

SEPTEMBER 2018 WEATHER SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

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The first day was cooler than average in most locations as a trough of low pressure persisted over northern California. However, high pressure returned to the region on the 2nd through the 9th, and temperatures once again reached at least a few degrees above average. Locations in the San Joaquin Valley reached around 100 degrees for the first time since the middle of August by the 4th.

Dry weather prevailed across Central California during the first week of the month; however, isolated thunderstorms developed on the 3rd through the 5th over the Sierra Nevada during the afternoons. The 4th was the most active day in terms of coverage, as thunderstorms developed as far south as Lake Isabella in Kern County. Rain amounts on this day varied from around a hundredth of an inch to over an inch in the Sierra Nevada. A couple of stations reported over one inch of rain, or at Lake Isabella and Cedar Grove (in Kings Canyon National Park).

On the 6th through the 10th, a dry southwest flow aloft with high pressure over the region brought drier air with above average temperatures continuing. Triple digit heat continued in the Kern County desert, while a few San Joaquin Valley locations reached around 100 degrees during this particular period.

High pressure began to weak on the evening of the 10th and 11th, and gusty winds developed in the mountain and desert areas in Kern County. Gusts reached mainly around 40-50 mph, although with isolated gusts above 60 mph during the night of the 11th. Afterward, a cooler pattern began as temperatures began to trend down by several degrees on the 12th and several more degrees by the 13th.

Temperatures were around 5-8 degrees below average on the 13th and for the next several days, as cooler westerly flow prevailed due to a persistent trough of low pressure over northern California and the Pacific Northwest. Highs only reached into the 80s in the Central Valley until the 19th and into the 60s in the Sierra Nevada at and above 5,000 feet. Breezy to gusty winds occurred at times along the west side of the San Joaquin Valley and through the passes and canyons leading into the desert in eastern Kern County as reinforcing cooler airmasses arrived into the region.

A warming trend began on the 20th as high pressure built along the West Coast, and temperatures rose to around 5 to 8 degrees above average. Mainly average or slightly above average temperatures occurred on the 20th, but temperatures continued to rise on the 21st and 22nd. A slight moderation of temperatures occurred on the 23rd and 24th due to a trough of low pressure that passed over northern California. However, temperatures warmed back up to around 7 to 12 degrees above average on the 25th and remained at similar values until around the 28th.

Much lower temperatures, including daytime highs at around 5 degrees below average, returned for the last two days of the month as a low pressure system moved across Northern California and brought a cooler onshore flow over interior Central California. Dry weather prevailed, despite the fluctuations in temperatures for the latter half of the month. In fact, no precipitation occurred in the Central Valley for the entire month.

The month was overall warmer than average with well below average precipitation (Figures 1-2). The water year (October 1st, 2017 through September 30th, 2018) also ended well below average (Figure 3).

Table 1 – September 2018 Summary Statistics for ASOS locations				
Location	Monthly Average Temp (deg F)	Departure From Average (deg F)	Total Monthly Precipitation (inches)	Departure From Normal (inches)
Bakersfield	79.0	+2.0	0.00	-0.08
Fresno	78.0	+1.8	0.00	-0.17
Hanford	75.3	+2.0	0.00	-0.17
Madera	75.7	+3.0	0.00	-0.25
Merced	72.6	+0.7	0.00	-0.29

Temperature/Precipitation Rankings for September

Bakersfield – 17th warmest September on record; tied for driest September on record (although a fairly common occurrence, as this is now the 46th September with zero precipitation since monthly precipitation records began in 1893).

Fresno – 13th warmest September on record; tied for driest September on record (although fairly common, as this is now the 45th September with zero precipitation since monthly precipitation records began in 1881).

Water Year 2017-2018 (October 1, 2017 through September 30, 2018)

Table 2 - Water Year 2017-2018 Precipitation (October 1 – September 30)				
Location	Total Precipitation Oct 1, 2017 to Sep 30, 2018 (in)	Average Precipitation Oct 1 - Sep 30 (in)	Departure From Average (in)	Percent of Average (%)
Bakersfield	3.95	6.47	-2.52	61.1
Fresno	6.73	11.50	-4.77	58.5
Hanford	4.70	10.10	-5.40	46.5
Madera	7.22	12.02	-4.80	60.1
Merced	7.19	12.50	-5.31	57.5

Figure 1 – Departure from Average Temperature for September 2018

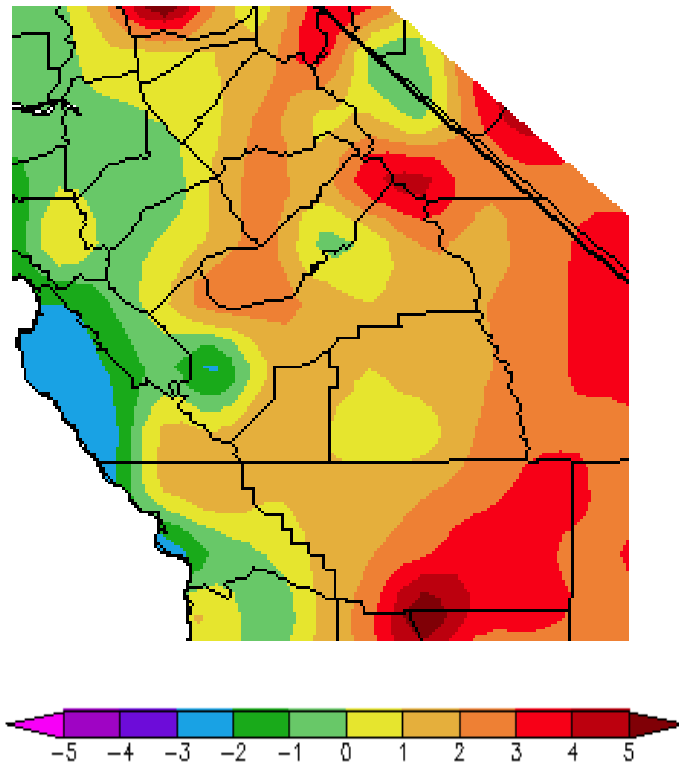


Figure 2 – Percent of Average Precipitation for September 2018

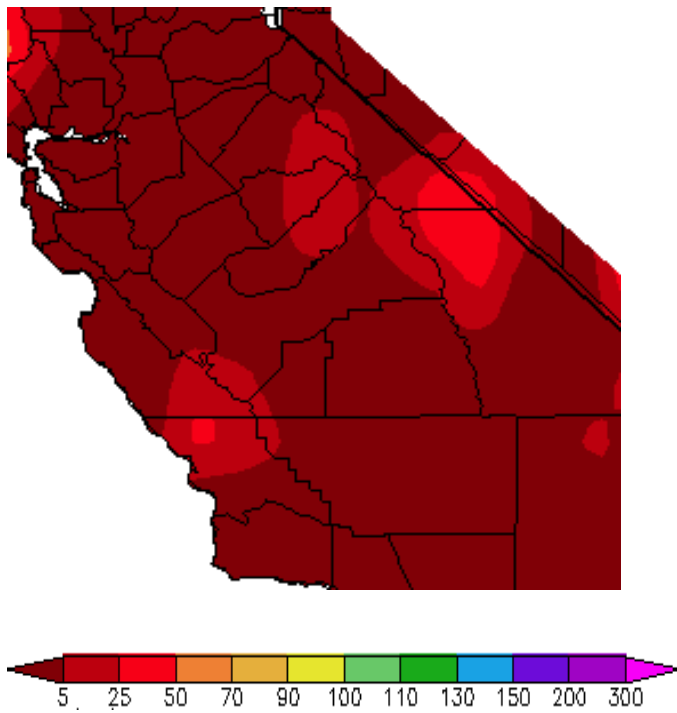
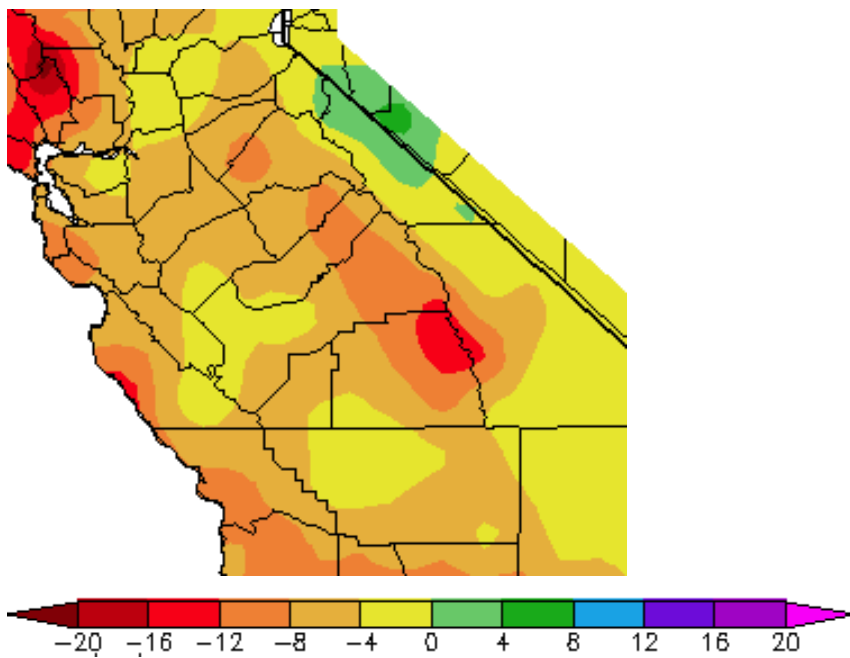


Figure 3 – Percent of Average Precipitation for Water Year 2018 (October 1, 2017 through September 30, 2018)



*Images above (i.e., Figures 1-3) courtesy of Western Region Climate Center