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: **MARCH** YEAR: **2016**

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: April 1, 2016

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.

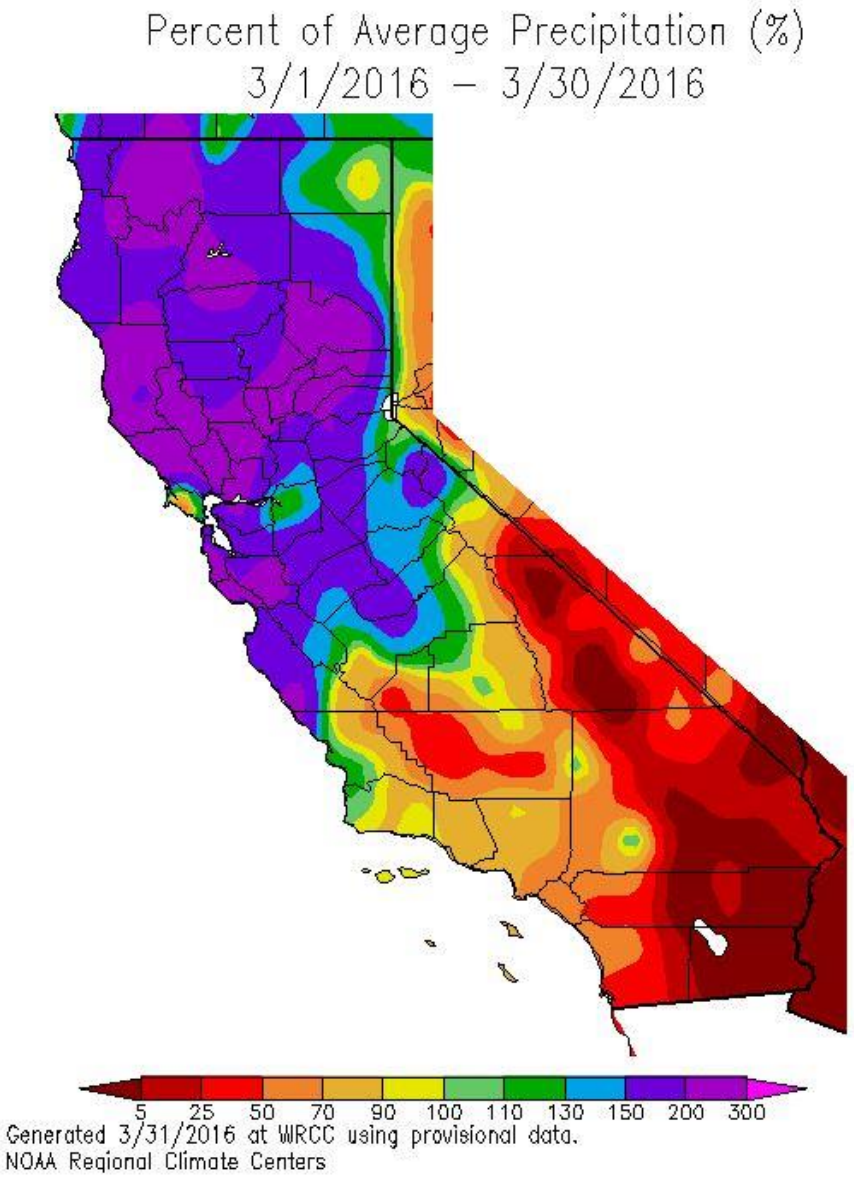
The storm track, which resided over the Pacific Northwest for much of February, finally shifted southward during the first few days of March. Between the 4th and the 14th, El-Nino type storms tracked rather frequently across northern California. Although the storms brought copious rain and high Sierra snow to the northern half of the HSA, the southern half of the HSA unfortunately received significantly less precipitation. The map at the end of this summary shows how divided the HSA was with regard to precipitation surplus and deficit this month which ranged from only 30 percent of normal in Kern County and southwestern Kings County to 150 percent or more in Merced County, central Fresno County and most of Madera County. There were two distinct periods when back to back Pacific storms trained across northern and central California; from the 4th through the 7th and again between the 11th and 14th. During these stormy episodes, there were reports of generally minor urban, highway and small stream flooding in the central and northern San Joaquin Valley and Sierra foothills. Runoff and overflow from heavy rain in the Merced area flooded a non-residential area from the evening hours of the 6th through the 7th. Merced County emergency officials noted that this was a ponding basin that would typically fill with runoff water during periods of heavy rainfall. The frequency of rain in Merced County produced several peak stages on the Bear Creek at McKee Road hydrograph, yet all peaks stayed at least 3 feet below this forecast point's respective monitor stage.

In summary, 99 percent of the month's precipitation fell between March 4th and 14th. During this time, rainfall totals in the San Joaquin Valley ranged from less than one inch along the west side and in Kern County and 2 to 4 inches elsewhere. The west slopes of the Sierra received the lion's share of precipitation this month with rain totals of 3 to 8 inches. Over the higher terrain of Kern County, rainfall totals this month ranged from at most a half inch in the desert to as much as 2.5 inches in the mountains. In the high Sierra, new snow piled to a depth of 2 to 3 feet above the 7,000 foot elevation and replenished the southern Sierra snowpack to about 80 percent of normal by the middle of March. Afterward, and through month's end, snowfall over the high Sierra was nominal at best. Two fairly weak, moisture-starved cold fronts moved southward through the state on the 21st and 28th. Precipitation with these systems was rather meager and generally ranged from just a trace to several hundredths of an inch. A few locations in the Sierra received two to three tenths of an inch of rain which measured up to a few inches of snow over the highest elevations. Hardly enough to write home about, however.

Temperature-wise, March, 2016 averaged much warmer than normal throughout the central California interior. On at least 14 days, high temperatures were in the 70s in the San Joaquin Valley and lower foothills. Bakersfield topped 80 degrees on 7 of those days. Gains that were made in the snowpack over the southern Sierra during the first half of the month were lost due to sublimation and several days of unseasonably warm temperatures in the remaining weeks of March. By March 31st, the snowpack over the southern Sierra diminished to 72 percent of normal. On the other hand, reservoirs responded a little better this month compared to February with an average 16 percent increase in water storage. Nonetheless, water levels at the reservoirs remained quite low and water capacities averaged 41% of normal by the first of April.

HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH

Flash Flood Watch….Foothills and higher elevations of the Sierra	2032Z	03-MAR
Urban/Small Stream Flood Advisory…Central San Joaquin Valley	0126Z	05-MAR
Hydrologic Statement…Bear Creek at McKee Road	1713Z	05-MAR
Hydrologic Statement…Bear Creek at McKee Road	2323Z	05-MAR
Hydrologic Statement…Bear Creek at McKee Road	0506Z	06-MAR
Urban/Small Stream Flood Advisory…Eastern San Joaquin Valley, adjacent foothills	0801Z	06-MAR
Urban/Small Stream Flood Advisory…Eastern San Joaquin Valley, adjacent foothills	1017Z	06-MAR
Urban/Small Stream Flood Advisory…above referenced areas with Tulare County foothills added	1127Z	06-MAR
Urban/Small Stream Flood Advisory…above referenced areas with Tulare County mountains added	1332Z	06-MAR
Urban/Small Stream Flood Advisory…San Joaquin Valley and foothills	1323Z	07-MAR
Urban/Small Stream Flood Advisory…San Joaquin Valley	1528Z	07-MAR
Urban/Small Stream Flood Advisory…San Joaquin Valley	1718Z	07-MAR
Urban/Small Stream Flood Advisory…San Joaquin Valley	0104Z	12-MAR



cc:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO