

EL NIÑO & THE SOUTHWEST DROUGHT STATUS UPDATE

DECEMBER 6, 2018

National Integrated Drought
Information System
Drought.gov



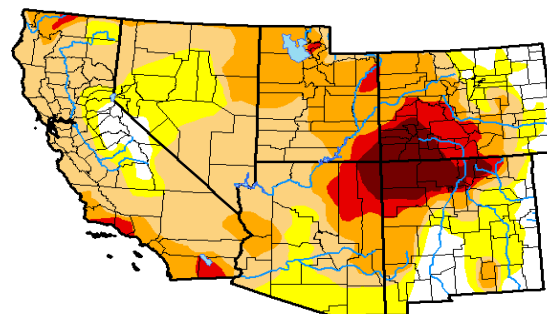
Extreme Drought Entrenched in the Four Corners. Weak El Niño Expected through Winter and Spring.

- Extreme drought remains entrenched in the Four Corners area of the Southwest (Fig. 1)
- Recent above-normal precipitation has resulted in some drought improvement in eastern areas of Colorado and New Mexico (Fig. 2). However, long-term precipitation deficits centered over the Four Corners area (Fig. 3) continue to adversely impact streamflows, reservoir levels, and agriculture/ranching
- According to some drought indices, portions of the Southwest will need approximately 167% of normal precipitation over the next 6 months to end current drought conditions (Fig. 4)
- There is an 80% chance that El Niño (likely weak) will form and continue through the 2018-2019 winter and a 55-60% chance that it will continue into spring

U.S. Drought Monitor Southwest

December 4, 2018

(Released Thursday, Dec. 6, 2018)

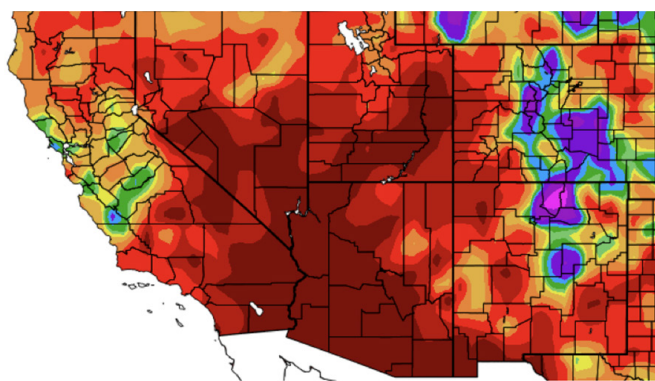


D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought



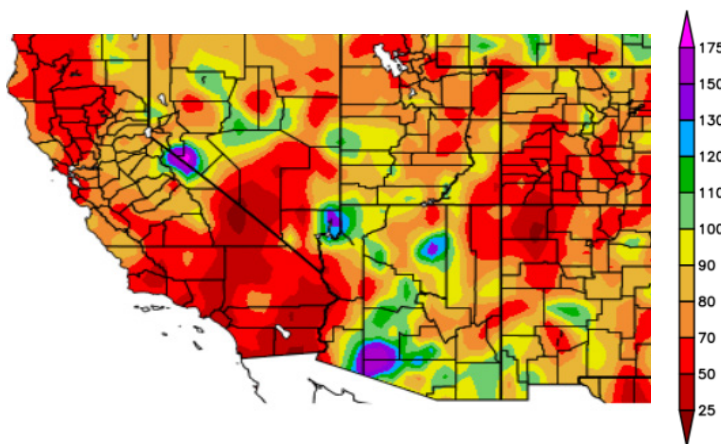
<http://droughtmonitor.unl.edu/>

▲ **Fig 1.** U.S. Drought Monitor for the Southwest region, December 4, 2018. Source: <https://droughtmonitor.unl.edu>



