

## 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.

### Basics



Drought is a water shortage caused by abnormally dry weather. Drought is relative to normal conditions, so weather conditions that create severe drought in a state like Georgia may be normal for an arid state such as Arizona. All regions of the United States have some drought risk. The impact of a drought depends not only on the severity of dry weather but also on local water use and supply. To identify and forecast drought, scientists and managers must monitor not only precipitation but also water demand and available water resources. These resources may be found in reservoirs, in rivers, in the soil, and underground as groundwater.

[Read more](#)

## Frequently Asked Questions

Where can I find up-to-date information about drought conditions in my region?

National Integrated Drought Information System

Can droughts be predicted?

American Geosciences Institute

What is the evidence that our present-day climate is changing?

American Geosciences Institute

Why doesn't a drought go away when it rains?

U.S. Geological Survey

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## Explore Related Topics



### 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.



### 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.



### 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.



## Water

Water is essential for society and, as demand steadily rises, our most precious commodity. Geoscientists study how to provide a clean and secure water source to meet society's needs.



## Water Availability

Water is constantly moving on the Earth between the atmosphere, ocean, rivers and streams, snowpacks and ice sheets, and underground. Water availability, both as surface water and groundwater, is essential for agriculture, human consumption, industry, and energy generation.



## Water Quality

Water quality refers to whether water is suitable for a certain purpose, like drinking or irrigation. Both natural and man-made factors can affect water quality. Contaminants can include bacteria, metals, and man-made chemicals like pesticides or pharmaceutical drugs.



## Weather Hazards

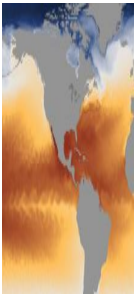
Weather hazards impact the entire country, with enormous effects on the economy and public safety. Since 1980, weather/climate disasters have cost the U.S. economy more than \$1.5 trillion. In an average year, the United States will be affected by six billion-dollar weather/climate disasters, but this 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 maps of global climate information  
National Oceanic and Atmospheric Administration

NOAA View is a data exploration tool produced by the National Oceanic and Atmospheric Administration (NOAA) and developed by the NOAA Environmental Visualization Laboratory. It contains an enormous amount of information relevant to global geoscience issues in interactive map form. Over 100...

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## Case Studies & Factsheets



### Water Sources for Hydraulic Fracturing

Hydraulic Fracturing and Water Demand Hydraulically fracturing a modern well can require millions of gallons of water for the initial fracturing process. This is a potential problem in arid regions with competing demands for fresh water (i.e. high water stress), such as Colorado and West Texas (see...

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## Webinars & Forums



### Managing Groundwater Storage

This webinar introduced the geoscience of managing groundwater storage and recharge, discussed groundwater storage policies and research in California and Texas, and reviewed case studies and potential future developments.

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