SEPTEMBER 2014 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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September began with interior central California sandwiched between an upper-level trough over the Pacific Northwest and a strong upper-level ridge of high pressure over the southern United States and northern Mexico. Temperatures the first two days of the month were well above normal, with several central and southern San Joaquin Valley sites reaching triple digits on September 2nd.

The trough finally dropped far enough into northern California to weaken the ridge during the afternoon of the 2nd and the overnight hours of September 2nd-3rd. This allowed the marine layer to deepen, and marine air spilled through the passes and canyons of the Temblors and Diablo Range. Temperatures in the San Joaquin Valley on September 3rd were several degrees cooler than the previous day, but above the pooled marine air temperatures continued warm; by late in the morning of the 3rd, some mountain sites were already in the mid 80s.

High pressure continued to dominate central California's weather through September 7th, with temperatures remaining above normal. The weather was dry through the 6th, but moisture from Hurricane Norbert began encroaching on southern California, spreading north into Kern County during the afternoon of the 7th and triggering thunderstorms over the mountains and desert areas. By the evening, isolated showers had developed over parts of the central and southern San Joaquin Valley, and a thunderstorm formed west of Fresno. Showers and a couple of thunderstorms redeveloped during the morning of September 8th, but the unsettled weather moved east of the region by sunset. Although the rainfall was generally light, both Fresno and Bakersfield set rainfall records for September 8th. 0.01 inch fell at Meadows Field, the first measurable rain to fall on the 8th since records began. The previous record had been a trace, last set in 1982. This also was the first measurable rain to fall at Bakersfield since May 6th. Fresno tied its record rainfall of a trace for September 8th, last set in 1997. Storm totals in the foothills were as high as 0.34 inch at Oakhurst, but generally were a quarter inch or less.

High pressure began building back into California on September 9th, and daytime temperatures began to warm back up. However, low temperatures were much lower than on the previous day (by 7 to 10 degrees in much of the central California interior) due to clear skies and cooler, drier air behind the upper-level trough that moved into the area during the previous evening. The warming trend continued through the middle of September, as the high pressure continued to dominate the region's weather. The 13th saw the hottest temperatures of the month in parts of the

central and southern San Joaquin Valley, with Bakersfield reaching a high of 105 degrees; Fresno hit 103 on September 12th, and again on the 13th. Fresno was even warmer the next day, reaching a high of 105 on the 14th. Nights also were unseasonably warm, with Fresno tying or breaking its record high minimum temperatures for four consecutive days, beginning on September 12th.

Mid-level moisture moved into central California on September 13th, and produced isolated sprinkles or light showers over parts of the region the next day. Near the southern Sierra Nevada crest, a few thunderstorms developed on the 14th.

Warm weather continued through September 17th, when both Bakersfield and Fresno hit triple digits for the last time in September. A strong cold front moved into the region during the night of September 17th-18th, bringing a push of marine air into the San Joaquin Valley. The high at both Bakersfield and Fresno on September 18th was only 90 degrees, and Valley highs were down around 10 degrees from the previous day.

An upper-level low southwest of Point Conception spun mid-level moisture into the southern Sierra Nevada on September 20th-21st, bringing isolated showers and thunderstorms to the high country. Tuolumne Meadows received 0.53 inch of rain, and Lodgepole recorded 0.23 inch. In the foothills, Oakhurst registered 0.19 inch of rain.

Temperatures remained a few degrees above seasonal through September 24th, then the next Pacific storm brought cooler weather to interior central California beginning on the 25th. Isolated showers moved into the northern part of the WFO Hanford warning/forecast area, with Merced and Los Banos receiving a trace of rain. The main cold front reached the area during the afternoon of September 26th, with a few thunderstorms developing over the west side of the San Joaquin Valley, and showers and high-elevation snow showers over the southern Sierra Nevada.

Showers continued over the southern Sierra Nevada on September 27th as the upper-level low moved eastward across the northern part of the WFO Hanford warning/forecast area. The low moved into the Great Basin, where it stalled due to a blocking ridge of high pressure over the southeastern United States. With the low over the Great Basin, wrap-around moisture was spun into the west side of the San Joaquin Valley during the afternoon of the 27th, triggering a couple of thunderstorms over the Diablo Range from near the Pacheco Pass south through Merced County.

Moisture continued to spin around the low during the night of September 27th-28th. As this moisture encountered upper-level disturbances rotating around the low, showers and thunderstorms developed. Thunderstorms formed near Yosemite during the early morning hours of the 28th, and moved southward in the flow around the low. Two distinct bands of showers and

thunderstorms developed over the central San Joaquin Valley during the pre-dawn hours, bringing record-tying rainfall to Fresno and light accumulations of new snow to the southern Sierra Nevada above 9000 feet. An upper-level disturbance rotating around the low moved over the southern Sierra Nevada during the afternoon of September 28th, bringing more showers and thunderstorms to the mountains and foothills, and even over the far eastern side of the San Joaquin Valley. The highest rainfall amounts were in the Yosemite National Park area, where a couple of sites reported over an inch of rain, and several had between a third and a half inch.

A storm dropping out of the Gulf of Alaska finally pushed the low east of the Great Basin. This ended the threat of wrap-around moisture over the southern Sierra Nevada. The departure of the low also meant that the upper-level ridge off the California coast could begin building into the state, bringing dry weather with a warming trend to the region.

Despite the cool weather the last week of September, both Fresno and Bakersfield ended the month in the top 10 warmest Septembers on record. Although Bakersfield's rainfall for September was well below normal, Fresno actually exceeded its normal for the month (0.17 inch) by 0.01 inch, and ended the first quarter of the rain year (July-September) at exactly the normal of 0.19 inch.

THE 10 WARMEST SEPTEMBERS ON RECORD

	BAKERSFIELD	FRESNO
1.	83.0...1974	81.3...2012
2.	82.6...1975	81.0...1984
3.	81.8...1979	*80.7...2014*
4.	81.3...1991	80.6...1888
5.	81.2...2003	80.3...2011
6.	81.0...2012	79.8...1991
7.	*80.9...2014*	79.7...2009
8.	80.9...2009	79.5...1979
9.	80.8...1969	79.2...2003
10.	80.4...1967	79.1...1922