SEPTEMBER 2023 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

By Brian Ochs, JP Kalb, and Antoinette Serrato, Climate Services Focal Points
WFO San Joaquin Valley-Hanford

Overall, this month began with seasonably warm temperatures, then lowered to as much as 10-15 degrees below average by the 3rd. A warming trend soon followed, and daytime highs returned to several degrees above average. One location in the Central Valley, Hanford, reached 100 degrees on the 9th; this was the only triple digit reading for the San Joaquin Valley this month. Highs remained in the 90's for much of the 5th through the 16th and lowered to mainly the 80's from the 17th until the end. Periods of afternoon thunderstorms occurred in the Sierra Nevada, mainly from the 6th through the 15th. Otherwise, dry conditions prevailed with occasional periods of increased winds for the latter part of the month. The month ended with the first winter-like storm since the previous cool season that brought much cooler temperatures and precipitation.

Table 1 – September 2023 Summary Statistics– NWS Hanford, CA ASOS Sites

Location	Monthly Average Temp (deg F)	Departure from Average (deg F)	Temperature Rank	Total Monthly Precipi-tation (inches)	Departure from Normal (inches)	Precipitation Rank
Bakersfield	76.9	-1,3	Tied for 59th warmest	T	-0.05	Tied for 48th wettest
Fresno	76.2	-0.9	42nd warmest	T	-0.05	Tied for 48th driest
Hanford	75.9	+1.2	18th warmest	T	-0.04	Tied for 47th wettest
Madera	73.1	-1.7	Tied for 38th coolest	0.08	+0.05	Tied for 29th wettest
Merced	72.9	-0.6	Tied for 55th warmest	0.03	-0.02	47th wettest

Table 2 – Number of Days with High Temperatures of 100 Degrees and Above for NWS Hanford, CA ASOS Sites					
Location	**Number of 100 deg days**	**September Average**	**Season to date Total Number of 100 deg days (since May 1st)**	**Season to date Average (since May 1st)**	**Total Seasonal Average (May 1 – Oct 31)**
Bakersfield	0	4	33	36	36
Fresno	0	4	36	38	38
Hanford	1	3	40	30	30
Madera	0	3	34	28	28
Merced	0	3	19	23	23

The month began with seasonably warm temperatures and mainly dry conditions, except for showers and thunderstorms over the Sierra Nevada and adjacent foothills at times until the 3rd. Showers also moved over portions of the San Joaquin Valley during the 2nd. Some cooler than average temperatures were recorded on the 1st until the 3rd, although the cooler temperatures were most noticeable towards Madera, Merced, and Mariposa Counties on the 1st and spread southward on the 2nd. Cooler temperatures continued until the 3rd, with highs about 10 to 15 degrees below seasonal averages. There were also some locally gusty winds along the Mojave Desert slopes in eastern Kern County on the afternoon and evening of the 1st and again on the 3rd; the strongest gusts mainly reached around 45 to 55 mph. Little or no impacts resulted due to these winds, as the strongest gusts were recorded in generally remote areas, or just outside of the main highways. Elsewhere, mainly breezy conditions prevailed during these days. A warming trend began on the 4th, with temperatures returning to seasonably warm by the 5th.

The warming continued for the next several days, or on the 6th through the 10th. Slight warmer than average temperatures prevailed throughout the region. Tropical moisture due to a decaying hurricane (Jova) over the Eastern Pacific Ocean off the coast of Baja California brought showers and isolated thunderstorms each afternoon to portions of the Sierra Nevada, as well as the San Joaquin Valley. The stronger storms developed mainly over the mountains, although there were some isolated strong storms over the Central Valley on the 9th and 10th. Some valley locations reported around a few hundredths of an inch.

Mainly dry conditions returned on the 11th until the 12th with near to slightly above average high temperatures. Isolated showers and thunderstorms returned to the Sierra Nevada crest on the afternoon of the 13th. Warmer than average daytime highs continued until the 16th, though readings remained in the 90's at the warmest spots.

Cooler than normal to seasonably warm temperatures prevailed for much of the latter half of September, or beginning on the 17th. Some minor warming trends occurred at times that brought daily highs near seasonal averages. Highs were mainly in the mid to upper 80's on the warmest days, except for some 90's in the Kern County desert. Dry conditions were the general rule for this period. Some gusty winds developed in the typical prone areas when cooler air arrived, although mainly remained below advisory criteria. One event on the afternoon and evening of the 21st affected mainly the Mojave Desert slopes and the floor in eastern Kern County when gusts peaked to around 45 mph.

