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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: **SEPTEMBER** YEAR: **2011**

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: October 3, 2011

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.

September, 2011 averaged a good 3 to 5 degrees above normal throughout the HSA. In fact, it was the third warmest September on record in Fresno where climatological data has been kept since the late 1800's. Bakersfield tied its ninth warmest September on record, previously established in 1981. A rather persistent upper level ridge of high pressure that extended from the Four Corners region to west Texas was largely to blame for the month's warmer than normal temperatures.

Although the month was predominantly dry, there were three episodes when northward surges of mid level tropical moisture produced isolated thunderstorms, primarily (but not exclusively) over the mountains and desert. In each case, a weak upper level low pressure system formed off the southern California coast and helped channel the moisture northward into the HSA. The first monsoonal influx occurred between the 9th and the 14th . Thunderstorms during the predawn hours of the 10th sparked about 40 wildfires in the Kern county mountains, a few of which took nearly a week to completely contain. In fact, by the 14th, Mother Nature actually put out much of what she had started as a deeper influx of moisture produced rain bearing thunderstorms and doused several of the wildfires. Up to three quarters of an inch of rain fell in the Kern county mountains while local rainfall totals of around an inch fell over the higher elevations of the Sierra. A few of these thunderstorms drifted into the Sierra foothills. Even portions of the San Joaquin Valley received some rain, but none of it was measurable except in Porterville where reportedly a hundredth of an inch was observed at the airport.

A second bout with the monsoon occurred between the 19th and the 24th. Again, lightning strikes from dry thunderstorms ignited about 20 new wildfires in the Kern county mountains during the early morning hours of the 23rd. Both monsoon events referenced above lasted approximately five days and were abruptly ended by cold fronts that brought dry, stable and noticeably cooler air masses into the HSA. Marine pushes in the wake of these cold fronts cooled temperatures in the San Joaquin Valley by a good 7 to 10 degrees. On the 11th and again on the 25th, afternoon temperatures in the coolest localities of the San Joaquin Valley stayed below 80 degrees, particularly right below Pacheco Pass.

The third and final influx of monsoonal moisture was shallow and relatively brief and thankfully spared the Kern county mountains. Nonetheless, isolated afternoon thunderstorms popped up along the Sierra crest on the 29th and 30th . Otherwise, the month ended dry and cooler, thanks to the return of an onshore flow.

An unusual aspect of the month was the amount of water still contained in the major reservoirs as a result of a very wet Winter and Spring. Waterfalls that would normally dry up by the middle of Summer in Yosemite National Park were still flowing through the end of the month while normally dry river beds in the San Joaquin Valley were still producing low flows. At month's end, most of the major reservoirs in central California were holding at least 65 percent of their normal water capacity.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flood Advisory……Kern County mountains	2338Z	11-SEP
Flood Advisory……Kern County desert	0143Z	12-SEP

cc: W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO