FEBRUARY 2021 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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Overall, February 2021 temperatures were near average to warmer than average, but well below average precipitation accumulated this month. A couple of storms brought mainly light precipitation mainly towards the middle of the month, with gusty westerly winds at times behind the systems. Except there was one instance when some beneficial snow fell in the Sierra Nevada in Yosemite National Park during the 11th-12th; for example, nearly a foot of snow accumulated at Tuolumne Meadows. Some record high maximum temperatures were set or tied on the 1st day of the month, and there were quite a few days with well above average daytime highs later in the month. Mornings were generally cool, but with no prolonged periods of widespread freezing temperatures reported in the San Joaquin Valley.

Table 1 – February 2021 Summary Statistics – NWS Hanford, CA ASOS Sites

Location	Monthly Average Temp (deg F)	Departure from Average (deg F)	Temperature Rank	Total Monthly Precipitation (inches)	Departure from Normal (inches)	Precipitation Rank
Bakersfield	54.1	+1.5	44th warmest	0.09	-1.15	8th lowest
Fresno	54.1	+2.6	19th warmest	0.29	-1.74	17th lowest
Hanford	51.9	+1.6	30th warmest	0.02	-1.71	4th lowest
Madera	51.1	+0.9	29th warmest	0.14	-1.99	5th lowest
Merced	50.8	+1.1	51st warmest	0.31	-2.03	9th lowest

Table 2 – Number of Days with Freezing Low Temperatures (at or below 32 degrees Fahrenheit):

Location	February 2021	February Average	Departure
Bakersfield	0	1	-1
Fresno	0	2	-2
Hanford	2	3	-1
Madera	2	4	-2
Merced	3	4	-1

Fairly strong high pressure with warmer than average temperatures occurred at the beginning of the month. A few locations in the San Joaquin Valley either tied or broke record high maximum temperatures on the first day of the month, as high reached into the lower to mid-70s. Warm temperatures prevailed into the 2nd in most of the region, except for Merced and Mariposa Counties due to an approaching storm system, although no record daily maxima were set or tied. However, cooler daytime temperatures returned on the 3rd, behind a storm system that passed over Central California on the afternoon and evening of the 2nd. Light precipitation accumulated with this storm in a few locations, although amounts were generally a tenth of an inch or less in the Central Valley with slightly higher amounts in the Sierra Nevada, Kern County mountain areas, and adjacent foothills. Otherwise, cool mornings prevailed in much of the region, as typical during early February. Patch dense fog developed at times on the 5th through the 8th in portions of the Central Valley, such as at Hanford and Merced. Upper-level disturbances brought clouds at times on the 9th and 10th, and cloud cover was enough to keep temperatures a little warmer at times in the nights and mornings.

Another low-pressure system arrived on the evening of the 11th and brought precipitation mainly during the overnight hours into the 12th. Several inches to near a foot of snow accumulated in the Sierra Nevada towards Yosemite National Park; eleven inches of snow fell in a 24-hour period as of the morning of the 12th at Tuolumne Meadows. Rainfall in the San Joaquin Valley ranged anywhere from a couple of hundredths of an inch to near one-half inch due to scattered showers. The highest rain amounts were near Visalia and Fresno. Gusty winds behind this system were around 45 to 50 miles per hour in the mountain and desert areas of eastern Kern County. Yet another low-pressure system arrived on the 13th and brought another round of gusty winds to the Kern County mountain and desert areas. This time, gusts reached over 60 miles per hour in Mojave, with stronger isolated gusts near 80 miles per hour in the nearby mountains below the passes and canyons.

A couple of days later, or on the 15th, an upper-level disturbance with significantly less moisture reinforced the gusty winds in eastern Kern County and brought isolated showers to the Central Valley, Sierra Nevada, and the adjacent foothills. Precipitation amounts were much lighter and more isolated, compared to the system about four days prior. Gusts were mainly around 50 to 60 miles per hour in the Kern County mountains and desert during the evening of the 15th into the morning of the 16th, with some isolated gusts that exceeded 70 miles per hour. In addition, dense fog formed due to low clouds over the Tehachapi Mountains and towards the Grapevine on the morning of the 16th. Gusty westerly winds also developed along the west side of the San Joaquin Valley on the afternoon of the 16th, although gusts were mainly around 35 to 45 mph.

A warming trend soon followed as high pressure returned. First, a brief period with daytime highs of several degrees above average occurred on the 18th and 19th. Afterward, or on the 20th, a weak system brought light precipitation to the mountains and northern portions of the forecast

area, such as Merced and Mariposa Counties. Otherwise, cooler temperatures and locally gusty winds were observed, and daytime highs were near to slightly below average. However, another period of high pressure soon followed, as highs reached into the lower 70s on the 22nd through the 24th in the Central Valley and the Kern County desert regions.

For the last few days of the month, temperatures moderated a little, but dry conditions remained. Some gusty winds developed in portions of the Central Valley and in the Sierra Nevada on the 27th due to an upper-level low pressure system that passed over the Great Basin. Gusts of 30 to 40 miles per hour occurred in the western side of the San Joaquin Valley, while gusts of 35 to 45 miles per hour were observed in the higher elevations of the Sierra Nevada. On the last day of the month, stronger southeast winds developed behind the system; gusts up to 60 mph were reported at the base of the Grapevine along Interstate 5 in Kern County. In addition, gusts of 30 to 35 mph occurred at Bakersfield and the south end of the San Joaquin Valley.

Table 3 – Seasonal Precipitation for ASOS locations (ending on February 28th)

Location	**Since Jan 1st (inches)**	**Departure from Normal (inches)**	**Since Jul 1st (inches)***	**Departure from Normal (inches)**	**Since Oct 1st (inches)****	**Departure from Normal (inches)**
Bakersfield	1.07	-1.33	1.81	-2.67	1.81	-2.55
Fresno	3.69	-0.53	5.11	-2.77	5.11	-2.58
Hanford	2.38	-1.39	3.05	-4.06	3.05	-3.85
Madera (+)	Missing	Missing	Missing	Missing	Missing	Missing
Merced	3.64	-1.31	5.92	-2.85	5.92	-2.54

* Rain Year 2020-2021 (July 1st-date)
** Water Year 2020-2021 (October 1st-date)
+ Missing precipitation during January 2021

Table 4 – Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS locations				
Location	**High**	**Date(s)**	**Low**	**Date(s)**
Bakersfield	75	1st	38	4th, 18th, 21st, 22nd & 27th
Fresno	73	1st	38	5th, 17th & 21st
Hanford	72	1st	32	18th & 28th
Madera	74	1st	31	25th
Merced	72	1st	28	18th

Daily Records Set During February 2021

Bakersfield – No daily records set.

Fresno – 1st: Record high maximum temperature of 73 degrees tied for the date in 1991.

Hanford – No daily records set.

Madera – 1st: 1st: Record high maximum temperature of 74 degrees set for the date, which broke the old record of 71 degrees that was last set for the date in 1976.

Merced – 1st: Record high maximum temperature of 72 degrees tied for the date in 1991.

