

AUGUST 2024 WEATHER SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

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This month began with above average temperatures, including widespread triple digit heat in the lower elevations. On the 2nd, shower and thunderstorm activity returned to the region along with below average temperatures. Afterward, well above average temperatures returned for the next several days with record heat on the 7th. From the 12th until the 26th, there was a break from widespread triple digit heat. Some record low maximum temperatures occurred on the 23rd and 24th in the San Joaquin Valley due to an unseasonably cool low pressure system. As a result, highs reached only in the upper 70's to lower 80's in these areas. A few locations reported rainfall, but amounts were mainly a trace in the San Joaquin Valley, although with amounts near 0.25 inch in the Sierra Nevada near Yosemite National Park. A trace of snow was even reported on the morning of the 24th in Yosemite National Park near Tioga Pass. A warming trend soon followed, beginning on the 25th. Triple digit heat returned to the San Joaquin Valley on the 27th until the end of the month. The number of days with triple digit heat for the stations below was slightly above average for this month, although the number of days for the season has already surpassed the seasonal average by several days.

Number of Days with Triple Digit Temperatures (Season from May 1-Oct 31st)

Bakersfield: 12 for August (August average: 11 days). Season to date total of 49 days (Average of 31 days).

Fresno: 13 for August (August average: 12 days). Season to date total of 50 days (Average of 34 days).

Hanford: 15 for August (August average: 9 days). Season to date total of 54 days (Average of 26 days).

Madera: 14 for August (August average: 8 days). Season to date total of 48 days (Average of 25 days).

Merced: 12 for August (August average: 7 days). Season to date total of 44 days (Average of 20 days).

| Table 1 – August 2024 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 | 84.4 | +1.0 | 29th highest | T | 0.00 | 22nd highest |
| Fresno | 83.8 | +1.6 | 13th highest | T | 0.00 | 21st highest |
| Hanford | 82.2 | +2.3 | 6th highest | T | 0.00 | 14th highest |
| Madera | 80.4 | +1.4 | 15th highest | T | 0.00 | 18th highest |
| Merced | 80.0 | +2.1 | 16th highest | 0.00 | 0.00 | Tied for lowest |

Note: The locations above typically observe no measurable precipitation during August.

As is often the case, this August began with widespread triple digit heat in much of the lower elevations. Highs of 100 to 105 degrees prevailed in the San Joaquin Valley, and a warming trend continued for the next several days. However, showers and isolated thunderstorms developed on the 2nd, and increased cloud cover allowed for a warm morning with low temperatures well into the 70's to as warm as the 80s in many locations. In addition, quite a few locations reported rain that day, and below average maximum temperatures made a brief return, as highs only reached the 90's in the San Joaquin Valley. Hot temperatures, including widespread triple digit heat, soon returned, or on the 3rd and the next several days due to strong high pressure. The hottest temperatures occurred on the 6th and 7th, with highs up to 113 degrees in the Kern County desert and 111 degrees in the San Joaquin Valley, which set record highs on the 7th for some locations, including Hanford, Bakersfield, and Madera.

A minor cooling trend began on the 8th, as the high pressure began to weaken and shift further inland. Showers and thunderstorms developed along the Sierra Nevada crest on the 8th. Gusty winds also buffeted the Mojave Desert slopes in eastern Kern County by the evening of the 8th

with isolated gusts around 50 mph. Triple digit heat in the lower elevations, however, prevailed for the next few days.

On the 12th, temperatures for the first time since the 2nd fell below the century mark in most lower elevation locations, except for the Kern County desert. Highs were near seasonal averages until the 17th and briefly dipped to several degrees below average on the 18th. Near seasonal temperatures returned for the 19th until the 21st. Well below average temperatures soon followed.

On the 22nd, a downward trend in temperatures began as the upper-level ridge of high pressure began to weaken and was replaced by a strong trough of low pressure that came from the Pacific Northwest. Highs were several degrees below average on the 22nd as highs dipped to the lower 90's in the Central Valley and the lower to mid 90's across much of the Kern County desert. Temperatures were even cooler by the 23rd, as daytime highs reached in the upper 70's to lower 80's in the San Joaquin Valley and into mainly the 80's in the Kern County desert. Record low maximum temperatures were set at Bakersfield, Madera, and Merced. Light showers arrived to northern portions of the forecast area, mainly Merced and Mariposa Counties, as well as Yosemite National Park, by the evening of the 23rd. Although, some locations to the south reported a trace of rain, including at Fresno and Madera. On the morning of the 24th, snow fell at elevations above 9,000 feet near Tioga Pass, with trace amounts of accumulation reported. Highs on the 24th remained in the 80's for most locations in the lower elevations; some record low maximum temperatures were tied at Madera and Merced.

A warming trend began on the 25th and continued until the 28th. Seasonally warm temperatures occurred on the 26th, but temperatures warmed further so that triple digit heat returned to the Central Valley and the desert region of eastern Kern County by the 27th. Above average temperatures and triple digit heat persisted in these areas until the end of the month. Overall for the month, near to below average precipitation, except for well above average precipitation towards Mariposa County, was recorded (Fig 2). Mainly warmer than average temperatures occurred, except for below average temperatures in the southern Sierra Nevada (Fig 1).

