

CALIFORNIA-NEVADA DROUGHT OUTLOOK

MAY 2019



▲ **Fig 1.** U.S. Drought Monitor for June 4. Source: droughtmonitor.unl.edu

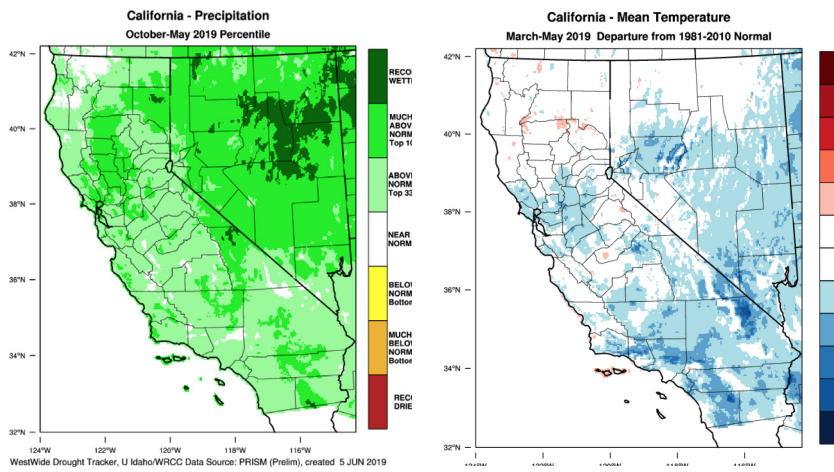
Current Drought Conditions

As California and Nevada move into summer, the region remains drought free as wet conditions continued through the spring. As of June 4 according to the U.S. Drought Monitor (Fig. 1), 4.32% of California remains abnormally dry (D0) due to long term drought while Nevada is drought and dryness free.

Regional Climate Update

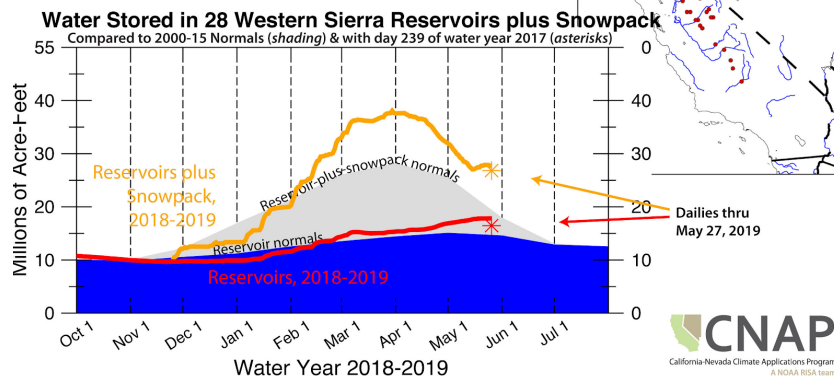
A wet pattern continued over California and Nevada, resulting in above-normal to record wettest (Fig. 2) for the water year through May (starting Oct 1) and no new drought development. Precipitation combined with normal-to-cooler temperatures (Fig. 2) continued to build snowpack through April and the Sierra Nevada snowpack remains at greater than 170% of average for early June according to the California Dept. of Water Resources. This year's cool season temperatures are a slight downturn in a 6 year warm string of above normal average temperatures. Major Sierra reservoir levels are thus above historical normal levels (Fig. 3) including Lake Tahoe at 5-feet above the natural rim. The National Weather Service California-Nevada River Forecast Center (CNFRC) stream discharge forecasts are above normal, with many greater than 150% near the Sierras.

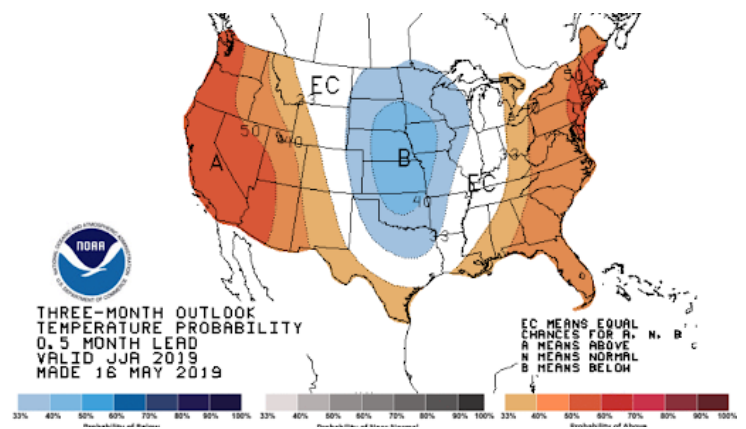
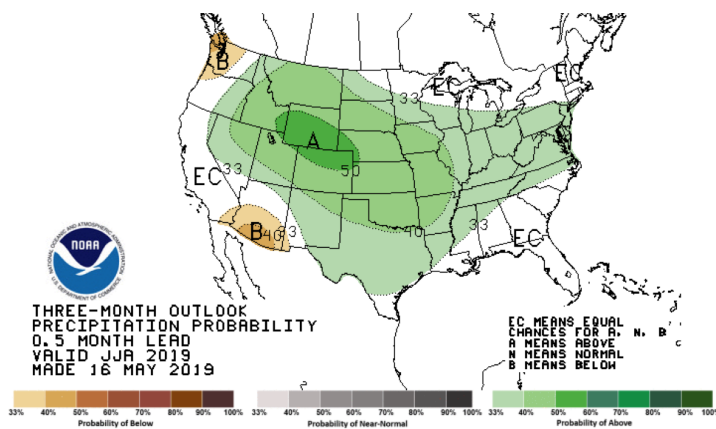
Fire activity continued to be well below average during May with the cool, wet pattern. The developing grass crop is a concern, especially across portions of California. Once warmer temperatures arrived fine fuels and brush, especially at elevations below 3000 feet, grew enough to produce a fourth straight year of above average fine fuel crop. Most of the annual grasses below 3000 feet have now cured, and following any rainfall they become ready to carry fire after only a couple of days of sunny dry weather. However, the higher elevations will likely be on the quiet side into July, due to the time it takes for the snow pack to melt.



▲ **Fig. 2. (left)** Percentile ranking of normal precipitation since the start of the 2019 water year (Oct 1, 2018 – May 31, 2019). **(right)** Departure from Normal Temperature (°F) from March - May 2019. Source: [West Wide Drought Tracker](http://WestWideDroughtTracker)

▼ **Fig. 3.** Time series through May 27, 2019 showing combined (orange line) daily storage updates from 28 reservoirs (red dots on the map to the right) (red line) with snow-pack totals for the Sierra compared to 2000-2015 normals. Source: CNAP





▲ Fig. 4. Seasonal forecasts of temperature and precipitation probabilities for June to August 2019. Source: [Climate Prediction Center](#). A = chances of Above Normal, EC = equal chances of Above, Below, or Normal, B = chances of Below Normal.

Drought & Climate Outlook

ENSO: NOAA's [ENSO alert system](#) status is currently an El Niño Advisory: El Niño is predicted to persist through the Northern Hemisphere in summer 2019 (66% chance), with lower odds of continuing through fall/winter (50-55% chance). For more information, check out the [ENSO blog](#).

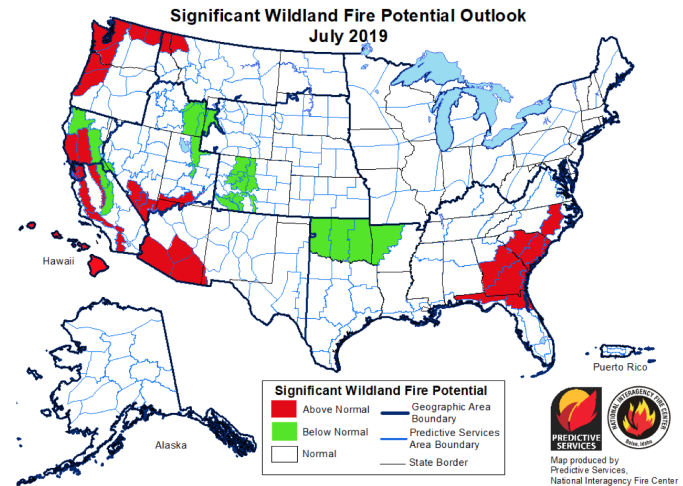
Temperature: Warm temperatures are favored over all of California and Nevada with most of the region >50% chance of above normal temperatures through the Summer (Fig. 4).

Precipitation: Most of California has equal chances of above, below, and normal precipitation for June – August with the exception of the far southeast corner where the odds slightly favor below normal chances of summer precipitation (Fig. 4). Nevada on the other hand has odds favoring above normal precipitation.

Wildland Fire Outlook: July shows a greater than normal likelihood of significant wildland fires in inland coastal California and southern Nevada in July (Fig 5). Below normal likelihood is shown in eastern Nevada in June and near the Sierras in June-July.

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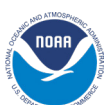
▲ Figure 5. Significant wildland fire potential outlook for June and July 2019. Above normal indicates a greater than usual likelihood that significant wildland fires will occur. Source: [NIFC](#)

Improving Fire Risk Management with Drought Early Warning Information in California and Nevada

With NIDIS Coping with Drought support through NOAA's Sectoral Applications Research Program (SARP), researchers from the Western Regional Climate Center have examined the relationships between common drought indices and the National Fire Danger Rating System (NFDRS) to aid fire management. To learn more: <https://www.drought.gov/drought/news/improving-fire-risk-management-drought-early-warning-information-california-and-nevada>

About this Outlook

On May 28, 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-may-28-2019>



Western Regional Climate Center

