

# CALIFORNIA HYDROLOGY UPDATE

CONDITIONS AS OF OCTOBER 31, 2025



The California Hydrology Update is a regular summary of current weather conditions in the State of California and serves as a supplement to the data on the <u>California Water Watch</u> website. It is produced by the California Department of Water Resources Hydrology Section and Sustainable Groundwater Management Office teams. For tips and resources on how to make water conservation a way of life, please visit saveourwater.com.

## **PRECIPITATION**

Water year 2026 began on October 1, 2025 and the first month concluded with well above average precipitation for the majority of California. The statewide accumulated precipitation for October 2025 was 1.8 inches, which is 140% of average. The impressive start for this water year's accumulated precipitation was largely due to atmospheric rivers making landfall and low-pressure systems traveling through California. During the past month in October 2025, the main periods of precipitation were generally during October 2-3, 9-11, 13-14, and 24-26 (shown in Figure 1).

October started with an atmospheric river making landfall in the North Coast, followed by a trough, which resulted in precipitation mainly during October 2-3. Mostly dry conditions were observed from October 4-7. Precipitation totals for October 1-7 include up to an inch for the North Coast and Central Valley, up to 2 inches for Sierra Nevada, trace amounts for the Bay Area, and dry for Southern California.

Starting October 9, an upper low resulted in scattered showers in Northern California with more widespread precipitation during October 10-11. During this time, tropical moisture remnants from Hurricane Priscilla resulted in thunderstorms and scattered showers in Southern California.

During October 13-14, a strong upper-level trough with a cutoff low traveled south in California along the coastline which resulted in heavy precipitation to Central and Southern California. Early October 14, a weak atmospheric river made landfall into Southern California. Freezing levels fell to around 6,500 to 7,000 feet for most of Sierra Nevada. The National Weather Service received multiple reports on

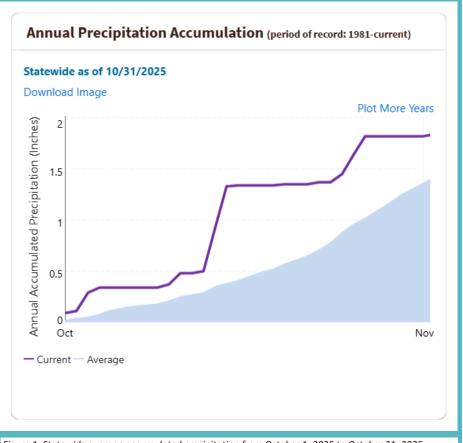
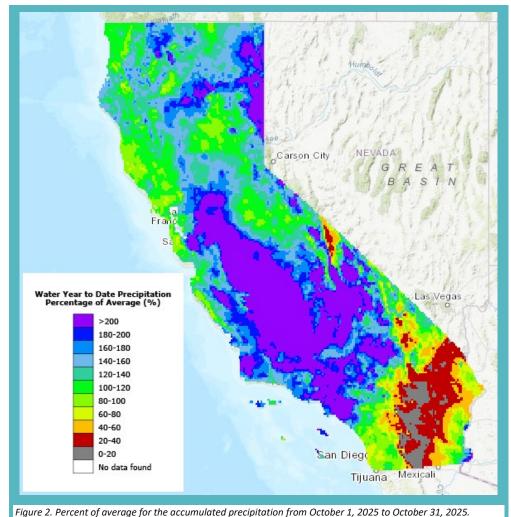


Figure 1. Statewide average accumulated precipitation from October 1, 2025 to October 31, 2025 (purple line) and historical average (shaded blue).

localized flooding, landslides, and damage from higher winds. Although this event made these impacts, it did help California's dry state by providing some drought relief and lowering potential wildfire risk. Precipitation totals for October 8-14 include 0.5 to 4 inches for the North Coast, Central Coast, and Central Sierra, 0.5 to 3 inches for the Bay Area, 3 to 5 inches for Transverse Ranges, and up to an inch for the rest of the state. After October 15, high pressure began to build off the coast which resulted in dry conditions through October 18. About October 19-22, a trough moved through the state resulting in light showers along the border with Oregon, while a low-pressure system resulted in additional scattered showers in Southern California. Precipitation totals for October 15-21 were up to 0.5 inch for Central Coast, Northern Sierra, and Central Sierra, trace amounts along the border with Oregon and Southern California ,and dry for the rest of the state.

