NWS FORM E-5 U.S. DEPARTMENT OF COMMERCE HYDROLOGIC SERVICE AREA: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE SAN JOAQUIN VALLEY - HANFORD , CA REPORT FOR: MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS MONTH: JULY YEAR: 2009 TO: Hydrometeorological Information Center, W/OH12x1 SIGNATURE: National Weather Service/Office of Hydrology 1325 East-West Highway #7116 Kevin Durfee Silver Spring, MD 20910 (In Charge of Hydrologic Service Area) DATE: August 8, 2009 When no flooding occurs, include miscellaneous river conditions, such as significant

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts and hydrologic products issued (WSOM E-41).

 $|\mathbf{X}|$ An \mathbf{X} inside this box indicates that no flooding occurred for the month +---+ within this hydrologic service area.

An upper level ridge of high pressure centered over Texas maintained a firm grip on the Golden State through Independence Day with dry weather and above normal temperatures throughout the HSA. Temperatures cooled to seasonable levels by the 5th and remained close to normal through the 13th as an upper level trough stalled off the California coast and produced a robust onshore flow throughout the district. However, by the 14th, the upper level ridge over Texas began building westward again and brought several days of hot weather to the central California interior. A 7-10 day stretch of triple digit heat plagued the San Joaquin Valley, lower foothills and the Kern County desert beginning on the 14th as the ridge anchored itself over California. Maximum temperatures peaked around 110 degrees during the height of the heat wave in the San Joaquin Valley and the Kern County desert. From the 21st until the 26th, the upper level ridge lost some footing over California as upper level troughs moved through the Pacific Northwest. During this period, shallow intrusions of marine air cooled the San Joaquin Valley while temperatures changed very little over the higher terrain. The battle waged on between the ridge over Texas and an upper level trough along the Pacific Northwest coast for the remainder of the month. Although the ridge regained control on the 26th, it was nudged eastward by the 29th as the upper level trough deepened off the Pacific Northwest coast and brought shallow intrusions of marine air into the San Joaquin Valley.

Of course, the month didn't come without its occasional bouts with the monsoon. From the 16th through the 19th, a northerly influx of subtropical moisture aloft produced isolated thunderstorms over the mountains and desert. One particular thunderstorm near Edwards AFB turned severe on the afternoon of the 18th and produced wind gusts to 67 mph. On the following afternoon, isolated thunderstorms erupted over the Tehachapi mountains and dumped about an inch of rain in the Frazier Park-Pine Mountain Club area, fortunately with no major flooding. A second influx of monsoonal moisture between the 26th and the 29th produced isolated strong to severe thunderstorms over the higher elevations of the Sierra.

NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH

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W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO