



## For more information

The Kentucky Geological Survey conducts karst and sinkhole research and provides general information about statewide karst and sinkhole hazards. You can find more information about karst and sinkhole hazards in Kentucky by visiting our website at [uky.edu/KGS/karst](http://uky.edu/KGS/karst) or calling us at **859-257-5500**. If you would like to share information about a collapse sinkhole that has occurred, you can use the sinkhole information portal on our website or scan the QR code below to access the portal.



228 Mining and Mineral Resources Building  
310 Columbia Avenue  
Lexington, KY 40506

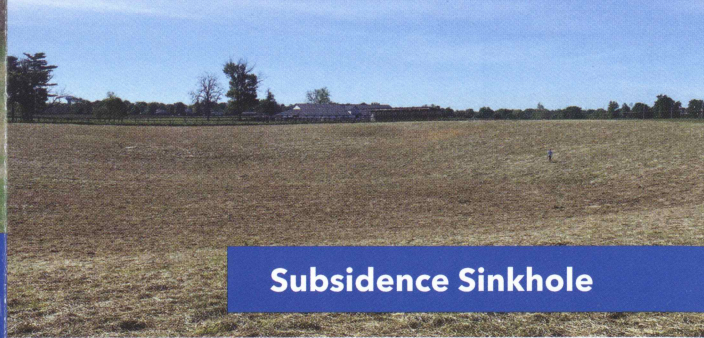


# KARST SINKHOLES



Photo Credit: Glynn Beck



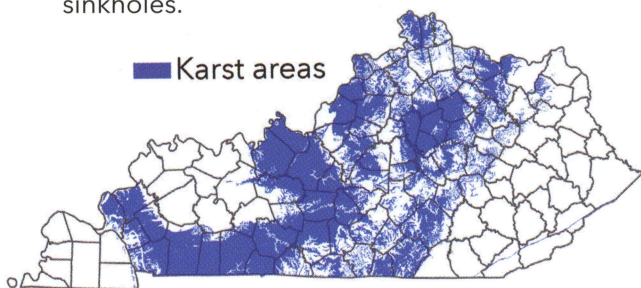


## What is Karst?

Karst landscapes are found throughout the portion of Kentucky underlain by soluble rocks like limestone. Sinkholes, springs, sinking streams, and caves are common features of karst landscapes.

## What are Karst Sinkholes?

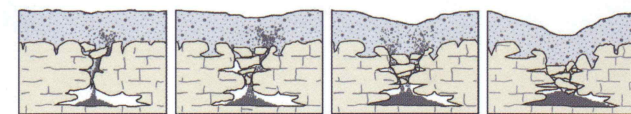
Sinkholes are depressions in the ground and in Kentucky sinkholes typically measure between several feet to tens of feet across. Most sinkholes develop naturally in places where groundwater movement creates cavities within limestone bedrock and overlying soil, causing the surface to subside slowly over time, or collapse suddenly. Human activities that disturb soil or change surface water and groundwater movement can also give rise to sinkholes. Naturally occurring sinkholes are common in Kentucky, but they are limited to the parts of the state with limestone bedrock. The map below shows the areas of Kentucky that are at-risk of damage caused by sinkholes.



**Subsidence Sinkhole**

**Cover-collapse Sinkhole**

**Subsidence Sinkhole**



**Cover-collapse Sinkhole**



Image modified from the U.S. Geological Survey Circular 1182.

## Types of Sinkholes

There are two main types of sinkholes in Kentucky: subsidence sinkholes and cover-collapse sinkholes. Subsidence sinkholes result from the gradual sinking of land surface and are typically large, broad, shallow, and bowl-shaped. Cover-collapse sinkholes are triggered when soil or bedrock near the surface collapses into an underground cavity, resulting in a funnel-shaped or steep-walled opening in the ground. The underground cavities usually develop slowly over time and gradually enlarge until overlying soil or bedrock materials collapse. Both types of sinkholes can cause damage to property but cover-collapse sinkholes are considered more hazardous because they can occur with little or no warning.

## What to Do if You Find a Sinkhole?

The presence of a sinkhole does not mean that your house or property is on top of large caves or is in danger of collapsing. Most sinkholes can be filled or repaired using guidance from qualified geologists or geotechnical engineers. Seek professional assistance immediately if a sinkhole occurs near or under a house or building foundation, or if a buried pipeline or utility cable is exposed by a sinkhole.