AUGUST 2015 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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The month began with warmer than average temperatures along with afternoon and evening thunderstorms in the higher elevations of the southern Sierra Nevada. Some monsoonal moisture remained over the region that had arrived about a couple of days prior. There were some isolated thunderstorms in the Kern County mountains, including near Frazier Park, during that time. High pressure ridging was fairly strong over the region for that day.

A southwest flow aloft set up over the region and kicked the monsoonal moisture out of the Sierra Nevada on the 2nd. This flow and a low pressure system off the coast of California allowed temperatures to cool slightly on the 2nd and into the following day, and marine air began to flow into the San Joaquin Valley during the evening of the 3rd.

On August 4th, temperatures cooled significantly, by about 10-15 degrees compared to the previous day, due to an influx of marine air. Similar temperatures continued into the following day, especially throughout the San Joaquin Valley. For example, daytime high temperatures reached into the 80s in much of the San Joaquin Valley, or at least several degrees below average for early August.

High pressure and a relatively moist southerly flow brought warmer and more humid air into the region during the 6th-7th, although temperatures were generally around average for early August. The Kern County desert areas were generally the warmest in our forecast area, where triple-digit high temperatures were prevalent. Showers and thunderstorms moved over the central parts of the Sierra Nevada and San Joaquin Valley, or north of Fresno County, on the 7th during the morning and afternoon hours as an upper-level low pressure system moved onshore over northern California and continued its trek further eastward. However, the low pressure system did not bring much cooling to our region as high pressure continued to dominate over central and southern California. Also, very little rain fell with the showers and thunderstorms associated with this upper-level low.

Temperatures warmed slightly during the 8th and 9th, while a dry southwesterly flow prevailed over much of the region. Afterward, there was a slight downward trend during the next couple of days as a push of marine air moved into the San Joaquin Valley.

On the 13th through the 15th, temperatures began to trend upward slightly as high pressure moved closer to the region from Arizona. Dry conditions continued to prevail across the central

California interior with mainly clear skies. Overall, temperatures remained near average for the second week of August.

Strong high pressure returned by the 16th and continued through at least the 18th. Very warm temperatures prevailed across central California. Record high maximum temperatures were reached during the 16th-17th in locations throughout the San Joaquin Valley when temperatures reached or exceeded 105 degrees. Bakersfield reached 109 degrees on the 17th and beat the old record for the date (set back in 1933) by two degrees. On the evening of the 17th and until the morning of the 18th, there was widespread smoke in the San Joaquin Valley due to a couple of large wildfires. Also during this time, the warmest temperatures in the Kern County desert areas reached 110 degrees or warmer.

High pressure began to weaken on the 19th, although temperatures remained several degrees above average. Further cooling occurred on the following day as onshore flow was better established. Dry conditions were the general rule throughout the region for the next several days, with little change in temperatures. Breezy conditions prevailed through the favored passes and canyons in Kern County and along the west side of the San Joaquin Valley from the 20th until the 23rd, although the highest wind gusts reached around 35-45 mph in a few locations in these areas.

On the 24th, high pressure returned to the region. Monsoonal moisture flowed from the south on the next day due to an upper-level low that was centered over northern Baja California; however, there was little moisture available with this disturbance. Only the Edwards AFB ASOS (KEDW) reported a trace of rain, and there were no reports of lightning on the 25th. On the 26th, there were a few showers and thunderstorms that developed along the crest of the Sierra Nevada. Otherwise, there were little or no impacts due to monsoonal moisture. Temperatures continued to rise a little each day until the 28th as the high pressure ridge prevailed over the district. Widespread triple digit high temperatures prevailed in the San Joaquin Valley and Kern County desert during this period.

A trough of low pressure moved into the region on the 29th, and temperatures lowered significantly. Breezy conditions with locally gusty winds occurred through the favored passes and canyons in Kern County and along the west side of the San Joaquin Valley. The high temperature at Fresno on August 28th was 106 degrees. The next day, the high was only 95 due to the influx of marine air. (Despite the 11 degree drop, the high on the 29th was actually the normal high for the date.) Another push of marine air on the 30th brought further cooling to the region. Highs in the central and southern San Joaquin Valley on the 30th were only in the upper 80s to around 90. Below to near average temperatures prevailed until the end of the month as an onshore flow persisted.

Overall, August 2015 saw above average precipitation in some locales due to storm activity during the first week of the month (see Fig 1); otherwise, the central California interior received below average precipitation, including over the southern Sierra Nevada. In terms of temperatures, the month was moderately warmer than average (see Fig 2).

Fig 1 - Percent of normal precipitation for August 2015 (graphics below from Western Region Climate Center):

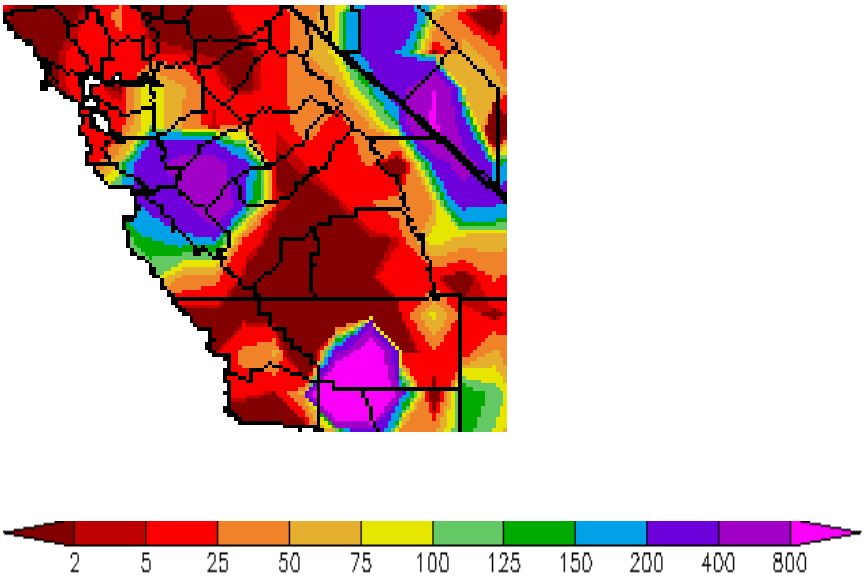

Fig 2 - Departure from average temperature for August 2015 (graphics below from Western Region Climate Center):