JULY 2022 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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July 2022 was a warmer than average month with generally near to below average precipitation. The month began seasonably warm and then cooled to several degrees below average by the Independence Day holiday. Dry conditions mainly prevailed, except until the last week of the month when monsoon surges began to impact the region with mountain/desert showers and thunderstorms, along with a few showers that pushed into the San Joaquin Valley and West Side Hills. Otherwise, triple digit heat prevailed for much of the month in the Central Valley starting around the 10th of the month and last for much of the remainder of the month. Towards the middle of the month, daytime high temperatures exceeded 105 degrees and even reached 110 degrees in some locations in the San Joaquin Valley.

Table 1 – July 2022 Summary Statistics– NWS Hanford, CA ASOS Sites

Location	Monthly Average Temp (deg F)	Departure from Average (deg F)	Temperature Rank	Total Monthly Precipitation (inches)	Departure from Normal (inches)	Precipitation Rank
Bakersfield	86.7	+1.9	17th highest	Trace	0.00	13th highest
Fresno	85.7	+2.2	15th highest	Trace	-0.03	20th highest
Hanford	83.8	+2.7	8th highest	0.00	-0.02	Lowest (tied)
Madera	80.8	+0.6	33rd highest	0.00	-0.01	Lowest (tied)
Merced	80.9	+1.9	26th highest	Trace	0.00	16th highest

Number of Days with High Temperatures of At Least 100 Degrees Fahrenheit:

Bakersfield: 21 in July; 34 for year so far, or May-July (July average: 13; May-July average: 20)
Fresno: 21 in July; 34 for year so far, or May-July (July average: 14; May-July average: 22)
Hanford: 22 in July; 36 for year so far, or May-July (July average: 11; May-July average: 17)
Madera: 19 in July; 30 for year so far, or May-July (July average: 11; May-July average: 17)
Merced: 12 in July; 24 for year so far, or May-July (July average: 9; May-July average: 14)

Mainly seasonal temperatures occurred on the first day of the month, except triple digit heat persisted in parts of the Kern County desert, such as around China Lake. A cooling trend

continued for the next few days, with the coolest day on the 3rd. High temperatures lowered to about five to eight degrees below seasonal averages on both the 3rd and 4th. Some gusty winds developed in a few isolated locations along the Mojave Desert slopes in eastern Kern County, including on the 2nd and 3rd; gusts reached around 50 to 55 mph. The 4th was the coolest Independence Day holiday in portions of our region since the year 2000, as high temperatures at many locations throughout the San Joaquin Valley failed to top the upper-80s. Typically, high temperatures reach the mid- to upper-90's in these areas during this time of year.

High temperatures were steady on the 5th through the 8th, with highs about a few degrees below average. A low pressure system persisted along the West Coast and prevented strong ridging from building during this period. However, a warming trend soon returned, as a transition back to high pressure ensued, while daytime highs returned to more seasonal values during the 8th through the 10th. A large wildfire, known as the Washburn Fire, developed in Yosemite National Park near Mariposa Grove and Wawona on the afternoon of the 7th and began to show active behavior over the next few days as a warming and drying trend occurred. The size of the fire grew by several hundred to over a 1,000 acres each day through the 10th.

High pressure continued to strengthen over the region by the 11th, and widespread triple digit heat returned. Triple digits throughout the San Joaquin Valley occurred for the first time in July on this day, although a couple of locations, including Hanford and Madera, reached the century mark briefly on the 10th. Above average temperatures continued over the next several days throughout the region, with widespread highs above 105 degrees beginning on the 15th. As high pressure continued to build over Central California over the next couple of days, many locations in the San Joaquin Valley and Kern County desert exceeded 110 degrees on the 17th. Isolated thunderstorms returned to the Sierra Nevada and Kern County desert at times through the 19th, with more widespread activity on the 18th. Light showers even moved into the San Joaquin Valley on the 18th, which allowed a brief lowering of temperatures and provided some relief from the recent extreme heat. However, widespread temperatures of 105 degrees and above persisted in much of the lower elevations until the 21st. The large fire in Yosemite persisted during this period and had grown to around 4,800 acres by the 19th.

Warm and dry conditions prevailed from the 22nd until the 25th. Another large wildfire (Oak Fire) developed to the west of Yosemite on the afternoon of the 22nd and spread rapidly due to hot and dry conditions with winds around 15 to 20 mph. Further spread continued for the next several days until the fire grew to over 19,000 acres.

Monsoonal moisture surged into our region on the 26th and 27th that brought showers and thunderstorms to the mountains and desert, and some light sprinkles fell in portions of the San Joaquin Valley. Rainfall amounts were generally light to moderate in the mountain areas, mainly the Sierra Nevada; some of the heavier storms produced amounts of 0.25 to 0.50 inch.

Otherwise, afternoon and evening showers and thunderstorms became a daily occurrence in the higher elevations of the Sierra Nevada until the end of the month.

Triple digit heat continued to prevail over the San Joaquin Valley and Kern County desert through the end of the month. Although, monsoon thunderstorms increased in coverage for the last two days of July, and quite a few storm cells produced heavy rainfall, mainly in the Sierra Nevada in Fresno County to northern Kern County. Rainfall amounts exceeded an inch in a few locations in these areas, although precipitation gauge data was rather limited. The month ended with mainly above average temperatures and near to below average precipitation for most of the region.

Table 2 – Seasonal Precipitation for ASOS locations (ending on July 31st)

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	1.86	-2.56	Trace	0.00	5.41	-0.90
Fresno	1.08	-6.64	Trace	-0.03	6.29	-4.65
Hanford	1.74	-3.91	0.00	-0.02	6.34	-1.75
Madera	Missing	Missing	0.00	-0.01	Missing	Missing
Merced	1.65	-6.53	Trace	0.00	7.44	-4.31

Table 3 – Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS locations

Location	High	Date(s)	Low	Date(s)
Bakersfield	110	17th	61	4th
Fresno	110	17th	58	3rd
Hanford	111	17th	58	3rd
Madera	107	17th	53	3rd & 4th
Merced	107	17th	53	3rd

Daily Records Set During July 2022

Bakersfield –

No daily records reached.

Fresno –

26th: Trace of precipitation observed, which tied the record daily high precipitation amount that was last set for the date in 2019.

Hanford –

No daily records reached.

Madera –

No daily records reached.

Merced -

No daily records reached.

Fig 1 – Departure from Average Temperature for July 2022

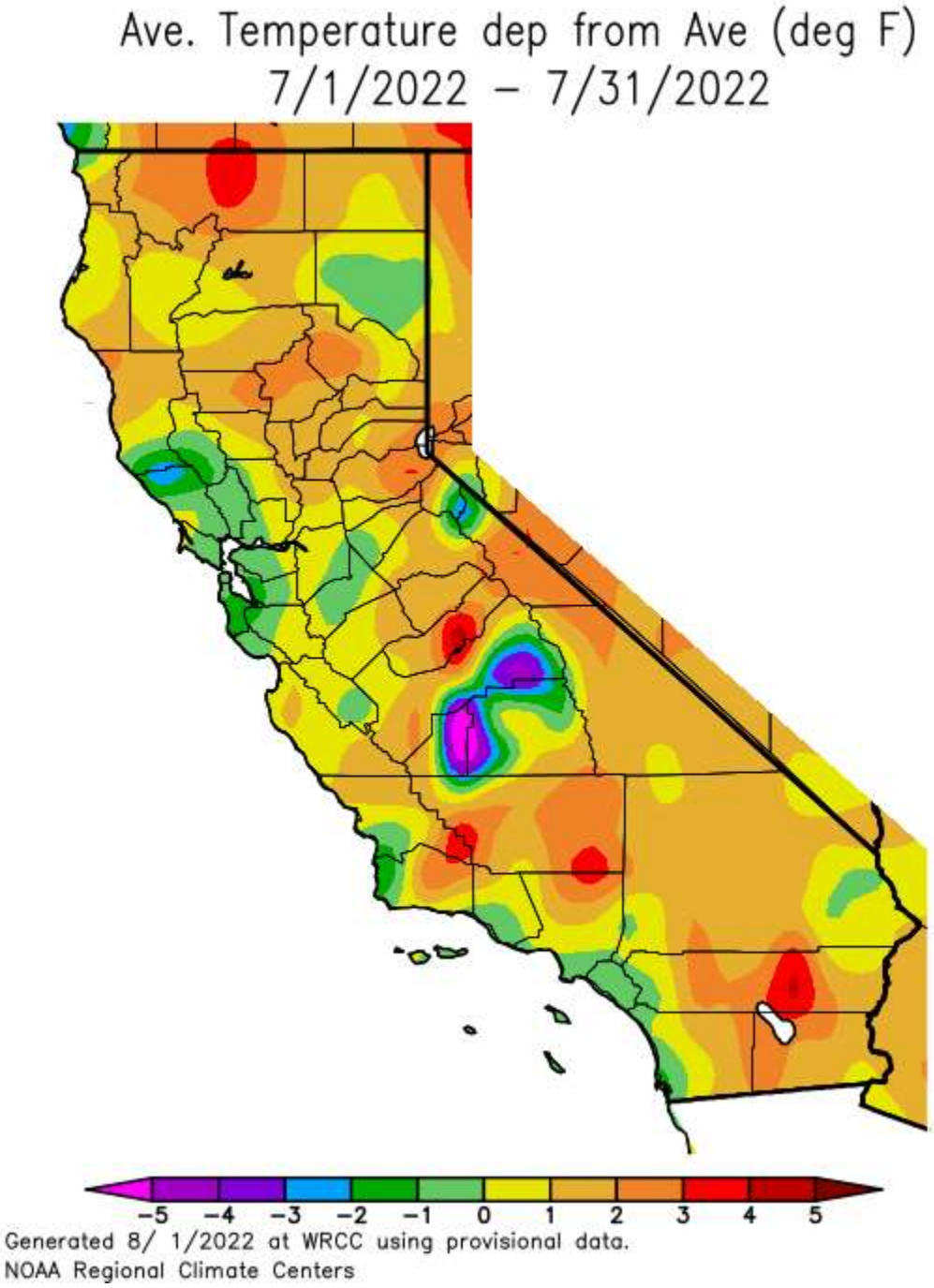

Fig 2 – Percent of Average Precipitation for July 2022