

# El Niño -- wet winter likely across California, not just in south, new report says

Paul Rogers, Bay Area News Group, 10-16-15

In the latest sign that El Niño conditions are likely to bring wet weather to drought-parched California, federal scientists on Thursday announced for the first time that the entire state -- including the northern part of California from the Bay Area to the Oregon border -- is now expected to receive average or above-average rainfall this winter.

Until Thursday, scientists at the National Oceanic and Atmospheric Administration had been predicting that Southern California was most likely to get drenching storms this winter, with Northern California -- home of the state's largest reservoirs -- less likely to receive a soaking.

Water temperatures and wind patterns in the Pacific Ocean have created the strongest El Niño in a generation. And although heavy rains are not guaranteed, the last two times when conditions were this strong, in the winters of 1982-83 and 1997-98, rainfall totals in the Bay Area and much of the state were double the historic average, triggering massive flooding and mudslides.

The new report still establishes Southern California as the odds-on favorite for major downpours, but it expands the rainy outlook more broadly across the state for the months of January, February and March, which are expected to be the wettest.

"We're very confident that this will persist through the winter and should result in some of the typical El Niño impacts that we've seen in the past," said Mike Halpert, deputy director of the NOAA's climate prediction center in College Park, Maryland.

Scientists at the NOAA -- the parent agency of the National Weather Service -- released maps showing that from Santa Barbara to the Mexican border, there is a 93 percent chance of average or above-average rainfall during those three months. From San Jose to Santa Barbara, there is an 83 percent chance of average or above-average rainfall, and from Humboldt County to San Jose there is a 73 percent chance of average or above-average precipitation.

"Everything continues to line up in the right direction," said Jan Null, a meteorologist with Golden Gate Weather Services in Saratoga. "We haven't had a normal or above-normal winter in five years. To get out of the drought we have to have above-normal precipitation. So this is a good trend."

During much of the past four winters, a giant ridge of high pressure has been parked off the West Coast, diverting storms that would have soaked California north, to Canada. There, they met cold air and brought massive snowstorms to Chicago, Boston and New York.

Could that "Ridiculously Resilient Ridge" return again this year to block El Niño storms?

Not likely, said the man who coined the term.

In past years, warm ocean conditions in the western Pacific Ocean built up the ridge, said Daniel Swain, a climate researcher at Stanford University. But now, he said, the western Pacific is not as warm -- and even if the ridge reappears this El Niño is likely to affect the subtropical jet stream in ways that storms could barrel around the southern edges of the ridge and deliver rain to California.

Computer models are showing that by January the ridge will become a trough, which is favorable to bringing big storms into the state, Swain said.

"Even a normal winter will feel really wet to most people," he said. "I've been biking to the grocery store in January. I don't think that's going to happen this year."

El Niño is a disruption in the weather patterns over the Pacific. It occurs when the ocean's surface along the equator off Peru warms more than normal. Those warm waters release heat, changing wind directions and the jet stream. The conditions often bring more and wetter storms to California.

As in the past, NOAA scientists and local experts on Thursday stressed that nothing is certain because the Earth's climate and weather patterns are so complex. If the storms are too warm, for example, they won't bring snow to help boost the Sierra Nevada snowpack, which normally provides nearly a third of California's water supply. If they are focused too far south, the storms won't fill the big reservoirs like Shasta, Oroville, Folsom and San Luis in Northern California that are key to the state's water system.

The state has suffered massive rainfall deficits after the driest four-year period since California became a state in 1850.

That said, Swain noted that some supercomputer climate models are "much more aggressive" than the NOAA's outlook in showing how widespread this El Niño's rainfall could be.

Meanwhile, as water agencies urge people not to let up on conservation, cities across the state are scrambling to clear storm drains and creeks, and homeowners are trimming trees and fixing roofs. A series of steady, drenching storms spread out over time would fill reservoirs without much damage. But so-called atmospheric river storms -- "Pineapple Expresses" -- in close succession could bring serious damage, as they have in other strong El Niño years.

"History has shown that with these real big El Niños we have seen very big storms, and a lot of landslides and floods," Halpert said. "That could be something that turns out this winter -- that while we're still dealing with severe drought in California, we'll be also dealing with flooding at the same time. And that's certainly not unheard of."