

Hydrology & Water Resources



Geographer's Notebook

Water is an important natural resource.

Freshwater is key to natural systems.

- Natural systems like geologic processes and climate impact the amount of freshwater on the Earth's surface and in the ground.
- Plants, animals, and whole ecosystems depend on water being available in their environment.

Freshwater is key to human systems.

- Human systems like land use and resource management can also impact the amount of water that is available.
- People use freshwater to drink and grow crops, and they also use bodies of water for transportation and recreation.

Examine page 32 to see features of California's natural hydrology.

The map shows hydrology before non-Native settlement of California. Native Californians have lived here for generations, and they have managed the land and waters. But it was not until non-Native settlement that the environment of California was transformed. Changes in hydrology are one piece of evidence showing how extensive this transformation has been.

Desert, coast, or valley?

In what areas are these natural hydrologic features most likely to occur?

Hydrology feature	Location
Saline & alkaline lands	
Salt marsh	
Freshwater marsh	

Why are species that live in marshes and riparian forests affected by an increase in human population?

Now study page 33 to see features of California's water resources today.

The Great Central Valley has an extensive river system with many tributaries (smaller streams and rivers) flowing into larger rivers.

Name a large river	
Name one tributary of it	
Name the body of water the river flows into	

Did you know? The National Wild and Scenic Rivers System was created by Congress in 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior.

Hydrology & Water Resources (cont.)



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Name one National Scenic River in California?

Lakes store freshwater. California has both natural and human-made lakes.

- A natural lake can form in a basin where surface water collects. Lake Tahoe formed this way.
- People can also build dams across rivers to hold back water and form a lake where none existed before. These bodies of water are often called reservoirs. Dams and reservoirs are built to store water for human use, prevent flooding, and generate power.

Clear Lake is the largest natural lake entirely inside the state of California. **What is the name of the creek flowing out of Clear Lake?**

Some lakes have disappeared as a result of human use of freshwater. Owens Dry Lake Bed is shown on page 33 where there was a lake in the past. An even larger lake, Tulare Lake, is not shown on page 33 at all. Look for a large inland body of water on page 32 that is missing from page 33.

Describe the location of Lake Tulare.

These “lakes” are all formed by dams. Name the river on which each lake has been created.

Name of Lake

Name of River

Shasta Lake

Lake Oroville

Lake Berryessa

Folsom Lake

New Melones Lake

Lake Isabella

Did you know? Native American tribes and environmental conservationists have fought for the removal of dams along the Klamath River that flows from Oregon into California and then the Pacific Ocean. The dams on the river blocked the migration of salmon and trout to important habitats. This hurt the environment as well as the culture and economy of the many communities who were supported by the fish populations.

