NOVEMBER 2019 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

Except for cool overnight lows, the 1st was a seasonal start to the month with clear skies. A gradual warming trend continued for the next couple of days, although a weak upper-level low pressure system moved onshore into Southern California on the 2nd and 3rd. This feature was strong enough to produce clouds and showers over the mountains south of the Grapevine on the afternoon of the 2nd and some showers and thunderstorms to the southeast of Edwards AFB on the early morning hours of the 3rd. However, no precipitation fell in our forecast area, including in Kern County, as the storms weakened just outside. Meanwhile, high pressure persisted off the coast of Central and Northern California, so the temperatures continued to rise and reached several degrees above average on the 4th and beyond.

Dry and warm conditions continued for at least a couple of weeks until the 14th, as the ridge of high pressure dominated along and just off the West Coast. There were some fluctuations in temperatures with very warm afternoons and relatively cool overnight lows along with mainly clear skies. Some occasional periods of haze occurred in the San Joaquin Valley as the atmosphere in the lower levels became stagnant; however, there were no reports of dense fog during this time. A low pressure system that moved over Southern California briefly weakened the high pressure ridging during the 15th and 16th, so temperatures fell towards seasonal averages. However, temperatures quickly warmed back up on the 17th and 18th, or when the high pressure ridge shifted back inland over California.

A stronger low pressure system arrived on the 19th and produced showers over the Sierra in the late afternoon into the evening hours. Precipitation was generally light with up to an inch of snow in the higher elevations of the Sierra Nevada, including at Tuolumne Meadows in Yosemite National Park. Rainfall amounts were about a quarter inch or less during that evening. More moisture arrived by the morning of the 20th, and more significant rain and snow fell over Kern County. The heaviest precipitation was reported near the Grapevine and towards Frazier Park and Pine Mountain Club. Over a foot of snow fell at Pine Mountain Club (elevation around 6,000 feet), and over an inch of rain accumulated at the base of the Grapevine (along Interstate 5 to the north of Lebec & Fort Tejon). Also, around six to nine inches of snow fell in the Sierra Nevada in Tulare County, including at elevations above 6,000 feet on the afternoon and evening of the 20th. Even the south end of the San Joaquin Valley had amounts exceeding a half inch that fell mainly during the morning of the 20th. Otherwise, much cooler temperatures with light

precipitation were the general rule north of Kern County, as amounts were generally a quarter inch or less with less than a couple of inches of snow in the Sierra Nevada.

Weather was generally quiet during the 21st through the 24th with warmer than average temperatures, or by around 5 to 10 degrees. On the 25th, a low pressure system brought gusty winds and blowing dust to the region, including in the San Joaquin Valley. Relatively cold temperatures prevailed on the night of the 25th through the 26th, including chilly overnight lows in quite a few locations in the Central Valley. Low temperatures on the morning of the 26th were in the upper 20s to the lower 30s in the coldest spots.

A cold storm system arrived on the 27th and brought showers and isolated thunderstorms. There were a couple of reports of funnel clouds, including a tornado. Otherwise, pea sized hail fell in some locations, such as Visalia. Additional rain and snow fell into the 28th, and an active storm pattern continued until the end of the month. Snow levels were around 2,500 feet in the Sierra Nevada, Kern County desert, and the Kern County mountains on the 28th, or Thanksgiving Day. Travel along Interstate 5 through the Grapevine, Highway 58 through Tehachapi, and other roads in Central California was halted or significantly impacted on much of Thanksgiving Day due to snow accumulation of several inches up to a foot. In addition, around 3 to 8 inches of snow fell on the 28th in the Kern County desert areas, including in Mojave, Rosamond, California City, Inyokern, and Ridgecrest. Even higher amounts of snow were reported in the higher elevations of the Sierra Nevada (above 7,000 feet), or around 1 to 2 feet.

Rain and snow tapered off on the 29th, and a brief break from precipitation continued until the afternoon of the 30th, before the next storm system arrived. However, the southerly winds ahead of the system were quite strong at the base of the Grapevine in Kern County along Interstate 5; gusts reached 80 miles per hour on the afternoon of the 30th. Snow levels gradually rose to above 6,000 feet by the late night hours of the 30th. Additional rain began to fall in Merced County; around 0.25 to near 0.50 inch fell during the evening of the 30th. This storm continued into December.

Overall, the month was above average in terms of temperatures (Fig 1). Variable precipitation accumulated this month (Fig 2), although quite a few locations ended up receiving above average precipitation in Kern County and parts of the Sierra Nevada, including in Fresno County, as well as around Kings Canyon and Sequoia National Parks.

Table 1 – November 2019 Summary Statistics for ASOS locations				
Location	**Monthly Average Temp (deg F)**	**Departure From Average (deg F)**	**Total Monthly Precipitation (inches)**	**Departure From Normal (inches)**
Bakersfield	58.3	+3.2	1.07	+0.43
Fresno	57.9	+3.6	0.72	-0.35
Hanford	55.6	+3.6	0.67	-0.33
Madera	54.9	+2.2	0.55	-0.60
Merced	54.3	+1.8	2.18*	+1.00

*****Estimated precipitation amount at Merced due to gauge outage at end of month.

Table 2 – Seasonal Precipitation for ASOS locations (ending on November 30th)						
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	7.59	+2.14	1.09	+0.03	1.07	+0.13
Fresno	10.24	+0.51	0.72	-1.17	0.72	-0.35
Hanford	8.30	-0.17	0.67	-1.04	0.67	-0.83
Madera	8.98	-1.34	0.55	-1.77	0.55	-0.60
Merced	11.58*	+0.60	2.18*	-0.12	2.18*	0.19

*****Estimated precipitation amount at Merced due to gauge outage at end of month.

Table 3 – Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS locations				
Location	**High**	**Date(s)**	**Low**	**Date(s)**
Bakersfield	82	18th	37	26th
Fresno	81	7th, 12th	35	26th
Hanford	83	12th	31	1st
Madera	82	8th	28	26th
Merced	80	7th, 8th	33	1st

Temperature/Precipitation Rankings for November 2019

Bakersfield – tied for 17th warmest November on record (with 2012 and 2 prior years); 20th highest precipitation on record for November.
Fresno – 11th warmest November on record; 69th lowest precipitation on record for November.

Daily Records Set During November 2019

Bakersfield – No daily records set.
Fresno – 13th – Record high maximum temperature of 81 degrees set (old record 80 degrees set for the date in 1900).
28th - 0.41 inch of precipitation set (old record 0.38 inch for the date in 1905).

Fig 1 – Departure from Average Temperature for November 2019

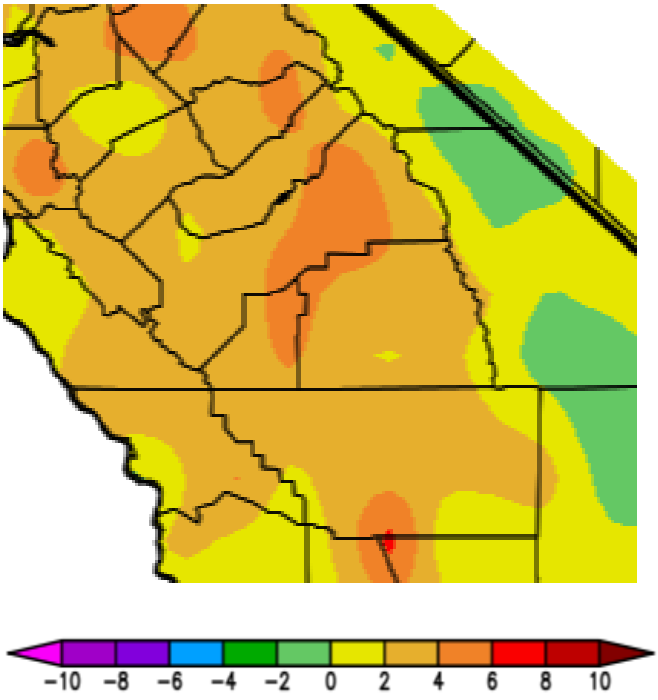
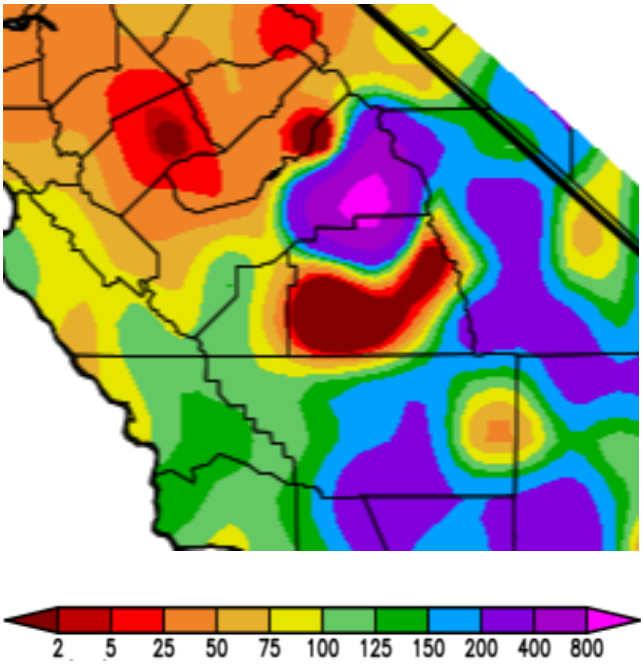


Fig 2 – Percent of Average Precipitation for November 2019



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