MAY 2015 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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A very warm day began this month as a strong ridge of high pressure prevailed over the central California interior. Temperatures in the lower elevations, especially the San Joaquin Valley, were mainly in the mid to upper 90s. A few of the warmest locations reached 100 degrees or just above.

The high pressure gradually weakened over the next several days and eventually gave way to a strong low pressure system that originated in the Gulf of Alaska. Temperatures cooled at least a couple of degrees each day during the 2nd and through the 6th; by the 6th temperatures had cooled 10-15 degrees than what were observed on the 2nd.

The strong, cold low pressure system approached the forecast area from the northwest and brought strong and gusty winds as well as numerous rain showers, thunderstorms, and snow to the region. The strongest wind gusts occurred near and below the favored passes along the west side of the San Joaquin Valley, as well as the Kern County mountain and desert areas. Sunflower Valley, located along State Route 41 just below Cottonwood Pass (or south of Kettleman City in rural Kings County), reached a gust of 63 mph on the night of the 6th and into the early morning hours of the 7th just ahead of the low pressure system. Gusts in the desert were as high as 59 mph, including near Mojave and Rosamond. Snow amounts were generally light, but snow levels reached as low as 4,500 feet in the mountains, including over the southern Sierra Nevada and the Tehachapi Mountains. The thunderstorms brought hail to numerous locations in the Sierra Nevada foothills during the morning of the 7th, and then hail fell in parts of the San Joaquin Valley. In Porterville there were a couple of inches of mainly pea-sized hail, and Livingston (northwest of Merced) received hail at around one inch in diameter (quarter-sized). Rain amounts ranged from a trace to over a half inch in the San Joaquin Valley, while rain amounts in the mountains and foothills locally exceeded an inch during the 7th. Due to the storm, temperatures were well below normal on the 7th; most locations remained below 70 degrees that day.

On the 8th, there were a few lingering showers over the San Joaquin Valley as the low had moved to the east over southeastern California and into southern Nevada. Much cooler than average temperatures continued due to the cold air that had settled over the region. Low stratocumulus clouds developed overnight on the 8th and into the morning hours of the 9th over much of the San Joaquin Valley and adjacent foothills to the east as relatively cool northwest wind flow prevailed over the area. After the low clouds dissipated by the afternoon of the 9th, temperatures were much warmer than during the previous two days.

Temperatures continued to remain warmer than average on the 10th and into the 11th while high pressure was in control. However, the ridge of high pressure began to weaken on the 12th, and there was yet another downward trend in temperatures over the following few days throughout the region. The next storm arrived on the night of the 13th and brought numerous showers and thunderstorms to the area by the

morning of the 14th. During the following afternoon, thunderstorms produced locally heavy rain (over 2 inches in an hour) in some areas to the northeast of Fresno and Clovis and continued well into the evening of the 14th; These storms caused flooding that were captured in videos by both local and national media; residents were shown rowing in boats and kayaks. In addition, there were thunderstorms that developed over Bakersfield that produced local ponding and street flooding. Temperatures were well below average on the 14th and 15th due to the low pressure system that moved over the region. High pressure briefly returned to the area on the 16th, and high temperatures warmed by several to as much as 15 degrees compared to the previous day across much of the central California interior. However, temperatures remained below average. A few showers developed over the southern Sierra Nevada by late in the afternoon; the region was otherwise mostly clear. On the 17th, an upper-level disturbance brought another period of unsettled weather over the mountains and foothills; a few showers even fell in some parts of the San Joaquin Valley, including Fresno, during the late night hours.

Weak high pressure returned, and there was a gradual warming trend during the 18th and into the 20th. Afternoon and evening showers and thunderstorms developed each day over the higher elevations of the southern Sierra Nevada. However, cooler than average to near average temperatures remained over much of the area as no strong ridges of high pressure influenced the weather. Other than the mountain showers and isolated thunderstorms, the weather remained relatively quiet over much of the central California interior during this period.

Another storm system impacted the region during the 21st and into the 22nd. On the 21st, low clouds developed over much of the region, so shower development was hampered. However, high temperatures were significantly lower, compared to the previous day. Besides the cooler temperatures, the main weather effects occurred over Kern County during the morning of the 22nd; some rain showers with brief heavy rainfall fell over the mountains and southern part of the San Joaquin Valley, including Bakersfield. In fact, Bakersfield broke its daily rainfall record on both the 22nd and 23rd; another upper-level disturbance moved over California on the evening of the 23rd and brought showers and isolated thunderstorms to both the San Joaquin Valley and surrounding higher terrain.

On the 24th, temperatures continued to warm as weak high pressure set up over the region, although remained near average as late as the 27th. In addition, shower and isolated thunderstorm coverage was limited to the Sierra Nevada crest during this period.

High pressure strengthened and moved inland and was briefly in control through the end of the month, so temperatures trended back to above average, similar to the beginning of the month. Despite the well above average temperatures at both the beginning and end of the month, May 2015 realized near average to below average temperatures. For those locations that reached below average (including Fresno and Bakersfield), this is the first time in several years that a month's average temperature was below the 30-year average. There was above average precipitation over much of the region; however, the Kern County desert, the central San Joaquin Valley, and Sierra Nevada foothills north of Tulare County remained well below average.

Fig 1 - Percent of normal precipitation for May 2015:

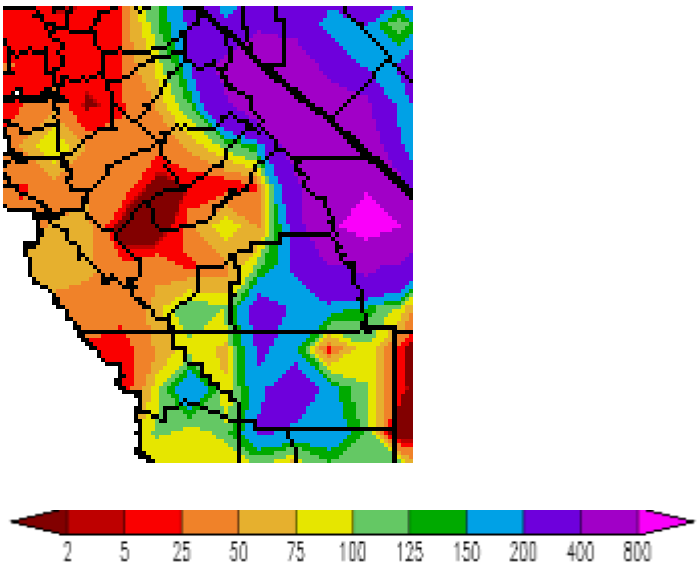

Fig 2 - Departure from average temperature for May 2015: