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: OCTOBER YEAR: 2017 **TO:** Hydrometeorological Information Center, W/OH12x1 SIGNATURE: National Weather Service/Office of Hydrology 1325 East-West Highway #7116 Kevin Durfee Silver Spring, MD 20910 (In Charge of Hydrologic Service Area) DATE: November 5, 2017 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).

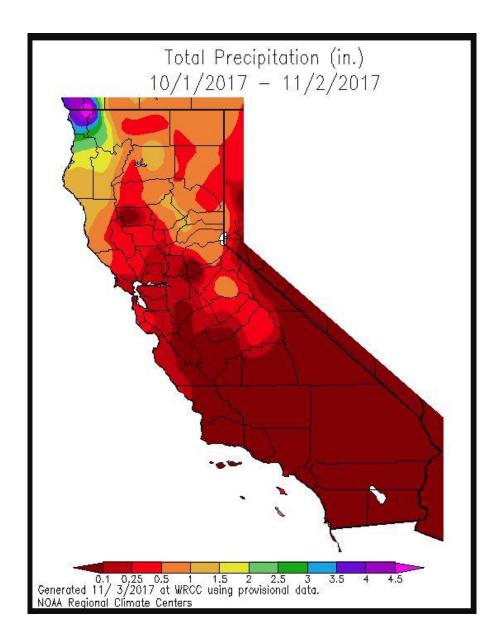
+---+ X I An \boldsymbol{X} inside this box indicates that no flooding occurred for the month within this hydrologic service area. +--+

A strong upper level ridge of high pressure dominated the weather pattern across central California for most of the month and kept precipitation well below normal throughout the HSA. With the exception of the northwest corner of the state, precipitation over the remainder of the Golden State was about as abysmal as the central California interior this October. (see map below) The San Joaquin Valley had only one day of measurable rain and that occurred on October 20th. A strong cold front breezed southward through the HSA that morning followed by clearing skies and blustery winds in the valley. The cold front was associated with a storm system that originated in the Gulf of Alaska which produced just over a half inch of rain in the foothills and higher elevations of the Sierra north of Tulare County. Up to two tenths of an inch of rain fell in the San Joaquin Valley and in the mountains of Tulare County and Kern County from this system. In the southern Sierra, the air became cold enough above 8,000 feet for precipitation to fall as snow where local accumulations of up to 3 inches were observed. The storm delivered a light dusting of snow to the highest elevations of Highway 120 in Yosemite National Park and prompted the temporary closing of Tioga Pass on the morning of the 20th. This was the second cold frontal passage of the month. The first one occurred on the 11th and was generally moisture deficient except for some mid and high clouds. During the first few days of the month, a storm that tracked through the Pacific Northwest brushed Yosemite National Park with light precipitation on the 3rd. On the very last day of the month, a deep intrusion of marine air in the San Joaquin Valley and foothills behind an otherwise dry cold front, was accompanied by a good deal of low cloudiness that lingered well into the afternoon and kept high temperatures below 70 degrees. The clouds and cooler temperatures were a stark reminder of what Autumn can be like after an abundance of unseasonably warm days this month.

Otherwise, October, 2017 was primarily dry and so were fuels which, combined with several afternoons of unseasonably warm temperatures this month, encouraged the growth of wildfires throughout the state. One of the larger wildfires in the HSA, the Lion wildfire, fortunately burned in the remote, high elevation terrain of Tulare County. However, this particular fire flared up on occasion, and the smoke from it, in addition to the smoke from several large wildfires over northern California, significantly reduced air quality across much of the HSA from October 11th through the 17th. Temperature-wise, October 2017 ended up slightly below normal. Although water levels dropped slightly in the reservoirs during the month, most were still holding more water than normal. By the first of November, the percentage of normal water capacity of the reservoirs was approximately 42 percent.

NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH.

The map on the following page shows how much rain fell (in inches) throughout the Golden State in October, 2017.



CC:

W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO