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: **MAY** YEAR: **2009**

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: June 5, 2009

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).

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

An unusually deep upper level trough equipped with subtropical moisture brought substantial rain to the HSA on the first day of the month as it moved inland from the Pacific. Many locations in the San Joaquin Valley received more than their normal monthly rainfall in just one day, but it was all beneficial. The storm dumped up to 16 inches of snow above 9000 feet. Showers lingered through May 3rd over the higher terrain as the storm moved slowly eastward. A secondary trough brought light precipitation to the southern Sierra Nevada on the 5th. For the next several days, an onshore flow prevailed across the central California interior with shallow intrusions of marine air spilling frequently into the San Joaquin Valley until the middle of the month. Temperatures warmed dramatically by the third weekend of the month as a ridge of high pressure aloft moved over the state. Maximum temperatures were near or above the century mark in many San Joaquin Valley locations on the 17th and 18th. During this time, an upper level low off the coast of northern Baja brought an influx of subtropical moisture into the HSA which in turn sparked afternoon thunderstorms over the mountains and desert.

A zonal flow aloft resumed over the central California interior by the 20th and continued through the 25th with frequent pushes of marine air into the San Joaquin Valley. Westerly winds during this period provided just enough lift for isolated thunderstorm development along the Sierra Crest each afternoon.

A strong upper level ridge of high pressure built over northern and central California on the 27th and 28th while a low pressure system developed off the coast of northern Baja. A southeasterly flow of monsoonal moisture during this period produced afternoon thunderstorms over the higher elevations from the Tehachapi mountains to Yosemite National Park which drifted into the foothills both evenings. The southeasterly flow was strong enough to bring thunderstorms into the eastern half of the San Joaquin Valley during the evening of the 28th. A few of these thunderstorms became severe and produced large hail and damaging winds in addition to frequent lightning. As steering winds aloft became southwesterly , thunderstorm activity dwindled by the 29th and was confined to the Kern County desert and the higher elevations of the Sierra Nevada. A southwesterly flow aloft continued during the remaining days of the month with little more than isolated thunderstorms along and just east of the Sierra crest on the 30th and 31st.

All in all, May, 2009 ended up being one of the warmest Mays on record (3rd warmest in Fresno and the 7th warmest in Bakersfield). Although the occurrence of measurable rain in the San Joaquin Valley was rare, the month ended up being wetter than normal, but not wet enough to bring an end to the drought.

NO HYDROLOGIC PRODUCTS ISSUED THIS MONTH

cc:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO