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: **2019**

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: December 4, 2019

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.

November, 2019 began much like October, 2019 ended…dry and dusty. In fact, no precipitation fell over the entire HSA during the first 19 days of the month, no thanks to a strong blocking ridge of high pressure anchored for much of this time over the Eastern Pacific. A breakdown of this ridge finally occurred during the third week of the month as the ridge axis shifted far enough westward to allow storm systems to track down the California coast from their origins in the Gulf of Alaska. The first of these storms tracked southward over the coastal waters of the Golden State then made a sharp left turn at Point Conception on the 20th. It was a rain soaking storm for Kern county and a big snow producer in the mountains of Kern county and Tulare county above 6000 feet. Up to 9 inches of snow fell in Kennedy Meadows (Tulare County) while snow accumulated to a depth of 14 inches at Pine Mountain Club in the Tehachapi mountains (Kern County). In fact, the snow stranded 30 or more vehicles during the early morning hours of the 20th on Mil Potrero highway. The storm produced rain amounts of up to an inch in the San Joaquin Valley portion of Kern County on the 20th along with flooded roads. There were CHP reports of mud and debris on the northbound lanes of I-5 near Grapevine during the morning hours of the 20th. Unfortunately, the rest of the San Joaquin Valley north of Kern County west of highway 99 received no precipitation from this storm. East of highway 99, rain amounts were rather nominal and generally less than a few hundredths of an inch. The foothills and higher elevations of the Sierra north of Tulare county also missed out on significant precipitation from this storm as it tracked eastward across southern California into Arizona. Precipitation totals in these areas were generally six hundredths of an inch or less.

The storm that followed during the week of Thanksgiving was stronger, colder and wetter and encompassed the entire HSA with its precipitation and not without substantial impacts for holiday travelers. The arrival of wet weather with this storm on the 26th was the 3rd latest start to the rain season in Fresno.

A couple of days before that storm arrived a dry cold front swept southward through the HSA on the morning of the 25th. Brisk winds behind this cold front caused widespread blowing dust in the San Joaquin Valley and severely reduced visibility in many locations. The blowing dust restricted visibility to only 10 feet in a few west side locations of the San Joaquin Valley and created a multivehicle collision along Highway 41 near Caruthers that afternoon. Meanwhile, westerly winds roared as high as 70 mph below the Kern county mountain passes on the 25th. The strong winds overturned a tractor trailer along highway 58 in the vicinity of Mojave and along Highway 14 in the Kern county desert.

A major storm brought the first snow of the season to elevations as low as 2000 feet by Thanksgiving Day. Black Friday essentially turned to “White Friday”, weatherwise, for post-holiday shoppers in the foothills and higher elevations of the HSA as hillsides and roadways became blanketed with snow. The storm brought snow to the Kern county mountain passes and slowed travel over the Grapevine on the morning of the 27th The snow that fell on the 28th shut down I-5 over the Grapevine on two separate occasions Thanksgiving Day. Snow even blanketed the Kern county desert Thanksgiving Day with up to 8 inches accumulating in

some locations. It would be the first significant snow in the Kern desert in nearly eight years. The storm also left a substantial amount of snow over the Sierra above 5,000 feet. In the highest elevations of the Sierra as much as 5 feet of snow fell before precipitation dwindled to flurries Thanksgiving night. Meanwhile, the hills west of I-5 were dusted with a light blanket of snow above 1500 feet. Rain fell in the lower elevations. The storm system also produced isolated thunderstorms with small hail during the afternoons of the 27th and 28th. Other than some residual snow flurries in the Sierra on the 29th, much of the HSA got a break from wet weather through the morning hours of November 30th. By that afternoon, the next storm was already bringing precipitation into the region along with milder air and higher snow levels. As this system approached from the Pacific, it produced powerful southerly winds over the Tehachapi mountain passes with gusts up to 80 mph over the Grapevine. Otherwise, the storm dumped another foot or two of new snow over the Sierra above 7,000 feet into the first day of December. Rain drenched the lower elevations. The combination of rain and melting snow in the mountains below 6,000 feet raised the threat of flash flooding as the calendar turned the page into December. Fortunately, there were no reported incidents of significant flooding throughout the HSA from this end of the month storm, although ponding of water occurred on some roads in the San Joaquin Valley and adjacent foothills.

Despite a very late start to the wet season, the storms that trekked through the central California interior during the last 4 days of the month produced a generous payload of snow over the southern Sierra after starting out essentially brown and barren during the first 3 weeks of November. By December 2nd, the snowpack over the southern Sierra Nevada averaged about 97 percent of normal. The statewide average was about 70 percent of normal. Water levels changed little in most of the major reservoirs during the month. After a 6-month long absence of precipitation, rain that fell between November 26th and December 1st percolated into the soil with little, if any runoff. As of December 2nd, the water capacity in the reservoirs averaged about 34 percent of normal.

