CALIFORNIA HYDROLOGY UPDATE

CONDITIONS AS OF JUNE 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

The statewide accumulated precipitation through the end of June 2025 was about 21.8 inches, which is 95% of average. The few scattered showers that did travel across California during June resulted in minor precipitation generally during June 3-4, 8-9, and 20-23 (shown in Figure 1).

During June 3-4, a series of upper lows traveled across California bringing scattered showers mainly in the southern half of Sierra Nevada and parts of Southern California. During June 8-9, there were additional scattered showers and thunderstorms mainly across Sierra Nevada. Precipitation totals for June 2-9 included up to an inch for Sierra Nevada and South Coast, with trace amounts for Southern California. During June 20-23, a series of troughs traveled across California bringing few showers to parts of the North Coast (up to an inch) and Central Sierra Nevada (up to 0.5 inch). After June 23, high pressure began to build off the coast, which resumed dry conditions across California.

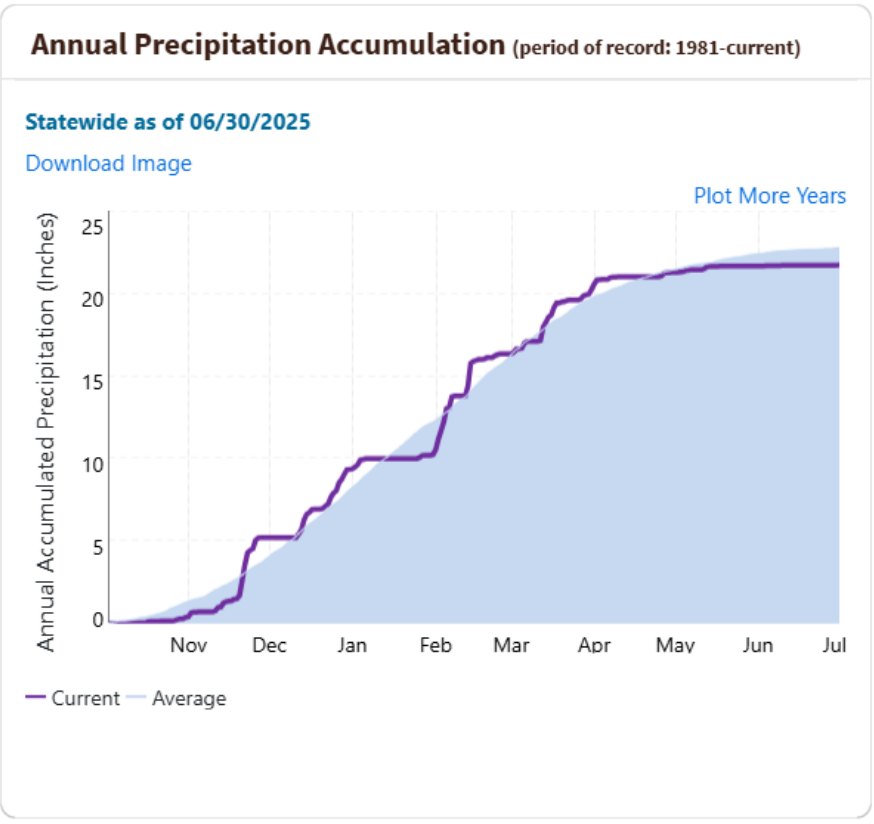

Figure 1. Statewide average accumulated precipitation from October 1, 2024 to June 30, 2025 (purple line) and historical average (shaded blue).

As shown in Figure 2, for the water year to date through the end of June 2025, Northern California received near to above average accumulated precipitation, Central California received below to near average accumulated precipitation, and Southern California received below average accumulated precipitation. The North Coast has accumulated about 60.8 inches of precipitation for the water year through end of June, which is 117% of average. The Sacramento River region has accumulated about 37.9 inches of precipitation for the water year through end of June, which is 107% of average. The San Joaquin River region has accumulated about 20.7 inches of precipitation for the water year through the end of June, which is 78% of average. The Central Coast has accumulated about 12.9 inches of precipitation for the water year through the end of June, which is 65% of average. The Tulare Lake region has accumulated about 12.3 inches of precipitation for the water year through the end of June, which is 81% of average. The South Coast has accumulated about 8.8 inches of precipitation for the water year through the end of June, which is 53% of average.

The Climate Prediction Center (CPC) monthly outlook issued on June 30, 2025, indicates equal chances of below, near, or above normal precipitation for across California during the month of July 2025. The CPC seasonal outlook covering the period of July 2025 through end of September 2025 indicates equal chances of below, near, or above normal precipitation for 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

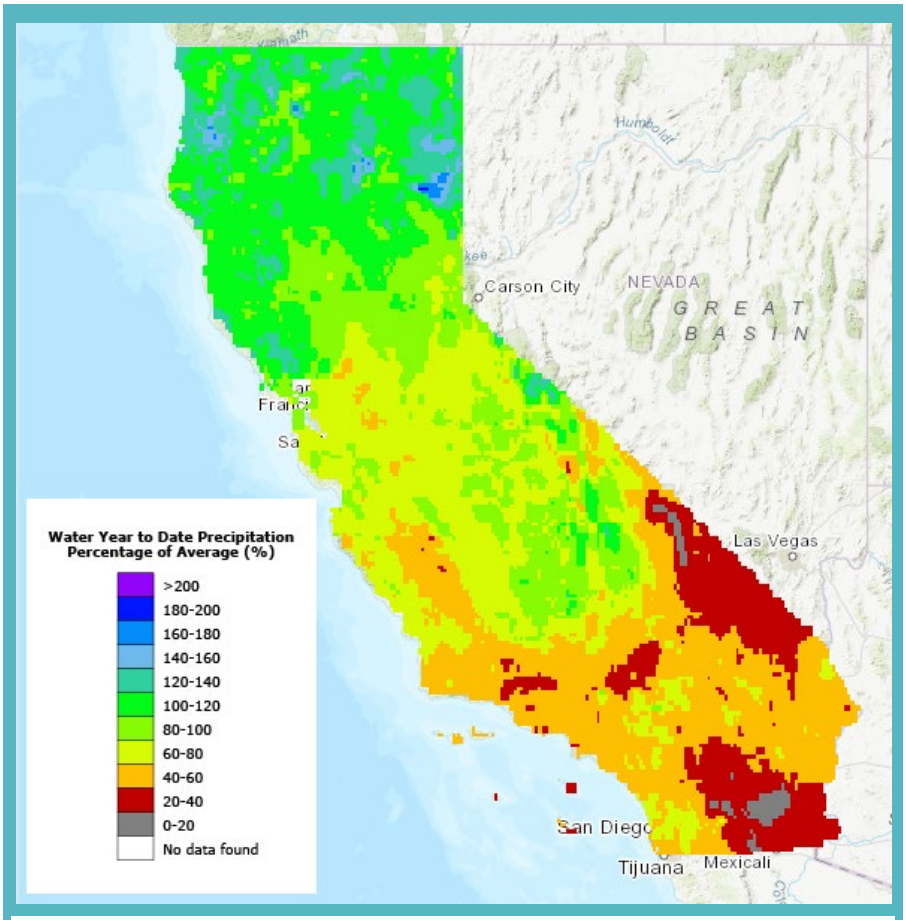

Figure 2. Percent of average for the accumulated precipitation from October 1, 2024 to June 30, 2025.

TEMPERATURE

The statewide average temperature for the end of June was about 77°F, which is about 5 degrees above the historical average for this time of year. The statewide average temperature was near or above average throughout June, excluding from about June 20-27 when it was below average. The statewide average temperature reached the historical minimum mean temperature during June 22-23. The two graphs in Figure 3 show the statewide mean temperatures for the water year through June 30 (on the left) and the month of June 2025 (on the right).

According to the CPC, El Niño Southern Oscillation (ENSO) neutral conditions is expected with 82% chance to continue during summer (June-August) and 48% chance to continue into winter. CPC also forecasts 41% chance of La Niña conditions sometime in November 2025 to January 2026. The CPC temperature outlook issued on June 30, 2025 indicates 50-60% chance of above normal temperatures along the border with Nevada, up to 50% chance of above normal temperature for North Coast, 33-50% chance for Central Valley and Southern California, and equal chances of below, near, or above normal temperatures along Central and South Coast. The CPC seasonal outlook covering the period of July 2025 through end of September 2025 indicates above normal temperatures with 50-60% chance for Northern California, 40-60% chance for Central California, and 33-40% for Southern California.

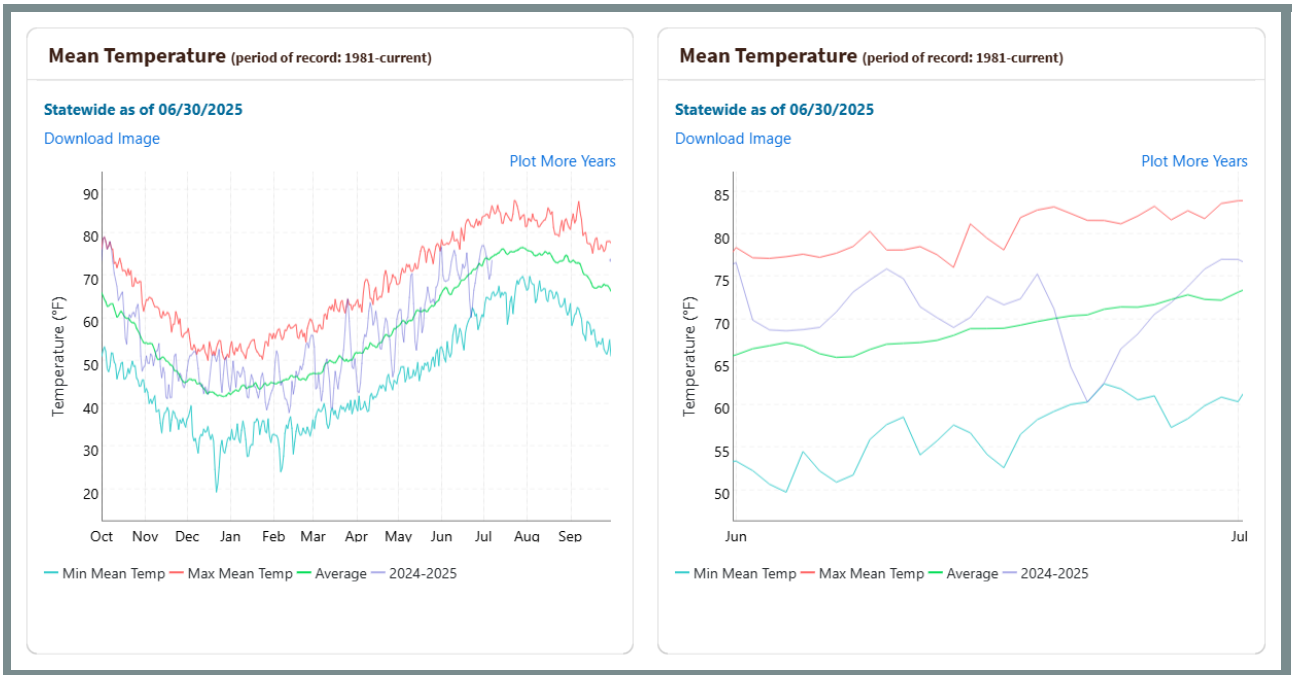

Figure 3. Water year 2025 statewide mean temperature is shown in dark blue as of June 30, 2025 (left) and displayed for the month of June 2025 (right).

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

RESERVOIRS

Statewide reservoir storage at the end of June was 111% of average. As shown in Figure 4, most reservoirs have near average storage for this time of year. Major water supply reservoirs continued to retain inflow and capture the snowmelt runoff from the last month, to be used during the dry months of summer and early fall when water demand increases across the state.

At the end of June, most water supply reservoirs are near their total capacity. At the end of June, three water supply reservoirs that were notably below their total storage capacity were Lake Sonoma (66% of capacity and 111% of historical average), San

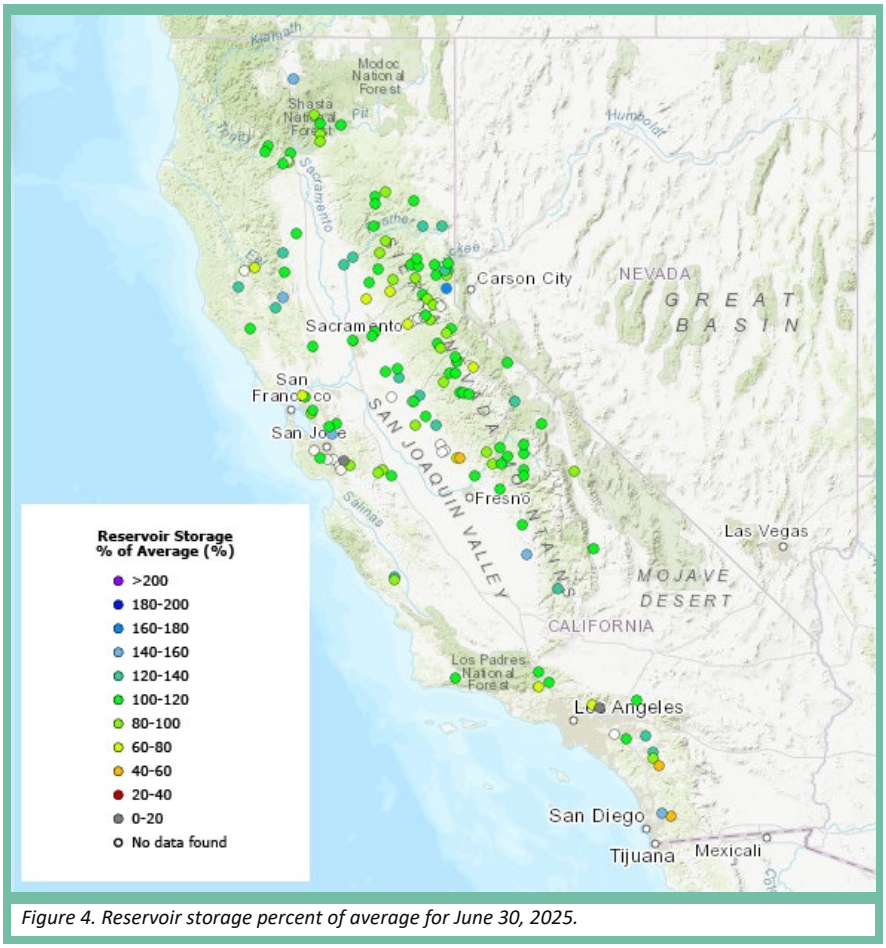

Figure 4. Reservoir storage percent of average for June 30, 2025.

Luis Reservoir (48% of capacity and 88% of historical average) and Pine Flat Lake (67% of capacity and 101 of historical average).

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

Figure 5. Snow sensor data shown for snow water equivalent (SWE) percent of average for the water year through June 30, 2025.

SNOWPACK

Figure 5 shows that all snow sensors reported no snow water equivalent (as indicated by the white dots on the map) for the end of June. Figure 6 shows regional snow water equivalent (SWE) conditions (based on snow sensors readings) at the beginning of June 2025 (left) and June 14, 2025 (right, when average SWE for all regions was 0.0 inches) to further show the conclusion of the snow season in June. While there remains some snow at higher elevations where no snow sensors exist, majority of the snowpack has melted.

In general, for the Sierra Nevada, snowpack accumulation peaks around April 1 each year, 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. The snowmelt period typically is from April through July, where the runoff is collected by major reservoirs for water supply during the dry months of summer and beginning of fall.

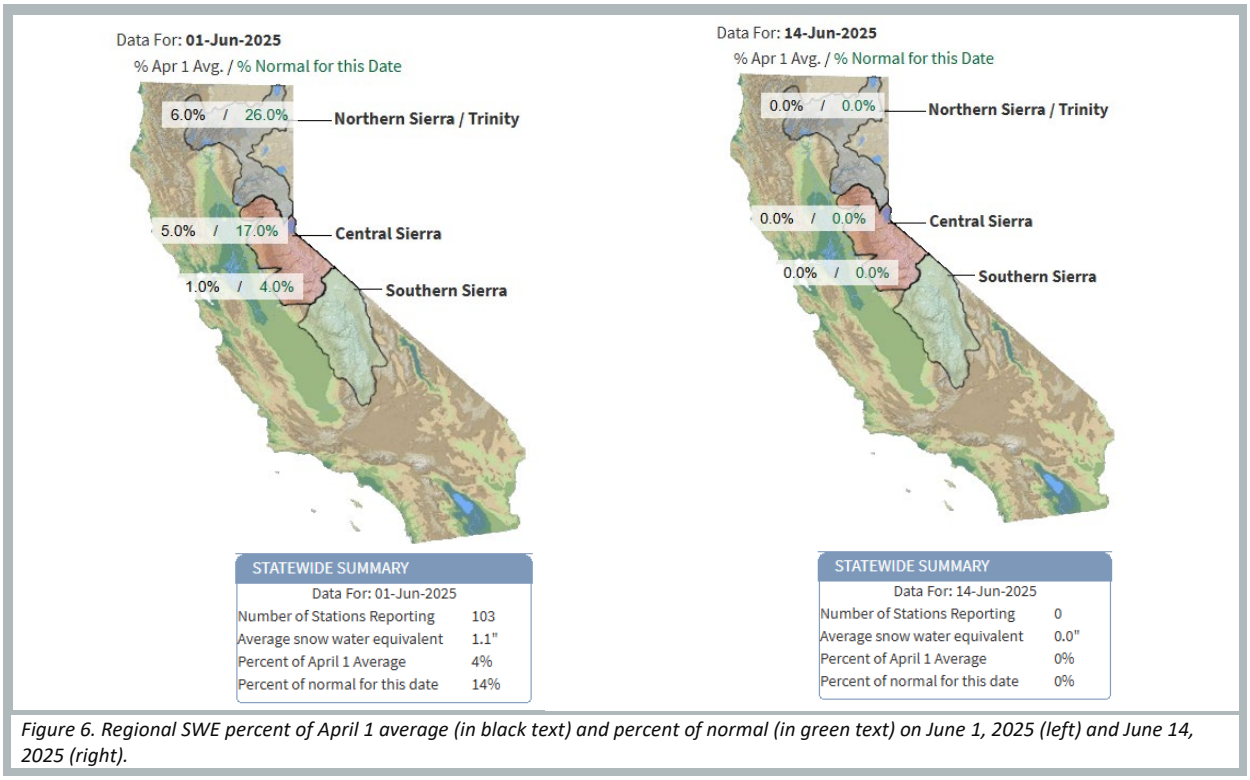

Figure 6. Regional SWE percent of April 1 average (in black text) and percent of normal (in green text) on June 1, 2025 (left) and June 14, 2025 (right).

Sources: California Water Watch, CDEC Snow Water Equivalent Plot

STREAMFLOW

Streamflow for about 52% of locations across California was at a normal flow rate at the end of June 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 22% of streamflow locations were flowing below normal for this time of the year. Snowmelt driven rivers declined in runoff from the minimal snowpack left in most major Sierra watersheds. Watersheds without snow continued to decline in runoff towards baseflow conditions.

