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.

Frequently Asked Questions

How does 3D geologic mapping benefit society?
Alberta Geological Survey

What is groundwater used for?
American Geosciences Institute

What is produced water?
American Geosciences Institute

Which areas in the United States are most dependent on groundwater?
American Geosciences Institute

Can floods be predicted?
U.S. Geological Survey

Do you have a question that's not listed here? Search all FAQs

Explore Related Topics

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.

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.

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.

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 New England current water conditions
U.S. Geological Survey
The U.S. Geological Survey's New England Water Science Center hosts an interactive map that displays current water conditions for each state in New England. The map has real-time, geolocated water data for New England, including: Surface water levels, including streamflow conditions.
How do geologists make a living in 2019?
According to recent American Geosciences Institute (AGI) workforce data, less than 11% of geoscience graduates receiving a BA/BS or MA/MS degree develop a career in academia and/or research. Given this statistic, the question then arises: How are geologists making a living upon graduation in 2019?...

Search all Case Studies & Factsheets

Webinars & Forums

Exploring for the Future International Showcase
By 2024 the Australian Government will have invested $225 million in an unprecedented level of precompetitive geoscience data acquisition and knowledge generation. Led by Australia’s national geoscience organisation, Geoscience Australia, the program is gathering and analysing geological,...

Search all Webinars & Forums

Build Your Knowledge & Skills

Expand your learning
Expand your learning and build your skills and knowledge with courses on the Geoscience Online Learning Initiative's (GOLI) platform. Learners can browse course descriptions, enroll in specific courses, access content, and embed learning into their daily schedules when it is convenient.

Search all GOLI courses