5 25 50 70 90 100 110 130 150 200 300
NOAA Regional Climate Centers

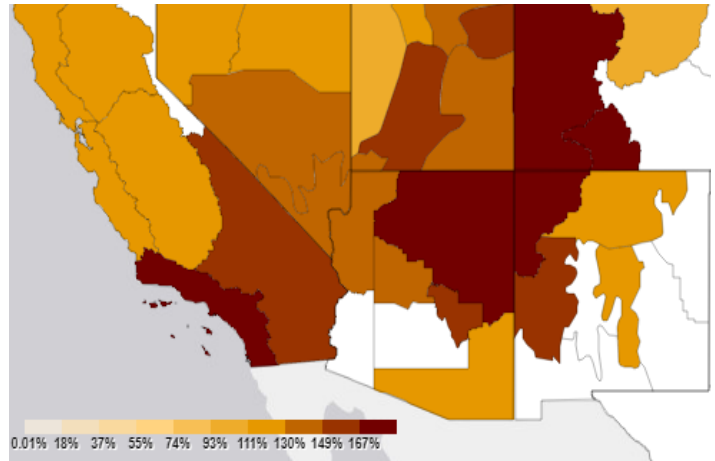
▲ **Fig 2.** October 2018-November 2018 Percent of Normal Precipitation. Source: NOAA High Plains Regional Climate Center



▲ **Fig 3.** December 2017-December 2018 Percent of Normal Precipitation. Source: NOAA High Plains Regional Climate Center

DROUGHT IMPACTS

- **Streamflows** are very low in much of western Colorado, northern New Mexico, and southern Utah
- **Agriculture:** Across the U.S., approximately 12% of hay acreage and 11% of cattle inventory is within an area experiencing drought
- **Reservoir levels** vary. Many are well below average:
 - Elephant Butte Reservoir (NM): 6% of average
 - San Carlos Reservoir (AZ): 4% of average
 - Sevier Bridge Reservoir (UT): 15% of average
 - Blue Mesa Reservoir (CO): 41% of average
 - Lake Powell: 68% of average

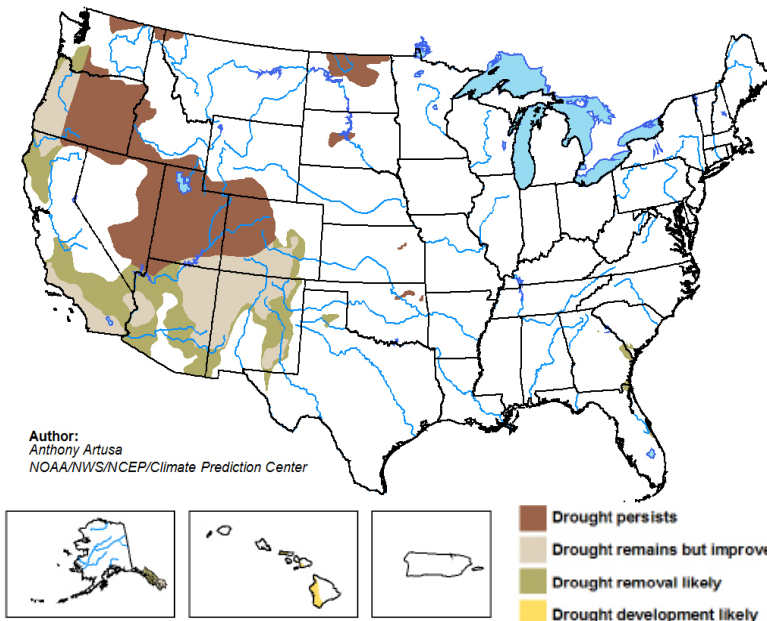


▲ **Fig 4.** Percent of Normal Precipitation Needed to End Drought in 6 Months, November 26, 2018. Source: NOAA National Centers for Environmental Information

OUTLOOK

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for November 15, 2018 - February 28, 2019
Released November 15, 2018



- There is an 80% chance that El Niño (likely weak) will form and continue through the 2018-2019 winter and a 55-60% chance that it will continue into spring
- The Drought Outlook through February 2019 indicates that drought will persist in most of Utah; drought will remain but improve in the Four Corners area

▲ **Fig 5.** Seasonal Drought Outlook through February 2019. Released November 15, 2018. Source: NOAA National Weather Service Climate Prediction Center

Special Thanks

This drought status report was developed from a webinar presented on 29 November 2018 by Mike Halpert, Deputy Director, NOAA Climate Prediction Center, and Royce Fontenot, Senior Service Hydrologist, NOAA National Weather Service, Weather Forecast Office, Albuquerque, New Mexico.

Drought and Climate Outlook Webinars are offered for regional Drought Early Warning Systems. More information can be found at: <https://www.drought.gov/drought/calendar/webinars>



Western Regional Climate Center