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

OD CONDITIONS MONTH: NOVEMBER YEAR: 2016

TO: Hydrometeorological Information Center, W/OH12x1 SIGNATURE:
National Weather Service/Office of Hydrology
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Silver Spring, MD 20910 (In Charge of Hydrologic Service Area)

DATE: December 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).

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 \mid X \mid An ${\bf X}$ inside this box indicates that no flooding occurred for the month

+---+ within this hydrologic service area.

Typical Autumn weather could hardly be found throughout the central California interior during the first half of November, 2016. Dry weather and unseasonably warm afternoon temperatures prevailed during the first 15 days of the month as a rather strong upper level ridge of high pressure dominated the pattern. High temperatures were well into the 70s on several of those days in the San Joaquin Valley and this stagnant air mass was accompanied by haze and episodes of patchy night and morning fog. The warmest days, November 10th and 11th, saw record breaking high temperatures in the 80s in much of the San Joaquin Valley and lower foothills. The high temperature of 89 degrees in Bakersfield on the 11th shattered the old record of 84 degrees that was previously established in 1973. A cold frontal passage on the 16th brought a reality check to central Californians and heralded the arrival of much colder weather by the 17th. Although the front produced little more than a few light showers over the Sierra, it was accompanied and followed by brisk winds on the west side of the San Joaquin Valley and in the Kern County mountains and desert from the evening of the 16th through the 17th. In its wake, the coldest temperatures since February 6th were observed throughout the HSA. Temperatures plummeted below freezing in the Kern County desert during the predawn hours of the 18th while the coldest locations of the San Joaquin Valley experienced the first frost of the season.

The second half of the month brought seasonably cooler temperatures, but it wasn't until the last two weekends of the month that the HSA finally received beneficial precipitation. A northerly surge of tropical moisture ahead of a slow moving cold front from the Pacific supplied much of the central California interior with a healthy dose of rain and high elevation snow from the afternoon of the 19th through the evening of the 20th. Although the heaviest precipitation bypassed Tulare County and the higher elevations of Fresno County, most other areas of the HSA fared pretty well. An inch or more of precipitation fell in the wettest locations of the San Joaquin Valley, particularly from Kettleman City northeastward through Lemoore and Clovis. Up to three quarters of an inch of precipitation fell in the mountains. Snow was limited to the very highest elevations of the Sierra, but the storm system that followed nearly a week later proved otherwise.

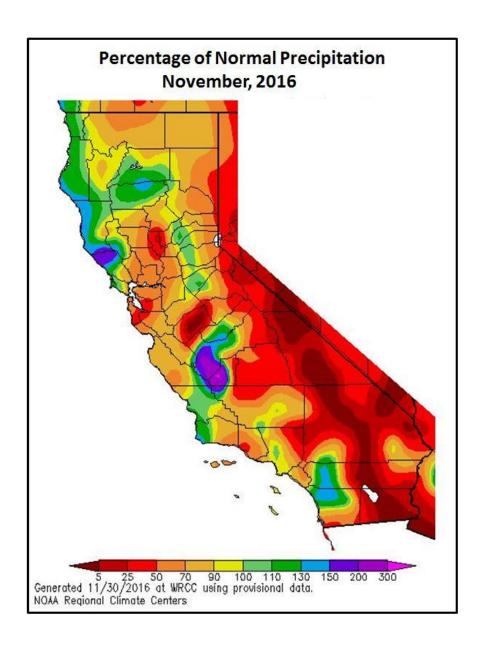
A Pacific cold front marched eastward through the central California interior during the afternoon and evening hours of the 26th. As this system came into an already chilly air mass, its arrival was met with a small accumulation of snow at elevations as low as 3,000 feet and slowed travel for holiday motorists in the foothills and mountains. Heavier showers associated with this cold front produced localized minor flooding along the east side of the San Joaquin Valley from Fresno County southward into Kern County during the early evening hours of the 26th. Precipitation amounts of up to four tenths of an inch fell in the San Joaquin Valley, adjacent foothills and the mountains with locally higher amounts of around six tenths of an inch. The second storm system that followed only hours later was wetter and just as cold when it moved through the HSA during the morning of the 27th. By the time this storm exited into the Great Basin during the early afternoon hours of the 27th, it whitened the foothills above 2800 feet with 2 to 8 inches of snow and buried the higher elevations of the Sierra with up to 19 inches of snow. This was the very first significant snow of

the winter season for the higher elevations and the first snow to fall in the foothills since the end of January. Meanwhile, the lower elevations except for the Mojave desert were drenched with up to an inch and a half of rain. Area reservoirs finally got a small recharge after months of lowering water levels. The last two weeks of November brought a slight increase in water storage at the reservoirs with water capacities averaging about 22 percent of normal as of December 1st. Temperature-wise, November 2016 ended up slightly above normal across the HSA.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Urban and Small Stream Flood Advisory...East side of the San Joaquin Valley from Fresno County southward

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