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: AUGUST YEAR: 2018 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: September 3, 2018

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).

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

August, 2018 was typically dry. Rain was also scarce over the mountains and desert, which in most years is visited by monsoonal driven thunderstorms by the middle of August. Not so this August. The month was void of subtropical moisture influxes. However, a southerly flow of mid and high level moisture between the 11th and 15th did help trigger isolated afternoon thunderstorms over the Sierra crest. A few of these thunderstorms produced up to a tenth of an inch of rain.

A strong upper level ridge of high pressure dominated the weather pattern for much of August. The first 20 days of the month averaged much warmer than normal. On most of those days, high temperatures were at or above 100 degrees in the southern San Joaquin Valley and the Kern County desert. A record setting 30 day stretch of triple digit heat in Fresno finally ended on the 5th as the upper level ridge weakened. The valley-wide reprieve from 100-degree heat only lasted two or three days until the upper level ridge strengthened again. Another respite from triple digit heat in the San Joaquin Valley occurred from the 13th through the 15th as the ridge briefly weakened again. It wasn't until the 21st of August, however, that temperatures cooled to near normal over the HSA. The high pressure ridge was shunted southward that day by an upper level trough over the Pacific Northwest. A prevailing onshore flow during the remaining 10 days of the month kept temperatures slightly below normal over the HSA as weak upper level disturbances trekked through the Pacific Northwest. During much of this period, marine intrusions in the San Joaquin Valley kept high temperatures below 90 degrees in Merced County and no higher than the mid 90s in the southern San Joaquin Valley. A deeper marine intrusion during the last couple days of August kept afternoon temperatures mainly in the 80s in the San Joaquin Valley. August 30th was the coolest day of the month and the coolest day since the middle of June in most locations. In spite of that, temperatures ended up averaging slightly warmer than normal for the month.

Dust, wildfire smoke and other particulate matter kept air quality poor over much of the HSA during the first two weeks of August, especially in the San Joaquin Valley and the foothills and higher elevations of the Sierra. The Ferguson wildfire in Mariposa County grew to nearly 97,000 acres before it was fully contained on the 19th. The smoke from this fire kept Yosemite National Park closed until the 14th. This nearly 3-week closure was the 2nd longest closure in Yosemite Park history. (The longest closure occurred for a two month period due to record flooding in January and February, 1997.)

Water levels in the major reservoirs dropped by about 9 percent during the month and ended up averaging 31 percent of normal by the beginning of September. As of September 3rd, New Exchequer Dam had the most water in it and was 67 percent full. In contrast, Terminus Dam and Success Dam were only holding 8 percent and 10 percent of their total water capacity, respectively.

NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH.



The map above from the Western Region Climate Center shows the percentage of normal precipitation for the Water Year through September 2nd, 2018. The Water Year in California begins October 1st.

CC:

W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO