

# California's 'Dismally Meager' Snowpack Signals More Drought

After measuring California's mountain snow on Thursday, state officials described it as "dismally meager" and predicted that a fourth year of drought is on the way.

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Statewide, the water trapped in the form of snow is just a quarter of the amount usually found at this time of year, California's [Department of Water Resources reported](#) shortly after teams returned from measuring snow levels at Echo Summit in the Sierra Nevada mountains, southwest of Lake Tahoe. ([Watch a video about new technology California is using to measure its mountain snowpack.](#))

Mountain snows provide, on average, nearly a third of California's water, with January typically the state's wettest month. ([Read about failing snows in \*National Geographic\* magazine.](#))

"Clearly not good news," said Frank Gehrke, chief of the California Cooperative Snow Surveys Program, which tracks snow conditions. "With this paltry a snowpack, the runoff is going to be pretty sparse."

The trouble extends beyond California. Snow levels in the Northwest and parts of Arizona are also at less than half of normal, according to a report [issued Thursday by the federal Natural Resources Conservation Service](#), provoking hand-wringing among ski resort personnel and water managers in Washington state and [Oregon](#).

And drought conditions stretch down the West Coast and into parts of Idaho, Nevada, Utah, and much of the Southwest, according to a [report issued Thursday by the federal U.S. Drought Monitor](#).

## Exceptional Drought

But the Golden State is in a league all its own. A virtually rain-free January comes after the state had the [third driest "water year"](#) (which ends September 30) on record. Today, nearly 40 percent of the state is enduring an "exceptional" drought—the U.S. Drought Monitor's most extreme rating. ([Read about the groundwater drilling boom spurred by California's drought.](#))

It's not just the amount of water in the snowpack that makes it important. It's the way snow locks water in place during the winter like a giant natural reservoir, then gradually releases it as snowmelt in the spring and summer.

That release process helps keep man-made reservoirs filled during the hottest time of the year. Those reservoirs are already running well below their historic levels for this time of year. Shasta Lake, the state's largest reservoir, is at [66 percent of normal](#). Lake Oroville, the second largest, is at 62 percent.

The latest snow measurements are a frustrating comedown from a promising December, when storms dumped rain on the state. [January has been bone-dry](#), leaving parts of the state on track to set records for the driest January ever. Higher than normal temperatures ate away at what little snowpack there was.

It would take months of cooler, wetter weather to nudge snow levels back to normal, the state water department noted. But long-range weather forecasts suggest that won't happen. The National Weather Service is predicting [higher than normal temperatures through April](#) for much of the West. And early signs of a strong El Niño in the Pacific Ocean, which typically brings rain to California, [have faded](#).

"I wouldn't be overly optimistic about building up a high snowpack for the rest of the winter," said Jon Gottschalk, head of the National Weather Service branch that issues long-range forecasts.

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