

APRIL 2010 CLIMATE SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

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April began with an upper-level trough moving through interior central California. Rain and mountain snow showers continued into the 2nd, before the next storm arrived. This next storm reached the region during the evening of April 4th, and continued into the next day. The cold front moved quickly through interior central California, but in its wake, a pool of cold, unstable air settled over the San Joaquin Valley and adjacent mountains. A late-morning ice-pellet shower fell on Hanford, and hail up to an inch in diameter fell on parts of central Fresno and Tulare counties during the afternoon. The snow level dropped as low as 2500 feet during the morning of April 4th, with snow falling on some Sierra Nevada foothill communities, including Oakhurst (which reported up to 3 inch accumulations) and Springville. In the central and southern San Joaquin Valley, storm total rainfalls ranged from 0.83 inch at Merced to a mere 0.08 inch at Bakersfield. In the Southern Sierra Nevada, 20 inches of snow fell at Lodgepole, and new snow accumulations were estimated at as much as 29 inches in the high country. Further south, 3½ inches of snow fell at Bear Valley Springs in the Tehachapi Mountains. In the Kern County deserts, winds gusted to 50 mph as the storm moved through.

Skies cleared out on April 6th--except for some upslope mountain clouds--as the trough moved east and an east-Pacific ridge began to build into California. Interior central California experienced tranquil weather for the next several days, but a potent late-season storm was dropping out of the Gulf of Alaska.

The storm moved into central California on April 11th. This was a much wetter storm than that of the week before, and the two-day rainfall totals for several central and southern San Joaquin Valley sites were close to, or over, the normal rainfall for the entire month of April. Gusty winds developed over the San Joaquin Valley during the afternoon of the 11th as the cold front pushed through. Winds gusted to 56 mph at Avenal on the west side of the Valley, while gusts to 46 mph were measured at Meadows Field in Bakersfield. An aircraft taking off from the Taft Municipal Airport was caught in one of these gusts. The aircraft was flipped over and crashed. The pilot only suffered minor injuries, but the aircraft had serious damage.

Thunderstorms developed over the central and southern San Joaquin Valley during the afternoon and early evening of April 12th, with hail up to an inch in diameter. Lightning struck a condominium building in Fresno during the late afternoon, starting a fire that destroyed two units.

Another 12 to 18 inches of snow fell on the Southern Sierra Nevada, with both Lodgepole and Grant Grove reporting 15 inches. In the Tehachapi Mountains, up to 6 inches of new

snow fell at Pine Mountain Club, and 4 inches at Cuddy Valley.

With abundant ground moisture from the rains, patchy dense fog developed during the early morning of April 13th. Isolated patches of fog formed the next morning, mainly in Merced County; otherwise the central and south Valley remained fog free as a drier airmass moved into the region. An upper-level ridge brought mostly clear skies and near-to slightly-above normal temperatures to interior central California through the 19th.

Another potent, cold Pacific storm reached central California during the late afternoon and evening of April 19th, bringing another round of moderate to locally heavy precipitation to the central California interior. The heaviest rain fell over much of the region on the 20th, but the low stalled over south central California the next day. This allowed an upper-level disturbance rotating around the low to bring another round of moderate precipitation to the area on April 21st.

A line of moderate showers pushed into the Tulare County foothills. 2.77 inches of rain fell at Milo during the 24 hours ending at midnight on April 20th, while 2.07 inches fell at Three Rivers during the same period. Lemon Cove had a storm total rainfall of 1.92 inch. Two inches of snow fell on Tehachapi during the early morning of April 21st, and snow was reported as low as 2400 feet near Springville in Tulare County, and near 2600 feet at Mountain Mesa in Kern County. Another 21 inches of new snow fell at Lodgepole, but this amount may have been the result of the line of showers that moved into Tulare County. Elsewhere in the Southern Sierra Nevada, estimated new snow accumulations mostly were in the 9 to 18 inch range, with a few higher amounts.

Hail up to a quarter inch in diameter fell at Avenal during the afternoon of April 20th, with similarly sized hail fall in Lamont that evening. Winds in the central and southern San Joaquin Valley gusted as high as 45 mph, toppling trees and downing power lines. Winds gusted to around 55 mph in the Indian Wells Valley.

The low finally began moving east of the region on April 22nd, although a few residual showers remained over the central and southern San Joaquin Valley and the adjacent mountains. High pressure began building into California on the 23rd, with the high temperatures at both Bakersfield and Fresno up 12 degrees from the previous day. Temperatures continued to warm through April 26th, which was the warmest day of the month at both Bakersfield and Fresno with both cities reaching 85 degrees.

The fourth, and final, storm of the month reached interior central California on April 27th. This was a drier storm than the previous ones, but up to a foot on new snow fell over the high country of the Southern Sierra Nevada, and as much as 4 inches of new snow fell as far south as the Tehachapi Mountains. The freezing level fell below 4000 feet on Interstate 5 around sunrise on April 29th. Black ice formed on the higher elevations of the Grapevine, and the California Highway Patrol also reported hail or snow pellets covering the road. Numerous accidents between 6 AM and 7 AM resulted in Interstate 5 begin closed over the Grapevine for a few hours.

In addition to the rain and mountain snow, the storm brought another round of strong wind gusts to the Kern County Mountains and deserts. Gusts to 78 mph were reported near the Walker Pass, and gusts to around 55 mph occurred in the Kern County deserts.

April proved to be a much wetter than normal month, as seen by the table below. This is typical of a strong El Nino pattern, although the low snow levels were not. The storms of April atypically entrained cold Arctic air as well as Pacific moisture, resulting in snow falling into the Southern Sierra Nevada foothills. Typically, strong El Ninos are dominated by warm subtropical moisture fetches, with high snow levels.

April also was a much colder than normal month, with both Bakersfield and Fresno seeing their average temperatures for the month rank among the 15 coldest Aprils on record. Bakersfield tied for its 12th coldest April, with an average temperature of 58.7 degrees. Fresno had its 14th coldest April, with an average temperature of 57.7 degrees.

SELECTED CENTRAL AND SOUTHERN SAN JOAQUIN VALLEY RAINFALLS FOR APRIL 2010...

BELOW ARE LISTED RAINFALL REPORTS FROM THE OFFICIAL NATIONAL WEATHER SERVICE CLIMATOLOGICAL STATIONS. ALSO LISTED ARE THE MUNICIPAL AIRPORTS AT HANFORD...MADERA AND MERCED. AMOUNTS LISTED ARE IN INCHES.

NOTE...COOPERATIVE CLIMATE STATION DATA THROUGH 8 AM PDT APRIL 30TH. AIRPORT DATA THROUGH MIDNIGHT PDT APRIL 30TH. DATA ARE PRELIMINARY AND SUBJECT TO REVISION BY THE NATIONAL CLIMATIC DATA CENTER.

STATION	RNFL APRIL	RNFL SINCE JAN 1	RNFL SINCE JULY 1	NORMAL APRIL	NORMAL THROUGH APRIL	NORMAL SEASON
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CLIMATE STATIONS

LEMON COVE	3.82	12.18	16.17	1.10	13.86	14.56
MERCED	3.67	10.85	15.89	0.89	11.96	12.50
LINDSAY	2.76	9.44	13.31	0.90	12.03	12.57
LOS BANOS	2.59	7.89	11.22	0.63	9.44	9.95
FRESNO	2.19	8.14	12.15	0.76	10.61	11.23
VISALIA	2.06	7.42	10.80	0.80	10.52	11.03
HANFORD	1.65	6.52	9.72	0.63	8.24	8.58
BAKERSFIELD	1.14	4.98	6.83	0.45	4.25	6.49

MUNICIPAL AIRPORTS /THERE ARE NO NORMALS FOR THESE AIRPORTS/

MERCED	3.36	9.98	14.71
MADERA	2.68	7.66	10.79
HANFORD	1.63	6.17	9.18