

La Nina Returns, Continuation of Drought Likely for Oklahoma

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La Nina has officially returned to the equatorial pacific waters according to the National Weather Service's Climate Prediction Center (CPC). The climate phenomenon, marked by cooler than normal waters off the west coast of South America, has been named as one of the primary culprits behind 2011's extreme weather, such as the record flooding in the Northern Plains and the disastrous drought in the Southern Plains. While that La Nina faded throughout spring before ending in June, the CPC issued a La Nina Watch during August when the possibility of its return increased. Data now show that La Nina returned last month, prompting the issuance of a La Nina Advisory by the CPC. Current long-range forecasts indicate a gradual strengthening of La Nina and its impacts throughout the fall into the winter should be expected. "This means drought is likely to continue in the drought-stricken states of Texas, Oklahoma and New Mexico," said Mike Halpert, deputy director of the Climate Prediction Center in a National Oceanic and Atmospheric Administration press release.

The shifting of air patterns in the equatorial pacific due to La Nina can lead to the disruption of normal weather patterns across the globe. The impacts most common in the United States are above normal temperatures and below normal precipitation across the southern one-third of the country and cooler and wetter than normal weather in the Pacific Northwest and Ohio Valley. The impacts due to La Nina are normally strongest from late fall through early spring in the Southern Plains, although not every La Nina produces the typical impacts. The return of La Nina is particularly troubling news for Oklahoma where the drought has caused an estimated \$2 billion in agricultural losses according to state officials. Wheat, cotton and cattle operations have been particularly hard hit since last fall. The heat wave associated with the drought has been responsible for at least 21 deaths in Oklahoma according to state health officials. The drought also extended Oklahoma's wildfire season through the spring and summer months.

According to data from the Oklahoma Mesonet, the January through August statewide average rainfall total was 14.16 inches, nearly 11 inches below normal and the second driest such period since records began in 1895. For the Panhandle, west central, southwest and south central sections of the state, it was easily the driest such period on record. Average rainfall totals in those areas since January 1 are as much as 16 inches below normal through September 8. The Oklahoma Mesonet site at Hooker in the Oklahoma Panhandle has recorded 2.2 inches of precipitation since January 1. Many of the Mesonet stations in the western half of the state have received less than 10 inches of rainfall over that period.

Following the summer of 2011, which saw many of the state's all-time heat records smashed, Mother Nature now turns her attention to the state's rainfall – or lack thereof – records. The lowest annual total for any location in Oklahoma is 6.53 inches, recorded at the Cimarron County town of Regnier in 1956. The driest year in Oklahoma was 1910 with a statewide average of 19.04 inches. It is difficult to say if those records will continue to be threatened over the year's final four months, but the return of La Nina certainly increases those odds. The latest Seasonal Drought Outlook released by the CPC shows drought persisting in the state through November with possible improvement, but not elimination, in northern and east central Oklahoma.