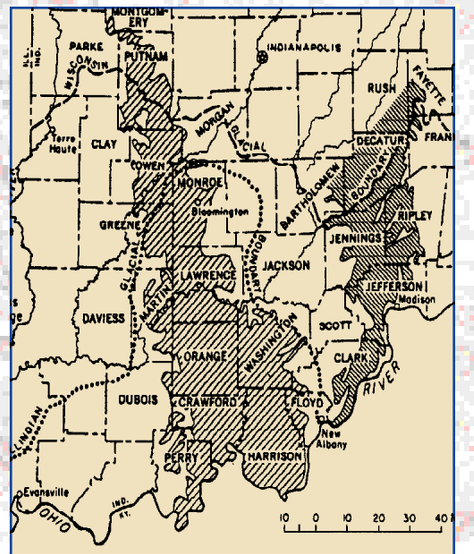
What are Sinkholes?

Sinkholes are depressions on the surface of the land caused by water moving downward into cracks and passages in the limestone below.

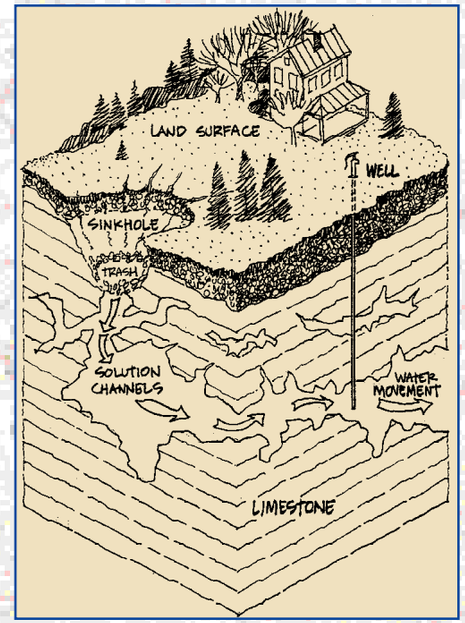
Why do we have such a great number of sinkholes around?

Just beneath the soil of southern Indiana lies a band of limestone bedrock that has cracked and dissolved through time. Because of this our area is characterized by an abundant number of sinkholes, springs, and caves. Geologically, these areas are known as karst regions. Southern Indiana has two such regions, the south-central karst area having more prominent sinkholes.



Sinkholes collect water but where does it go?

Water funneled into sinkholes either seeps downward through the soil if the sinkhole is closed or quickly drains into the sub-surface limestone cracks if the sinkhole is open. Either way, water collecting in sinkholes soon finds its way to underground passages that form the extensive, yet largely unseen, cave system below us. Eventually the water re-emerges as springs. Two well-known streams in our area, Blue River and Lost River are fed by spring water.



Does the limestone filter the water?

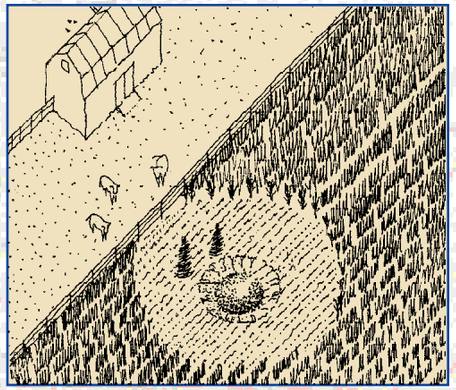
No. Water moves very rapidly once it enters the underlying limestone passages and is filtered very little. This means that any pollutant that enters a sinkhole may move a great distance in a relatively short time. For example, in Harrison County hydrologists have shown that water can move underground from the Sinks of Indian Creek to Harrison Spring, a surface distance of over four miles, as quickly as one hour!

Does anything live down there?

Yes. Within the darkness of the caves and cracks beneath sinkholes is a whole group of animals who are adapted to a world without light. The most recognizable of these animals is the northern cavefish, an eyeless, three-inch long fish, almost ghost-like in appearance. Found nowhere else in the world except parts of Indiana and Kentucky, this uncommon animal is sensitive to the quality of water in its underground home.

What if a sinkhole on my property is getting bigger?

Open sinkholes are very sensitive to disturbance and can be difficult to remedy once they become unstable. Prevention is the least expensive way to stop sinkhole erosion and involves not disturbing an open sinkhole or the surrounding soil in the first place. However, if a sinkhole begins to grow it is best to call your soil conservationist for assistance. Each eroding sinkhole is different and requires close inspection to correct the problem. Do not attempt to plug the hole with debris yourself because it may lead to further problems.



What if my sinkhole is full of trash?

Any effort to remove trash from a sinkhole is worthwhile. It will lead to cleaner water and a safer, more attractive homestead with increased re-sale value.

Use caution when removing trash from an open sinkhole and be sure to dispose of it properly at a licensed landfill.

How can I protect my groundwater?

- Never dump anything into a sinkhole. Not only is this practice illegal, but dumping chemicals or dead animals into a sinkhole can contaminate well water and springs used by both people and livestock. Even small amounts of waste can impact groundwater quality. For example, one quart of motor oil can affect the taste of 250,000 gallons of water. “Clean” materials such as hay and wood can also negatively affect the cave system below.
- Check and maintain your septic system regularly. Although conserving household water use will help to extend the life of your septic system, an average household of four should have their septic tank checked or pumped every three years. Waste from overburdened septic systems can easily seep through the soil and into the groundwater below.
- Maintain forest cover or a grass filter strip wide enough around the open sinkhole to filter runoff, the distance will vary from site to site. Fencing to prevent access by livestock will also improve water quality at the same time it protects livestock from harm.
- Always read and follow the directions on the label when using household, lawn, or farm chemicals. Using more cleansers, fertilizers, or pesticides than the label recommends is not useful and can cause problems with our groundwater. Avoid use of these products near open sinkholes.

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Soil & Water Conservation Districts And Partners

U.S. Fish & Wildlife Service

Bluespring Caverns Mystry River Voyage

IKC

Indiana Geological Survey 1837 Indiana University

Caves Karst Groundwater

American Cave Conservation Association, Inc.

Marengo Cave U.S. National Landmark

The Nature Conservancy

Please don’t throw this brochure in a sinkhole

Guide to Local Assistance

For soil erosion or other natural resource conservation needs contact your local Indiana Conservation Partnership

- Soil and Water Conservation District
- Natural Resources Conservation Service
- IDNR Division of Soil Conservation

Crawford 812-338-3224
Floyd 812-945-9936
Harrison 812-738-8124
Lawrence 812-275-4365
Monroe 812-334-4325
Orange 812-723-2979
Washington 812-883-3704

For drinking water and septic system information call your county health department

Crawford 812-338-2302
Floyd 812-948-4726
Harrison 812-738-3237
Lawrence 812-275-3234
Monroe 812-349-2543
Orange 812-723-7112
Washington 812-883-5603

For waste disposal and recycling questions call your Solid Waste Management District

Crawford 812-365-9419
Floyd 812-948-4733
Harrison 812-738-8415
Lawrence 812-277-9190
Monroe 812-349-2020
Orange 812-723-3600
Washington 812-883-3039

For cave management information call or write

Indiana Karst Conservancy, PO Box 2401, Indianapolis, Indiana 46206
www.caves.org/conservancy/ikc

The Nature Conservancy of Indiana
P.O. Box 5, Corydon, Indiana 47112
812-738-2087
www.nature.org

American Cave Conservation Association
PO Box 409, Horse Cave, Kentucky 42749
www.cavern.org

LINE DRAWINGS BY BARRY CARPENTER

SINKHOLES, GROUNDWATER, & other MYSTERIES

below your feet in Southern Indiana