The month ended with cooler, somewhat unsettled weather. Light snow accumulations were reported on the 30th in the highest elevations above 8,000 feet. Otherwise, the coolest temperatures of the fall season so far were recorded, with afternoon highs only reaching the 70's at the warmest spots.

Table 3 – Seasonal Precipitation for ASOS Locations (ending on September 30th)

Location	Since Jan 1st (inches)	Departure From Average (inches)	Since Jul 1st (inches)	Departure From Average (inches)	Since Oct 1st (inches)	Departure From Normal (inches)
Bakersfield	8.99	+4.52	1.08	+1.03	11.34	+6.36
Fresno	12.77	+5.00	0.19	+0.11	18.02	+7.03
Hanford	11.41	+5.72	0.48	+0.42	15.06	+6.93
Madera	8.86	+1.25	0.13	+0.09	11.75	+0.96
Merced	14.75	+6.52	0.12	+0.07	20.96	+9.16

Table 4 – Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS Locations				
Location	**High**	**Date(s)**	**Low**	**Date(s)**
Bakersfield	98	8th	57	25th
Fresno	98	8th	58	25th & 26th
Hanford	100	9th	52	22nd & 29th
Madera	99	8th	51	23rd, 24th & 25th
Merced	95	8th, 10th, 11th & 14th	51	29th

