NOVEMBER 2021 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

By Brian Ochs, Climate Services Focal Point
Colin McKellar, Assistant Climate Services Focal Point
WFO San Joaquin Valley-Hanford

November 2021 began seasonably mild with little to no precipitation for the first week. A storm brought rain and high elevation snow (with snow levels above 7,000 feet) to the region on the 8th and 9th, although little precipitation accumulated in areas outside of the Sierra Nevada. No precipitation was otherwise reported during the remainder of the month. Patchy dense fog was reported at times in the San Joaquin Valley throughout the month, though became less widespread towards the end of the month.

Table 1
November 2021 Summary Statistics
NWS Hanford, CA ASOS Sites

Location	Monthly Average Temp (°F)	Departure from Average (°F)	Temperature Rank	Total Monthly Precipi-tation (inches)	Departure from Normal (inches)	Precipitation Rank
Bakersfield	57.3	+1.0	36th warmest	0.01	-0.50	18th lowest
Fresno	57.2	+2.1	22nd warmest	0.30	-0.57	45th lowest
Hanford	55.3	+2.1	17th warmest	0.14	-0.48	20th lowest
Madera	55.0	+0.9	25th warmest	0.08	-0.84	12th lowest
Merced	55.3	+1.8	16th warmest	0.26	-0.76	28th lowest

Number of Days with Minimum Temperatures at or below 32 degrees Fahrenheit:

Bakersfield: 0 days for November (average 1 day)
Fresno: 0 days for November (average 1 day)
Hanford: 1 day for November (average 3 days)
Madera: 0 days for November (average 3 days)
Merced: 1 day for November (average 3 days)

Mainly seasonal to slightly cooler than average temperatures prevailed for the first week of the month. There were a couple of mornings with patchy dense fog reported in the San Joaquin Valley, including on the 3rd and 5th. A weak cold front passed over Central California on the 4th and brought a brief period of cloudy skies, breezy conditions and light showers over the Sierra Nevada. Otherwise, dry weather prevailed until the 7th.

A Pacific storm system with a fetch of subtropical moisture arrived in the region on the evening of the 8th, and precipitation began to impact areas mainly north of Kern County. However, Kern County did receive some precipitation by the morning of the 9th, although it was mainly light. Otherwise, precipitation amounts across Central California ranged from a trace or a few hundredths of an inch in Kern County and southern portions of the Central Valley up to around 1.4 inches in the Sierra Nevada. Desert locations in eastern Kern County reported very little, if any precipitation, although a few locations reported gusts around 45 mph as a result of the storm. The highest amounts of precipitation were reported in Yosemite National Park at elevations mainly up to 7,000 feet. In addition, several inches of snow accumulated in the Sierra Nevada from Yosemite to Tulare County during the 8th-9th, including at elevations above 7,000 feet.

Dense fog and low clouds made a daily appearance in the San Joaquin Valley by the morning of the 10th. A warming trend began over the mountains and foothills with daytime highs reaching into the 70s by the 11th, due to building high pressure. In addition, desert locations in eastern Kern County were even warmer; daytime highs reached near 80 degrees on the 11th. This pattern persisted for several days, and even high temperatures in the Central Valley were rising to above average at times.

A weak low pressure system on the morning of the 19th brought a brief shower to Yosemite and Mariposa County; however, amounts were light with little or no measurable precipitation. This system had little effect on the weather and temperatures, though dense fog in the San Joaquin Valley became less widespread on that day. Afterward, the upper-level ridge of high pressure returned, and dense fog was once again prevalent throughout the Central Valley, especially during the late nights and mornings until the morning of the 25th. Except in some areas where fog did not develop, a few stations reported freezing overnight lows in the San Joaquin Valley, such as near Merced. However, localized gusty winds developed to the south in Kern County, mainly towards the Grapevine and western sides of the Tehachapi Mountains, as an upper-level disturbance passed southward into Baja California. Gusts of 35 to 45 mph were reported from the early morning until the afternoon of the 25th.

Valley fog decreased in coverage and duration, as the airmass became noticeably drier, including during the night of the 25th into the morning of the 26th, as well as nights and mornings for the remainder of the month. Some patchy fog that produced visibility around one quarter of a mile developed near Merced and Hanford around sunrise and shortly afterward, though duration was

brief and limited to the early morning hours around sunrise. A few locations in the San Joaquin Valley, including Merced and some outlying areas, did report freezing overnight lows temperatures at or just below freezing on the 25th, even though fog developed in some of these areas. The morning of the 26th was also a bit chilly, as Hanford reported temperatures at or just below freezing on the morning of the 26th; however, widespread dense fog did not develop. In addition, some subfreezing temperatures at locations occurred in the desert region of eastern Kern County on the morning of the 26th and again on the 27th. Otherwise, the last few days of the month ended up with above average daytime highs and relatively cool overnight lows. In addition, less widespread fog developed in the Central Valley from the 27th until the end of the month. November 2021 was overall near average to warmer than average in terms of temperature with well below average precipitation, as only one low pressure system brought notable precipitation to Central California this month.

Table 2 – Seasonal Precipitation for ASOS locations (ending on October 31st)

Location	Since Jan 1st (inches)	Departure From Average (inches)	Since Jul 1st (inches)#	Departure From Average (inches)#	Since Oct 1st (inches)*	Departure From Normal (inches)*
Bakersfield	2.98	-2.28	0.95	+0.11	0.95	+0.16
Fresno	6.74	-2.46	1.57	+0.10	1.57	+0.14
Hanford	4.76	-2.01	1.24	+0.10	1.24	+0.16
Madera	Missing	Missing	0.65	-0.75	0.65	-0.71
Merced	6.72	-3.17	2.00	+0.29	2.00	+0.34

*Water Year 2021-2022 (October-September).
#Rain Year 2021-2022 (July-June)

Table 3 – Warmest High Temperatures and Coolest Low Temperatures (°F) of the Month for ASOS locations

Location	High	Date(s)	Low	Date(s)
Bakersfield	75	2nd & 4th	36	25th
Fresno	75	2nd & 3rd	39	25th & 26th
Hanford	76	4th	31	26th
Madera	76	2nd	33	26th
Merced	75	2nd & 3rd	32	25th

Daily Records Set During November 2021

Bakersfield – No daily records set or tied.

Fresno – No daily records set or tied.

Hanford – No daily records set or tied.

Madera –30th: Record high maximum temperature of 71 degrees tied; last set for the date in 1959.

Merced – No daily records set or tied.

Fig 1 – Departure from Average Temperature for November 2021

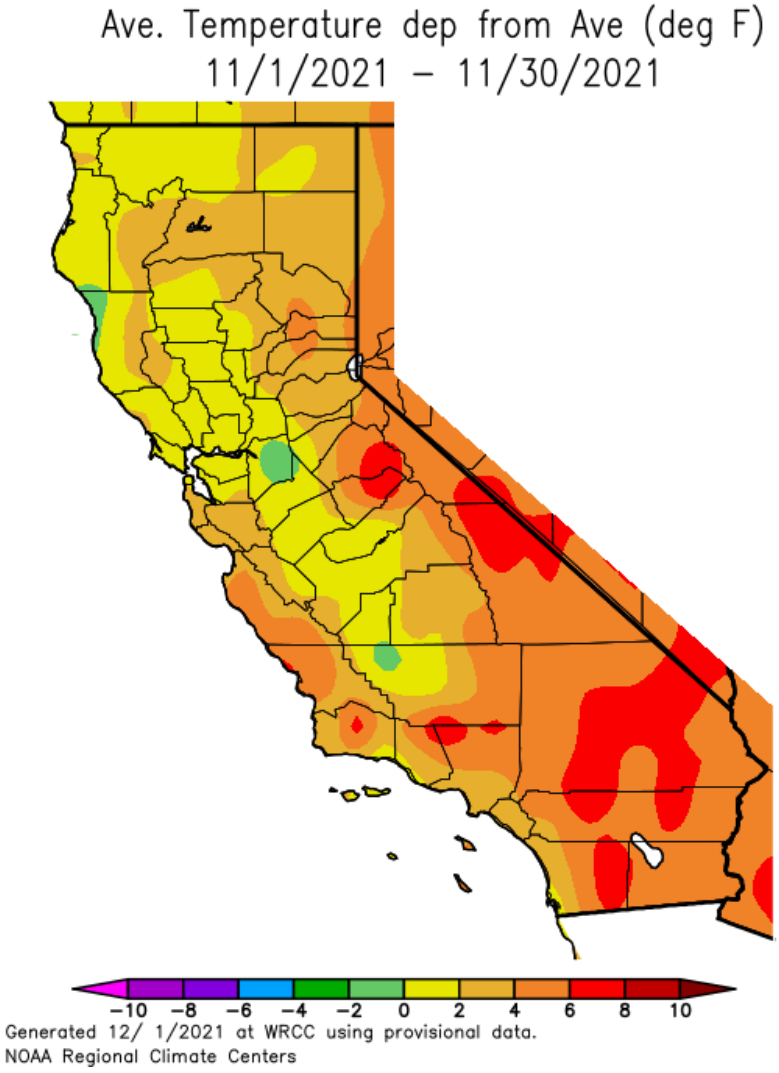
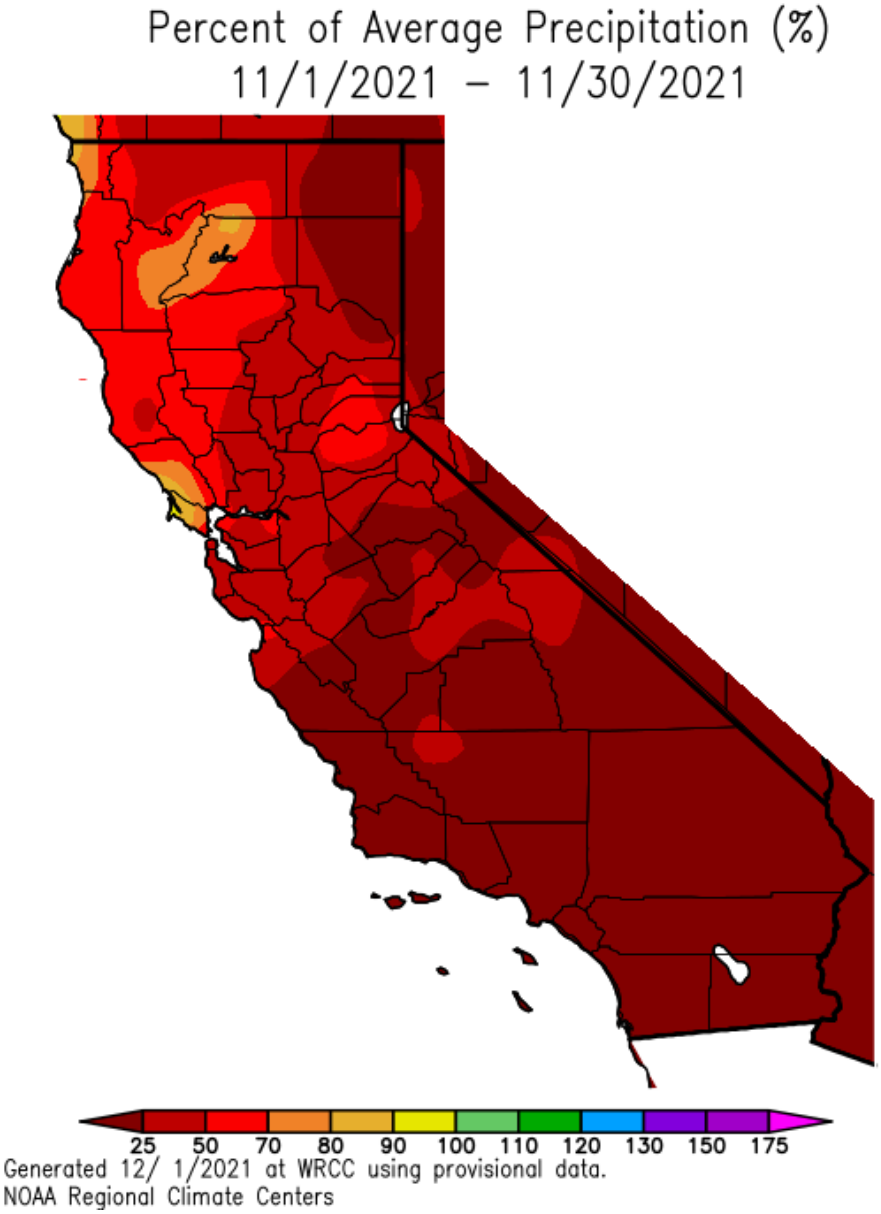


Fig 2 – Percent of Average Precipitation for November 2021



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