**Table 2 – Seasonal Precipitation for ASOS Locations (ending on
August 31st, 2024)**

| 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 | 5.87 | +1.45 | Trace | 0.00 | 6.83 | +0.52 |
| Fresno | 9.11 | +1.39 | 0.01 | -0.02 | 10.00 | -0.94 |
| Hanford | 7.40 | +1.75 | 0.02 | 0.00 | 8.68 | +0.59 |
| Madera | 8.08 | +0.50 | Trace | -0.01 | 9.97 | -0.79 |
| Merced | 12.20 | +4.02 | 0.00 | 0.00 | 15.20 | +3.45 |

| Table 3– Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS Locations | | | | |
|--|-------------|----------------|------------|----------------|
| Location | High | Date(s) | Low | Date(s) |
| Bakersfield | 111 | 7th | 59 | 24th |
| Fresno | 110 | 6th | 61 | 23rd & 25th |
| Hanford | 111 | 7th | 56 | 26th |
| Madera | 111 | 7th | 54 | 26th |
| Merced | 107 | 7th | 58 | 23rd & 25th |

Daily Records Set During August 2024

Bakersfield

2nd - Trace of rain reported, which tied the daily record high precipitation set for the date in 2017.

7th - Record high maximum temperature of 111 degrees reached, which broke the old record for the date of 110 degrees set in 1905.

23rd - Record low maximum temperature of 82 degrees reached, which broke the old record of 83 degrees set for the date in 1960.

Fresno

2nd - Trace of rain reported, which tied the daily record high precipitation set for the date in 1895.

Hanford

2nd - Trace of rain reported, which tied the daily record high precipitation set for the date in 2003.

7th - Record high maximum temperature of 111 degrees reached, which broke the old record for the date of 110 degrees set in 1936.

Madera

2nd - Trace of rain reported, which tied the daily record high precipitation set for the date in 2003.

7th - Record high maximum temperature of 111 degrees reached, which broke the old record for the date of 110 degrees set in 1936.

23rd - Record low maximum temperature of 80 degrees reached, which broke the old record of 83 degrees set for the date in 1989.

24th - Record low maximum temperature of 83 degrees reached, which tied the record set for the date in 1973. Trace of rain reported, which tied the daily record high precipitation set for the date in 1930.

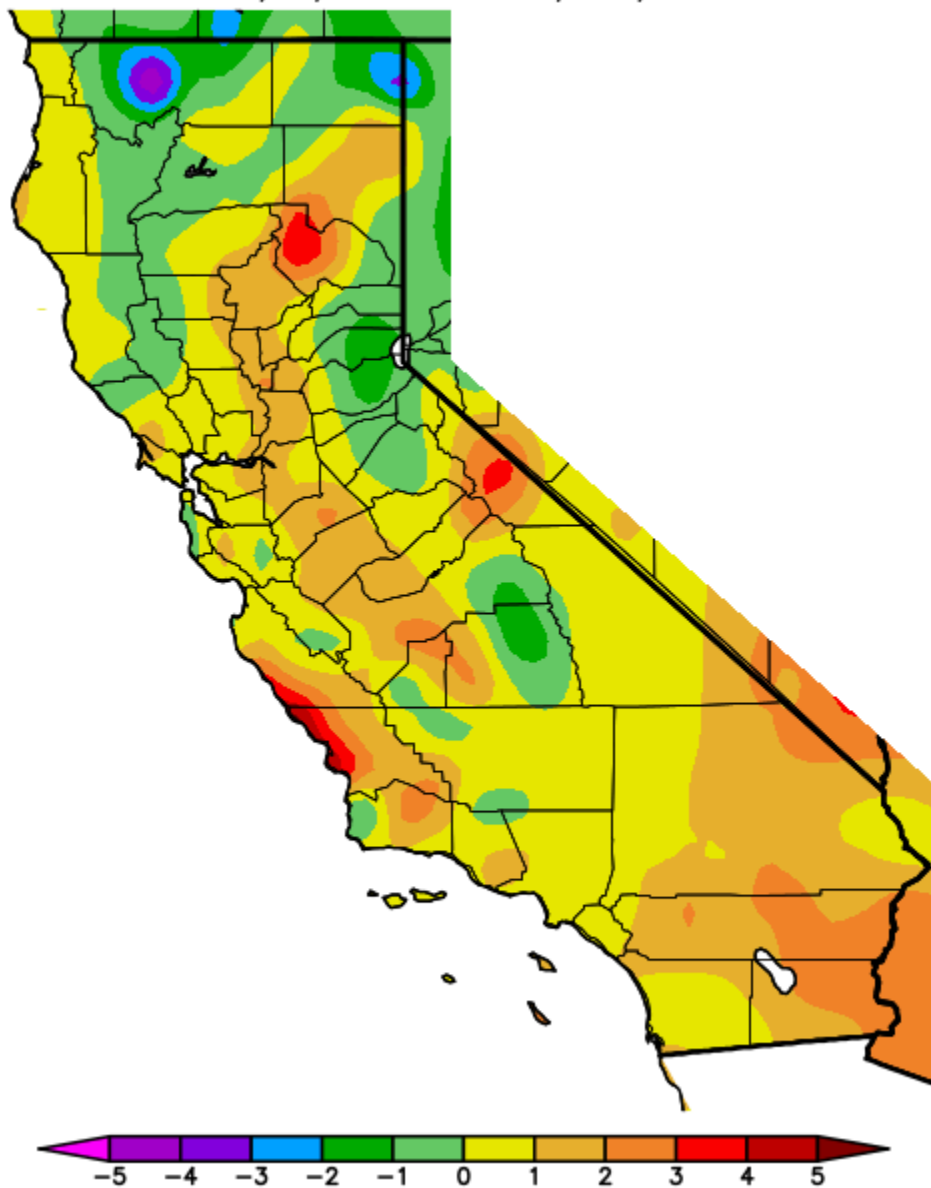
Merced

23rd - Record low maximum temperature of 78 degrees reached, which broke the old record of 80 degrees set for the date in 1963.

24th - Record low maximum temperature of 82 degrees reached, which tied the record set for the date in 1920.

Fig 1 – Departure from Average Temperature for this month

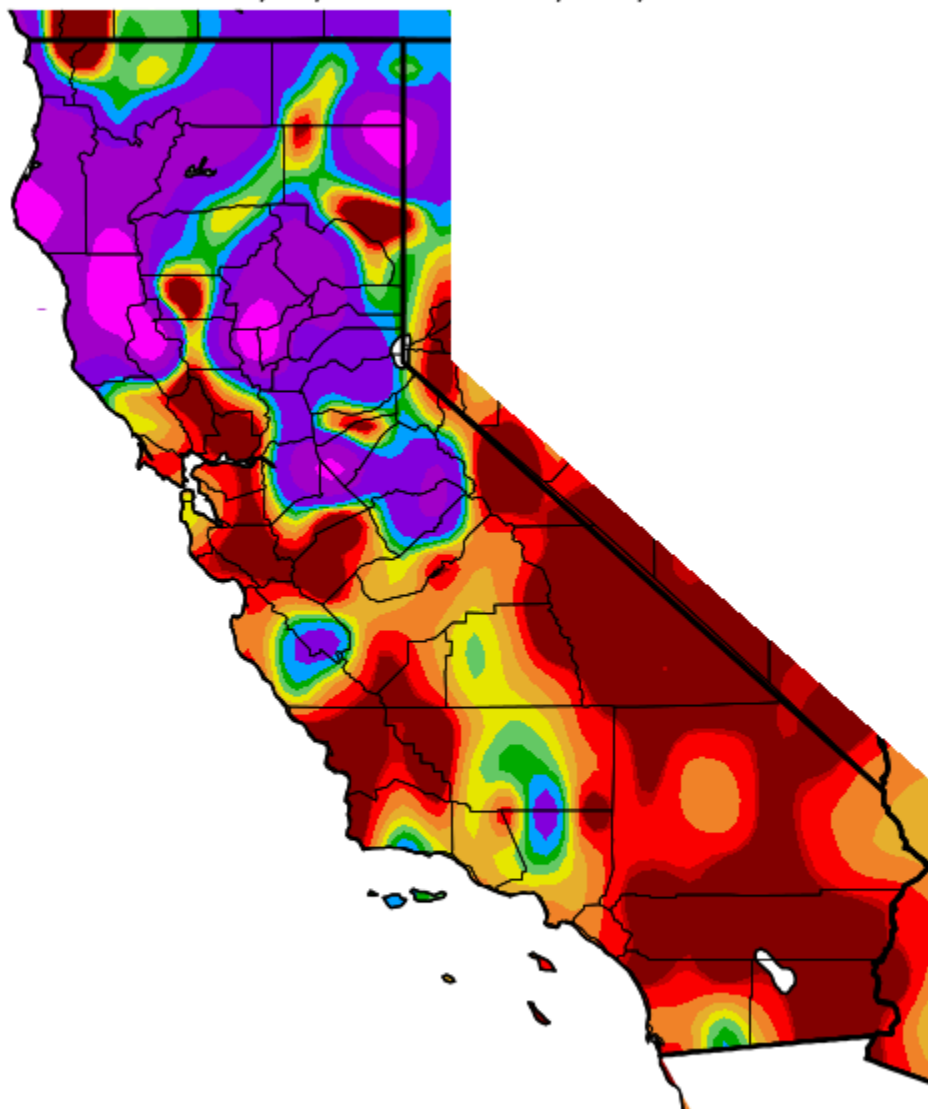
Ave. Temperature dep from Ave (deg F)
8/1/2024 – 8/31/2024



Generated 9/ 1/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

Fig 2 – Percent of Average Precipitation for this month

Percent of Average Precipitation (%)
8/1/2024 – 8/31/2024



Generated 9/ 1/2024 at WRCC using provisional data.
NOAA Regional Climate Centers