MARCH 2015 WEATHER SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

By Gary Sanger, Climate Services Focal Point And Brian Ochs, Assistant Climate Focal Point WFO San Joaquin Valley-Hanford

Unsettled weather prevailed throughout the central California interior during the first two days of the month as a cold unstable airmass was over much of central and southern California. Two low pressure systems trekked along the coast of California and moved inland over southern California and northern Baja California. These elements combined for scattered showers and thunderstorms over the San Joaquin Valley and Sierra Nevada foothills and scattered snow showers over the Kern County mountains and southern Sierra Nevada. A few thunderstorms produced pea-sized hail over the San Joaquin Valley and locally heavy rain. On the 1st, isolated thunderstorms were reported producing heavy rainfall as the first low moved along the coast. For one of the stronger thunderstorms, there was a report of heavy rain that measured as much as 1.25 inches in 30 minutes in the Sierra Nevada foothills in Tulare County near Springville. On the 2nd, there were scattered showers and thunderstorms during much of the day over the San Joaquin Valley with locally heavy rainfall due to the second low pressure system that moved along the coast. Rainfall was generally light throughout the region, except for some isolated strong thunderstorms.

On the 3rd, patchy fog developed around Hanford and Merced during the morning as temperatures fell into the upper 30s to lower 40s over much of the San Joaquin Valley. Low cumulus and stratocumulus clouds popped up over the region as some cold air still remained. High pressure set up over the region by the 4th, and benign weather with mostly clear skies with above average temperatures (or around 10 degrees above average) prevailed until the 10th. High temperatures reached into the 80s in many locations by the 8th.

On the 11th and 12th, weak low pressure moved over the region. Some rain and high elevation snow fell over the mountains. Cloudy skies kept morning lows quite mild, and record high minimum temperatures were set in the San Joaquin Valley. Even with the cloud cover, temperatures were still reaching above normal, or into the 70s in many locations throughout the San Joaquin Valley.

Strong high pressure developed over the central California interior during the 13th through the 16th. Temperatures reached above 20 degrees above the 30-year normal during this period. On the 14th, temperatures were reaching above 90 degrees in some locations such as Bakersfield. On the following day, Fresno saw its first 90-degree day; this is now the earliest day in the month and calendar year on record for Fresno to reach 90 degrees or above.

On the 18th, a low pressure system along the coast of northern Baja California brought showers and isolated thunderstorms mainly over the southern Sierra Nevada and adjacent foothills. By the evening the storm activity migrated southward into the Kern County mountain and desert areas. Mainly light rain fell with these showers, about a tenth of an inch or less.

Afterward, high pressure returned for a few days and brought more above average temperatures to the region. Highs reached to the upper 70s and lower 80s in the warmest locations. Low temperatures were generally near average as the airmass was relatively dry.

Low pressure once again moved over the central California interior on the night of the 22^{nd} and into the morning of the 23^{rd} . Some showers and thunderstorms developed during the late night hours of the 22^{nd} and fell over the Sierra Nevada and adjacent foothills, mainly over Mariposa County and Yosemite. Rainfall with these storms was generally around two tenths of an inch or less. Gusty winds developed in the Kern County mountains and desert, as well as along the west side of the San Joaquin Valley during the night of the 22^{nd} and into the 23^{rd} . Gusty winds also redeveloped on the night of the 23^{rd} in the Kern County mountains and desert as another upper-level disturbance moved over the region. Gusts reached around 40-45 mph along the west side of the San Joaquin Valley through Cottonwood Pass (along State Route 41) and Pacheco Pass (along State Route 152). A gust to 79 mph was recorded at the Bird Springs Pass remote automated weather station in the Kern County mountains, located to the northeast of Tehachapi at an elevation near 7,500 feet, on the morning of the 23^{rd} , and a gust of 62 mph was reported at the airport in Mojave during the evening of the 23^{rd} . High temperatures during the 22^{nd} through the 24^{th} were noticeably cooler but still above average by at least a few degrees.

High pressure returned to the area on the 25th, and temperatures began to warm by at least several degrees for the next couple of days. On the 26th, temperatures reached well into the 80s in many locations, including the San Joaquin Valley. On the following day once highs once again reached into the 90s throughout the San Joaquin Valley and the Kern County desert areas and set new record highs. Low temperatures were also mild, or as high as the upper 50s.

Over the next few days, highs remained well above average as high pressure persisted. Highs in many locations continued well into the 80s through the 30th. By the last day of the month, highs were only slightly above average as gusty winds began to develop through the passes and canyons in the Kern County mountain and desert areas (gusts were as high as 60 mph in Mojave and 79 mph on one of the mountain tops that is vulnerable to strong winds, or at Bird Springs Pass to the northeast of Tehachapi), as well as the west side of the San Joaquin Valley where gusts were around 30-40 mph. Overall, March 2015 was well above average for temperatures (around 7 degrees above average and well below average for precipitation; this is not helpful in terms of drought relief. Fresno had the warmest March on record while it had the 6th driest (at 0.06 inch of rain). Bakersfield had the third warmest March on record, while it had the 17th driest

(0.27 inch of rain). Figure 1 (see below) shows a snapshot of the overall temperature anomaly for the month, while Figure 2 below shows the percent of average precipitation for the month.

Fig 1 - Departure from average temperature for March 2015:

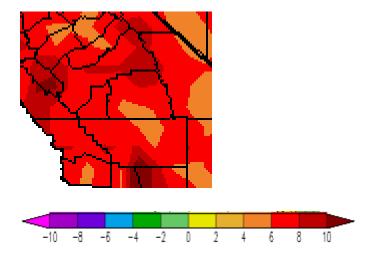


Fig 2 - Percent of normal precipitation for March 2015:

