

# With all this rain and snow, can California really still be in a drought? Look deeper

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Only weeks after a series of atmospheric rivers deluged California, the state is once again bracing for powerful winter weather that could deliver heaps of rain and snow, including fresh powder at elevations as low as

1,500 feet.

But as worsening climate extremes and water supply challenges continue to bedevil the state, officials cautioned residents Tuesday not to assume that the recent moisture signaled an end to the drought. The entire state remains under a drought emergency declaration that Gov. Gavin Newsom issued in 2021, with millions of residents still under strict watering restrictions.

"I want to be clear that these storms—and the likely rain and snow we may get over the next few weeks—did not, nor will they fully, end the drought, at least not yet," said Yana Garcia, secretary of the California Environmental Protection Agency. "We're in better shape than we were two months ago, but we're not out of the woods."

Indeed, the state's wet season typically runs until April, and despite the impending storm, there remains much uncertainty about what the coming months may hold. Most of February was notably dry, with only 0.85 inches of precipitation falling statewide in the wake of January's flooding.

Experts said it will take more than a series of storms to make up for years of deficits. Some said declaring the drought over now—or possibly ever—would be a mistake.

"We're now in a situation in California where there's never really enough water anymore to do all of the things that everyone wants, and to declare the drought over, or the emergency over, I think would send the wrong signal," said Peter Gleick, co-founder and president emeritus of the Pacific Institute. "I think people should still be cautious and careful and efficient, and I think water agencies should be pushing for continued improvements in water use."

Part of the challenge is that surface conditions—including reservoir levels and snowpack—aren't the only factors in California's water supply. Groundwater, or the state's system of underground aquifers, remains perilously low, particularly in the Central Valley where [climate change](#) and overpumping have left it dangerously depleted.

What's more, Southern California's other major water source, the Colorado River, didn't benefit as much from January's storms and is dipping toward record lows. Federal officials have ordered California and six other states to dramatically cut diversions from the river, which has long served as a water lifeline for the West.

But even surface conditions are changing under the state's evolving climate, which is trending toward long-term heat and dryness while being punctuated by bouts of extreme precipitation. Snowpack is regularly melting earlier than in years past, and the state's water managers are increasingly tasked with preparing for drought and flood events at the same time.

"We have been working day in and day out to adjust to a changing reality," said California Natural Resources Secretary Wade Crowfoot. "We know that extreme weather is getting more extreme as a result of climate change. In October, we finished one of the driest three-year periods in our state's history, and then just last month, we experienced what is probably the wettest three weeks in our history."

Gleick said there is often a measurable "rebound effect" after [state officials](#) remove drought orders, as former Gov. Jerry Brown did in 2017 following a similar series of storms. Though some Californians may have made permanent changes, such as removing their lawns or upgrading to water-efficient appliances, many behavioral changes are more ephemeral. People may go back to watering their grass, taking long showers or wasting water, Gleick said.

He also noted that there is a difference between a hydrologic drought and a political one, with Newsom's drought emergency declaration giving the state authority to assist local areas with water supply challenges. While some actions can and should be taken locally, "there's still things that the state needs to be doing in terms of funding, in terms of setting targets for efficiency improvements, in terms of changing the way that we operate the reservoirs, and in terms of how we allocate water on the State Water Project," he said.

Declaring the drought over now would be "premature hydrologically and politically," he added.

It was a message echoed by members of Newsom's administration, including Department of Water Resources director Karla Nemeth. She noted that in just a few dry weeks, statewide snowpack declined from 205% of normal on Feb. 1—a 40-year high for the date—to 174% of normal for the date on Tuesday.

"That is an extremely steep drop-off, and it's due to the dry weather that resumed in late January and has really followed us through February," Nemeth said. "That really does tell the story for the challenges that we face over the remaining days of February, March and April."

However, the state has also received some criticism for its response to such weather swings this year, including its ability to capture and store stormwater when it falls. During January's storms, millions of gallons of water were channeled out to the ocean, with agencies at state and local levels being called upon to do more to improve their response in the future.

Newsom's sweeping water supply strategy, unveiled in August, includes adding 3 million acre-feet of new storage and expanding groundwater recharge capabilities by at least 500,000 acre-feet, among other goals,

Garcia said. An acre-foot is approximately 326,000 gallons.

The governor last week also came under fire from some environmental groups for seeking to waive regulations in the Sacramento-San Joaquin River Delta intended to protect fish and other wildlife. The move would ease some state and federal requirements to allow water managers to hold back more water from the delta for storage in reservoirs, which could bolster supplies but potentially harm imperiled fish, the groups charged.

Such tensions reflect the challenges of balancing the state's water needs amid the driest 23-year period in at least 1,200 years—including the needs of urban and agricultural areas as well as that of the environment.

State Water Resources Control Board Chair Joaquin Esquivel noted that despite recent rains, many communities in California are still relying on bottled or hauled water to get by. About 900,000 people, primarily in the Central Valley, are still living without reliable access to safe drinking water, he said.

"What we're trying to make sure we're emphasizing and supporting are the local management decisions that are ensuring that stormwater capture, [water](#) recycling and desal[ination] are becoming important parts of communities' portfolios," he said.

There's no denying the storms made a difference after so many months of dryness. The state's largest reservoirs—Lake Shasta and Lake Oroville—were at 59% and 71% capacity respectively as of Tuesday. That's a significant increase from just two months ago, when they were at 32% and 29% capacity.

While conditions have improved, all of the state remains under some form of drought, according to the U.S. Drought Monitor, with 33% of

the state designated as being in severe [drought](#). Officials said a likely return to dryness in the future is all the more reason to save every drop while it's here.

"This wouldn't be the first time we've been teased by heavy precipitation early in the rainy season, only to have our hopes somewhat dashed in the months to come," Garcia said. "We really face the reality that a return to dry weather could wipe out some of the recovery we've had this year, and that's a challenging space to be in."

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