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: **MAY** 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: June 3, 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).

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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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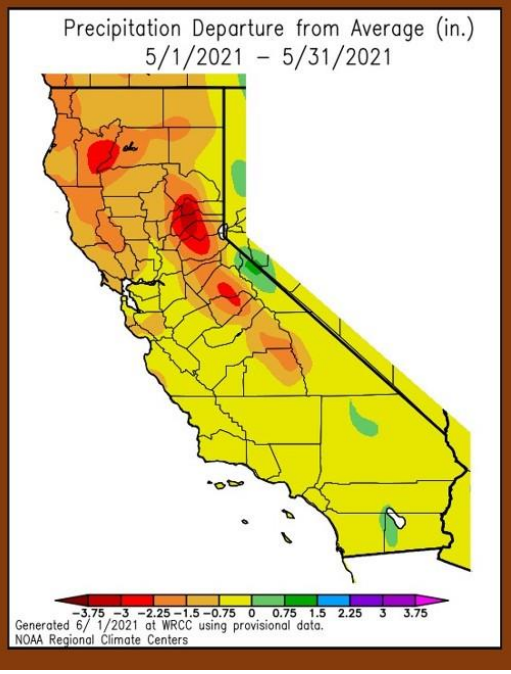
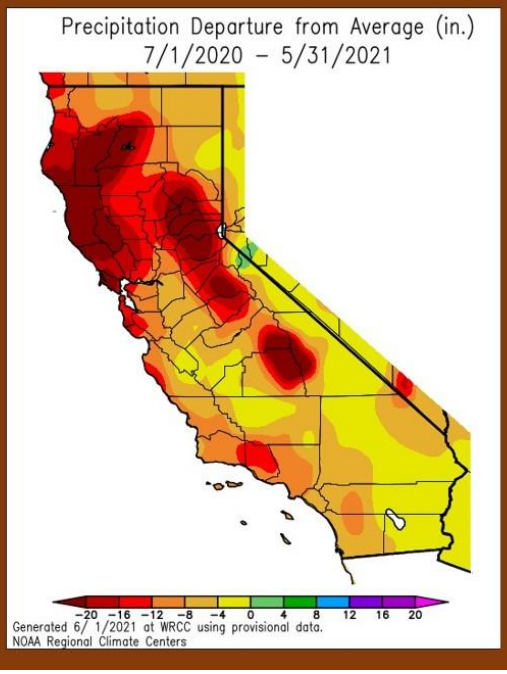
May, 2021 was one of the warmest and driest Mays on record throughout the central California interior. It was the 8th warmest May in Fresno and the 14th warmest May in Hanford and Bakersfield where records date back to the late 1800's. Not a drop of rain fell the entire month in the San Joaquin Valley, which, compared to a typical May, would normally receive a quarter of an inch to a half inch of rain. What's more astounding is the lack of appreciable precipitation that fell in the Sierra. There were only two storm systems that brought precipitation into the higher terrain. Each of them originated in the Gulf of Alaska and tracked through central California during the 3rd week of May. The first storm moved through the HSA on the 16th and produced precipitation amounts of fifteen hundredths or less in the mountains and desert. The second storm took a similar path through the HSA on the 21st and brought a tenth of an inch or less in the foothills and higher elevations of the Sierra. A few locations in the Sierra received a quarter of an inch to as much as a half inch of precipitation from this second storm. Elevations generally above 7,000 feet picked up a few inches of snow from each of these storm systems. The nominal precipitation that fell in May over the southern Sierra was a good 1 to 3 inches below normal. More importantly, the precipitation deficit in the Sierra was far more serious from a long term perspective, which, since July 1st had a precipitation deficit of 12 to as much as 26 inches. The rest of California hadn't fared much better with its overall extreme long term dryness. Similar precipitation deficits common to the southern Sierra also existed over the higher terrain of northern California. It should come as no surprise that May, 2021's scanty precipitation pushed the Golden State deeper into its drought. On May 10th, Governor Newsom officially declared 41 of California's 58 counties in emergency drought status. Maps that show the state's monthly and seasonal precipitation departures are provided below this summary in addition to the California Drought Monitor that was issued May 27th, 2021.

With the exception of the two storms referenced above, a fairly persistent upper level ridge of high pressure dominated the weather pattern across central California for much of May. In addition to bringing dry weather to the HSA, the ridge produced several days of above normal high temperatures. May 31st was the warmest day with widespread triple digit heat in the San Joaquin Valley, lower foothills and the Kern County desert. Although rapid melting and depletion of the Sierra snowpack brought a slight increase in water levels in the reservoirs by the end of the month, water levels remained well below normal in all of the dams. Likewise, water releases from the dams were unusually small, and were generally reserved for irrigation needs in the eastern part of the San Joaquin Valley. Consequently, low flows existed on all of the mainstem rivers. A few rivers well below the dams such as the Kings and Tule rivers which usually run swift and deep in a normal May were nothing but dry river channels in places! As of June 2nd, the water capacity in the reservoirs averaged about 32 percent of normal.

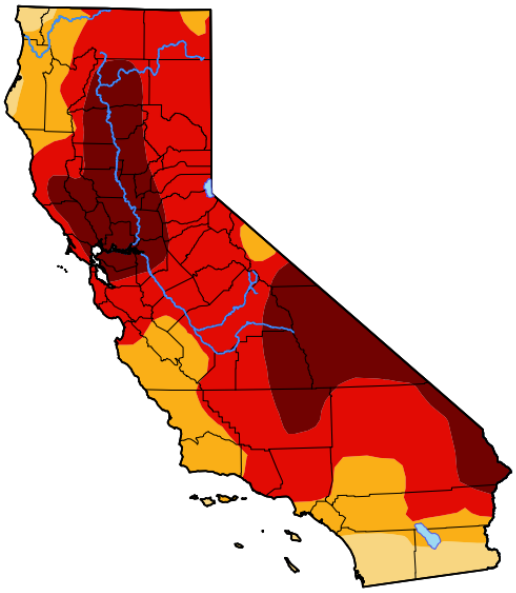
NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH.

Departure from Normal Precipitation – May, 2021 and for the Season since July 1, 2020





U.S. Drought Monitor
California



May 25, 2021
(Released Thursday, May. 27, 2021)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	94.61	74.46	26.04
Last Week *05-18-2021*	0.00	100.00	100.00	94.31	73.33	15.91
3 Months Ago *02-23-2021*	0.70	99.30	84.88	56.98	29.54	3.75
Start of Calendar Year *12-29-2020*	0.00	100.00	95.17	74.34	33.75	1.19
Start of Water Year *09-29-2020*	15.35	84.65	67.65	35.62	12.74	0.00
One Year Ago *05-26-2020*	41.80	58.20	46.67	20.84	2.97	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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