

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.

Basics



Flooding has many causes, including heavy rain, snow melting too fast, and dams or levees breaking. Coastal flooding occurs during hurricanes from heavy rainfall and storm surge, which causes sea level to rise temporarily at the shore. [Read more](#)

Frequently Asked Questions

What is Lidar and what is it used for?

National Oceanic and Atmospheric Administration

Can floods be predicted?

U.S. Geological Survey

How do changes in land use impact water resources?

American Geosciences Institute

What are the effects of contaminants on water quality?

American Geosciences Institute

Does flood risk for a particular location change over time?

Federal Emergency Management Agency

Do you have a question that's not listed here? [Search all FAQs](#)

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Climate

Climate has an enormous impact on society, with wide-ranging effects on public safety and health, the economy, transportation, infrastructure, and agriculture. Geoscientists investigate our climate's past and present to better understand how it may change in the future.



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.



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.



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.



Tsunamis

Tsunamis are destructive waves caused by sudden displacement of ocean water. Tsunamis most often appear on shore as a rapidly receding tide or rapidly rising flood. In the United States, the Pacific coastal states – Oregon, Washington, California, Alaska, and Hawaii – are at greatest risk for destructive tsunamis.



Volcanoes

Volcanoes pose many hazards to their surroundings, from ashfall, mudflows, lava flows, landslides, and associated earthquakes. At least 54 of the United States' 169 active volcanoes pose major threats to public health and safety and to major industries such as agriculture, aviation, and transportation.



Weather Hazards

Weather hazards impact the entire country, with enormous effects on the economy and public safety. Since 1980, weather/climate disasters have cost the U.S. economy more than \$1.5 trillion. In an average year, the United States will be affected by six billion-dollar weather/climate disasters, but this number has increased in recent years: from 2013-2017 the average was 11.6 events.



Wildfires

Wildfires are causing more frequent and wider-ranging societal impacts, especially as residential communities continue to expand into wildland areas. Since 2000, there have been twelve wildfires in the United States that have each caused damages exceeding \$1 billion; cumulatively, these twelve wildfires have caused a total of \$44 billion in damages.

Maps & Visualizations



Interactive map of real-time flood information for Texas

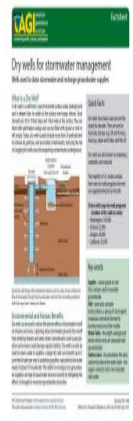
U.S. Geological Survey

The U.S. Geological Survey's Water On The Go app provides real-time information on stream flows, lake levels, and rainfall in

Texas. The app automatically finds data near your current location (or any chosen location in Texas) for rapid access to water information. Special icons indicate rapidly...

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Case Studies & Factsheets



Dry wells for stormwater management

What is a Dry Well? A dry well is a well that is used to transmit surface water underground and is deeper than its width at the surface (see image, below). Most dry wells are 30 to 70 feet deep and 3 feet wide at the surface. They are lined with perforated casings and can be filled with gravel or...

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Webinars & Forums



Planning for Coastal Storm and Erosion Hazards

This webinar will focuses on efforts to anticipate, mitigate, and respond to coastal storms, erosion, and associated hazards at the federal, state, and local level.

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