

# CALIFORNIA-NEVADA DROUGHT OUTLOOK

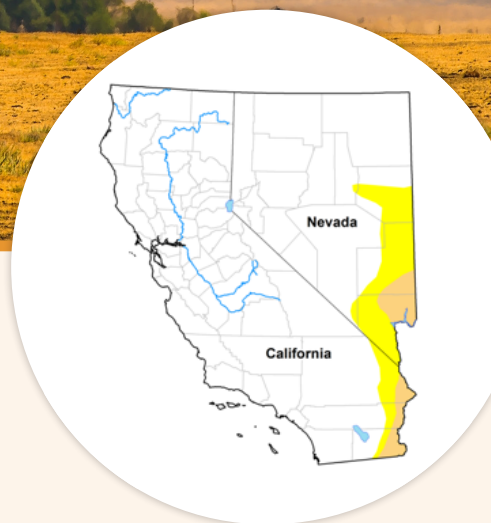
## OCTOBER 2019

National Integrated Drought  
Information System  
Drought.gov



### Current Drought Conditions

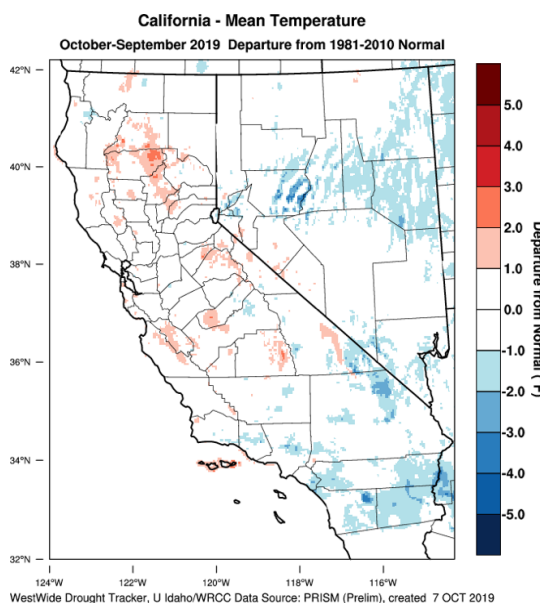
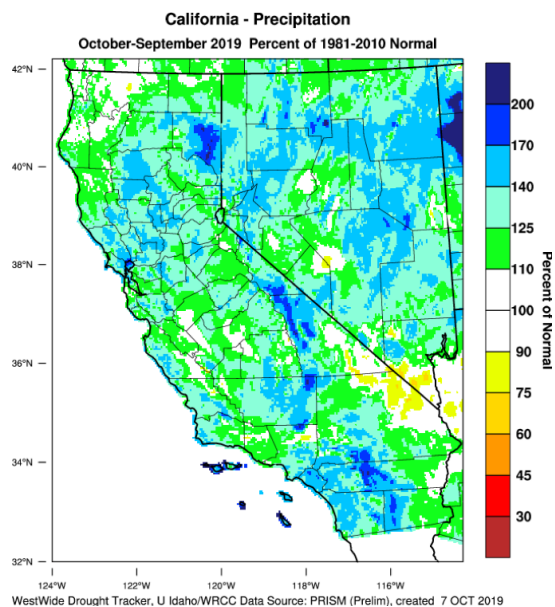
Over the course of the 2019 Water Year (Oct. 2018 - Sept. 2019), California-Nevada became drought free as the region received above normal precipitation. On Oct. 2, 2018, nearly 50% of California (including extreme drought (D3) in southeastern California) and Nevada was in drought, according to the U.S. Drought Monitor. Conditions worsened slightly in fall 2018, but by the end of March, both states were free of drought. As of Oct. 8, 2019, ~3% of the region is in moderate drought (D1) (Fig. 1) due to dryness in the southwest over the summer. Current forecasts show drought persisting and no new drought development this fall.



▲ **Fig 1.** U.S. Drought Monitor for October 8.  
Source: [droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

### End of the Water Year Update

California and Nevada ended the 2019 water year as a wet year, with parts of the region as much as 170% of the 1981-2010 normal (Fig. 2). The exception is near the southern Nevada-California border where totals were slightly below normal, in part due to a drier than normal summer, and current conditions show moderate drought (D1) (Fig. 1). On the other hand, over the summer the northern part of the region was above normal precipitation with normal to cooler temperatures. Over the entire water year, much of the region was normal to warmer than normal temperatures this water year, with the exception of cooler conditions in central to eastern Nevada (Fig. 2). After 30 atmospheric rivers (ARs) last year, California reservoir storage is [128% of average](#), and Lake Tahoe remains above the natural rim. Vegetation greenness also lasted longer into summer due to the wet conditions. Dr. Sasha Gershunov from Scripps/UC San Diego shared on the webinar how their [research](#) is showing ARs will become even more of a dominant California water source in the future.



