APRIL 2012 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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April began midway through the storm that arrived on the last day of March. As mentioned in the weather summary for March, two-day storm totals (March 31st-April 1st) were between a quarter and a half inch of rain for the central San Joaquin Valley, and between a tenth and a quarter of an inch for the south Valley. The exception was the southwest part of the San Joaquin Valley, which was rain-shadowed and received only a few hundredths of an inch of rain. In the Southern Sierra Nevada, snowfall amounts over the high country generally were between 5 and 9 inches, although a couple of sites in Tulare County had around a foot of new snow. In the western Tehachapi Mountains, cars were stuck in the snow on the Mil Potrero Highway. Gusty southeast winds developed ahead of the cold front, with gusts of 35 to 45 mph in the central and southern San Joaquin Valley, and 58 to 62 mph in the Kern County deserts; a tree was blown down in Mojave.

As the storm moved east of California, an upper-level ridge moved into the state. High temperatures in the central and southern San Joaquin Valley on April 2nd were as much as 7 degrees warmer than on the 1st, and the desert saw even stronger warming in some locations. This warming continued on the 3rd, and then the ridge gave way to an approaching upper-level trough.

A dry cold front moved through interior central California on April 4th. This front triggered gusty winds across the central and southern San Joaquin Valley and over the mountains and deserts. Winds gusted to 45-50 mph over parts of the San Joaquin Valley and the Kern County deserts. Winds also gusted to over 45 mph in the Kern River Canyon, and to 66 mph at Bird Spring Pass in the far south end of the Sierra Nevada.

An unseasonably cold airmass moved into the San Joaquin Valley behind the cold front. Morning low temperatures on April 6th fell as low as 28 degrees, and the lows at Bakersfield and Fresno of 38 degrees were 2 and 3 degrees off the record lows for the date, respectively. Lows during the next morning were only a degree or two warmer.

An upper-level ridge then moved over California, warming temperatures briefly to above normal. Fresno finally had its first 80-degree day of the year on April 8th; the last time Fresno had seen 80 was on October 30th, 2011.

An upper-level short-wave moved into California on April 10th, flattening the ridge. This set the stage for back-to-back strong storms to move through the central California interior on the 11th and 13th. Each storm triggered severe thunderstorms over the central and southern San Joaquin Valley with hail up to an inch in diameter. Funnel clouds were observed, although none touched down. The first storm brought up to a foot of snow to the Southern Sierra Nevada, and the second—colder—storm dropped up to 30 inches of snow at Lodgepole in Sequoia National Park.

Record rainfall fell on the central and southern San Joaquin Valley. By 8 AM on April 11th, the rainfall at Meadows Field, Bakersfield, had already broken the record for the date. Two days later, the rainfall records at both Bakersfield and Fresno had fallen by 11 AM. Some street flooding was reported, especially near the Fresno State campus.

The high temperature at Bakersfield on April 13th was only 57 degrees, and occurred at 2 AM. The high tied the record low maximum temperature for the date, last set in 1939. Fresno's high of 55 degrees on the 13th occurred at 1:50 AM, and just missed the record low maximum temperature of 54 degrees, set in 1998.

An upper-level ridge built into California behind the departing trough. Temperatures warmed to near normal by April 16th, then above normal the next day. An upper-level trough moved through the Pacific Northwest on the 18th, briefly flattening the ridge, but the ridge rebounded on April 19th for a sharp warming trend. High temperatures in the central and southern San Joaquin Valley on April 20th were 7-10 degrees warmer than the previous day. Temperatures on the 21st continued to warm, and highs were 4-7 degrees warmer than on the 20th. Both Bakersfield and Fresno had their first 90-degree days of the year, with highs of 94 and 93 degrees, respectively. Temperatures warmed even further on the 22nd; record high maximum and minimum temperatures were either tied or broken at both Fresno and Bakersfield.

The ridge began to weaken by the following evening, with an upper level trough over northern California. This trough ushered in cooler marine air into the San Joaquin Valley and much of interior central California so that temperatures cooled several degrees by the 23rd. (This pattern was similar to what occurs during the summer months.) Temperatures mainly reached the 80s on the 23rd and 24th in the San Joaquin Valley; however, they remained as high as the 90s during these days in the Kern County desert areas where there was little influence from the marine air.

Another low pressure trough approached central California by April 25th, bringing strong thunderstorms to the southern San Joaquin Valley, including Bakersfield and Delano during the afternoon. These storms continued to develop and intensify as they moved northward into Tulare County. The main threat these storms produced was heavy rain; this caused street flooding throughout much of the San Joaquin Valley portion in Tulare County, including Visalia, Tulare,

and Porterville. Many locations in Tulare County received from around 0.5 to 1.5 inches of rain where the strongest storms developed.

On the 26th, the colder air infiltrated the region behind the upper-level low. A cold air funnel was spotted in a thunderstorm that developed near Exeter, or about 10 miles east-southeast of Visalia, during the afternoon of the 26th. Much cooler air prevailed through the 27th as temperatures were well below seasonal averages. Subsequently, high pressure gradually began to build over the area. Low clouds persisted in the Sierra Nevada foothills until the 28th due to a cool and somewhat moist northwest flow aloft that continued over the area as the upper-level ridge was slow to move inland. Temperatures on April 28th were several degrees warmer than during the previous day and returned to near seasonal averages.

The upper-level ridge finally progressed onshore and set up over the region as temperatures warmed back to well above average during the 29th and 30th. The month ended with many locations throughout the San Joaquin Valley and Kern County desert having highs in the 90s due to this upper-level ridge.

THE 2011-2012 RAIN SEASON THROUGH APRIL 30TH

/AMOUNTS IN INCHES/

SITE	APR 2012	NRML APR*	DEP	PCT NRML	SEASON 4/30	NORMAL 4/30*	DEP	PCT NRML
MERCED AIRPORT	1.69	0.95	0.74	177.9	7.02	11.79	-4.77	59.5
MERCED CITY	2.23	0.94	1.29	237.2	7.89	12.42	-4.53	63.5
MADERA AIRPORT	1.59	0.95	0.64	167.4	7.87	11.35	-3.48	69.3
FRESNO	2.02	0.95	1.07	212.6	8.15	10.86	-2.71	75.0
HANFORD AIRPORT	1.79	0.79	1.00	226.6	5.79	9.53	-3.74	60.8
HANFORD CITY	1.39	0.78	0.61	178.2	5.71	8.61	-2.90	66.3
BAKERSFIELD	1.62	0.52	1.10	311.5	4.93	6.21	-1.28	79.4

* NORMALS FOR BAKERSFIELD...FRESNO...HANFORD CITY AND MERCED CITY ARE FOR 1981-2010.
NORMALS FOR HANFORD...MADERA AND MERCED AIRPORTS ARE FOR 2001-2010.

Bakersfield had its 10th wettest April on record. Fresno had its 19th wettest April on record.