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: NOVEMBER 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: December 2, 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).

October 2018's unseasonably long stretch of dry weather continued well into November. In fact, not a drop of precipitation fell within the HSA during the first 20 days of the month, no thanks to a strong blocking upper level ridge of high pressure parked over the Eastern Pacific. While this ridge was in control, humidities dropped into the single digits ant teens over the higher terrain for several days while air quality worsened under a strong inversion in the San Joaquin Valley. Wildfires erupted over northern California during the first two weeks of the month. Over central California, the Alder wildfire in the Tulare County mountains flared up at times during this extended spell of bone dry weather. Smoke from this fire and the fires over the northern part of the state significantly worsened the air quality over much of the HSA and reduced visibility to only a half mile in some locations. In spite of thick haze and smoke pollutants, high temperatures averaged well above normal over the HSA during the first 20 days of the month. Nightly low temperatures were relatively cool to chilly during this period. Frosty minimum temperatures in the 30s occurred outside of the urban areas of the San Joaquin Valley from the 9th through the 20th. The Kern county desert received its first hard freeze of the season on the morning of the 10th where thermometer readings bottomed out in the lower to mid 20s. In spite of the chilly nights, the month averaged much warmer than normal throughout the HSA.

A welcome change to a wet pattern occurred on the 21st and continued through the end of the month. Two storm systems tracked through central California during this period. Each one brought a soaking rain to the lower elevations and an abundance of snow to the Sierra above 7,000 feet. The first storm arrived on the eve before Thanksgiving and resulted in a number of fender bender accidents in the lower elevations as rain fell on roads slick with oil after the lengthy dry spell. Other than some ponding of water on a few valley and foothill roads, the rain did not cause any major flooding, even in the vicinity of wildfire burn scars. This storm also brought the first substantial snow of the Winter season (two feet or more above 7,000 feet) to the Sierra along with a cold reality check for hikers and campers where gusty winds drove wind chill temperatures into the teens and wind whipped snow produced local whiteout conditions. Nonetheless, this first storm was truly more of a blessing than a curse and gave the valley and surrounding environs a thorough atmospheric cleansing after weeks of smoke contamination. Precipitation totals between the 21st and 24th ranged from a quarter of an inch in the Kern desert and south end of the San Joaquin Valley to 1 to 3 inches in the foothills and higher elevations of the Sierra north of Tulare County. A stronger and wetter storm system trekked through the central California interior from the 28th through the 29th. Heavy rainfall from this storm triggered mud slides and rock slides in the Sierra foothills. Highway 140 west of El Portal had to be closed because of mud and rocks. Parts of the San Joaquin Valley reported minor street and urban flooding and more vehicular accidents because of slick road conditions. This storm produced snow accumulations of up to 4 feet in the high Sierra by the time it exited into the Great Basin on the 30th. Lower elevations received up to 2 inches of rain with local amounts of up to 3 inches. Measurable rain even fell in the Kern County desert, albeit light, with generally a tenth of an inch or less at most observing stations. The San Joaquin Valley experienced its first Tule Fog event of the season on the morning of the 26th as folks were heading back to work from the Thanksgiving weekend.

Reservoirs throughout the central California interior reported little change in water levels during the month in spite of added precipitation during the last 9 days of November. As of December 1st, the water capacity of the reservoirs averaged 31 percent of normal.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

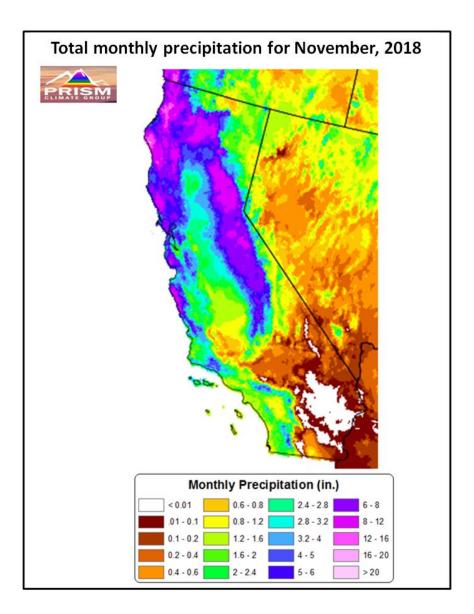
Flash Flood Warnings*

Ferguson Burn Scar (Mariposa County)	1642Z	28-NOV
Ferguson Burn Scar (Mariposa County)	0919Z	29-NOV

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

Flood/Flash Flood Watches

Flash Flood WatchSierra Foothills	2334Z	20-NOV
Flash Flood WatchSierra Foothills	2150Z	27-NOV



CC:

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