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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: **2010**

TO: Hydrometeorological Information Center, W/OH12x1
National Weather Service/Office of Hydrology
1325 East-West Highway #7116
Silver Spring, MD 20910

SIGNATURE:
Kevin Durfee
(In Charge of Hydrologic Service Area)

DATE: August 1, 2010

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).

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¦ X ¦ An **X** inside this box indicates that no flooding occurred for the month
+---+ within this hydrologic service area.

During the first half of the month, a weak upper level trough resided over the Eastern Pacific while a strong ridge of high pressure aloft anchored itself over the Four Corners region. Due to the proximity of this trough near the coast, a weak onshore flow prevailed in the low levels during the first 8 days of the month and kept temperatures in the San Joaquin valley at or slightly below normal. The only exception was during the latter part of the 4th of July weekend when the Four Corners ridge temporarily built westward and brought a brief spell of warmer than normal temperatures. As the ridge tried to build westward again from the 9th through the 11th, it brought some mid level moisture into central California. These clouds did produce trace amounts of rain in the southern and eastern portion of the San Joaquin Valley on the 10th and 11th while this moisture fueled the development of isolated thunderstorms over the mountains. A deeper influx of tropical moisture occurred later in the week and produced thunderstorms over the Kern County mountains and desert in addition to the Sierra Nevada on the 15th with a recurrence of isolated afternoon thunderstorms over the higher elevations of the Sierra on the 16th and 17th. In the meantime, the high pressure ridge over the Four Corners region continued to build westward. Not only did this ridge bring widespread triple digit heat to the San Joaquin Valley, lower foothills and the Kern County desert, but it also brought a gradual decrease in humidity throughout the HSA from the 16th through the 19th with a resultant suppression of afternoon convection along the Sierra crest. Temperatures finally became more seasonable in the San Joaquin Valley and the lower foothills by the 22nd, as a weak upper level trough deepened the marine layer along the coast and brought a cooling onshore flow into the lower elevations. Dry weather and slightly above normal temperatures continued, however, across much of the higher terrain through the 22nd.

As the upper level ridge of high pressure over the Four Corners area began to build westward again, it brought a northward influx of monsoonal moisture from the 23rd through the 25th with a rejuvenation of mainly afternoon and evening thunderstorms over the Sierra Nevada. The upper level trough over the eastern Pacific regained control on the 26th and 27th. A dry southwesterly flow aloft during this time pushed monsoonal moisture eastward into Nevada and reduced the threat of thunderstorms over the Sierra Nevada. During the remaining days of the month, an upper level trough remained off the Pacific Northwest coast while high pressure anchored itself over the Four Corners area. This kept the HSA in a dry southwesterly flow aloft through the end of the month with generally clear skies and seasonable temperatures.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flash Flood Warning for the Ansel Adams Wilderness area	0038Z	17-JUL

cc:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO