

Statewide sinkhole map nears completion, officials say

By JAMES L. ROSICA
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Tribune file photo

A sinkhole swallowed parts of two houses in Dunedin on Nov. 14, 2013, forcing seven homes to be evacuated. Seven homes on the street were evacuated as a precautionary measure while engineers assessed the situation.

TALLAHASSEE — It turns out the best way to predict sinkholes is to find the ones already there.

For two years, a team of sinkhole hunters with the Florida Geological Survey has been scouring the state to create a map of where sinkholes are most likely to form.

They've trudged through terrain in 55 of 67 counties so far, using digital elevation maps and aerial photographs to ferret out known sinkholes and infer future ones.

To twist an old saying, where there's fire, there's likely going to be more fire. Those additional fires is what the scientists are after.

By this time next year, the crew of 10 geologists and computer mapmakers expect to have the whole state platted to show areas vulnerable to sinkhole formation.

For the Tampa Bay area, nicknamed "sinkhole alley," such a map could prove invaluable for local officials and others to gird for ground collapses after storms.

Sinkholes, however, aren't always immediately obvious. They may be hidden in rural areas, surrounded by dense vegetation.

Like a physician diagnosing a patient, "we refer to them as 'symptoms,'" said geologist Clint Kromhout, the team's leader.

For example, in their version of a doctor's bag, geologists use a technology called LiDAR, for light detection and ranging. Laser bursts create a three-dimensional image of a particular area's surface.

Kromhout said they also use existing survey data from water management districts and the federal government in their hunt.

Even with existing information and high-tech aids, it's not as easy as it sounds. Sometimes a bump in the ground is just a bump in the ground and not a sinkhole in waiting.

And the predictions they make will be for general areas, such as a neighborhood or other swath of a county; science can't pinpoint where and when an individual sinkhole will open up.

Still, "depending on how many are found in a certain area, it'll give a designation on whether an area is vulnerable," Kromhout said. "It gives you a range."

The effort began two years ago, when Florida received more than \$1 million in federal money to map sinkholes, starting with a pilot project in Columbia, Hamilton and Suwannee counties.

At the time, Florida was still recovering from Tropical Storm Debby, whose heavy rains caused dozens of sinkholes, especially in Hernando County.

Sinkholes are common in Florida because of porous rock, such as limestone, that stores water underground. Over time, acid in the water dissolves the rock, creating a void.

When the earth above the limestone gets too heavy, it can cave in, forming a sinkhole.

In February 2013, a sinkhole opened under the bedroom of a Seffner man as he slept. The body of 37-year-old Jeff Bush was never recovered.

In August 2013, part of a three-story villa at Summer Bay Resort in Clermont, west of Orlando, was swallowed by a 100-foot sinkhole. No one was reported hurt.

But David Bierman, a Florida attorney who represents sinkhole victims, raised concerns over how such a map might eventually be used.

He said he hopes insurance companies don't refer to the maps in denying homeowners' policies or decreasing the value of properties.

"It really depends," said Bierman, who also worked 21 years as an insurance adjuster. "Information is great but it has to be used the right way."

jrosica@tampatrib.com

(850) 765-0807

Twitter: [@jlrosicaTBO](https://twitter.com/jlrosicaTBO)