Figure 1 – Departure from Average Temperature for February 2021

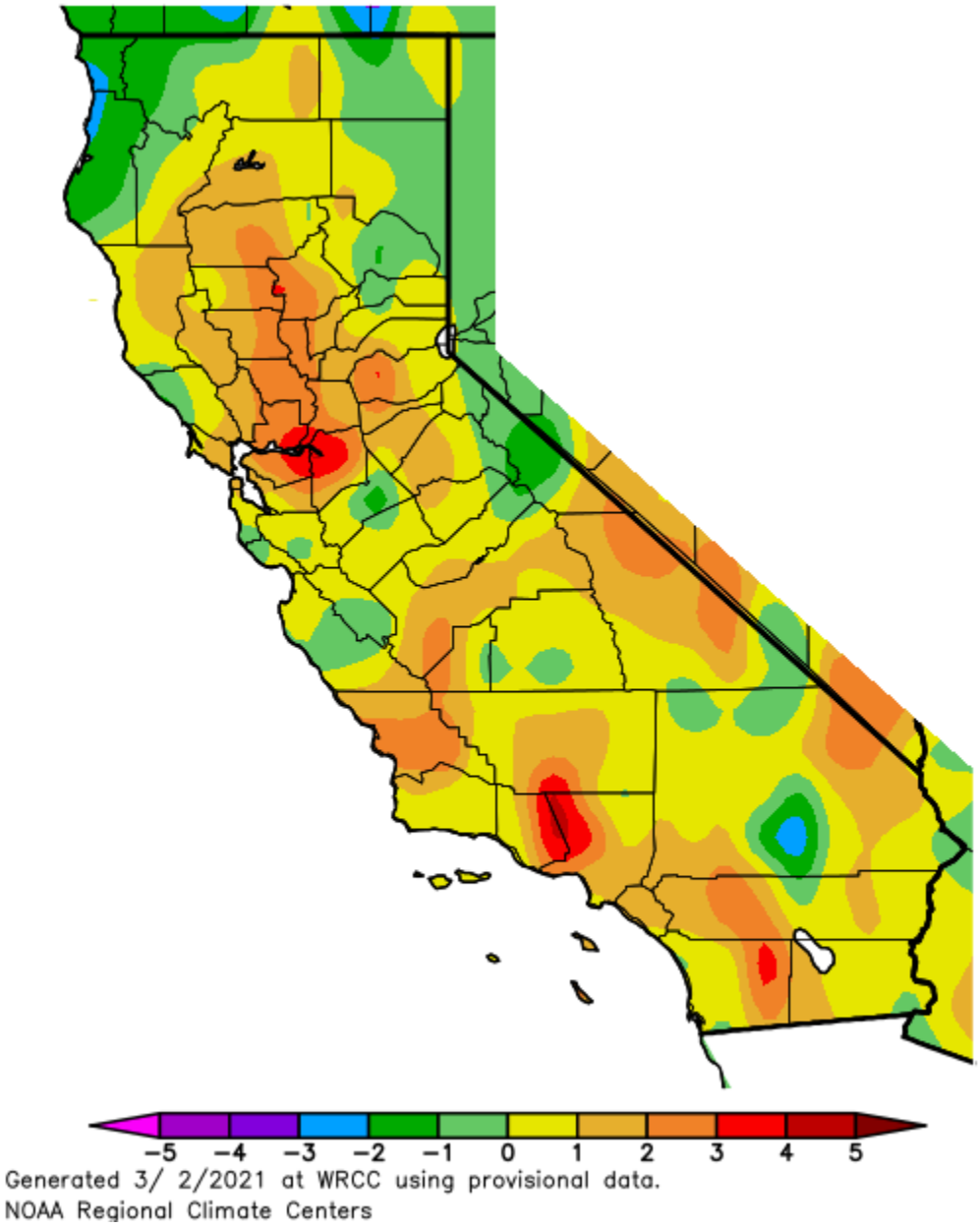
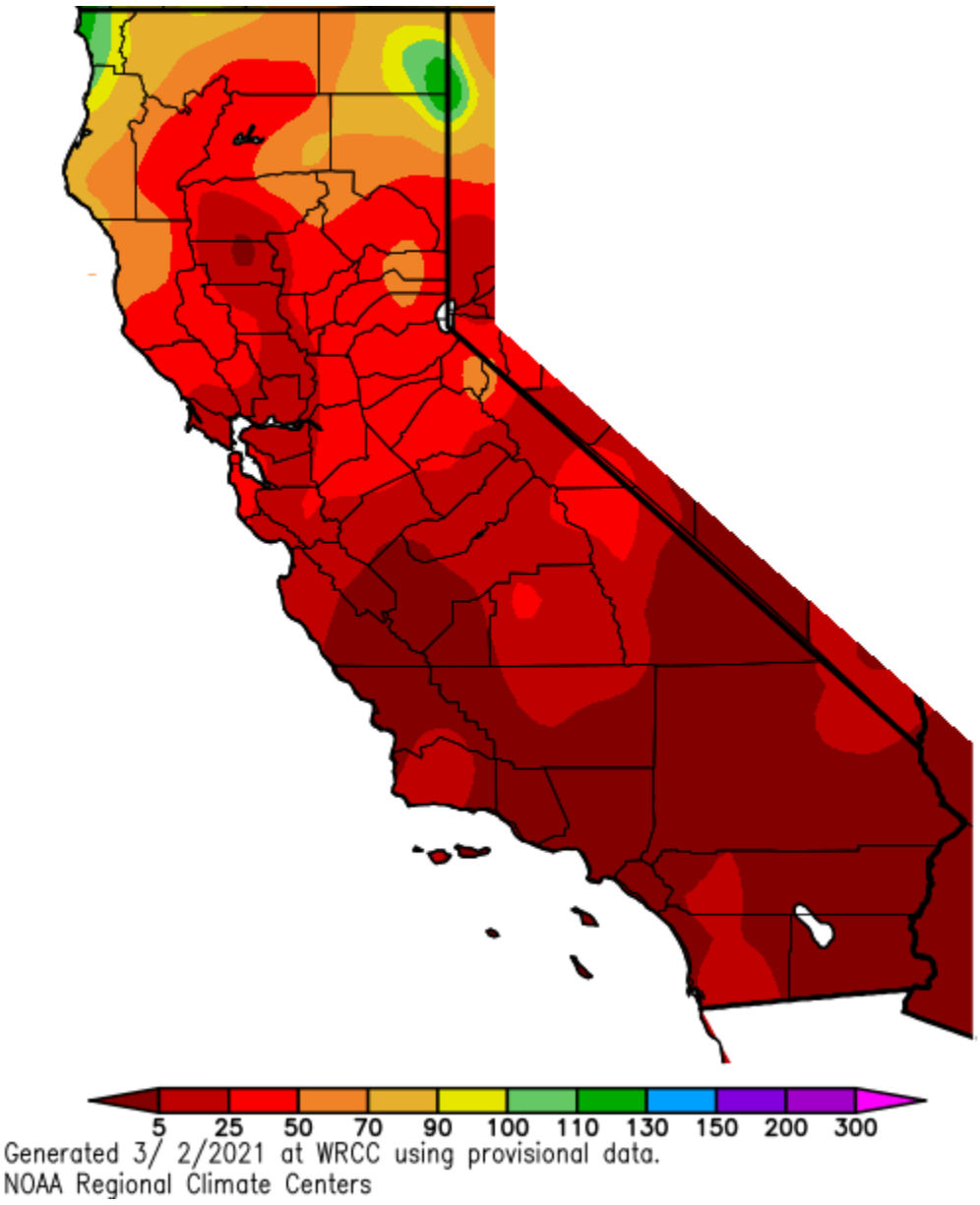


Figure 2 – Percent of Average Precipitation for February 2021



*Images above (i.e., Figures 1-2) courtesy of Western Region Climate Center