



Sinkholes

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Since sinkholes develop below ground, their appearance can be sudden and dramatic. Limestone-based soils in humid areas often contain caverns which occur at or near the water table. Roofs of the caverns can collapse, leaving a steep-sided pit that can be a few feet in diameter to several hundred feet. Sinkholes are common in various parts of Florida. If you are uncertain of their prevalence in your county, it is recommended that you consult with your county's office of the Department of Natural Resource Conservation. They can provide you with a map of prevalent areas.

If these sinks (or sinkholes) are under or near a structure, the structure's integrity can be destroyed. Formation of the sinkhole can also result in the plugging of underground drainage patterns and a lake can form in the newly formed depression area.

One hazard associated with sinkholes is the possibility of health problems caused by chemicals and other materials contaminating the drinking water supply. A sinkhole can be thought of as a hypodermic needle with a direct line into the water supply. Open sinkholes provide a direct connection between ground water and surface water and any contamination it carries.

Sinkholes should not be used as discharge points for drainage lines or septic tanks. They should not be used as dump sites for trash dumping. In years past, it was common practice to use sinkholes to dump debris, old cars, pesticide containers, etc. Needless to say, this leads to contamination of water supplies and wells in the area of the sinkhole.

Sinkholes have caused damage to highways and roads in the state. Motorists need to be alert to their possible formation. Once they begin to form they can expand rapidly, especially during heavy rains.

Sinkhole formation can not really be predicted, but there are things that people can watch for and precautions that can be taken.

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- Watch for signs of water disappearing from the surface (for example, the sudden loss of a stream or retention pond).
- If a sinkhole occurs in an area of traffic, barricade it to prevent motorists or pedestrians from getting too close to it. Remember that the size can continue to increase, so barricade it with ample room to spare.
- Check fields before undertaking machine-related activities such as haying or harvesting. One farmer was harvesting at night and realized he didn't see any corn ahead of him. He stopped the combine just short of a newly formed 20-foot-wide by 12-foot-deep sinkhole. He now checks his fields and also no longer works in the field at night. Sinkholes in rural areas can be fenced off to prevent livestock from becoming trapped.
- Strips of land adjacent to the sinkhole can be planted with grass rather than with a field crop. The grass will serve as a buffer zone to prevent direct chemical run-off into the sinkhole.
- Keep tractors and heavy machinery far enough away from the sinkhole, since the ground near the edge can easily give way also. It is recommended that machinery stay at least as far from the edge as the hole is deep.
- Soil tests can be taken before building construction takes place in order to determine if a sinkhole cavern exists; if it does, the area can either be pumped full of concrete or the decision may be made to build the structure elsewhere.
- Sinkholes will be more prevalent during times of increased and rapid rainfall, such as with the type of rains occurring during a hurricane.

Sinkholes can be filled, however, this does not guarantee that they won't redevelop. When filling, they should be bulldozed out and cleaned out. Concrete should be poured into the drain part of the sink, then the pit part can be filled with clay.

Florida law requires that homeowners' insurance cover damage caused by sinkholes.