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

GROUNDWATER

Precipitation in water year 2024 was average compared to the last 50 years. However, there are sharp contrasts in rainfall across the state, which highlight California's ongoing climate variability. Although groundwater levels have stabilized or risen in many wells over the past year due to recent wetter conditions, long-term trends continue to raise concern. Over a 20-year period, 49% of wells statewide showed declining trends. Recently-measured monitoring wells show groundwater levels in 20% of monitoring wells across California are below normal, 44% are normal, and 36% are above normal. These statistics are based on 686 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 was one dry domestic well reported in the last 30 days. Data reported is as of July 10, 2025. Visit DWR's California's Groundwater Live for the latest groundwater conditions across the state.

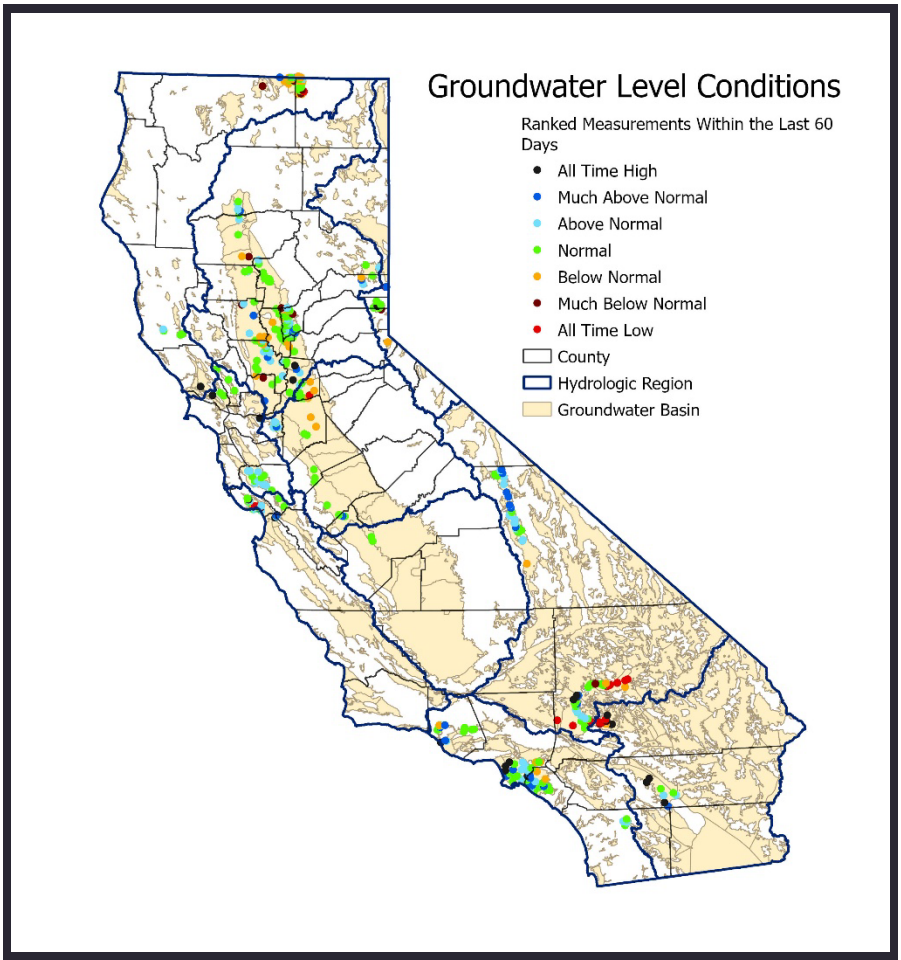

Figure 7. Map of Current Groundwater Conditions Based on Historical Averages.

Source: DWR California's Groundwater Live

Cover page photo: A drone view of the Dutch Slough Tidal Marsh Restoration Project site, located in the Sacramento-San Joaquin Delta near Oakley, California. The restoration project implemented by the California Department of Water Resources will restore 1,187 acres into a tidal marsh to provide habitat for salmon and other native fish and wildlife. Photo taken June 6, 2025.