Late October 24, an atmospheric river that previously made landfall north of California, continued traveling south, and began to move into Northern California. By October 25, the atmospheric river stalled over Northern California as a low-pressure system brought additional moisture to Northern California as well. Precipitation continued into October 26, as a third moisture pulse traveled into the region. Precipitation totals for October 22-27 include 0.25 to 4 inches in Northern California and Sierra Nevada, up to 0.5 inch for the Bay Area and Central Coast, trace amounts for Central Valley, and dry for Southern California. After October 27, high pressure built off the coast which resulted in dry conditions.

As shown in Figure 2, for water year 2026, Northern California received above to well above average accumulated precipitation, Central California received well average accumulated precipitation, South Coast received above average accumulated precipitation, and below average for the southwest desert region. The North Coast has accumulated about 3.7 inches of precipitation for the water year through end of October, which is 115% of average. The Sacramento River region has accumulated about 2.7 inches of precipitation for the water year through end of October, which is 132% of average. The San



Joaquin River region has accumulated about 2.3 inches of precipitation for the water year through end of October, which is 152% of average. The Central Coast has accumulated about 1.6 inches of precipitation for the water year through end of October, which is 179% of average. The Tulare Lake region has accumulated about 1.8 inches of precipitation for the water year through end of October, which is 251% of average. The South Coast has accumulated about 1.2 inches of precipitation for the water year through end of October, which is 168% of average.

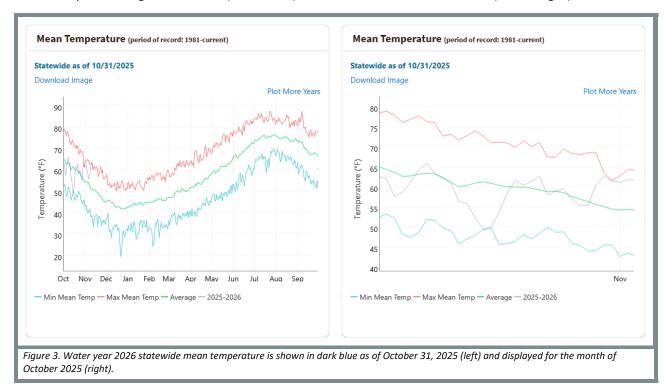
The Climate Prediction Center (CPC) monthly outlook issued on October 31, 2025, indicates 40-50% of above normal precipitation for Northern California, up to 40% chance of above normal precipitation for Central California, and up to 40% of below normal precipitation for Southern California during the month of November 2025. The CPC seasonal outlook covering the period of November 2025 through end of January 2026 indicates 33-40% chance for above normal precipitation for Northern California and equal chances of below, near, or above normal precipitation for the rest of California.

Sources: Statewide Hydroclimate and Water Supply Conditions, Forecast Information,
Center for Western Weather Water Extremes (CW3E) Event Summaries,
California Nevada River Forecast Center (CNRFC) Data Archive, Western Regional Climate Center (WRCC) Monthly Updates



### **TEMPERATURE**

The statewide average temperature for the end of October was about 61.6°F, which is about 7 degrees above the historical average for this time of year. The statewide average temperature was near average for most of October, excluding from about October 11-18 when it was below average and about October 29-31 when it was above average. Low-pressure system resulted in the decline of the statewide average temperature around October 13-14 and the statewide average temperature reaching the historical minimum mean temperature around October 15. High pressure after October 27 resulted in higher temperatures and the statewide average temperature reaching the historical maximum mean temperature around October 31. The two graphs in Figure 3 show the statewide mean temperatures for the water year through October 31 (on the left) and the month of October 2025 (on the right).



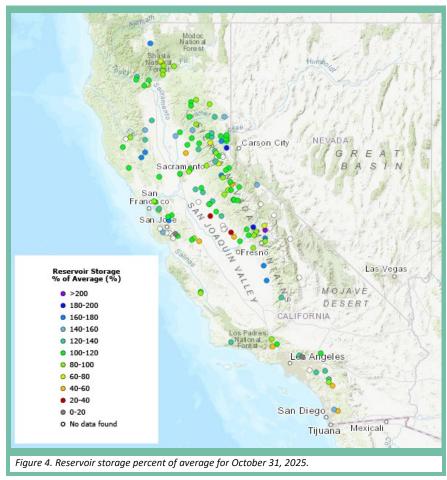
According to the CPC, La Niña conditions are forecasted to continue and about 61% chance to transition to El Niño Southern Oscillation neutral conditions in January-March 2026. The CPC temperature outlook issued on October 31, 2025 indicates above normal temperatures with 33-40% chance for Northern California, 33-50% chance for Central California, and 40-50% chance for Southern California during the month of November. The CPC seasonal outlook covering the period of November 2025 through end of January 2025 indicates above normal temperatures with 33-50% chance for Northern California and 40-50% chance for the rest of California.

Sources: Statewide Hydroclimate and Water Supply Conditions, CPC 30-Day Forecasts

## RESERVOIRS

Statewide reservoir storage at the end of October was 112% of average. As shown in Figure 4, several reservoirs have near to above average storage for this time of year.

Generally during the past month, major flood control reservoirs have started to gradually lower the top of conservation level to have space available to hold potential runoff from storms during the upcoming winter-spring months and mitigate downstream flooding. As major flood control reservoirs are lowering their top of conservation level, the two reservoirs that were slightly encroached at the end of October were Camanche Reservoir (by about 2.5 thousand acre-feet [TAF]) and Lake Isabella (by about 17 TAF).



Sources: California Water Watch, California Data Exchange Center Reservoirs Flood Control, CNRFC Observed Date of Peak Flow

### **SNOWPACK**

Snowfall occurred during the October 13-14 low pressure system, with about 0.5-2.0 feet of snow for higher elevations in Central and Southern Sierra. This snowpack mostly melted by the end of the month, which is typical for snowfall arriving early in the water year.

In general, for the Sierra Nevada, snowpack accumulation begins closer to early December, grows until a peak volume around April 1, and thereafter begins to melt with longer days and longer exposure to solar radiation. Several factors involving the timing, pace, and scale of storms and their temperature characteristics through the end of March can influence the total amount of snowpack and when it will begin to melt.

Sources: California Water Watch, CDEC Snow Water Equivalent Plot

## **STREAMFLOW**

Streamflow for about 65% of locations across California was at a normal flow rate at the end of October according to United States Geologic Survey (USGS) stream gage locations. About 18% of streamflow

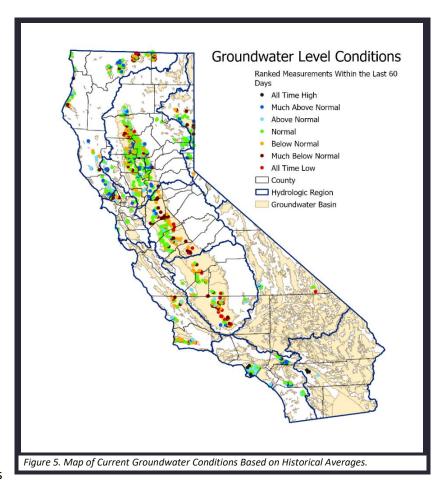
locations were flowing greater than average for this time of year, while about 17% of streamflow locations were flowing below normal for this time of the year. The rain during the beginning of the month caused minor rises for rivers in Northern and Southern California. During the middle of October, widespread precipitation caused minor rises for most rivers throughout the state. The storms near the end of October caused minor rises along the rivers in the North Coast. Although there were rises in several rivers during October, none of the California Nevada River Forecast Center (CNRFC) forecast locations exceeded action stages. The minor river responses were largely due to precipitation being soaked into dry soil throughout California.

Sources: USGS Water Watch, California Nevada River Forecast Center (CNRFC), CDEC Daily Full Natural Flows

#### GROUNDWATER

Despite below-average precipitation in Water Year 2025, statewide groundwater levels remained relatively stable compared to recent years and show improvements compared to the severe drought conditions of a decade ago. While wetter years like 2019 and 2023 provided short-term relief, groundwater systems have not fully recovered, and multiple consecutive wet years combined with reduced pumping will be needed to achieve long-term aquifer sustainability.

Recently-measured monitoring wells show groundwater levels in 31% of monitoring wells across California are below normal, 42% are normal, and 27% are above normal. These statistics are based on 1,256 wells where groundwater levels have been collected for at least 10 years, and the most recent measurements



were collected within the last 60 days. There were four dry domestic wells reported in the last 30 days. Data reported is as of November 6, 2025. Visit DWR's California's Groundwater Live for the latest groundwater conditions across the state.

Source: <u>DWR California's Groundwater Live</u>

Cover page photo: A drone view of Fall-run Chinook salmon migrate and spawn in the Feather River near California Department of Water Resources infrastructure and the Feather River Fish Hatchery in Oroville, Butte County. Photo taken October 28, 2025.