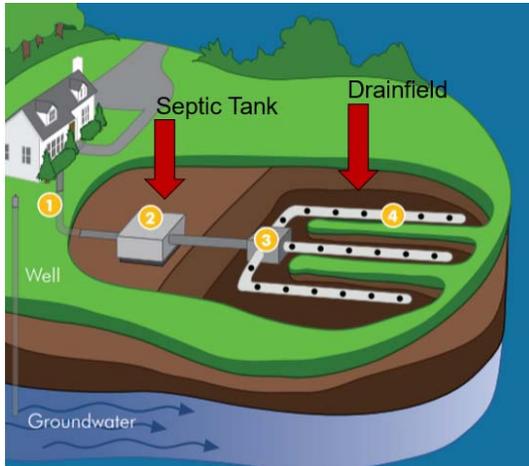


Figure 1. How does a Septic System Work? (EPA, 2018)

What is a Septic System?

A septic system is a highly efficient underground wastewater treatment system. This uses natural processes (such as settling and bacteria) to treat the wastewater on the property it serves. The treated wastewater is eventually recirculated back into the groundwater. There are two main parts to a conventional septic system; a

septic tank and a drainfield.

How does a Septic System work?

As shown in *Figure 1*, when you use water and flush your toilets, the waste runs out of the house through the sewage pipes (1). All the lines connect into a septic tank (2). This holds the sewage long enough for solids to settle to the bottom and the fats/oils/grease float to the top.

The liquid portion of the septic tank is pushed out and distributed (3) into the drainfield (4) that consists of perforated pipe and gravel. The pipes have holes on the bottom that allow the wastewater liquid to flow into the gravel to be treated by natural bacteria. The wastewater liquid is then further accepted into the dry soil below the drainfield where it is additionally treated, filtered and dispersed back into the environment.

What happens if I don't pump my tank?

Solids can build up inside the tank and can lead to plugging the pipes in your field, or worse... sewage can back up into your house! A tank should be inspected and pumped as necessary or about every 3-5 years.

What happens if my drainfield fails?

If a drainfield becomes overloaded with too much water or if solids plug up the holes in the pipes, sewage can surface onto the ground! It can contain bacteria and viruses that can make you, your family, your neighbors or even your dogs sick. It can smell and run down into surface water or ditches leading to elevated E. coli levels or increased nutrient overloading (algae growth) from the untreated sewage.

What can I do to prevent this?

As homeowners, you can help protect the health and environment around your lake by becoming **SepticSmart** and following these recommendations:



Figure 2. (EPA, 2018)



Figure 3. (EPA, 2018)

- **Protect It and Inspect It:** Homeowners should generally have their system inspected by a qualified professional and tanks should be pumped when necessary, typically every three to five years.

- **Think at the Sink:** Avoid pouring fats, grease, and solids down the drain. These substances can clog a system's pipes and drainfield. Avoid using a garbage disposal!

- **Don't Overload the Commode:** Only put things in the drain or toilet that belong there. For example, coffee grounds, dental floss, disposable diapers and wipes, feminine hygiene products, cigarette butts, paper towels, and cat litter can all clog and potentially damage septic systems.

- **Don't Strain Your Drain:** Be water-efficient and spread out water use. Fix plumbing leaks and install faucet aerators and water-efficient products. Spread out laundry and dishwasher loads throughout the day – too much water at once can overload a system that hasn't been pumped recently.

- **Shield Your Field:** Remind guests not to park or drive on a system's drainfield, where the vehicle's weight could damage buried pipes or disrupt underground flow.

- **Pump Your Tank:** Routinely pumping your tank can prevent your septic system from premature failure, which can lead to groundwater contamination.

- **Test Your Drinking Water Well:** If septic systems aren't properly maintained, leaks could contaminate well water. Contact your local health department for questions if your well is safe to drink and how to test the water.

Please join us in spreading the **SepticSmart** message! Governor Snyder officially proclaimed **SepticSmart** week for the State of Michigan **September 17-21, 2018**. This is a great time for you and your neighbors to check into inspecting your septic systems and getting tanks pumped if needed.

For more information please contact your local health department: <https://malph.org/resources/directory>; visit the DEQ Onsite Wastewater website www.michigan.gov/deqonsitewastewater; or the EPA Septic Systems website at: www.epa.gov/septic.

Let's Do our Part and be SepticSmart!!

Michigan Department of Environmental Quality- Onsite Wastewater Program