

## OCTOBER 2024 WEATHER SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

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October 2024 started with much warmer than average temperatures, including triple digit heat in the hottest locations. Record heat occurred on the 2nd until the 9th. The hottest temperatures ever reached in October occurred at most of our ASOS sites on the 3rd as highs reached 105 degrees at Fresno, Hanford, and Madera and 106 degrees at Merced. Record heat became less widespread after the 7th, as temperatures lowered on the following days. A noticeable cooldown began on the 12th and even resulted in morning fog in parts of the San Joaquin Valley by the 13th. Light precipitation, mainly in the Sierra Nevada, occurred with otherwise cooler temperatures across the region on the 16th. While not as hot as early in the month, another period with warmer than normal temperatures resumed on the 19th and lasted until the 27th. Cooler temperatures prevailed for the remainder of the month, with light precipitation on the 28th. This month was very warm with little or no precipitation, and some records were broken in terms of the average temperature (Table 1).

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

**Bakersfield:** 3 for October, the 5th highest number of triple digit high temperatures for October (October average: less than 1 day). Season total of 61 days (Average of 36 days), which ranks 12th highest.

**Fresno:** 5 for October, which ties (with 1980) for the most triple digit highs ever recorded in October (October average: less than 1 day). Season to total of 64 days (Average of 38 days), which ranks 3rd highest.

**Hanford:** 6 for October, the most triple digits ever recorded in October. Previously, 3 triple digit high temperatures occurred in October 1933. (October average: less than 1 day). Season total of 70 days (Average of 30 days), which ranks 2nd highest on record.

**Madera:** 7 for October, which is the most triple digits ever recorded in October. Previously, 2 triple digit high temperatures occurred in October 1952. (October average: less than 1 day). Season total of 63 days (Average of 28 days) which ranks 4th highest on record.

**Merced:** 6 for October, which is the most triple digits ever recorded in October. Previously, 3 triple digit high temperatures occurred in October 1905. (October average: less than 1 day). Season total of 57 days (Average of 23 days) which ranks **highest** on record.

Table 1 – October 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	72.5	+4.8	4th highest	T	-0.28	20th lowest
Fresno	72.4	+5.7	<b>Highest</b>	T	-0.56	21st lowest
Hanford	70.0	+5.4	<b>Highest</b>	T	-0.46	26th lowest
Madera	69.4	+4.4	4th highest	T	-0.44	18th lowest
Merced	69.5	+5.2	<b>Highest</b>	T	-0.64	20th lowest

The month began with much warmer than average temperatures due to an anomalously strong ridge of high pressure in place. Triple digit heat returned to the San Joaquin Valley as early as the 1st, although more widespread readings of at least 100 degrees occurred on the 2nd and 3rd. Record high maximum temperatures were reached on 2nd, 3rd and 4th, although highs set records for the month of October on the 3rd at most of the ASOS sites, as temperatures reached either 105 or 106 degrees. However, Bakersfield was the exception, as the high reached 103 degrees there on that day. Temperatures on the 4th were slightly lower at some locations, but more record heat occurred that day at all of the ASOS sites besides Bakersfield. Triple digit heat persisted in much of the San Joaquin Valley until the 7th.

The strong ridge began to weaken during the 8th and 9th, and high temperatures lowered slightly each day. Temperatures remained at least ten degrees above average on both days, and the warmest locations reached into the mid to upper 90's. A bigger decrease in temperatures took place on the 10th, as high clouds moved due to an upper-level trough passed over the region, although high temperatures were still around five to eight degrees above seasonal averages, or in the upper 80's to lower 90's. A gradual cooling trend continued for the next several days, although dry conditions lingered with temperatures above seasonal averages until the 15th. The first Tule fog event of the year since last winter occurred on the morning of the 13th in the

Central Valley as visibility fell below one quarter of a mile in locations near Hanford, Visalia, Madera, and Merced.

