



HOME

# Spotting sinkhole trouble

Where to turn when the ground gives way

**S**ometimes, the low spot in the lawn is just a depression from a rotting tree stump or from disturbed soil that wasn't fully compacted. Sometimes, a hole could just be a small critter's front door.

However, there are situations that are much, much more involved. They need more attention than a quick fill-in with a bag of topsoil.

A sinkhole can appear to have opened overnight. But a true sinkhole evolves over time, developing long before any surface evidence is detected, according to Randy Gibble, specialty services director at B.R. Kreider & Son Inc. in Manheim.

"The first and foremost thing is that if you have a situation you're not sure about, tape it off and keep people away from it until it's evaluated," Gibble says. "We remind people not to put weight around the edges and definitely don't go into any holes that have developed."

Areas in which there is a lot of underground rock and clay soil are ideal for sinkholes. "Clay soil is made up of really small, wet particles," says Gibble. "Where there are voids deep in the rock below, the clay passes into the cracks

and leaves a hole just below the surface. Probably 75 percent of those situations will open up," he adds. "Usually, you'll see a depression first."

A common misunderstanding is to think that a sinkhole is the actual hole in the rock, according to the Pennsylvania Department of Environmental Protection. But, really, the sinkhole is what we see on the ground surface because of the hole in the rock below. The void in the rock takes hundreds or thousands of years to form.

"Typically, the sinkholes I deal with around here are 3 or 4 feet deep," Gibble says, "but I've put a tape measure into a hole and found that they can be 15 or 20 feet deep sometimes. Just because it's a small hole, you really can't tell how big the sinkhole below really is."

Gibble first probes around with a rod that penetrates the ground. He will work his way out from what appears to be the center of the situation to see if he feels a hollow area below the surface. After determining the diameter of the sinkhole, the depth is checked.

"If we have any doubt, we suggest that we uncover and expose the sinkhole to evaluate its extent," Gibble says. 🍀

## WHAT CAUSES A SINKHOLE

- Decline in water level through drought or pumping.
- Soil disturbance.
- Addition of water to a specific point, perhaps from a leaking pipe.
- A concentration of water flow.
- Water impoundments such as basins, ponds or dams.
- A heavy load on the surface from buildings or dense equipment.
- Vibration.

## DEALING WITH A SINKHOLE

- Rope off an area larger than the obvious depression or hole.
- Never allow children to play in a suspicious hole. It might be the top of a much deeper sinkhole.
- Check for recent cracks in sidewalks, foundations and curbs for evidence of substantial movement.
- Call in a respected excavation company to handle questionable sinkholes.
- Filling holes and depressions with topsoil is like putting a Band-Aid on it, camouflaging the underlying problem.

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