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Sinkholes

Sinkholes have both natural and artificial causes. They tend to occur most often in places where water can dissolve the bedrock (especially limestone) below the surface, causing overlying rocks to collapse. Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania are most sinkhole-prone.

Basics



Most sinkholes occur in places where water can dissolve the rock below the surface, for example where the bedrock is limestone, salt, or gypsum. They can collapse very quickly, or slump slowly over time. Many sinkholes occur naturally, but human activities can also cause them. Over-pumping of groundwater, mining, and leaking pipes beneath roads and buildings are common causes of artificial sinkholes. Read more

Frequently Asked Questions

How long does it take for a sinkhole to stop growing? Florida Geological Survey Which areas are most at risk for sinkholes? U.S. Geological Survey

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Drought

Since 1980 the United States has experienced more than 24 major droughts, resulting in almost 3,000 deaths and economic impacts exceeding \$225 billion. All areas of the U.S. have some drought risk.



Earthquakes

Since 1900, earthquakes in the United States have resulted in over 1300 deaths and direct damages totaling more than \$51 billion. While the West Coast and Alaska have the highest risk, history shows that major earthquakes can also affect the Central and Eastern United States.



Floods

Flooding is the most common and costliest natural hazard facing the United States. Each year, flooding causes billions of dollars in damages and dozens of deaths nationwide.



Groundwater

Groundwater is the water found underground in the cracks and spaces in soil, sand, and rock. Groundwater has been used by humans for thousands of years; today it provides 25% of the fresh water used in the United States, mostly for irrigation and public

water supplies.



Hazards

Natural hazards such as earthquakes, landslides, hurricanes, floods, and wildfires endanger public health and safety, threaten critical infrastructure, and cost our economy billions of dollars each year. Geoscientists study these hazards to provide information and warnings to populations at risk.



Landslides

Landslides affect all 50 states and U.S. territories, where they cause 25 to 50 deaths and more than \$1 billion in damages each year. Geoscientists study and monitor landslides to identify at-risk areas, prepare populations, and improve our understanding of why, when, and where landslides happen.

Maps & Visualizations



Interactive map of environmental information in Minnesota Minnesota Department of Natural Resources

The Minnesota Department of Natural Resources' Watershed Health Assessment Framework provides a comprehensive look at Minnesota's watershed and environmental information in the form of an interactive map. The map includes information on: Water quality: Impaired waters, which have a...

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Geologic map depicts sinkhole susceptibility in Maryland

Although sinkhole development in susceptible areas cannot be completely prevented, policy makers and the public can use geologic maps that delineate karst features to develop strategies that can minimize or avoid property damage and personal injuries. Defining the Problem Sinkholes, which abound in...

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Mapping Displacement and Subsidence with Time-series Radar

In this webinar, experts from Hexagon and the Arizona Department of Water Resources will discuss the use of time-series displacement maps with a high point density for monitoring and mitigating subsidence due to subsurface extraction of resources such as water or hydrocarbons.

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