APRIL 2016 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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On the first day of the month, average to slightly below average temperatures prevailed throughout the central California interior before a fairly strong warming trend occurred for the next several days. By the 6th, temperatures rose to well above average; quite a few San Joaquin Valley and Kern County desert locations reached above 90 degrees, or about 15-20 degrees above average. Even Bakersfield reached above 90 degrees this day (for the first time during the calendar year of 2016). The next day (7th) was slightly cooler, but a low pressure system was approaching southern California and Baja California and bringing enough high and mid-level clouds to mitigate solar heating. Low temperatures were much above average, or only reaching the upper 50s and into the 60s, that morning and for the next few mornings, due to increased cloud cover. Showers began to develop over the region by the night of the 7th, mainly over the higher terrain.

On the 8th, more showers continued over the mountains during the morning hours, including over the Kern County mountain areas and parts of the southern Sierra Nevada into Tulare County. By the early afternoon, showers and thunderstorms developed over much of the higher terrain and desert areas in Kern County. Late in the afternoon there were some showers and isolated thunderstorms near Yosemite. The shower activity increased in coverage and intensity over much of the San Joaquin Valley and into the Sierra Nevada on Friday night into the early morning hours of the 9th; quite a few locations received around one to two inches of rain in the valley (including Fresno, Madera, and Merced), Sierra Nevada, and adjacent foothills. Some locales received above three inches in the Sierra Nevada, such as at Yosemite National Park and Bass Lake by the morning of the 9th. Roadway flooding was reported in the Sierra Nevada foothills in Mariposa County west of Yosemite National Park that morning and likely occurred where the heaviest amounts in the San Joaquin Valley occurred (for example, Merced received over two inches of rainfall).

On the afternoon and evening of the 9th, the focus of the activity shifted southward into Kern County where numerous showers and scattered thunderstorms developed. Another upper-level low moved inland over southern California and Baja California that evening. Parts of Bakersfield, mainly on the west side of town and into the downtown area experienced flooding in the streets due to heavy rainfall; several inches of water covered the roadways. The California Highway Patrol reported numerous incidents of roadway flooding due to heavy rain in much of the southern San Joaquin Valley in Kern County, as well as parts of western Kings and

southwestern Fresno Counties. By late in the evening, the shower activity decreased but continued after midnight into the 10th.

On the afternoon of the 10th and into the evening hours, showers and thunderstorms redeveloped over the southern San Joaquin Valley and into the Tehachapi Mountains, as well as the Kern County desert areas. Reports of local flash flooding in the Kern County mountain areas were received. The low pressure system that moved inland over southern California during the previous evening continued to bring abundant moisture into Kern County. Showers and isolated thunderstorms formed once again during the afternoon of the 11th as the moisture remained over the mountain and desert areas, although the intensity was markedly lower. By the 12th, very little activity remained over the region, except for some fair weather cumulus clouds over the San Joaquin Valley and a few showers over the Sierra Nevada.

During the 13th through the 15th, temperatures remained relatively cool, with maximum daytime temperatures only reaching several degrees below average. Windy conditions were prevalent in much of the region as a strong, but mainly dry, low pressure system moved over the Great Basin; gusts were as high as 80 mph in the Kern County mountain areas and around 70 mph in the nearby desert areas. Even locations in the San Joaquin Valley experienced wind gusts to around 30-40 miles per hour at times.

A warming trend occurred for the next few days as high pressure returned to the region; daytime high temperatures returned to around 10 to 15 degrees above average by the 17th. Quite a few locations reached the upper 80s and into the 90s in the San Joaquin Valley on the 17th through the 19th. On the 18th, Fresno reached 90 degrees, and that was its first time the temperature reached 90 degrees during 2016.

By the 20th, temperatures began a downward trend as the high pressure started to weaken. A strong low pressure system arrived on the 22nd and brought gusty winds to much of the central California interior and locally heavy rain in the Sierra Nevada and adjacent foothills around Oakhurst and into Yosemite National Park. As much as one and a half inches of rain fell in the lower elevations of Yosemite, although amounts in the San Joaquin Valley ranged from around a tenth to a third of an inch. However, most of the precipitation occurred in Fresno County and in counties to the north, although there were a few locations to the south that received trace amounts to a tenth of an inch. Some isolated thunderstorms developed in the foothills and in Fresno but mainly produced brief heavy rain and gusty winds. Otherwise, the main impacts were gusty winds during the afternoon and evening hours of the 22nd; Bakersfield reported a 40 mph gust with blowing dust. Very strong winds also funneled through the passes and canyons in Kern County; the strongest winds peaked above 80 mph on the night of the 22nd. Daytime high temperatures peaked well below average on the 22nd.

On the 23rd and 24th, temperatures recovered a few degrees but remained below average as unsettled weather prevailed throughout the region during this period. Showers and thunderstorms developed at times in the mountains and in much of the southern San Joaquin Valley, although the more active day was the 24th. Bakersfield reported thunder on the 24th and received just under two tenths of an inch at the airport; other locations in the southern San Joaquin Valley, including Bakersfield, Stratford, and Tulare reported large hail as much as 1.00 inch to 1.25 inches in diameter. Several severe thunderstorms warnings were issued this day due to the hail threat.

On the 25th, another low pressure system arrived and brought gusty winds to much of the region. Peak wind gusts were around 30 to 40 mph in the San Joaquin Valley and as high as 60 to 70 mph in the Kern County mountain and desert areas. For the next couple of days, temperatures were near or slightly below average with breezy and locally gusty conditions at times as low pressure systems continued to impact the region for the next couple of days.

Unsettled weather returned on the 27th; there were also some isolated strong storms that prompted issuance of some severe thunderstorm warnings along the west side of the San Joaquin Valley. Some locally gusty winds produced blowing dust along the Interstate 5 corridor on the west side of the San Joaquin Valley. There was also some localized flooding in Merced County, as some of the thunderstorms produced heavy rain. Gusts in the San Joaquin Valley reached 35 mph and even higher due to thunderstorms.

Weak high pressure with slightly above average temperatures prevailed during the 28th and the 29th. By the last day of the month, however, a few showers and thunderstorms developed over the higher terrain and the south end of the San Joaquin Valley, as yet another low pressure system brought sufficient instability to the area by the evening of the 30th. Mainly light precipitation occurred with these showers and storms.

In summary, precipitation was variable throughout the central California interior (Fig 1), while temperatures were above average throughout the region (Fig 2). Below average precipitation fell over most of the mountain areas and parts of the San Joaquin Valley (the west side, including Fresno and Kings Counties and eastward into Tulare County). In contrast, above average precipitation fell in the San Joaquin Valley near the south end, including in Bakersfield and from Fresno and northward, as well as the Kern County desert areas and Tehachapi Mountains. With the exception of Hanford, the stations in the San Joaquin Valley had above average precipitation for the month (Table 1). There were a couple of periods of above average daytime high temperatures during the early and middle parts of the month, although there were plenty of days when low temperatures were much above average due to cloud cover.

Table 1 - Apr 2016 Summary Statistics for ASOS locations				
Location	**Monthly Avg Temp**	**Departure From Normal**	**Total Monthly Precipitation**	**Departure From Normal**
Bakersfield	66.9	4.3	0.97	0.45
Fresno	65.3	3.3	1.06	0.11
Hanford	64.6	3.9	0.57	-0.22
Madera	63.4	3.8	1.59	0.64
Merced	62.7	3.7	3.59	2.64

Fig 1 - Percent of normal precipitation for April 2016:

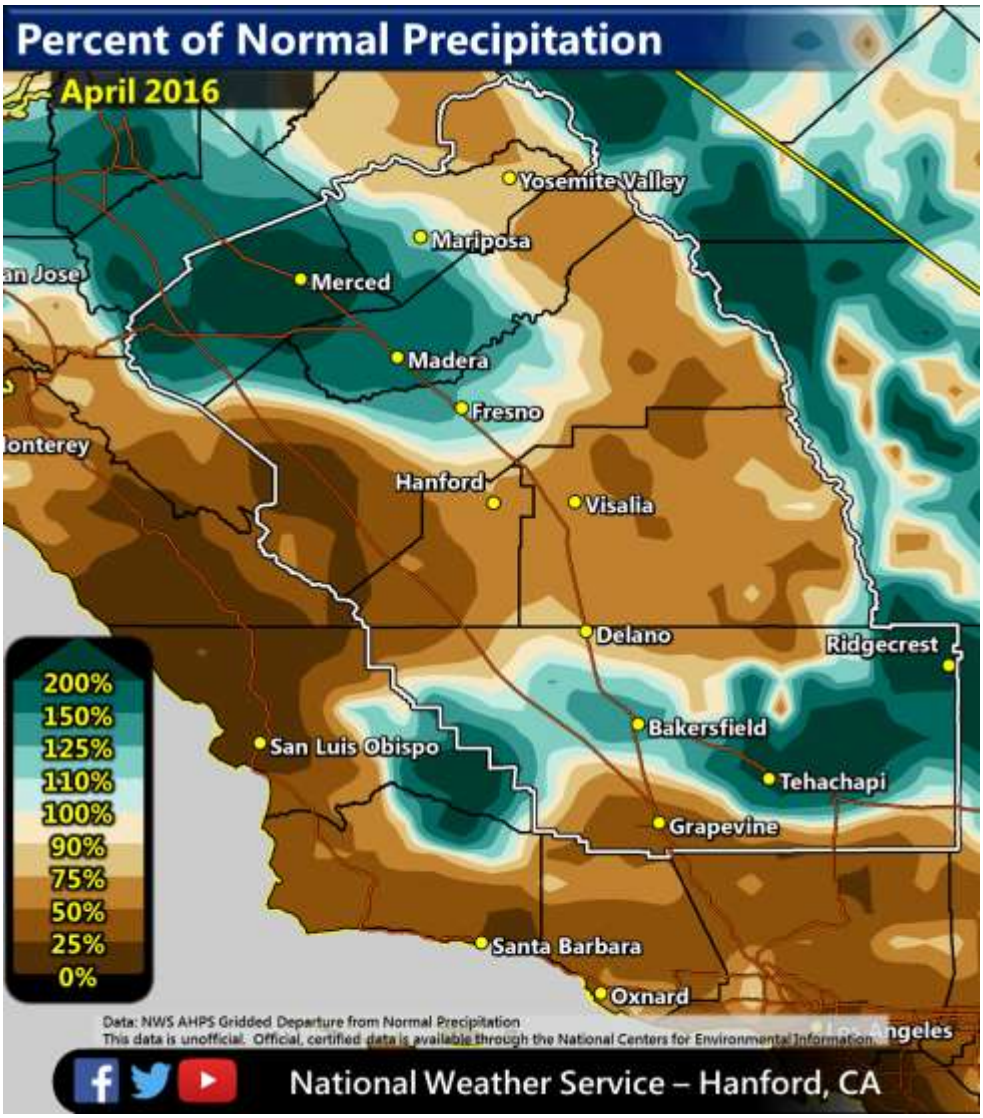

Fig 2 - Departure from average temperature for April 2016: