

Drought over? Spring outlook finds relief—and flood risk

March 16 2023, by Susan Montoya Bryan



Floodwaters surround homes and vehicles in the community of Pajaro in Monterey County, Calif., on March 13, 2023. Record snowfall and rain have helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Credit: AP Photo/Noah Berger, File

Record snowfall and rain have helped to loosen drought's grip on parts of

the western U.S. as national forecasters and climate experts warned Thursday that some areas should expect more flooding as the snow begins to melt.

The winter precipitation wiped out exceptional and extreme drought in California for the first time since 2020, the National Oceanic and Atmospheric Administration reported Thursday in a seasonal, nationwide outlook that came as parts of the state are under [water](#). In neighboring Nevada, flood warnings were in effect and rushing water prompted some evacuations overnight in one of Arizona's tourist towns.

Elsewhere, NOAA's forecast warned of elevated flood risks from heavy snowpack this spring in the upper Midwest along the Mississippi River from Minnesota south to Missouri.

[Despite the receding drought](#), experts cautioned that the relief may be only a blip as the [long-term effects](#) persist from what has been a stubborn dry streak.

Groundwater and reservoir storage levels—which take much longer to bounce back—remain at historic lows. It could be more than a year before the extra moisture has an effect on the shoreline at Lake Mead that straddles Arizona and Nevada. And it's unlikely that water managers will have enough wiggle room to wind back the clock on proposals for limiting water use.



Esteban Sepulveda holds his dog Milo while leaving his home in Pajaro Valley, Calif., March 12, 2023. Record snowfall and rain have helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Credit: Shae Hammond/Bay Area News Group via AP

That's because water release and retention operations for the massive reservoir and its upstream sibling—Lake Powell on the Utah-Arizona border—already are set for the year. The reservoirs are used to manage Colorado River water deliveries to 40 million people in seven U.S. states and Mexico.

Lake Powell could gain 35 feet (11 meters) as snow melts and makes its

way into tributaries and rivers over the next three months. How much it rises will depend on soil moisture levels, future precipitation, temperatures and evaporation losses.

Paul Miller, a hydrologist with the National Weather Service's Colorado Basin River Forecast Center, said that sounds like a lot of water for one of the nation's largest reservoirs, but it still will be only one-third full.

"It's definitely moving in the right direction, but we're far from filling the reservoirs in the Colorado River system and we're far from being at a comfortable point from a water supply perspective," Miller said during Thursday's NOAA briefing.



Workers clear snow off the roof of Skyforest Elks Lodge after a series of storms, March 8, 2023, in Rimforest, Calif. Record snowfall and rain have

helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Credit: AP Photo/Marcio Jose Sanchez, File

Federal forecasters outlined other predictions for temperature, precipitation and drought over the next three months, saying the spring [wet season](#) is expected to improve drought conditions across parts of the northern and central Plains and Florida could see dryness disappear there by the end of June.

Overall, the West has been more dry than wet for more than 20 years, and many areas will still feel the consequences. The northern Rockies and parts of Washington state will likely see drought expand over the spring, while areas of extreme to exceptional drought are likely to persist across parts of the southern High Plains.

An emergency declaration in Oregon warns of higher risks for water shortages and wildfires in the central part of the state, and pockets of central Utah, southeastern Colorado and eastern New Mexico are still dealing with [extreme drought](#).

Ranchers in the arid state already are planning for another dry year, and some residents are still reeling from a historic wildfire season.



A man stands on a hill overlooking a formerly sunken boat standing upright into the air with its stern buried in the mud along the shoreline of Lake Mead at the Lake Mead National Recreation Area, Jan. 27, 2023, near Boulder City, Nev. Record snowfall and rain have helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Groundwater and reservoir storage levels — which take much longer to bounce back — remain at historic lows. Credit: AP Photo/John Locher, File

Jon Gottschalck, chief of the operational prediction branch at NOAA's Climate Prediction Center, said the start of the fire season in the Southwestern U.S. likely will be delayed.

"But it doesn't mean that it couldn't end up being a very strong season,"

he said. "It's just likely to be a more muted beginning for sure."

Gottschalck said warmer than [average temperatures](#) are forecasted for New Mexico, Oklahoma and Texas to the Gulf Coast and up the eastern seaboard, as well as in Hawaii and northern Alaska. Lower than normal temperatures are probable, he said, for North Dakota, South Dakota, Nebraska and Minnesota and the Great Basin region.

The real standout this winter has been the Great Basin, which stretches from the Sierra Nevada to the Wasatch Mountains in Utah. It has recorded more snow this season than the last two seasons combined. That's notable given that over the last decade, only two years—2017 and 2019—had snowpack above the median.



In this aerial photo, a bathtub ring of light minerals show the high water mark on the shore of Lake Mead along the border of Nevada and Arizona, Monday, March 6, 2023, near Boulder City, Nev. Record snowfall and rain have helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Groundwater and reservoir storage levels — which take much longer to bounce back — remain at historic lows. Credit: AP Photo/John Locher

"We've pretty much blown past all kinds of averages and normals in the Lower Colorado Basin," Miller said, not unlike other western basins.

Tony Caligiuri, president of the preservation group Colorado Open Lands, said all the recent precipitation shouldn't derail work to recharge groundwater supplies.

"The problem or the danger in these episodic wet year events is that it can reduce the feeling of urgency to address the longer-term issues of water usage and water conservation," he said.

The group is experimenting in the San Luis Valley in southern Colorado, the headwaters of the Rio Grande. One of North America's longest rivers, the Rio Grande and its reservoirs have been struggling due to meager snowpack, long-term drought and constant demands. It went dry over the summer in Albuquerque, and managers had no extra water to supplement flows.



Two palm trees are backdropped by snow-covered mountains in Hesperia, Calif., March 1, 2023. Record snowfall and rain have helped to loosen drought's grip on parts of the western U.S. as national forecasters and climate experts warned Thursday, March 16, that some areas should expect more flooding as the snow begins to melt. Credit: AP Photo/Jae C. Hong, File

Colorado Open Lands reached an agreement with a farmer to retire his land and stop irrigating roughly 1,000 acres. Caligiuri said the idea is to take a major straw out of the aquifer, which will enable the savings to sustain other farms in the district so they no longer face the threat of having to turn off their wells.

"We've seen where we can have multiple good years in place like the San Luis Valley when it comes to rainfall or snowpack and then one drought

year can erase a decade of progress," he said. "So you just can't stick your head in the sand just because you're having one good wet year."

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