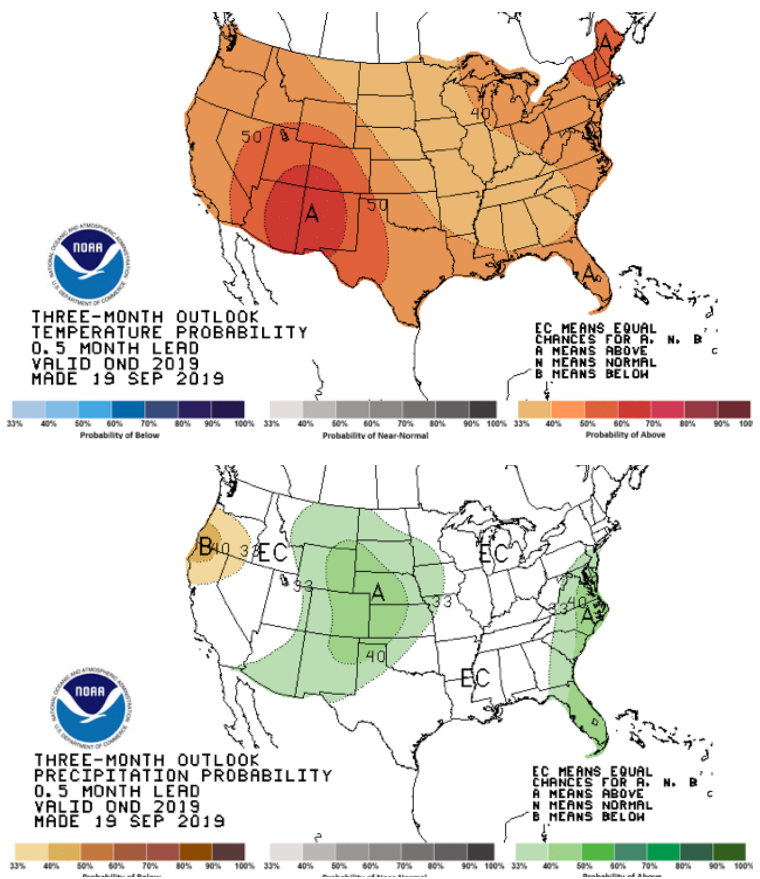
◀ **Fig. 2. (left)** Percent of normal precipitation (%) for the 2019 water year. **(right)** Departure from normal temperature (°F) for the 2019 water year. Source: WestWide Drought Tracker

## Drought & Climate Outlook

**ENSO:** ENSO neutral conditions continued through the end of summer with near-average sea surface temperatures across most of the central and eastern equatorial Pacific Ocean. [NOAA's ENSO alert system](#) status is currently Not Active and ENSO neutral is favored during the fall (~85% chance), continuing through spring 2020 (55-60% chance). For more information, check out the [NOAA ENSO blog](#).

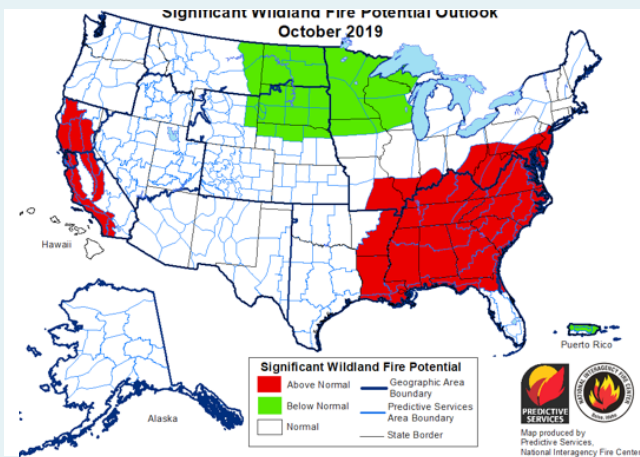
**Temperature:** Warm temperatures are favored over California-Nevada through early winter with >40% chance of above-normal October-December temperatures, with the greatest chances over the eastern part of the region (Fig. 3).

**Precipitation:** Most of California and Nevada have equal chances of above, below, and normal October-December precipitation (Fig. 3) except far northern California and northwestern Nevada (favoring below). Current drought conditions are forecasted to persist through early winter.



▲ Fig. 3. A = chances of above-normal; EC= equal chances of above, below, normal; B = chances of below-normal. Source: [cpc.ncep.noaa.gov/](https://cpc.ncep.noaa.gov/)

## National Significant Wildland Fire Potential Outlooks (October 1, 2019)



The National Significant Wildland Fire Potential Outlook shows above-normal wildfire potential in October over much of California including the coast and parts of the northern and central California, with concerns remaining into November and December. Fuels remain receptive to fire activity under critical fire weather conditions in the middle and lower elevations and the grass crop remains dense.

## Contributors:

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## Northeast Pacific Marine Heatwave of 2019

A large marine heatwave (MHW), designated the [Northeast Pacific Marine Heatwave of 2019](#), has formed as a ridge of high pressure dampened the winds that otherwise mix and cool the ocean's surface. Development is reminiscent of the 2014-2016 MHW and NOAA and partners are continuing to monitor its area, duration, and coastal proximity to understand potential west coast impacts. Read more [here](#).

## About this Outlook

On September 23, 2019 NIDIS and its partners held this webinar as part of a series of drought and climate outlook webinars designed to provide stakeholders in the region with timely information on current drought status and impacts, as well as a preview of current and developing climatic events.

A video of and presentations from this webinar can be accessed here: <https://www.drought.gov/drought/calendar/events/california-nevada-drought-climate-outlook-webinar-september-23-2019>

