CALIFORNIA HYDROLOGY UPDATE

CONDITIONS AS OF NOVEMBER 30, 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 California Water Watch 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 continues to have well above average accumulated precipitation when considering the state's average at the end of November. The statewide accumulated precipitation for the end of November 2025 was about 5.9 inches, which is 147% of average. The continued above average precipitation across the state was largely due to atmospheric rivers, cut-off lows fueling moisture, and low-pressure systems traveling across California. During the past month in November 2025, the main periods of precipitation were generally during November 3-7, 12-17, and 19-22 (shown in Figure 1).

During November 3-4, light precipitation started over Northern California. During November 5-6, a stronger storm with tropical moisture brought moderate to heavy precipitation in Northern and Central California (with higher amounts in the North Coast, over Shasta Basin, and Northern Sierra). Precipitation totals for November 1-7 include 2.0 to 8.0 inches for the North Coast and Shasta Basin, up to 2.0 inches for Northern Sierra, up to an inch for the Bay Area, trace amounts for Central Coast and

Central Valley, and dry for Southern California and Southern Sierra. Around November 7, high pressure built off the coast which resulted in dry conditions across the state during November 7-11.

Late November 12, an atmospheric river (AR) made landfall into Northern California. During November 13, the AR strengthened over Northern California, while low pressure was building offshore. The AR traveled south mainly along the coast through the day, which resulted in higher precipitation amounts for coastal regions. During November 14, the moisture plume continued to travel south into Southern California coastline as the trough offshore developed into a cutoff low, installed, and continued to fuel tropical moisture. This resulted in additional precipitation and periods of heavy amounts for Southern California. On November 15, the moisture plume over the South Coast resulted in periods of moderate to heavy precipitation. Later in the evening, the low pressure that hovered off the South Coast, slowly moved eastward, and inland overnight. Precipitation amounts lowered as the low pressure traveled inland. Precipitation totals during November 12-15 included 4.0 to 8.0 inches for Sierra Nevada, higher elevations in Central Coast, and Transverse Ranges. Freezing levels fell during this system, which resulted in snowfall for elevations above 8,000 feet in Central and Southern Sierra. The National Weather Service received several reports of landslides and debris flow mainly in Kern, Ventura, and Los Angeles Counties, which also resulted in several highway closures.

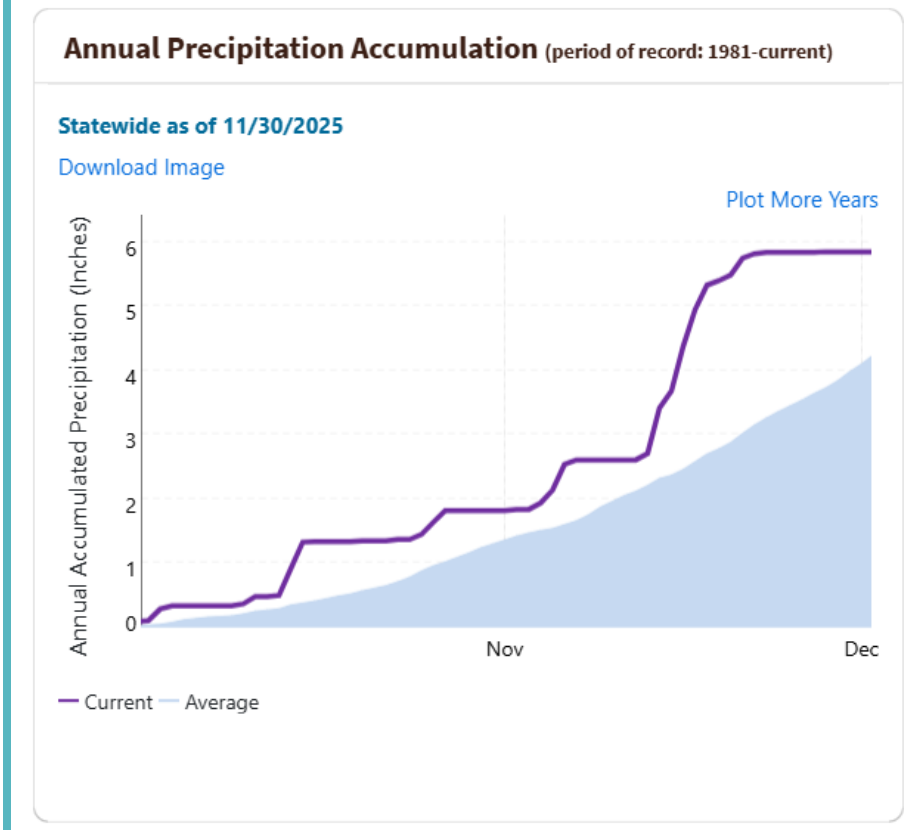

Figure 1. Statewide average accumulated precipitation from October 1, 2025 to November 30, 2025 (purple line) and historical average (shaded blue).