Daily Records Set During September 2023

Bakersfield –None

Fresno – None

Hanford – None

Madera – None

Merced – None

Fig 1 – Departure from Average Temperature for this month

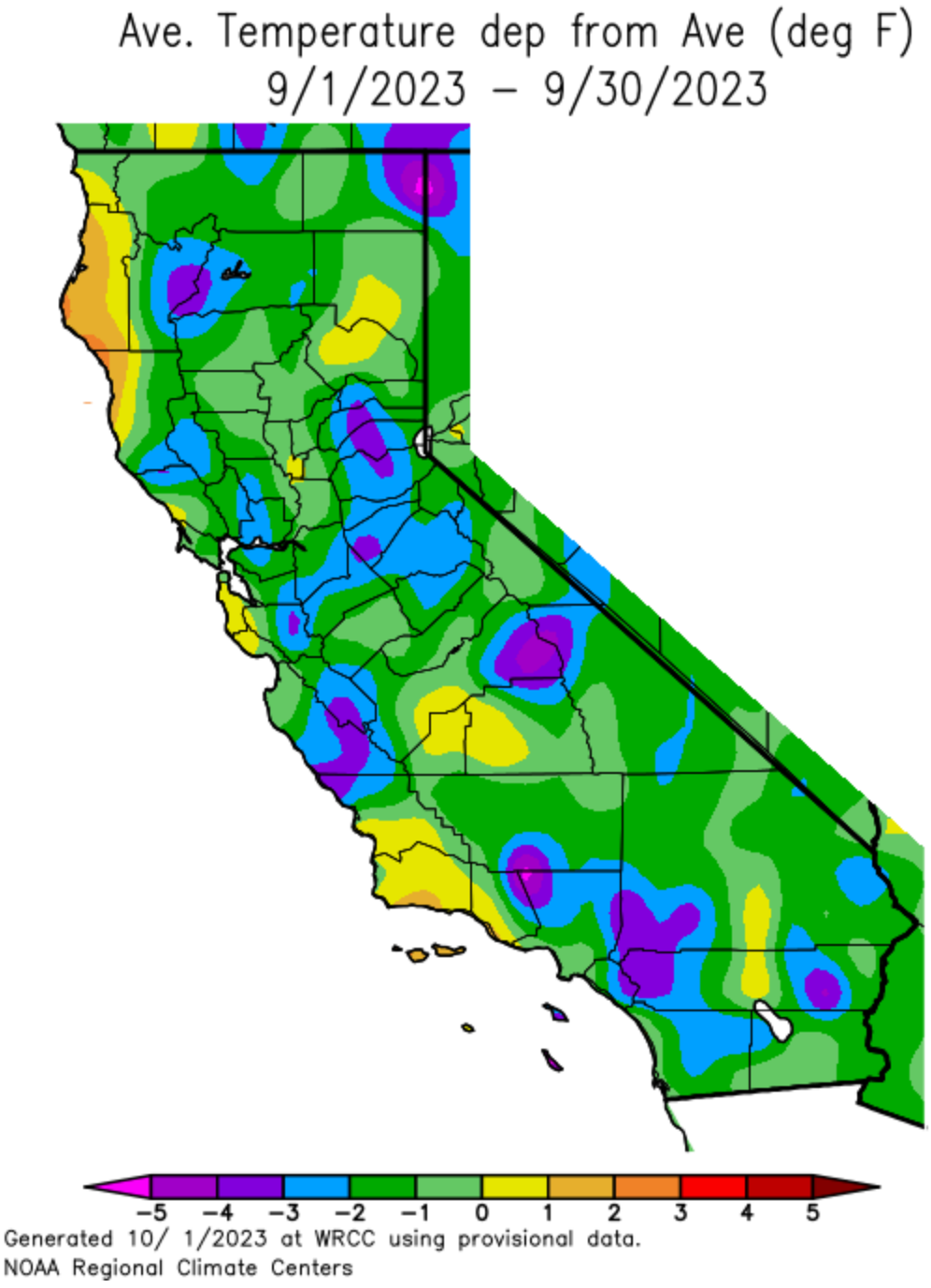
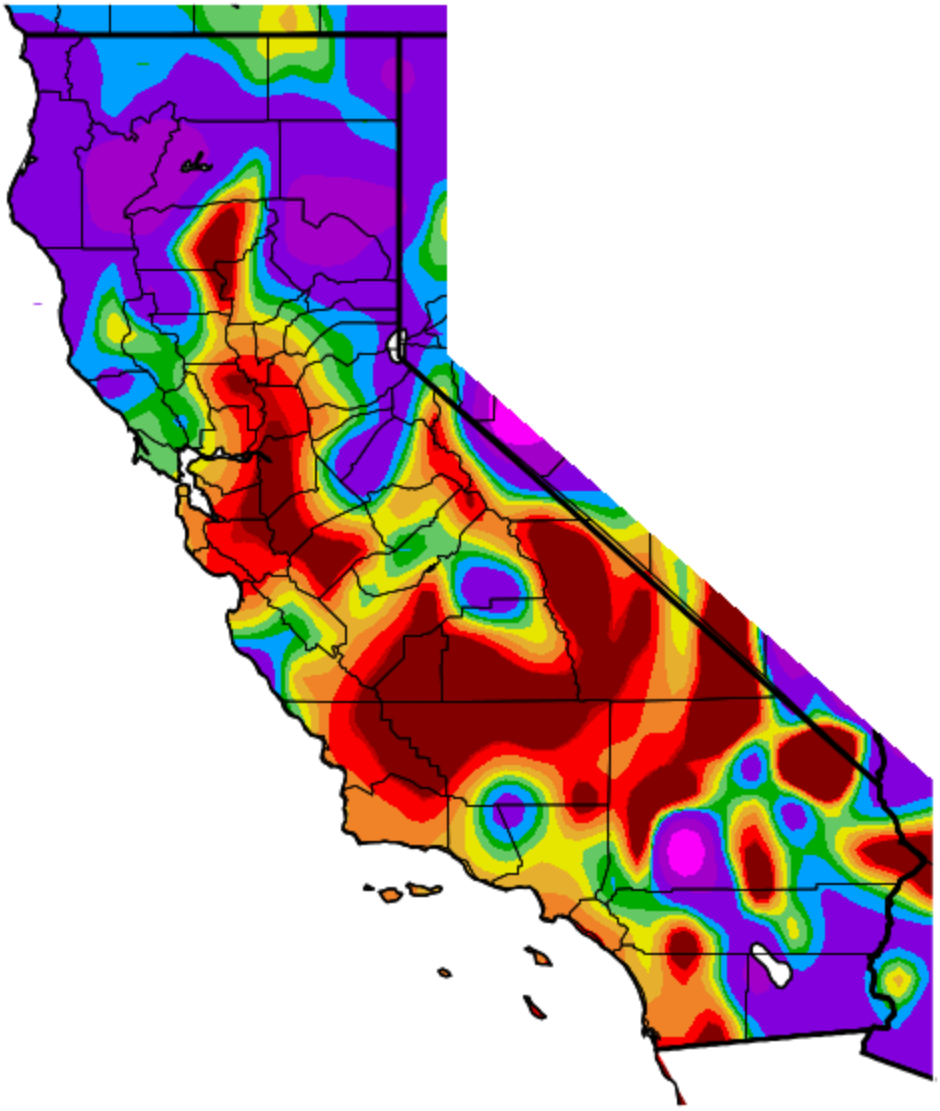


Fig 2 – Percent of Average Precipitation for this month

Percent of Average Precipitation (%)
9/1/2023 – 9/30/2023



2 5 25 50 75 100 125 150 200 400 800

Generated 10/ 1/2023 at WRCC using provisional data.
NOAA Regional Climate Centers