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: **FEBRUARY** YEAR: **2020**

**TO:** Hydrometeorological Information Center, W/OH12x1
National Weather Service/Office of Hydrology
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Silver Spring, MD 20910

SIGNATURE: Kevin Durfee
(In Charge of Hydrologic Service Area)

DATE: March 2, 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).

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

February, 2020 was pitifully dry throughout the central California interior. No measurable rain fell over the western third of the San Joaquin Valley and where rain occurred on the east side and south end of the valley on the 22nd, the only day that precipitation fell in the valley duriing the 29 days of the month, rain totaled generally less than a tenth of an inch. In Fresno and Bakersfield, it was the 2nd driest February with records dating back to the late1800's. As a testament to just how dry it was, the Sierra 5-station index and Tulare Lake 6-station index ranked as the 2nd and 3rd driest February on record, respectively. The growing precipitation deficit over much of the Golden State was enough to bump the drought classification index up to the moderate category in the Sierra. The seasonal percentage of normal precipitation also dropped considerably due to February, 2020's abnormal dryness. (See charts below this summary.)

The occurrence of wet weather on the 22nd was February, 2020's anomaly, brought into the district by a storm that trekked eastward across southern California. In addition to the scanty rainfall over the east side and south end of the San Joaquin Valley, precipitation totals ranged from a tenth of an inch or less in the Tehachapi mountains and the Kern county desert to two tenths in the Sierra foothills. In the Sierra, precipitation totals of three tenths to three quarters of an inch were common with local amounts of up to nine tenths in the mountains of Tulare County. Up to four inches of snow fell in the Sierra above 7,000 feet south of Kings Canyon National Park while areas farther north in the Sierra received little more than snow flurries. The nominal rainfall that wet the ground in the Tulare county portion of the San Joaquin Valley on the 22nd primed the atmosphere for fog formation by daybreak on the 23rd. Low clouds in that part of the San Joaquin Valley took until the early afternoon hours of the 23rd to completely dissipate.

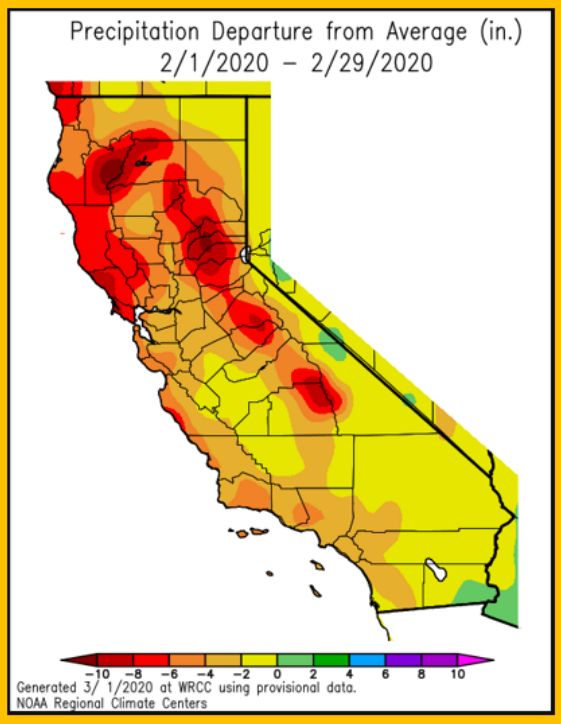
The storm system on the 22nd wasn't the only storm to impact the central California interior during the month. Its predecessor moved swiftly across the HSA on the 9th with little more than isolated showers and higher elevation snow flurries in the Sierra. Sprinkles fell out of this system in the Kern county desert. In the storm's wake, however, powerful Mono winds roared through the canyons of the Sierra foothills north of Fresno County from the 9th into the 10th. One weather station (Cascadel Heights) located on an exposed ridge northeast of North Fork in Madera county reported a wind gust of 93 mph during the morning hours of the 9th. The strong northeasterly winds downed trees, created power outages and damaged roofs of several homes in the vicinity of North Fork on the 9th.

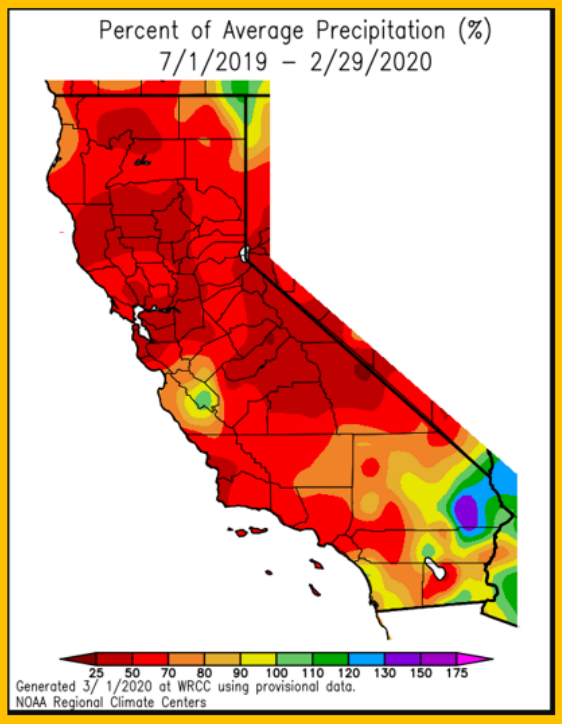
Temperature-wise, February, 2020 was warmer than normal throughout the central California interior. Despite frost and below freezing minimum temperatures in the San Joaquin Valley on the mornings of the 4th and 5th, February 2020 would be remembered for an extraordinary number of balmy afternoons. Thermometer readings topped the 80-degree mark in several valley, lower foothill and desert locations on the 26th and 28th. Only a handful of afternoons during the month recorded high temperatures cooler than normal at official climate stations.

