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: **JULY** YEAR: **2020**

**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: August 1, 2020

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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¦ **X** ¦ An **X** inside this box indicates no flooding occurred for the month within this hydrologic service area.
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July, 2020 was typically dry over much of the HSA. Unlike many Julys, the month was completely devoid of any northward influxes of monsoonal moisture. Despite the absence of monsoonal moisture, isolated afternoon thunderstorms erupted over the higher elevations of the Sierra on a daily basis between the 15th and 28th. While most of these thunderstorms produced small hail, gusty winds and locally heavy rain, one did become severe on the afternoon of the 16th over the highest elevations of Yosemite National Park near Tuolumne Meadows and dumped quarter-sized hail with winds of up to 60 mph.

In the larger scale synoptic pattern, central California became a battleground between a quasi-stationary upper level Low near Vancouver and a strong upper level ridge of high pressure positioned over west Texas. At various times during the month, the center of the high pressure ridge would retrograde into southern California and bring widespread triple digit heat into the San Joaquin Valley, lower foothills and the Kern County desert. This happened between July 9th and July 14th with repeat occurrences between the 15th and 21st and again from the 26th through the 31st. There were also times when the upper level Low near Vancouver won out and deepened along the Pacific coast, which in turn produced a robust onshore flow across central California. During these episodes, brisk westerly winds transported cooler air into the central California interior and brought an abrupt end to spells of triple digit heat in the lower elevations. These shallow intrusions of marine air occurred during the first few days of the month and for short periods from the 6th until the 8th , the 14th until the 16th and for a final time from July 21st through the 23rd. Despite the frequency of cool air invasions, high temperatures on a majority of days were at or slightly above normal, so overall July, 2020 ended up a bit warmer than normal in most locations.

Near the end of the first spell of triple digit heat on the afternoon of the 13th, a wildfire ignited in the hills west of Coalinga. The fire was fanned by strong, gusty winds in the two days that followed. Smoke from this fire (Mineral Wildfire) was occasionally carried by northwesterly winds into the southern San Joaquin Valley from the 14th until the fire's containment on the 24th. The smoke was most noticeable in the southern San Joaquin Valley and surrounding higher elevations between the 19th and 22nd and worsened air quality in these areas during this time period.

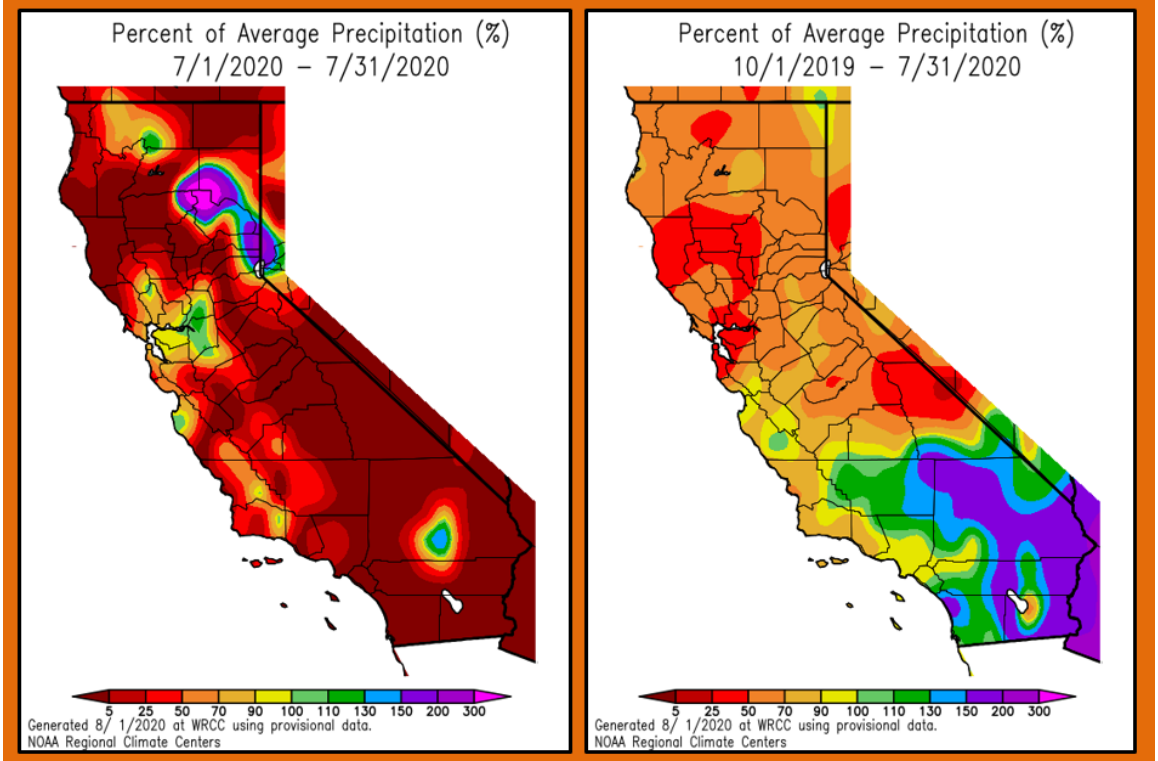
Another unfortunate outcome of hot weather were the incidents of cold water drownings. Sadly, a total of four of them occurred on mainstem rivers during the month. Two of those drownings, one in the San Joaquin River and the other in the Kern River, happened on the 4th of July. Two additional drownings occurred in the Kern River on the 18th. Water releases continued from many

of the reservoirs due to irrigation needs in the central and eastern San Joaquin Valley throughout the month. This obviously lowered water levels in the lakes behind the dams. As of August 1st, the water capacity of the reservoirs ranged from 12 percent of normal at Terminus Dam to 56 percent of normal at New Exchequer Dam for an end of the month average capacity of 34 percent.

With regard to precipitation over California, the graphs below show the percentage of normal for the month of July and the percentage of normal precipitation for the water year which began October 1st, 2019. Interesting to note that water year totals were still running wetter than normal over much of southern California at the end of July.

**NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH**

**PERCENTAGE OF NORMAL PRECIPITATION FOR JULY, 2020 AND FOR FOR THE CURRENT WATER YEAR (OCT 1, 2019 THROUGH JULY 31, 2020)**

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W/OH12X1
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