On the 16th, a low pressure system and associated trough finally brought precipitation to at least some portion of our forecast area. Some Central Valley locations received around a trace, although measurable precipitation was recorded in the higher elevations of the Sierra Nevada, mainly around a tenth of an inch or less. About a trace up to one half of an inch of snow accumulated in the Yosemite high country towards Tuolumne Meadows and Tioga Pass that day. Winds picked up behind this low on the evening of the 16th into the 18th, including in the coastal ranges adjacent to the San Joaquin Valley and the Mojave desert portion of eastern Kern County. Gusts reached around 45 to 70 mph in the desert and adjacent slopes, while gusts were around 35 to 40 mph towards Pacheco Pass in western Merced County. Temperatures continued to cool each day on the 16th and 17th, although highs in the Central Valley were still near or slightly above average on these days. In the wake of the trough of low pressure, much cooler temperatures occurred on the 18th, and highs were generally in the lower to mid 70's at the warmest spots.

High pressure ridging along with a warmup returned, starting with near seasonal high temperatures on the 19th and above average temperatures until the 27th? Highs in the warmest locations reached the mid-80's on the 20th and as warm as the upper 80's on the 21st. Otherwise, highs were generally in the mid 70's to lower 80's in these locations. Low temperatures were typically chilly during much of this warm period, at least in the Central Valley and Kern County desert, with overnight lows in the mid 40's to lower 50's.

A low pressure system arrived on the night of the 27th and brought mainly light precipitation to the region on the 28th. Amounts were from a trace up to around 0.25 inch; most Central Valley locations received no measurable precipitation. There were some light snow accumulations (mainly less than an inch) in the Sierra. Wind gusts of 50 to 80 mph were reported in eastern Kern County along the Mojave Desert slopes and over the peaks of the southern Sierra Nevada. Much cooler temperatures, including highs at least a few degrees below average, occurred for the remainder of the month.

Overall, much above average temperatures (Fig 1) with well below average precipitation (Fig 2) prevailed. Some locations reached their highest average temperature for October on record, including Fresno, Hanford, and Merced (Table 1). The record heat early in the month and the lingering above average temperatures afterward were the contributors to this record warm month. In addition, most locations received little or no measurable precipitation this month, as the low pressure systems towards the latter part of the month were generally moisture starved.

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

<b>Location</b>	<b>Since Jan 1st (inches)</b>	<b>Departure From Average (inches)</b>	<b>Since Jul 1st (inches)</b>	<b>Departure From Average (inches)</b>	<b>Since Oct 1st (inches)</b>	<b>Departure From Normal (inches)</b>
Bakersfield	5.87	+1.12	T	-0.33	T	-0.28
Fresno	8.33	+0.80	0.03	-0.61	T	-0.56
Hanford	7.40	+1.25	0.02	-0.50	T	-0.46
Madera	8.08	+0.03	T	-0.48	T	-0.44
Merced	12.20	+3.33	T	-0.69	T	-0.64

<b>Table 3– Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS Locations</b>				
<b>Location</b>	<b>High</b>	<b>Date(s)</b>	<b>Low</b>	<b>Date(s)</b>
Bakersfield	103	3rd & 4th	45	31st
Fresno	105	3rd	46	30th
Hanford	105	3rd	39	30th
Madera	105	3rd	40	30th
Merced	106	3rd	39	30th

### **Daily Records Set During October 2024**

#### **Bakersfield**

3rd - Record high maximum temperature of 103 degrees tied, which previously occurred on this date in 1933.

5th - Record high minimum temperature of 74 degrees reached, which broke the old record high minimum temperature of 71 degrees last set for the date in 1980.

6th - Record high minimum temperature of 70 degrees tied, which previously occurred on this date in 1980.

7th - Record high minimum temperature of 71 degrees reached, which broke the old record of 70 degrees last set for the date in 1980.

8th - Record high minimum temperature of 71 degrees, which broke the old record high minimum temperature of 70 degrees set for the date in 1910.

9th - Record high minimum temperature of 70 degrees, which broke the old record high minimum temperature of 68 degrees set for the date in 1980.

10th - Record high minimum temperature of 67 degrees reached, which tied the previous record set for the date in 2015.

## **Fresno**

2nd - Record high maximum temperature of 102 degrees reached, which broke the old record of 101 degrees last set for the date in 1980.

3rd - Record high maximum temperature of 105 degrees reached, which broke the old record of 101 degrees last set for the date in 1980. This also sets the record highest temperature for October; the old record was 104 degrees set on October 4, 1980. A record high minimum temperature of 71 degrees was reached which broke the old record of 69 degrees set for the date in 2012.

4th - Record high maximum temperature of 103 degrees reached, which broke the old record of 102 degrees last set for the date in 1980.

5th - Record high maximum temperature of 101 degrees reached, which tied the record last set for the date in 1980. Record high minimum temperature of 70 degrees reached, which broke the old record high minimum temperature of 66 degrees last set for the date in 1904.

6th - Record high maximum temperature of 100 degrees reached, which broke the record high of 99 degrees that was last set on this date in 1987. Record high minimum temperature of 71 degrees, which broke the old record high minimum temperature of 68 degrees set for the date in 1892.

7th - Record high maximum temperature of 99 degrees reached, which broke the old record of 97 degrees last set for the date in 2023. Record high minimum temperature of 70 degrees reached, which broke the old record of 66 degrees last set for the date in 2023.

8th - Record high minimum temperature of 70 degrees, which broke the old record high minimum temperature of 66 degrees set for the date in 2023.

9th - Record high minimum temperature of 67 degrees, which broke the old record high minimum temperature of 65 degrees set for the date in 1996.

## **Hanford**

2nd - Record high maximum temperature of 102 degrees reached, which broke the old record of 99 degrees last set for the date in 2012.

3rd - Record high maximum temperature of 105 degrees reached, which broke the old record of 100 degrees last set for the date in 2012. This also sets the record highest temperature for October; the old record was 101 degrees set on October 15, 1961.

4th - Record high maximum temperature of 103 degrees reached, which broke the old record of 100 degrees last set for the date in 1933.

5th - Record high maximum temperature of 100 degrees reached, which tied the record last set for the date in 1980.

6th - Record high maximum temperature of 102 degrees reached, which broke the old record of 100 degrees last set for the date in 1933. Record high minimum temperature of 62 degrees tied, which previously occurred on this date in 1904.

7th - Record high maximum temperature of 100 degrees reached, which broke the old record of 98 degrees last set for the date in 2023.

9th - Record high maximum temperature of 96 degrees which tied the previous record for the date last set in 1980.

## **Madera**

2nd - Record high maximum temperature of 102 degrees reached, which broke the old record of 100 degrees last set for the date in 1952.

3rd - Record high maximum temperature of 105 degrees reached, which broke the old record of 99 degrees last set for the date in 2012. This also sets the record highest temperature for October; the old record was 101 degrees set on October 16, 1961.

4th - Record high maximum temperature of 104 degrees reached, which broke the old record of 100 degrees last set for the date in 1958.

5th - Record high maximum temperature of 100 degrees reached, which tied the record last set for the date in 1949.

6th - Record high maximum temperature of 100 degrees reached, which broke the record high of 99 degrees that was last set on this date in 1980.

7th - Record high maximum temperature of 100 degrees reached, which broke the old record of 99 degrees last set for the date in 1980. Record high minimum temperature of 64 degrees set, which broke the old record of 62 degrees last set for the date in 1929.

## **Merced**

2nd - Record high maximum temperature of 103 degrees reached, which broke the old record of 101 degrees last set for the date in 1905.

3rd - Record high maximum temperature of 106 degrees reached, which broke the old record of 102 degrees last set for the date in 1905. This also sets the record highest temperature for October, and the old record for the month coincides with the date's daily record.

4th - Record high maximum temperature of 105 degrees reached, which broke the old record of 101 degrees last set for the date in 1905.

5th - Record high maximum temperature of 100 degrees reached, which broke the old record of 98 degrees last set for the date in 1990. Record high minimum temperature of 60 degrees reached, which broke the previous record of 59 degrees for this date in 2012.

6th - Record high maximum temperature of 101 degrees reached, which broke the record high of 98 degrees that was last set on this date in 1933.

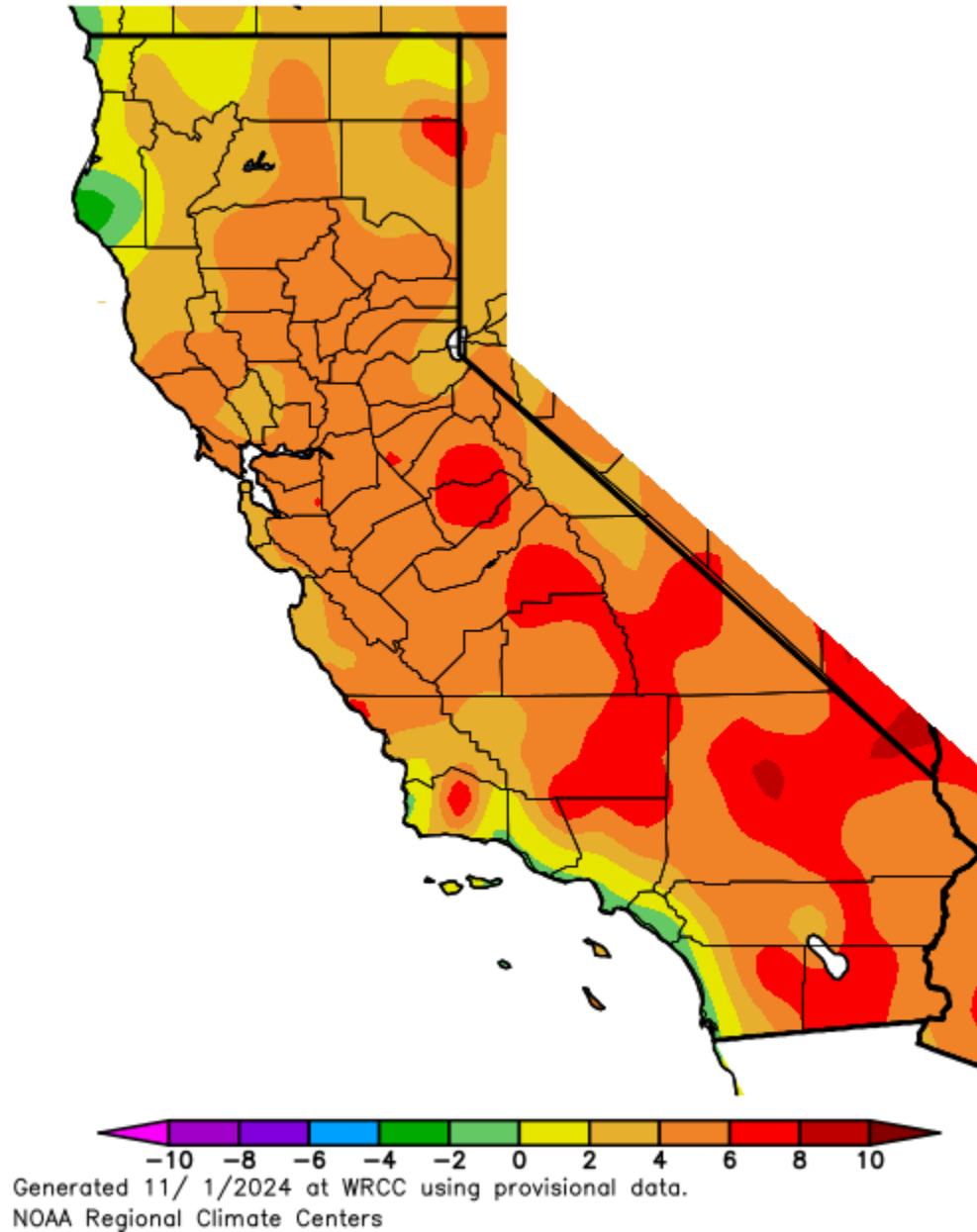
7th - Record high maximum temperature of 99 degrees reached, which broke the old record of 97 degrees set for the date in 2023.

8th - Record high minimum temperature of 67 degrees, which broke the old record high minimum temperature of 62 degrees set for the date in 2015.



**Fig 1 – Departure from Average Temperature for this month**

Ave. Temperature dep from Ave (deg F)  
10/1/2024 – 10/31/2024



**Fig 2 – Percent of Average Precipitation for this month**

