Geoscience In Your State: California
By the numbers: California

- 48,528 geoscience employees (excludes self-employed)
- 17.4 billion gallons/day: total groundwater withdrawal
$3.52 billion: value of nonfuel mineral production in 2017

252 total disaster declarations, including 184 fire, 35 flood, and 12 earthquake disasters (1953-2017)

$190 million: NSF GEO grants awarded in 2017...

Read more in this Geoscience in Your State Factsheet...

Agencies Working on Geoscience Issues in California

California Department of Water Resources
https://water.ca.gov/
In 1956, the Legislature passed a bill creating DWR to plan, design, construct, and oversee the building of the nation's largest state-built water development and conveyance system. Today, DWR protects, conserves, develops, and manages much of California's water supply including the State Water Project which provides water for 25 million residents, farms, and businesses. Working with other agencies and the public, DWR develops strategic goals, and near-term and long-term actions to conserve, manage, develop, and sustain California's watersheds, water resources, and management systems. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property.
Balancing the State's water needs with environmental protection remains a long-term challenge.

California Division of Mine Reclamation
https://www.conservation.ca.gov/dmr
The Division of Mine Reclamation (DMR) was created to provide a measure of oversight for local governments as they administer the Surface Mining and Reclamation Act (SMARA) within their respective jurisdictions. To accomplish this goal, the Division of Mine Reclamation may provide comments to lead agencies on a mining operation’s reclamation plan and financial assurance and may initiate compliance actions that encourage SMARA compliance. While the primary focus is on existing mining operations and the return of those mined lands to a usable and safe condition, issues relating to abandoned legacy mines are addressed through the Abandoned Mine Lands program.

California Environmental Protection Agency
https://calepa.ca.gov/
The California Environmental Protection Agency's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality. This mission is fulfilled by developing, implementing and enforcing environmental laws that regulate air, water and soil quality, pesticide use and waste recycling and reduction.

California Geologic Energy Management Division
https://www.conservation.ca.gov/calgem
The California Geologic Energy Management Division (CalGEM), formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR), prioritizes protecting public health, safety, and the environment in its oversight of the oil, natural gas, and geothermal industries, while working to help California achieve its climate change and clean energy goals. To do that, CalGEM uses science and sound engineering practices to regulate the drilling, operation, and permanent closure of energy resource wells.

California Geological Survey
https://www.conservation.ca.gov/cgs
CGS's mission is to provide scientific products and services about the state's geology, seismology and mineral resources that affect the health, safety, and business interests of the people of California.

California Governor's Office of Emergency Services
https://www.caloes.ca.gov/
The mission of the California Governor's Office of Emergency Services is to protect lives and property, build capabilities, and support communities for a resilient California.

California Office of Environmental Health Hazard Assessment
https://oehha.ca.gov/
OEHHA’s mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

California State Mining and Geology Board
https://www.conservation.ca.gov/smb
The mission of the State Mining and Geology Board is to provide professional expertise and guidance, and to represent the
State's interest in the development, utilization, and conservation of mineral resources, the reclamation of mined lands, and the development and dissemination of geologic and seismic hazard information to protect the health and welfare of the people of California.

Maps & Visualizations

Interactive database for geologic maps of the United States
U.S. Geological Survey

The U.S. Geological Survey hosts the National Geologic Map Database (NGMDB). This interactive tool serves as a national archive for high-quality, standardized geologic maps created by the U.S. Geological Survey and state geological surveys. The MapView section of the NGMDB displays geologic maps...

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Case Studies & Factsheets

Groundwater use in the United States
Fresh water from underground Groundwater is any water found underground in the cracks and pores in soil, sand, or rock. Groundwater provides 25% of the fresh water used in the United States.1 It is particularly important for irrigation and domestic uses in arid or remote areas, where surface water...

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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.
Water as One Resource
Course Type: GOLI Online Course
View course
This course provides an overview of how groundwater and surface water interact, what the implications of these interactions on water resources are, and how water can be more effectively managed if an understanding of these interactions is incorporated. The course presenters are Ken...