

Megadroughts in California

A megadrought are defined more by their duration than their severity. They are extreme dry spells that can last for a decade or longer.

Impacts

- California is in the third year of one of the worst droughts in the past century.

Environmental:

- About 1000 more wildfires than usual have occurred.
- Prolonged drought threatens wildlife.

Economic:

- Last year, farmers harvested 640,000 fewer acres, but crop revenue remained strong.
- Farms have adopted more efficient water management technologies.

Social:

- Water shortages and restrictions.
- Competition over water supply for agriculture, domestic use and aquatic ecosystems – could escalate to conflict over water use.

However, water supplies were really stocked up prior to the drought, easing the situation.

Causes of the current drought

- In normal winters, southwest winds from the ocean deliver water. Recently, for unexplained reasons, these winds have failed California.
- **Tree ring studies:** Very little of the California drought can be attributed to climate change with any certainty.
- Cooler water temperatures – known as La Niñas – tend to produce drier conditions in the west. El Niño conditions would cause above average rainfall.

Previous droughts

- **Dust bowl (1930s)** – Spanned 8 years in certain parts of the great plains. It was the worst American drought in the last 300 years, causing mass migration westward.
- **Great plains drought (1950s)** – At its peak in 1954, it covered 62% of the country.

