



NAVAJO NATION DROUGHT STATUS REPORT

NN Dept. of Water Resources, Water Management Branch

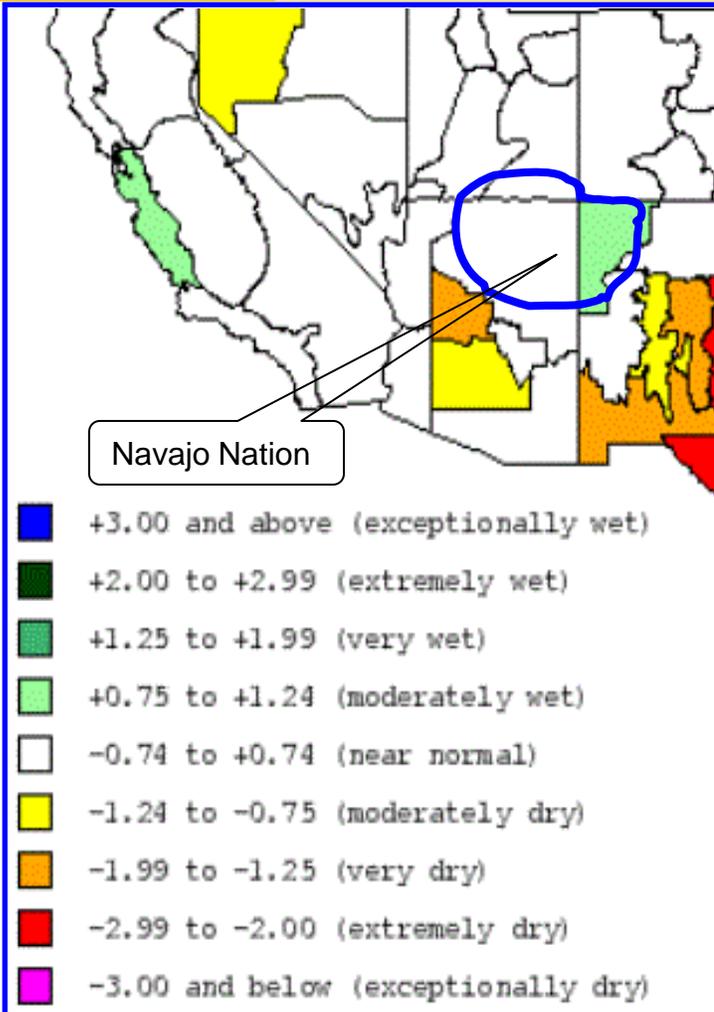
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Navajo Nation Drought Stage

Location	6 month SPI		Stage as of Nov.
	Oct.	Nov.	
NE AZ	0.01	0.05	Normal
NW NM	0.56	0.94	Normal
SE UT	0.36	0.03	Normal

Drought Intensity Category

NNDrought	US Drought	
Normal	Normal	D0
Alert	Moderate	D1
Warning	Severe	D2
Emergency	Extreme-Exceptional	D3 & D4

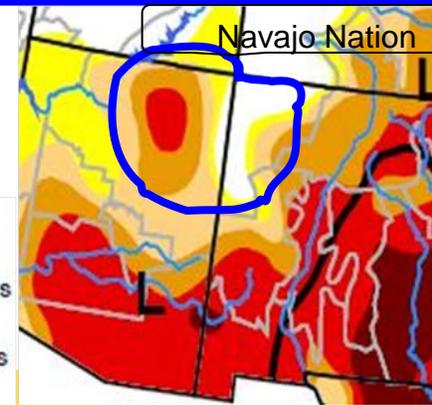


Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)



6-Month SPI for November 2011 www.wrcc.dri.edu

November 29, 2011 U.S. Drought Monitor
<http://drought.unl.edu/dm>

Drought Summary by NDMC November 29, 2011

The Southwest: While most of the region saw little or no precipitation, a small band of moderate precipitation (0.5 to 1.5 inches) fell on extreme southeastern Arizona northeastward into south-central New Mexico. Consequently, most of the D4 area in southwestern New Mexico was improved to D3, with only a small portion left as D4 where the rains missed. In south-central New Mexico, the D4 line was pulled eastward in Lincoln County (0.2 to 0.7 inches) to focus the extreme drought on the NM southeast plains instead of the south-central mountains where conditions are a bit better. In extreme southeastern Colorado (Baca County), D4 was slightly trimmed away in response to recent rains (about 0.5 inches). Although no degradation was made this week, concerns remained in the Southwest due to long-term precipitation deficiencies accumulated during past critical seasons (winter/spring and most of the summer monsoon).

November 2011

Southwest Drought at Glance

November 2011 Climate Summary

Drought– Drought conditions intensified from moderate to extreme in central Arizona in the last 30 days. Nearly half the state is classified with moderate or a more severe drought category. In New Mexico, drought conditions remained virtually unchanged from one month ago. Currently, about 91 percent of the state is classified with at least moderate drought.

Temperature– Temperatures generally have been within 2 degrees F of average across the Southwest. While parts of southern Arizona deserts have been warmer than average, higher elevations in Arizona and New Mexico have experienced cooler-than-average temperatures.

Precipitation– In the past 30 days, several early winter storms moved across the region from southwest Arizona to northeast New Mexico, delivering above-average precipitation to those regions. Meanwhile, southeast Arizona and the southern two-thirds of New Mexico experienced less than 75 percent of average precipitation.

ENSO– Weak La Niña conditions persisted in the past month. Most models project that La Niña will continue through the winter; models and historical observations suggest that the intensity of the event will fall in the weak to moderate range.

Climate Forecasts– Temperature outlooks for the December–February period call for increased chances for above-average temperatures in most of New Mexico and below-average precipitation in most of both states. The odds for drier-than-average conditions are highest in the southern tier of Arizona and New Mexico where La Niña impacts are strongest.

The Bottom Line– Drought conditions remain entrenched in nearly all of Arizona and New Mexico, the residual effect of the dry 2010–2011 winter and a so-so monsoon. The expectation is that dry conditions will continue in part because La Niña has returned. Although forecasts suggest the La Niña will reach at most a moderate strength, this does mean precipitation deficits will also likely be moderate. In the past, weak La Niña events have produced both high and low precipitation anomalies in the Southwest. Although storms tend to be pushed north during La Niña events, the jet stream often meanders more than during El Niño events, and it occasionally bows enough to waft frigid Arctic air into the region, like it did last winter when record cold air froze many parts of Arizona and New Mexico in early February.

Useful Drought Related

Sites:

- NWS-Climate Prediction Center
- Seasonal Outlook www.drought.unl.edu
- USGS Daily Stream Flow www.usgs.gov/water/
- NDMC Drought Impact Database Webpage <http://droughtreporter.unl.edu>
- Western Regional Climate Center www.wrcc.dri.edu
- CLIMAS Southwest Climate Outlook www.climas.arizona.edu

Navajo Nation Drought Summary

Navajo Nation Water Management Branch has a network of 126 precipitation stations across the Navajo Nation. On a monthly basis, these stations are checked manually for precipitation data. The 6-month SPI is calculated on the basis of 18 years of precipitation data. The SPI value for a particular agency is the average of SPI values of all precipitation collection sites located within the agency boundary.

Agency	6 month SPI		Stage as of November
	October	November	
Chinle	0.47	0.78	Normal
Eastern	0.08	0.07	Normal
Fort Defiance	0.73	0.71	Normal
Shiprock	0.29	0.49	Normal
Western	-0.26	0.40	Normal

