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: **SEPTEMBER** YEAR: **2021**

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: October 9, 2021

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).

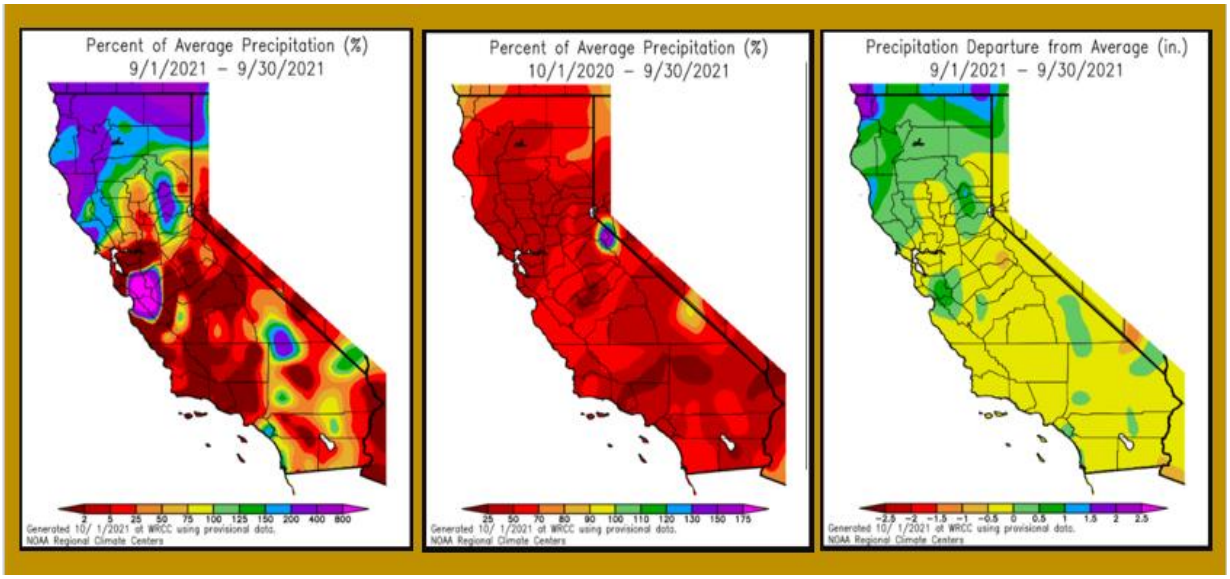
| **X** | An **X** inside this box indicates no flooding occurred for the month within this hydrologic service area.

September, 2021 brought very little precipitation to the HSA. Although September is a traditionally dry month, the water that generally comes into the central California interior during this time of year is usually the result of northward influxes of moisture from decaying tropical storm systems off the coast of central Mexico. September, 2021 brought only one monsoonal surge. This occurred from the evening or the 8th through the 10th. During this time, isolated thunderstorms rumbled about over the mountains and foothills of the HSA in addition to the eastern third of the San Joaquin Valley. Most of the thunderstorms were dry although a few of them produced up to a few hundredths of an inch of rain in some locations of the valley and up to four tenths of an inch of rain in the mountains. Unfortunately, lightning associated with these thunderstorms sparked new wildfires in the Tulare County mountains. Two of them grew into major wildfires within Sequoia-Kings Canyon National Park. The KNP complex, which was a merger of two separate fires, grew to more than 50,000 acres by the end of the month while the Windy wildfire spread to more than 90,000 acres. Smoke from these fires substantially worsened air quality over the district from time to time, especially during the last ten days of the month. Otherwise, an absence of any significant rain over the HSA during the month exacerbated the exceptional drought that's plagued much of the central California interior since the beginning of Summer. Even in extreme northern California where storm systems brought above normal rainfall this September, the precipitation was not enough to lessen the seriousness of the drought. The water year ended up much drier than normal as well over almost the entire state of California. Within the HSA, parts of Madera County and Kern County fared the worst and received less than 25 percent of their normal water year precipitation. Maps below this summary show the percentage of normal precipitation for September, 2021 and for the current water year as well as the departure from normal precipitation for the month.

The synoptic pattern was dominated by an upper-level ridge of high pressure for most of the month and brought many days of well above normal temperatures. Upper-level troughs of low pressure that occasionally moved through the Pacific Northwest flattened the high pressure ridge and brought a cooling and often robust onshore flow into the HSA. This occurred during the first few days of the month and again from the 16th until the 21st. A dry cold front swept southward through central California on the 26th and was followed by dramatically cooler weather up until the end of the month. Low stratus and drizzle formed at the south end of the San Joaquin Valley in the wake of this cold front during the night of the 27th and lingered into the afternoon hours of the 28th. Afternoon temperatures on the 28th remained below 80 degrees over much of the San Joaquin Valley behind this cold front. The first Autumn chill greeted many San Joaquin Valley residents during the final two mornings of the month as thermometer readings in the rural areas dropped into the mid to upper 40s. Regardless, September, 2021 still ended up warmer than normal throughout the HSA.

Water levels gradually lowered in all of the mainstem rivers and reservoirs during the month and remained at abnormally low levels. As of October 5th, the water capacity in the reservoirs averaged only 17 percent of normal. Several of the dams had a water capacity of less than 10 percent.

NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH.



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