During November 16-17, another low-pressure system traveled onshore and resulted in additional showers and snowfall. Excluding Southern California, there was a break in precipitation on November 18. During November 19-22, an upper low traveled across the state which resulted in additional showers from north to south in this period. Precipitation totals during November 16-23 include 6.0 to 8.0 inches over Shasta Basin, 2.0 to 6.0 inches in the North Coast and Transverse Ranges, 1.0 to 2.0 inches for Sierra Nevada, 1.0 to 4.0 inches for Central Coast, and up to 1.5 inches for Central Valley. After

November 23, high pressure built off the coast which resulted in dry conditions for the rest of November.

As shown in Figure 2, for water year 2026, Northern California received near to above average accumulated precipitation (excluding along the border with Oregon receiving below average accumulated precipitation), Central and Southern California received well above average accumulated precipitation.
The North Coast has accumulated about 10 inches of precipitation for the water year through end of November, which is 98% of average. The Sacramento River region has accumulated about 7.9 inches of precipitation for the water year through end of November, which is 124% of average. The San Joaquin River region has accumulated about 7 inches of precipitation for the water year through end of November, which is 160% of average. The Central Coast has accumulated about 6.8 inches of precipitation for the water year through end of November, which is 241% of average. The Tulare Lake region has accumulated about 5.3 inches of precipitation for the water year through end of November, which is 230% of average. The South Coast has accumulated about 5.9 inches of precipitation for the water year through end of November, which is 273% of average.

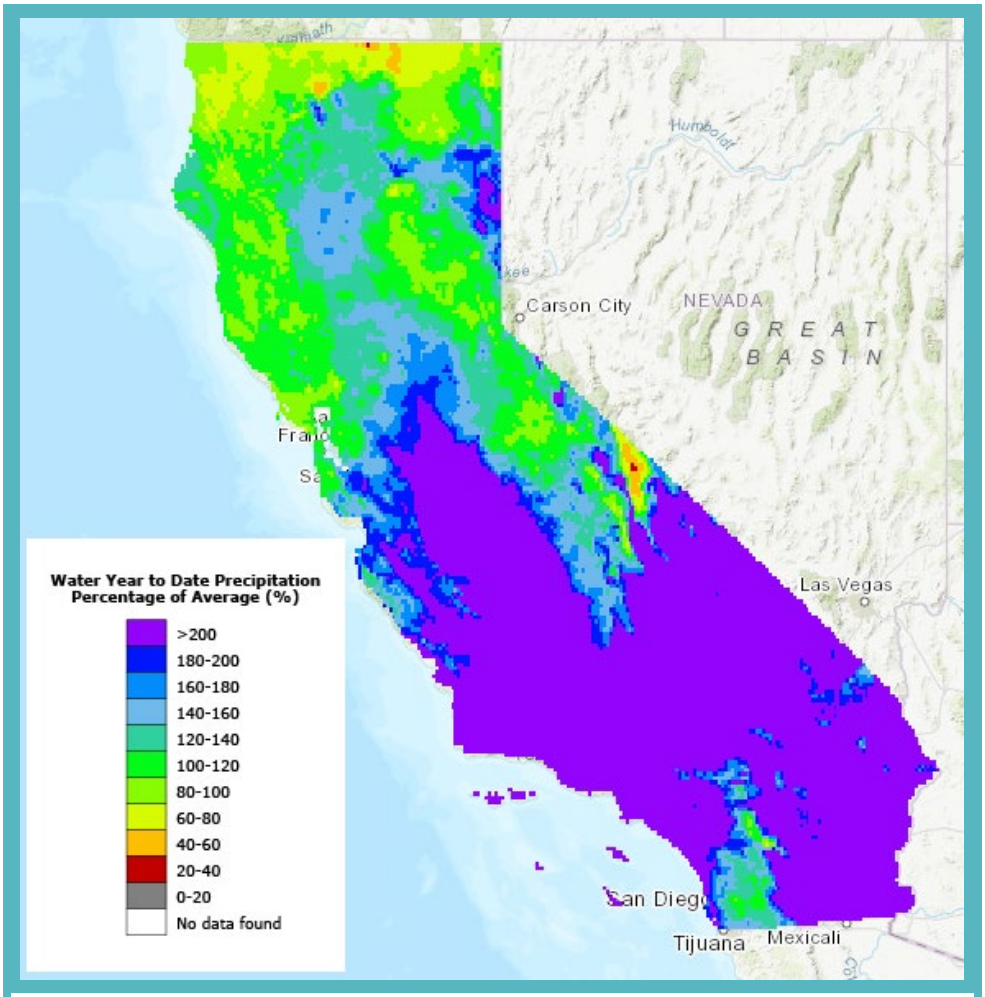

Figure 2. Percent of average for the accumulated precipitation from October 1, 2025 to November 30, 2025.

The Climate Prediction Center (CPC) monthly outlook issued on November 30, 2025, indicates equal chances of below, near, or above normal precipitation for California during the month of December 2025. The CPC seasonal outlook covering the period of December 2025 through the end of February 2026 indicates 33-40% chance for below normal precipitation for Central Coast and Southern 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 November was 47.9°F, which is about 2.7 degrees above the historical average for this time of year. The statewide average temperature was above average for most of November, excluding from about November 17-23 when it was below average. High pressure after November 7 resulted in higher temperatures and the statewide average temperature reaching the historical maximum mean temperature around November 10-12. The two graphs in Figure 3 show the statewide mean temperatures for the water year through November 30 (on the left) and month of November 2025 (on the right).

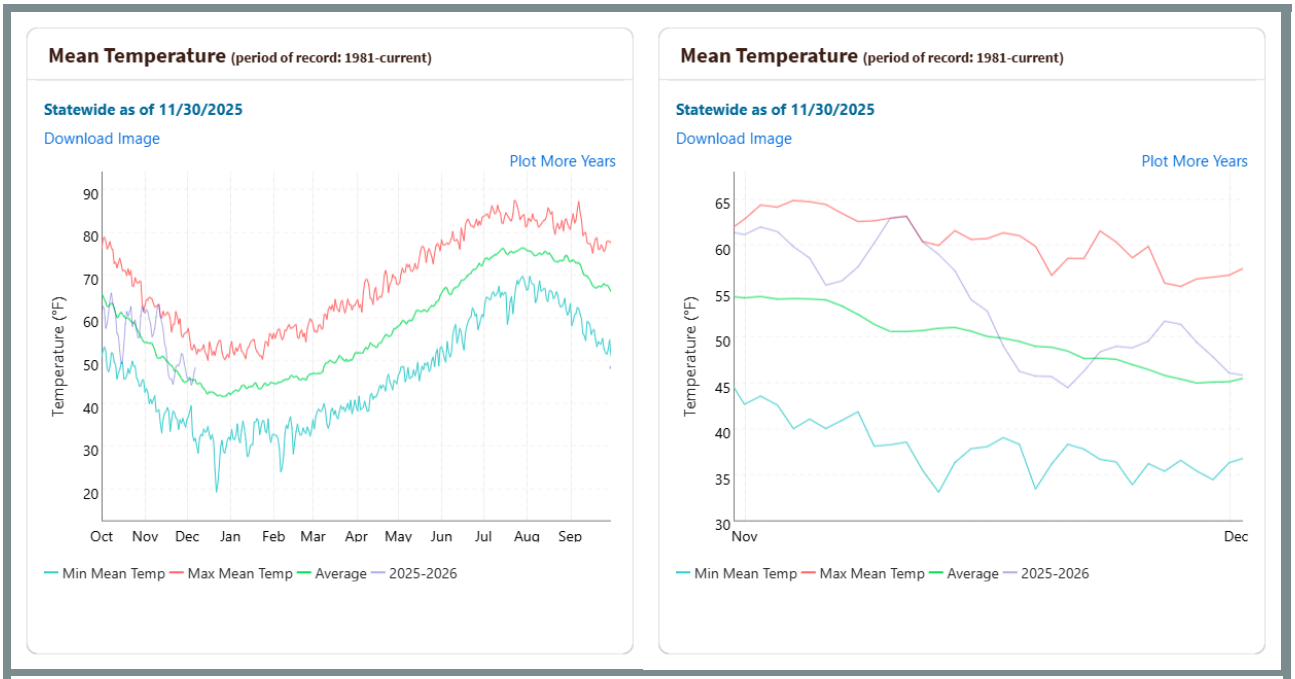

Figure 3. Water year 2026 statewide mean temperature is shown in dark blue as of November 30, 2025 (left) and displayed for the month of November 2025 (right).

La Niña conditions continued during the past month in November, due to below-average sea surface temperatures (SSTs) across the equatorial central and eastern Pacific Ocean. According to the CPC, La Niña conditions are forecasted to continue in the next month or two and about 68% chance to transition to El Niño Southern Oscillation neutral conditions during January-March 2026. The CPC temperature outlook issued on November 30, 2025 indicates up to 50% chance of above normal temperatures for Southern California and equal chances of below, near, or above normal temperatures for the rest of California during the month of December. The CPC seasonal outlook covering the period of December 2025 through end of February 2026 indicates equal chances of below, near, or above normal temperatures along the border with Oregon and 33-40% chance of above normal temperatures for the rest of California.

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

RESERVOIRS

Statewide reservoir storage at the end of November was 115% of average. As shown in Figure 4, several reservoirs have near to above average storage for this time of year.

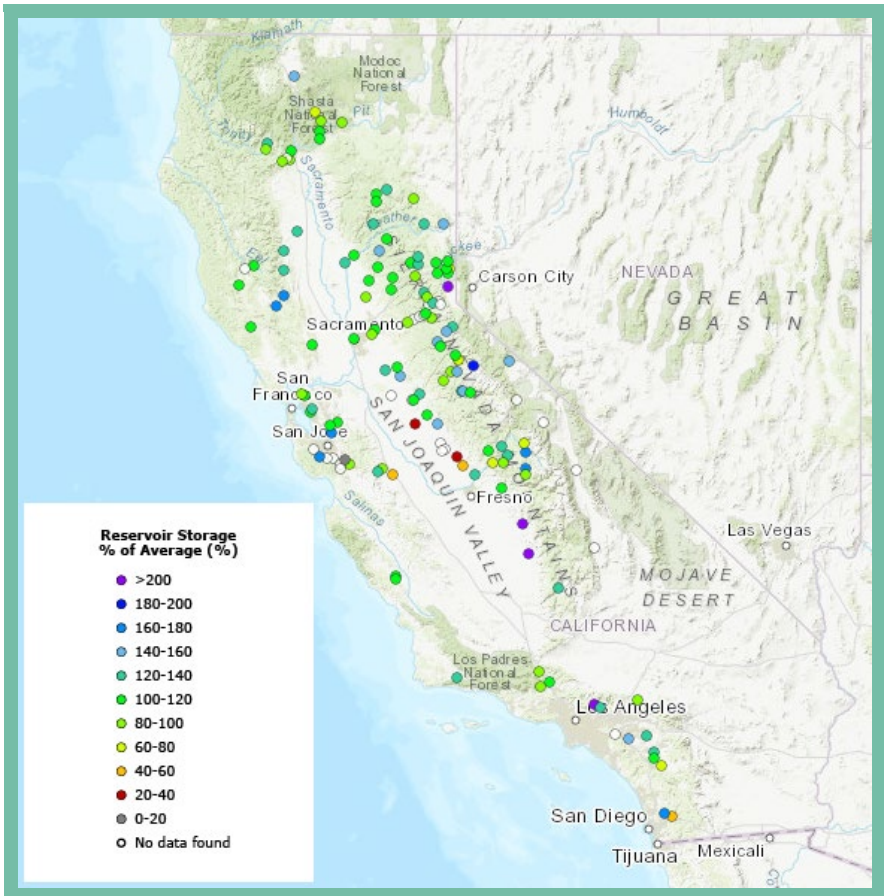

Figure 4. Reservoir storage percent of average for November 30, 2025.

Generally during the past month, major flood control reservoirs have continued to gradually lower the top of conservation level to have space available to hold potential runoff from storms during the winter-spring months and mitigate downstream flooding. As major flood control reservoirs lowered their top of conservation level, the six reservoirs that were slightly encroached at the end of November were Black Butte Lake (by about 7 thousand acre-feet [TAF]), Camanche Reservoir (by about 16 TAF), New Hogan Lake (by about 1 TAF), Lake Kaweah (by about 16 TAF), Success Lake (by about 4 TAF), and Lake Isabella (by about 14 TAF).

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

SNOWPACK

The statewide average snow water equivalent (SWE) was 1.3 inches for November 30, which is 47% percent of normal and 5% of April 1 average. The storm systems that traveled across California during November (mainly November 12-17 and 19-20) resulted in snow accumulation primarily in Central and Southern Sierra. The end of November is still early in the season in terms of snowpack for California, but snow sensor readings for SWE percent of average for each region include 20% percent of normal for Northern Sierra and Trinity, 35% of normal for Central Sierra, and 101% for Southern Sierra.

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 55% of locations across California was at a normal flow rate at the end of November according to United States Geologic Survey (USGS) stream gage locations. About 26% of streamflow locations were flowing greater than average for this time of year, while about 19% of streamflow locations were flowing below normal for this time of the year. The storm systems that traveled across California resulted in widespread precipitation, increased soil moisture, and several rivers throughout the state to rise (mainly along the coast). Although there were rises in flow for major rivers throughout California during November, none of the California Nevada River Forecast Center (CNRFC) forecast locations exceeded flood stages.

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.

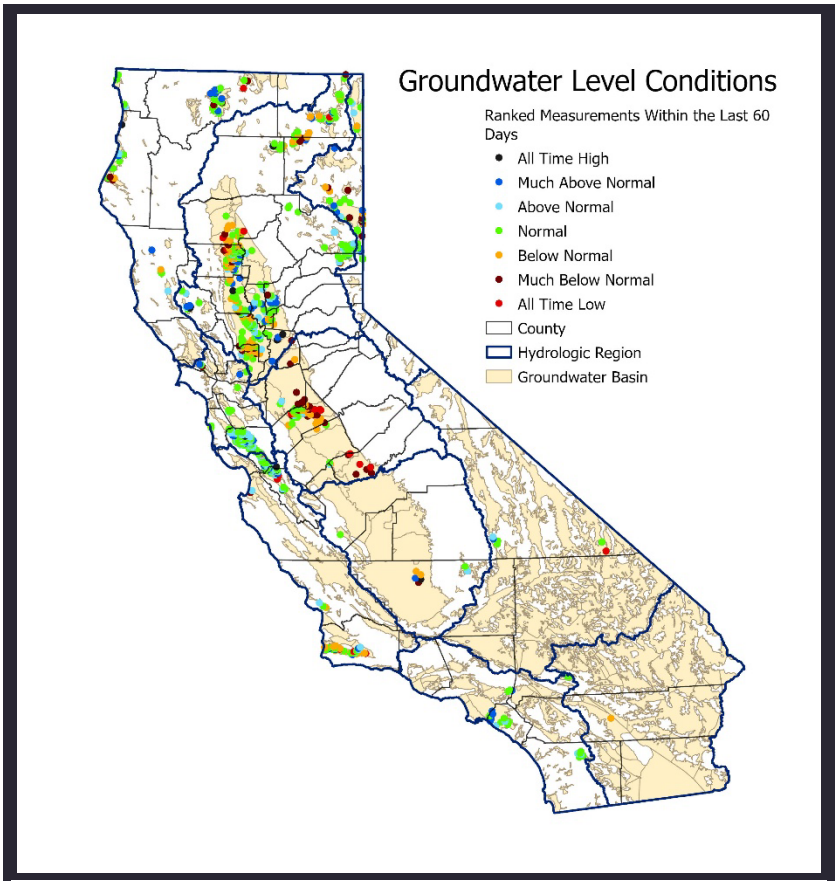

Figure 5. Map of Current Groundwater Conditions Based on Historical Averages.

Recently-measured monitoring wells show groundwater levels in 25% of monitoring wells across California are below normal, 47% are normal, and 28% are above normal. These statistics are based on 1,033 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 two dry domestic wells reported in the last 30 days. Data reported is as of December 10, 2025. Visit DWR's California's Groundwater Live for the latest groundwater conditions across the state.

Source: DWR California's Groundwater Live

Cover page photo: A drone photo of the California Department of Water Resources' Juvenile Salmonid Collection System (JSCS) Pilot Project — in partnership with NOAA Fisheries, the California Department of Fish and Wildlife, the Winnemem Wintu Tribe and others — in the upper McCloud Arm of Lake Shasta in Shasta County, California. The study, in its fourth and final year, was designed to evaluate the feasibility and viability of collecting juvenile salmonids as they emigrate out of their historical habitat upstream from Shasta Dam. It's the first step of a program to return endangered Chinook salmon to their historical habitats. Photo taken November 20, 2025.