



The Poop on Septic Systems

Those in the know say maintenance is key to keeping rural sewage systems flowing

By Susan Koomar

News and Business Editor Pocono Record (reprinted with Permission)

You can't see it. You shouldn't be able to smell it. But if something goes wrong, you might be stepping in it.

"When your crapper craps out, you have problems," said Dennis Keesler, Pocono Township sewage enforcement officer.

Homeowners who skip regular maintenance of their on-lot septic system can be one flush away from disaster.

They're not alone.

Thousands of new Pocono residents moved here from homes happily connected to public water and sewer systems.

"When you move here, you're your own sewer and water company," said Mark Carmon of the Pennsylvania Department of Environmental Protection. "If a malfunction backs up, you end up with a basement full of you-know-what."

A septic system can be mysterious, even foreboding, for homeowners who prefer not to think about what happens at the other end of the toilet.

"They did tell us we should have the septic tank maintained, but they didn't tell us how. Where I came from we had central sewer," said Leon Delos Santos, who moved to Middle Smithfield Township from New York.

Keesler explained that, like a car or even the human body, a septic system can run fine for years with no warning of trouble. "(People say) 'I never had a problem with it,'" he said. "You can have cancer in your system for a long time before something shows up. That's why you need regular check-ups.

Trouble's brewing when...

- Toilet runs sluggish.
- Sewer odors in house or drinking water.
- Sponginess around septic tank, distribution tank, absorption field.
- Surfacing raw sewage.
- Dosing pump runs constantly or not at all.
- Dosing tank alarm light is on.
- Backup of sewage into laundry tubs or other fixtures.

Septic made simple

- On-lot septic system treats and disposes of household waste through natural processes.
- Sludge builds up at bottom of tank and can eventually overflow.
- Pump tank every three to four years.
- The more solid waste dumped into the system, the quicker the tank will fill up.
- Don't use a garbage disposal with a septic tank.
- Don't let water run in sinks. Fix leaky toilets.
- Don't throw garbage, fats, rinds down the drain.
- Don't flush bulky, hard to decompose items like paper towels, diapers, bones or coffee grounds.

Source: Pa. Department of Environmental

"In Pocono Township, residents are required to get their septic tank pumped out every four years or so.

It costs about \$200 compared to \$10,000 or more to fix a malfunction, said Keesler.

"I'd rather pay on the installment plan," he said.

How it works

Waving "bye-bye" to stuff rinsed down your drain or flushed away into an on-lot sewage system doesn't mean it disappears to Never Never Land.

In fact, it's still close by, brewing in a rectangular underground caldron called a septic tank.

That's where the main treatment process takes place thanks to bacteria swimming through a multi-layered soup of household waste.

The heaviest chunks, called sludge, fall to the bottom of the tank.

Lighter matter, called scum, floats to the top of the tank.

The overall liquid contents of the tank are called effluent, which flows out of the system into a distribution box or dosing tank, then into an absorption area.

The effluent drizzles through pipes into a layer of gravel, eventually oozing its way through the soil where Mother Nature neutralizes much of the wastewater.

Elevated sand mounds are a common absorption area built for Pocono homes, said Bruce Fox of Allstate Septic Systems in Bangor.

The mounds are used for homes on shallow or poorly drained soil.

"The reason we have the sand is we don't have enough original soil to renovate the effluent," said Fox at a recent seminar.

It's pretty tough to disguise a sand mound, but Fox has seen them put to multi-purpose use.

"You can put a picnic table on top of the mound. It sounds a little weird, but it's OK," he said. "I've seen horseshoe pits on top of a mound."

Bottoms up

So if liquid is seeping out into the welcoming earth and lightweight waste is bobbing around being nibbled away by bacteria, why does a tank need to be pumped?

Because, like memories of the boy or girl who broke your heart, the sludge at the bottom never goes away.

"Cleaning the tank is the most important part of septic maintenance," said Fox.

Cleaning the right way means clearing away dirt from the tank's 20- or 24-inch manhole, not piddling around with the little white pipe that serves as an inspection point. Septic services will dig up the manhole for you at an additional cost.

Fox advises customers to ask if the septic service follows a standard procedure for pumping. Call the Better Business Bureau to find out if there are companies with complaints on file, he added.

Septic services use a vacuum pump to suck out all solid waste from the bottom of a tank. Less than an inch of liquid should be left.

"There will be a little bit of water, but basically it should be clean," said Fox.

Pumping frequency depends on tank size and number of occupants in the home. A 1,000-gallon tank serving four people should be emptied every two-and-a-half years, said Fox.

Harmful if swallowed

Take good care of the bacteria in your septic tank and they will take care of you.

That means thinking about what you pour down the drain.

"If you're using a lot of Pinesol or Chlorox it can harm the bacteria in your system," said Fox.

A healthy alternative to caustic cleaners is mild detergent or baking soda or one half cup of borax per gallon of water.

Don't dump these down the drain: oils and greases, gasoline, antifreeze, varnishes/paints/solvents, pesticides or any products marked "harmful if swallowed."

"Keesler cautioned against doing multiple heaps of laundry on the same day.

"Don't inundate your septic system with one humongous ball of water," he said.

Homeowners who have a timer on their dishwasher should set it for an off-peak time such as 2 p.m. or 2 a.m., he added.

"Things have a chance to be dissolved better into the ground that way," said Keesler.

Pa. Department of Environmental Resources: www.dep.state.pa.us/ Search under "Septic System"