MAY 2007 WEATHER SUMMARY

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The upper-level trough that reached the Pacific coast on May 1st brought cooler temperatures to the region, and some light rain and mountain snow to the northern sections of the Hanford warning/forecast area. After the record heat of April 28th, temperatures fell to near normal on May 2nd. As the cold front associated with the trough moved through the central California interior, it triggered afternoon and evening thunderstorms over the northern half of the region. By mid afternoon, a line of thunderstorms stretched from Five Points and Mendota in western Fresno County, across Madera County, to Lake McClure in western Mariposa County. A strong jet stream moving into California quickly brought another trough to California, with even colder temperatures to the region on the 3rd and 4th, and more episodes of measurable rain to parts of the region. In the mountains, snowfall amounts were light, with Lodgepole and Grant Grove only reporting an inch of new snow.

High pressure aloft built into California behind the storm, with temperatures warming 10-12 degrees from May 4th to the 5th. The exception to this warming was the south end of the San Joaquin Valley, where cold air was trapped by the surrounding mountains and delayed the warming by a day. Temperatures climbed into the mid to upper 90s in the central and southern San Joaquin Valley on the 8th and 9th, but stayed below triple digits.

The ridge moved inland on May 10th, into the Four-Corners Region. This allowed the surface flow pattern to become onshore, with coastal marine air pushing into the San Joaquin Valley. Despite several degrees of cooling from May 9th to the 10th, temperatures remained around 8 degrees above normal.

A dry trough reached California on the 12th, bringing gusty winds to the region and a stronger push of marine air to the San Joaquin Valley. High temperatures at both Fresno and Bakersfield on the 12th matched the normal highs for the date; the last time high temperatures had been within a degree or two of normal for either city had been on the 6th.

Another short-lived upper-level high-pressure ridge moved over California on May 14th, bringing a brief warming trend. Moisture from melting snow over the high country of the Southern Sierra Nevada triggered the development of cumulus clouds, and even a couple of thunderstorms, during the afternoon of the 15th, and again the next day. An upper-level low approached the Pacific Northwest on the 17th through the 19th, turning the surface pressure pattern onshore. This allowed coastal marine air to push through the Sacramento Delta into the San Joaquin Valley. The surges of marine air brought a few local gusts to 30 mph on the Valley floor, and even stronger winds (to around 45 mph) through the Tehachapi Passes and below the pass into the Kern County Desert.

The upper-level trough moved into California on May 20th-21st. The associated cold front brought a few light showers to the Southern Sierra Nevada crest, but measurable rainfall was sparse and confined to the high country. The main impact of this system was gusty winds over parts of the Kern County mountains and deserts, where gusts to 35 mph were common and a few of the normally windy spots saw a few gusts over 50 mph. In the central and southern San Joaquin Valley, gusts to 30 mph were widespread, with stronger gusts over the west side of the Valley. These gusty winds brought reinforcing pushes of marine air that kept central San Joaquin Valley temperatures near normal, while the south end of the Valley (where the marine air remained pooled) saw temperatures a couple of degrees below normal.

High pressure built into California behind the trough, bringing a brief, but pronounced, warming trend to the region. By May 24th, the central and southern San Joaquin Valley had warmed into the mid to upper 90s, and most locations remained in the 90s through the Memorial Day weekend. However, a weak upper-level trough that reached the California coast on May 26th deepened the marine layer. Stratus pushed into the coastal valleys, and marine air spilled through Pacheco Pass into Merced County. This marine air spill cooled parts of the county back into the 80s, and also generated gusty winds across the San Luis Reservoir. The National Weather Service issued a Lake Wind Advisory for the Reservoir on May 27th, for gusts between 35 and 40 mph.

The trough moved inland over the central California interior on May 30th, setting up an onshore flow pattern at the surface. As a result, marine air spilled through the Sacramento River Delta, and into the San Joaquin Valley. This cooled temperatures to near normal for the last two days of the month.

Even though neither Fresno nor Bakersfield recorded any triple-digit temperatures during May, Fresno did have its 14th warmest May on record. Bakersfield tied for its 16th warmest May since observations began at Meadows Field.