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: **FEBRUARY** YEAR: **2012**

TO: Hydrometeorological Information Center, W/OH12x1
National Weather Service/Office of Hydrology
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Silver Spring, MD 20910

SIGNATURE:
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(In Charge of Hydrologic Service Area)

DATE: March 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).

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

February was pitifully dry. In fact, much of the San Joaquin Valley experienced a rainfall deficit of 1 to 1.5 inches compared to a normal February. Although a few storm systems brought beneficial rain to the lower elevations and plentiful snow in the mountains, by the end of the month the snowpack over the southern Sierra Nevada still only averaged about 29 percent of normal. This is a stark contrast to February, 2011 when the snowpack over the southern Sierra Nevada averaged 125 percent of normal.

A cold frontal passage on the 7th brought light showers to the central California interior. While up to a quarter of an inch of precipitation fell in the mountains, there was barely enough rain to settle the dust in the San Joaquin Valley. The next cold frontal passage on the 11th did much the same, however it did open the door for a series of storms that brought generous precipitation to much of the HSA from the 12th through the 15th. During this 3-day period, rainfall totals in the San Joaquin Valley ranged from about fifteen hundredths of an inch to six tenths of an inch while the adjacent foothills and the Kern county mountains received upwards of an inch of precipitation. Cold air that accompanied the second and third storm in this succession of storms lowered snow levels to around 2500 feet and produced 2 to 8 inches of snow in the foothills and in the Tehachapi mountains with a foot or more of fresh powder falling over the higher elevations of the Sierra. A heavy snowfall closed highway 41 from Coarsegold to Oakhurst on the 15th. Farther south, snow reduced travel to a crawl over the Kern county mountain passes, including Interstate 5 over the Grapevine. After skies cleared behind this departing storm, Mother Nature dealt a final blow to the San Joaquin Valley with frost and below freezing temperatures during the early morning hours of the 16th.

Two more cold frontal passages, one on the 18th and another one on the 20th, produced little more than a few rain and snow showers over the higher elevations of the Sierra. A 3-day warming trend that started on the 22nd finished with record breaking high temperatures in the San Joaquin Valley on the 24th as an area of high pressure over the eastern Pacific built into central California. Afternoon temperatures on the 24th ranged from the mid 70s to the low 80s in the San Joaquin Valley. In Fresno, the high of 77 degrees broke a long standing record that was first established in 1896. The spell of unseasonably warm weather came to an abrupt end on the 25th as retrogression of the upper level ridge made room for three storm systems to track southeastward into California. The first storm tracked as an inside slider into the Great Basin and did not bring any precipitation to the HSA on the 25th, however, it did leave a much cooler airmass in its wake. As the ridge over the eastern Pacific continued to retrograde, it enabled the following two storms to track a bit farther west and bring wet weather into the central California interior. The second storm system split in two. One piece of it moved into northern California on the 27th while the other piece slid into southern California. Unfortunately, this left much of the San Joaquin Valley in a rain shadow with nominal amounts of rain. Even in the southern Sierra Nevada, precipitation was light and fairly spotty with local snowfall of only 1 to 3 inches. However, overrunning moisture from the storm in southern California produced heavier precipitation in the Kern county mountains. Up to 9 inches of snow fell in the Tehachapi mountains while a 2 to 4 inch accumulation of snow fell at pass level. This forced Interstate 5 over the Grapevine to close for several hours on the 27th.

The “caboose” storm in this train of storms proved to be the wettest as it moved through the HSA on the 29th. By the time this system exited into the Great Basin, it left a 4 to 6 inch blanket of snow in the Sierra, including Yosemite Valley, with nearly a foot of the white stuff over the high country. In the lower elevations, rainfall of up to a quarter of an inch fell in the San Joaquin Valley with as much as six tenths of an inch in the Sierra foothills.

Temperature-wise, the month averaged warmer than normal. In fact, there were an extraordinary number of unseasonably warm afternoons during February, 2012. In the San Joaquin Valley, there were at least 4 days when high temperatures peaked in the 70s. Bakersfield recorded 9 of them. In addition to February 24th, high temperature records were either tied or broken in the San Joaquin Valley on the 9th.

NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH.

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