



## Barry-Eaton District Health Department

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### For Immediate Release

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### Septic Tank Cave-Ins

When people talk about septic (sewage) system failure, they often are talking about damage that isn't very obvious from aboveground. These types of damage include systems clogged with solids and overloaded drainfields. In contrast, one kind of septic system failure is very obvious to anyone, both by sight and smell. What is this failure? A collapsed septic tank.

When someone's septic tank collapses, there is no doubt that something is very wrong. They appear—usually very suddenly—as holes in the ground. Eaton County resident Randy Carpenter knows this—his septic tank unexpectedly collapsed one day. “I came out in the yard and saw that the top [of the tank] had broken off,” he said.

The holes left by collapsed septic tanks can range from six inches to many feet deep and wide. The top of the septic tank (often concrete) and whatever was on top of it (often grass) usually fall into the hole. This is a danger to anyone walking over the top of the tank, especially children and pets. Not only is the fall into a septic tank dangerous, the waste inside the tank is full of harmful germs and powerful methane gases.

In the past 15 months, Environmental Health Sanitarian, Kasey Swanson, has been called to seven septic tank collapses in Barry and Eaton counties. This is an unusually high number. “Over time, we are seeing more and more cave-ins,” she stated. “No one likes to think about their septic tank, but a hole in the front yard is the worst way to remind a person that it's there.” She also reminds everyone that if a septic tank collapses, the homeowner must get a permit from the Barry-Eaton District Health Department before having a new septic tank installed.

Many things can lead to septic tank collapse. Collapses often happen due to a mix of these causes. First, the air inside a septic tank is filled with harsh gases. Concrete, which most septic tanks are made of, is a material that has lots of tiny holes (“pores”) in it. When the harsh gases get inside the pores, they can eat away (“corrode”) the concrete. This is like a crack in the road that widens over time due to weather and heavy traffic. Unfortunately, unlike with a road, there is no easy way to patch these holes in a septic tank. Different concrete mixtures corrode at different rates, so a tank installed in one decade may corrode faster than one installed a decade or two earlier.

Weight on top of a septic tank can also damage the tank and lead to its collapse. Most household septic tanks were not made to handle the weight of a vehicle driving over them. Similarly, if a septic tank is installed too deep in the ground, it could collapse—dirt is heavy! Too much weight can also lead to cracks in the concrete, which can develop into bigger problems over time.

So how can you tell if your septic tank is in good shape? The best way is to have your septic tank evaluated. Evaluations check that nothing is leaking into or out of the tank and that the tank is still strong. These evaluations are standard when a home is bought or sold in Barry and Eaton counties. You can find the

results of these Time of Sale or Transfer (TOST) evaluations under the Environmental Health section of the BEDHD website.

Many septic tank pumpers will also point out damage to a tank when it is pumped. This is what happened to Randy Carpenter. For him, the first sign of any trouble was when his pumper pointed out small cracks in the lid of his tank. If Carpenter or his pumper had pressed a thin metal rod against the inside of his tank, the rod likely would have pushed through some of the concrete very easily. That is an indication that the concrete is beginning to corrode. The next year, the lid to Carpenter's tank began to crumble.

Some septic tanks are built with a concrete baffle. A baffle is a small concrete box at the tank outlet to the drainfield. It prevents solids from entering the drainfield. Often this is the first spot where corrosion is seen. If the corrosion is bad enough, the baffle can even fall off.

If you have never noticed a problem with your septic tank, there is no need to panic. However, evaluation and maintenance are important parts of homeownership. Getting your septic tank evaluated is no exception. BEDHD recommends looking closely at your septic tank every three to five years to see whether it has any signs of the damage that can lead to collapse.

**Additional resources available:**

For more information about septic systems, visit <https://www.epa.gov/septic>. Local resources are also available on the BEDHD website at <http://www.barryeatonhealth.org/services/environmentalhealth> or by visiting or calling one of the BEDHD offices.

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***Images for inclusion below; photos were taken by BEDHD sanitarians of collapsed septic tanks in Barry and Eaton counties.***