In summary, November, 2019 averaged wetter than normal throughout the central California interior, particularly in Kern County. As mentioned above, the bulk of the month's precipitation came during the last four days of the month. A graphical look at the month's total precipitation across California and for much of the West is provided on the last page of this summary. Temperature-wise, November, 2019 averaged slightly warmer than normal throughout the HSA.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH

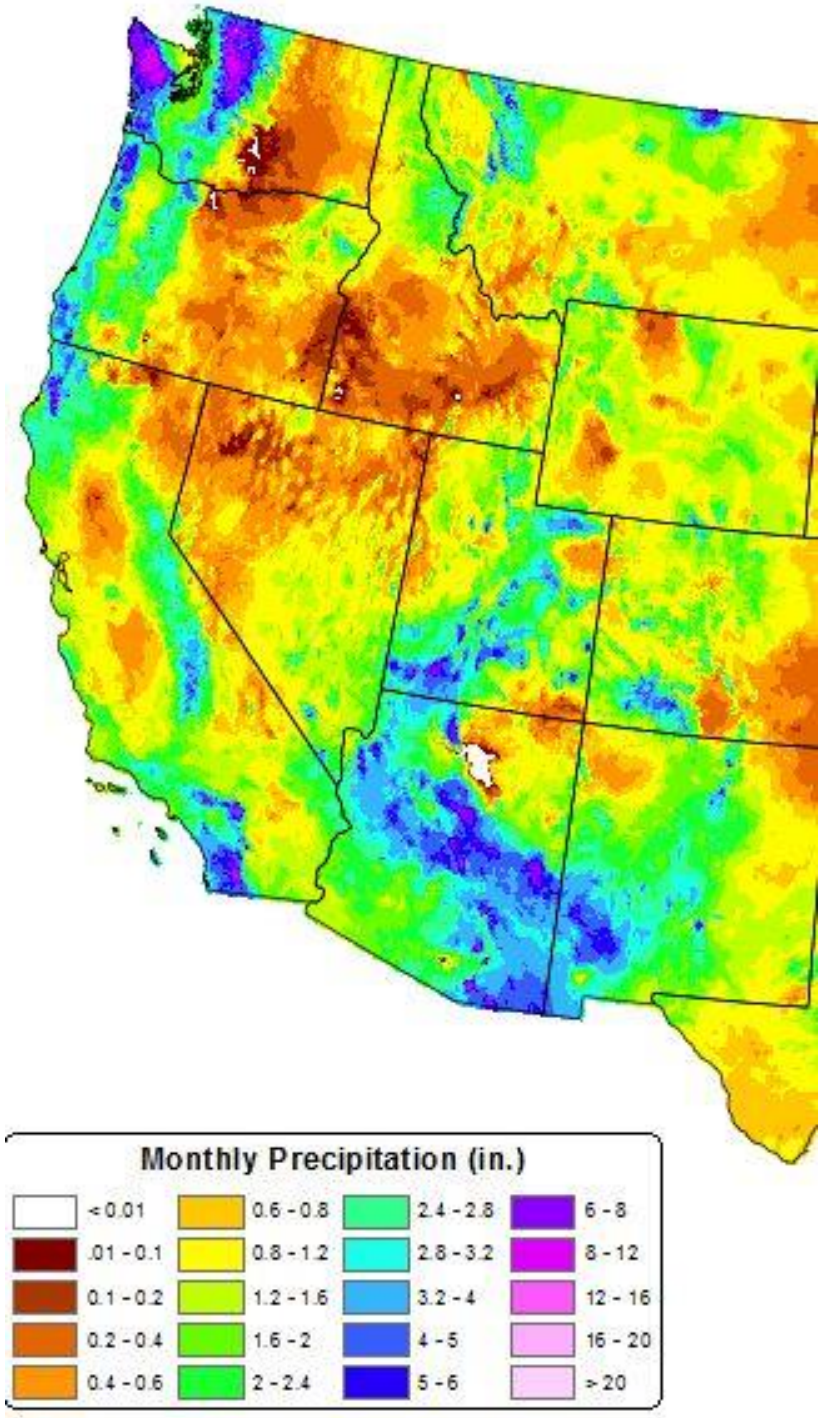
FLASH FLOOD WATCHES

Flash Flood Watch…the foothills and higher elevations of the Sierra below 7,000 ft	1012Z	29-NOV

FLOOD ADVISORIES

Urban/Small Stream Flood Advisory….Kern County portion of the San Joaquin Valley	1738Z	20-NOV
Urban/Small Stream Flood Advisory….Kern County portion of the San Joaquin Valley	1906Z	20-NOV
Urban/Small Stream Flood Advisory….Kern County portion of the San Joaquin Valley	2028Z	20-NOV
Urban/Small Stream Flood Advisory….Kern County portion of the San Joaquin Valley	2228Z	20-NOV
Flood Advisory…Southern San Joaquin Valley/Kern County/SW Tulare County	1450Z	27-NOV
Flood Advisory…Eastern San Joaquin Valley in Fresno County/Tulare County	2026Z	27-NOV
Flood Advisory…Central San Joaquin Valley	2337Z	27-NOV

TOTAL PRECIPITATION FOR NOVEMBER, 2019



CC:

W/OH12x1
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CNRFC
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