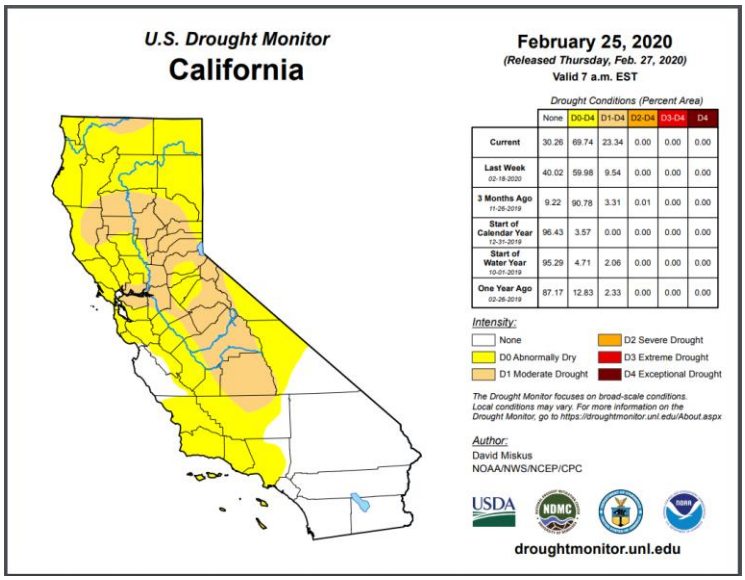
Dam owners, in anticipation of a drier than normal finish to the rain season, kept water levels unchanged in the reservoirs through the month. The water capacity in the reservoirs ranged from 16 percent of normal at Terminus Dam to 62 percent of normal at New Exchequer Dam with an average of about 42 percent of normal as February drew to a close. Depletion of the snowpack over the southern Sierra continued during the month due to melting and sublimation and had diminished to about 43 percent of normal by March 1st.

**NO HYDROLOGIC PRODUCTS WERE ISSUED THIS MONTH**.

**Precipitation departure (in inches) for February, 2020 and the Percentage of normal Precipitation so far for the 2019-20 Season.**



| SJ5SI Top Driest February's | | |
|---|---|---|
| Rank | Amt | Yr |
| 1 | 0.21 | 1952-1953 |
| 2 | 0.24 | 2019-2020 |
| 3 | 0.24 | 1963-1964 |
| 4 | 0.30 | 1911-1912 |
| 5 | 0.69 | 2012-2013 |
| 6 | 0.91 | 1966-1967 |
| 7 | 0.92 | 1996-1997 |
| 8 | 1.05 | 2017-2018 |
| 9 | 1.06 | 1987-1988 |
| 10 | 1.21 | 1922-1923 |
| 11 | 1.34 | 1923-1924 |
| 12 | 1.40 | 2015-2016 |
| 13 | 1.51 | 1932-1933 |
| 14 | 1.53 | 1970-1971 |
| 15 | 1.70 | 1994-1995 |
| 16 | 1.74 | 1973-1974 |
| 17 | 1.74 | 1912-1913 |
| 18 | 1.97 | 2011-2012 |
| 19 | 2.02 | 1971-1972 |
| 20 | 2.10 | 1964-1965 |

| TL6SI Top Driest February's | | |
|---|---|---|
| Rank | Amt | Yr |
| 1 | 0.13 | 1952-1953 |
| 2 | 0.36 | 1963-1964 |
| 3 | 0.48 | 2019-2020 |
| 4 | 0.65 | 2017-2018 |
| 5 | 0.70 | 1996-1997 |
| 6 | 0.71 | 1987-1988 |
| 7 | 0.72 | 1960-1961 |
| 8 | 0.80 | 1932-1933 |
| 9 | 0.85 | 1923-1924 |
| 10 | 0.99 | 1966-1967 |
| 11 | 1.01 | 1922-1923 |
| 12 | 1.01 | 1973-1974 |
| 13 | 1.03 | 2001-2002 |
| 14 | 1.10 | 2015-2016 |
| 15 | 1.13 | 1964-1965 |
| 16 | 1.21 | 1970-1971 |
| 17 | 1.33 | 1971-1972 |
| 18 | 1.39 | 1990-1991 |
| 19 | 1.53 | 1976-1977 |
| 20 | 1.56 | 2012-2013 |

CC:

W/OH12X1
W/WR2
CNRFC
WFO HNX
WFO STO