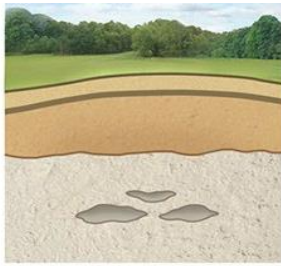
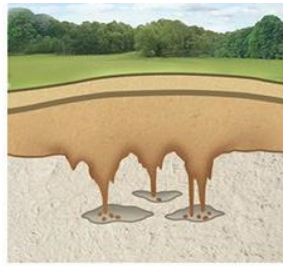


# Sinkholes in Lititz: What to Expect



1. Water percolating into bedrock near ground level slowly erodes soluble rock such as limestone or dolomite, creating small cavities.



2. The soil on top of the bedrock, known as overburden, is composed largely of sand, silt or clay. In a process called suffosion, it starts to fall into cavities in the bedrock.



3. As this soil fills spaces in the bedrock below, a new cavity forms in the overburden, expanding toward the surface.



4. In weak soil, the cavity grows quickly in the shape of a funnel. In stiffer soil, such as clay, the cavity eventually becomes so large that the remaining overburden can no longer support itself or the weight of objects on the ground above it, and the overburden collapses, creating a sinkhole.

## What is a sinkhole?

A sinkhole is a depression in the ground that has no external surface drainage. Sinkholes in PA happen where there are voids present in the rock below the soil. The voids were formed over a long period of time when the rock was dissolved away by water passing through small openings making them larger. Sinkholes are most common in Karst terrain, which is prevalent in south central PA. Karst terrain is characterized largely by underground caves, drainage pathways, and springs which makes it a prime location for sinkhole formation.

## What Causes a Sinkhole?

A sinkhole is caused when the surface material collapses into a void space beneath the surface. This process occurs gradually, but can be hastened by human activities. The timing, location and extent of a collapse usually have many influencing factors. Those factors include:

- Underlying Geology
  - o Limestone and dolomite bedrock
- Surface/Water Interaction
  - o New concentrated sources of water
- Lowered Groundwater
  - o Soil can collapse if the water table is low and lack of water creates a void.

## Dangers of Sinkholes:

### Safety Hazards

Sinkholes are often much larger below ground than they appear on the surface. Sinkholes on roadways and through utility lines are much more dangerous.

## Structural Damage

Sinkholes can appear under buildings, roadways, and other structures. Repairing structures is difficult after sinkhole damage and sometimes a permanent fix is not possible.

## Groundwater Contamination

Large amounts of unfiltered or polluted water can impact the groundwater if left undiscovered. Additionally, if sinkholes are used as a place to throw trash, contaminants can leach into groundwater supplies.



## What to Do if You Find a Sinkhole:

Alert the borough if you have a sinkhole or if you discover one in the roadway. The borough keeps records of sinkhole locations.

Monitor any depressions and contact a qualified professional geologist or engineer to evaluate your situation if you develop a sinkhole on your property.

## Contact Lititz Borough:

717-626-2044

## Sources:

Content: [www.usgs.gov](http://www.usgs.gov), [www.padep.gov](http://www.padep.gov)

Images: [www.solidfoundations.com](http://www.solidfoundations.com), [www.ctheadliner.com](http://www.ctheadliner.com)