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: OCTOBER 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: November 1, 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).

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' An X inside this box indicates that no flooding occurred for the month
+---+ within this hydrologic service area.

A change to a stormy pattern during the first week of October offered hydrologic promise to the start of the new water year across the central California interior. However, that hope quickly fizzled by Columbus Day as the remaining three weeks of October were bone dry. Nonetheless, significant rainfall occurred in some areas of the HSA during the first week of the month and produced localized flooding.

It all began with a storm system over the Eastern Pacific. By the morning of October 2nd, a southwesterly flow of warmer air aloft well ahead of this storm produced a line of showers and thunderstorms. The warm front associated with this system moved quickly northward over the central and southern San Joaquin Valley that morning while the storm remained well offshore. The storm system moved inland on the 3rd and brought generous rainfall to the foothills and higher elevations of the Sierra. A mud flow that was nearly 3 feet deep closed a section of Highway 140 near El Portal on the afternoon of the 3rd. Heavy rain also produced a debris flow along a portion of Highway 190 between Springville and Camp Nelson on the afternoon of October 3rd. Thunderstorms that erupted over the Los Padres National Forest during the late afternoon hours that day triggered flash flooding along Highway 41 east of Twisselman. These thunderstorms trekked eastward across the southern San Joaquin Valley during the evening hours and produced urban and street flooding in the cities of Tulare and Visalia. By the time the weather quieted down during the early morning hours of the 4th, up to 3 inches of rain had fallen in some areas. Although this storm was advertised as the first significant rainmaker of the season, some areas of the HSA received absolutely no rain at all. This included much of western Merced County, the Kern County desert and the south end of the San Joaquin Valley. Once this storm system migrated east of the state, it lingered over the Great Basin for a few days. A cold front that dove southward out of the northern Rockies on the western flank of this storm system produced scattered showers and isolated thunderstorms in the mountains and desert on the 6th. Rain amounts were generally between a few hundredths and a few tenths of an inch. However, local amounts of up to 2 inches fell over the higher elevations of the Sierra that afternoon.

The pattern reverted back to one reminiscent of late Summer during the 2nd week of October and remained generally unchanged through the end of the month as a ridge of high pressure aloft dominated the West coast. While in control, this high pressure ridge produced many days of above normal afternoon temperatures. In the San Joaquin Valley and lower foothills, thermometers climbed above 80 degrees on several afternoons. Fresno and Bakersfield recorded 20 days at or above 80 degrees. Of those 20 days, there was a 12 day stretch of 80 degree weather between October 12th and October 24th. The balminess was offset by seasonably cool to chilly nights. To sum it up, temperature-wise, October, 2018 ended up slightly warmer than normal.

Dam owners, in anticipation of another possibly drier than normal wet season, maintained water levels in the reservoirs through the month. In fact, water levels during the 31 days of October generally remained unchanged at most of the reservoirs. No appreciable water loss in the dams meant that water capacities held fairly constant through the month and averaged 30 percent of normal.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flash Flood Warnings*

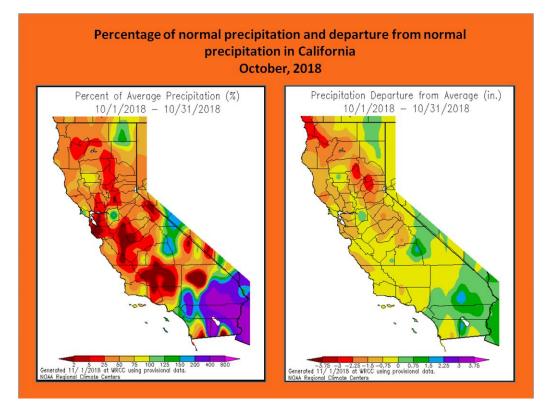
Foothills and higher elevations of Tulare County	2225Z	02-OCT
Ferguson Burn Scar	2021Z	03-OCT
Ferguson Burn Scar (upgraded to Flood Emergency)	2145Z	03-OCT
West side of the San Joaquin Valley in Fresno County	2246Z	03-OCT

*Note: Numerous Flash Flood Statements were issued as follow-ups to the initial Flash Flood Warnings.

Flood Advisories

Small Stream Flood Advisory (Southwest Kings County, Southwest Fresno County)	2338Z	03-OCT
Urban/Small Stream Flood Advisory (Northwestern Kern County)	0137Z	04-OCT
Flood Advisory (foothills and higher elevations of Tulare County)	0140Z	04-OCT
Flood Advisory (Fresno area and Clovis area)	0418Z	04-OCT
Urban/Small Stream Flood Advisory (east side of San Joaquin Valley from		
Fresno County southward)	0527Z	04-OCT
Flood/Flash Flood Watches		
Flash Flood Watchfoothills and higher elevations of the Sierra	1835Z	03-OCT

The maps below from the Western Region Climate Center depict the variability of precipitation that fell across the Golden State in October. With the exception of the higher elevations of Kings Canyon National Park and Sequoia National Park which received above normal precipitation, much of the central California interior experienced a significant precipitation deficit during the month of October. The storms that impacted central California during the first week of the month were too warm to bring accumulating snow to the highest elevations of the Sierra. Much of southeastern California was impacted by monsoonal moisture.



CC:

W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO