

Dry La Niña might follow soggy El Niño

Kurtis Alexander, San Francisco Gate, 1-3-15

Beyond all the hype over a possible drought-busting El Niño this winter is a much grimmer prospect for California: a dry La Niña come fall.

The National Oceanic and Atmospheric Administration joined international forecasters recently in predicting the potential rise of El Niño's sister phenomenon, La Niña — a similar shift in Pacific Ocean temperatures, but in the opposite direction with far different repercussions for global weather.

While no one can be certain what a La Niña might mean for California, especially this early, the pattern has generally correlated with drier conditions, particularly in the southern part of the state. How much this will even matter is also unknown as El Niño is expected to soon ease the state's water crisis with a blast of wet weather.

“It's still too far out to reach any conclusions about La Niña,” said Dave Rizzardo, who helps track the state's water supplies as chief of snow surveys for the California Department of Water Resources. “But it would be unfortunate to know that, hey, we had a great year, we bailed ourselves out of the drought, and then we fall right back in.” Humpback whales slow to return to Hawaii breeding ground .

The El Niño being pegged as a game-changer is marked by some of the highest sea surface temperatures ever observed in the equatorial Pacific — as much as 7 degrees above average. It's this heat that influences worldwide weather, fueling recent floods and hurricanes in Central and South America and expected to energize California's storm track over the next few months.

But the Pacific's unusually warm water is likely to rapidly disperse, forecasters say.

NOAA's climate models in December suggest that easterly trade winds will cool ocean temperatures, bringing them back to normal in late spring or early summer, and that temperatures by the end of the year could dip into the chilly range that marks La Niña.

“Right now, if you look forward, we don't have a feeling for how strong that La Niña will be,” said Stephen Baxter, a meteorologist at NOAA's Climate Prediction Center. “But we are more confident that it will happen.”

The big El Niños of 1982-83 and 1997-98, which the current event has been compared to, were followed by La Niñas.

While La Niña, with its cooler Pacific waters, is not as good a predictor of global weather as its counterpart, it is generally associated with the opposite impacts: dry conditions in the subtropical latitudes of the Americas and wet weather in Australia and Indonesia.

Southern California is among the regions that have received below-average rain during a La Niña. Farther north, the correlation is fuzzier.

Furthermore, La Niñas, unlike El Niños, tend to stick around, with their persistence sometimes amplifying their drying effects even after they're gone.

A NOAA report in April suggested that California's drought may be partially due to the lingering influence of a two-year La Niña that took hold in late 2010.

NOAA forecasters are reluctant to say with certainty what another La Niña will look like for California, but they expect previous trends to hold.

"Likely we'll be favoring dryer than normal, but how much (we don't know)," Baxter said.

Jan Null, forecaster at Golden Gate Weather Services, cautions against putting too much stock in a La Niña.

"It's sort of the same script with El Niño," he said. "We see a wide range of situations with La Niña. They tend to be drier, but we have had wet La Niñas."

The state's water suppliers, meanwhile, remain in drought mode, conserving as much water as they can.

"They're already going into this year with a conservative thumb on the button," said Rizzardo of the California Department of Water Resources. "They're not going to ease off anytime soon."

He said that with global temperatures on the rise, most water agencies have begun bracing for less water for the long term regardless of the forecast.

"Going right back into a La Niña following a fruitful year of heavy rains and snow would be demoralizing," he said. But "one thing we've learned about climate change is that the swings to the extremes might be more drastic in the future."