

SAN JOAQUIN VALLEY - HANFORD , CA

REPORT FOR:

MONTHLY REPORT OF RIVER AND
FLOOD CONDITIONS

MONTH: **AUGUST** YEAR: **2012**

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: September 4, 2012

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

If August, 2012 could be remembered for only one thing, it would be the persistently hot weather in the San Joaquin Valley. In Fresno, for example, high temperatures were at or above the century mark on 23 days of the month and included a 19-day string of triple digit heat from the 6th through the 24th which was only 2 days short of the longest consecutive stretch of 100-degree temperatures in Fresno since the beginning of record-keeping in the late 1800's. Nonetheless, August, 2012 ended up as the warmest August ever in Fresno and the fifth warmest on record in Bakersfield.

The excessively warm weather was the result of a strong upper level ridge of high pressure that extended from the Four Corners region westward into the Pacific. On a few occasions, the ridge weakened over California and allowed monsoonal moisture to flow northward from Mexico. These northward influxes of moisture were often accompanied by dry thunderstorms over the higher terrain. Lightning sparked a rather large wildfire in the Kern county mountains in the vicinity of Piutes during a monsoonal surge in the early morning hours of the 4th. The next bout with the monsoon occurred on the 13th and 14th with similarly new fire starts in the Kern county mountains in the vicinity of Jawbone. A much deeper influx of monsoonal moisture on the 17th and 18th produced isolated mostly dry thunderstorms in the Kern county desert in addition to the San Joaquin Valley and adjacent foothills. Although little more than sprinkles occurred in these areas, a few localities such as Lemoore and Oakhurst picked up as much as a few hundredths of an inch in heavier showers. Thunderstorms were more numerous and generally wet over the mountains during this particular monsoon event. From the 21st through the 22nd, a weak upper level low that originated off the central California coast briefly tapped into some mid level tropical moisture. A thunderstorm outbreak, accompanied by over 300 lightning strikes, developed along the Sierra crest during the early morning hours of the 22nd as this low pressure system moved inland. Isolated thunderstorms developed later in the day over northeastern Kern county. One thunderstorm dumped very heavy rain in the Kern county desert just north of Randsburg during the early evening hours of the 22nd and produced a flash flood along a 3-4 mile stretch of U.S. 395 just south of Garlock Road. This particular section of the highway closed for almost an hour because of high water. Later that evening, runoff from rain falling over the El Paso mountains produced minor mud and rock slides on Red Rock-Randsburg Road.

Marine pushes in the San Joaquin Valley, albeit shallow, were extremely rare this month. In fact, it wasn't until the final weekend of August that the high pressure ridge weakened enough to allow a significant amount of ocean-cooled air to flow into the San Joaquin Valley. On the 26th and 27th, high temperatures were in the comfortable 80s to lower 90s in the San Joaquin Valley, and it was the first time afternoon temperatures were this low since the 18th of July. The marine layer in the San Joaquin Valley completely mixed out by the 28th as the Four Corners ridge built westward. August 29th and 30th saw a return of triple-digit heat in the San Joaquin Valley. A northward influx of monsoonal moisture accompanied the warm up and provided the fuel to generate isolated thunderstorms in the mountains and desert from the afternoon of the 29th into the midday hours of the 31st. Southwesterly winds aloft pushed monsoonal

moisture east of the HSA on the 31st while an onshore flow brought a refreshingly cooler airmass into the San Joaquin Valley.

From a hydrologic standpoint, August, 2012 was typically dry, and in fact, a bit drier than normal. Despite occasional bouts with the monsoon, precipitation was scanty and fuels remained exceptionally dry, especially over the higher terrain.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flash Flood Watch...Kern county mountains and desert	1648Z	12-AUG
Flash Flood Watch...Southern Sierra Nevada	1748Z	12-AUG
Flash Flood Watch...Kern county mountains and desert	0958Z	17-AUG
Small Stream Flood Advisory...Tulare county mountains	2042Z	22-AUG
Small Stream Flood Advisory...Kern county desert	0055Z	23-AUG
Small Stream Flood Advisory...southeast Kern county desert	2304Z	30-AUG

cc:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO