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

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

REPORT FOR:

MONTH: JANUARY YEAR: 2019

**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: February 1, 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).

+---+ An  ${f x}$  inside this box indicates that no flooding occurred for the month | X | within this hydrologic service area. + - - +

January, 2019 started out dry and cold and ended up mild and wet across much of the HSA. Several storms, most of them originating in the central Pacific, brought beneficial water into the central California interior, especially over the foothills and higher elevations of the Sierra. The majority of January's storm systems tracked through southern California which would explain why much of Kern county and the southland ended up wetter than normal. Much of the San Joaquin Valley, particularly the west side, as well as the higher elevations of the Sierra north of Fresno county ended up with slightly below normal precipitation for the month. A statewide map that depicts the percentage of normal precipitation for the month is provided at the end of this summary.

January 5<sup>th</sup> through the 9<sup>th</sup> and January 14<sup>th</sup> through the 17<sup>th</sup> were two substantially wet periods when storms frequented the HSA. In addition to strong and gusty winds, each of these storms brought copious precipitation into many areas of the HSA. In the four day period ending January 9<sup>th</sup>, rain totals of 3 to 7 inches were common in the foothills and higher elevations of the Sierra. Aside from minor nuisance flooding in some areas, the rain that fell between January 5<sup>th</sup> and 9<sup>th</sup> did not cause any serious hydrologic impacts. However, up to 4 feet of new snow accumulated in the Sierra above 8,000 feet and this caused significant travel delays for recreational skiers headed for the resorts. A succession of Pacific storms tracked eastward through the Golden State from the 14<sup>th</sup> through the 17<sup>th</sup> with similar rain and snow totals. The first of these storms took a path just south of Kern County on the 14<sup>th</sup> while colder air was filtering in from the north. Rain changed to snow at pass level during the midday hours that day and continued as snow through the afternoon. The result was a wintry mess over the Grapevine which stranded motorists for several hours and closed the northbound and southbound lanes of Interstate 5. An invasion of milder air associated with an atmospheric river of rich tropical moisture during the next 2-3 days raised snow levels well above pass level by the afternoon of the 15<sup>th</sup>. Rain fell heavily enough to cause street and highway flooding in the valley portion of Kern County from the 16<sup>th</sup> into the 17<sup>th</sup>. Highway 140 that runs through the Ferguson burn scar was closed as a precaution and there were reports of mud and rock slides along this road during the height of this rain event. Additionally, Red Rock-Randsburg road in the Kern county desert flooded and had to be closed. The cold front that finally pushed this tropical air mass out of the HSA spawned an EF1 tornado just east of Clovis during the afternoon of the 17<sup>th</sup>. The tornado, which briefly touched down in a relatively rural part of Fresno County, was roughly 20 yards wide and damaged a few buildings.

A colder storm system trekked through the central California interior from the 20th into the 21st. The heaviest precipitation fell in the foothills and higher elevations of the Sierra where rain totals of 1 to 2 inches were common. A few to several inches of snow fell above 5,000 feet from this storm although a light dusting of snow was observed as low as 4,000 feet by the time it exited into the Great Basin on the morning of the 21<sup>st</sup>.

A welcome respite from storminess occurred from the 22<sup>nd</sup> through the 30<sup>th</sup> as an upper level ridge of high pressure anchored itself along the West coast. This was the longest stretch of quiet weather since the period from Christmas Day through January 4<sup>th</sup>. One more storm impacted the HSA from the night of the 30<sup>th</sup> into the 31<sup>st</sup>. Like so many storms during the month, this one tracked through southern California. Rain totals were highest in Kern County where generally four to eight tenths of an inch were observed.

Temperature-wise, the month averaged much warmer than normal. In fact, most climate stations in the 31 day period had at most four days of below average temperatures and that occurred during the first four days of the month. On a majority of days, afternoon temperatures warmed into the 60s in the San Joaquin Valley and adjacent foothills and on a few occasions thermometer readings jumped into the lower 70s, especially in the Sierra foothills. Dense fog plagued the San Joaquin Valley on several mornings, particularly from the 23<sup>rd</sup> through the 30<sup>th</sup>. The fog caused numerous fender bender accidents on valley highways on practically every one of these mornings.

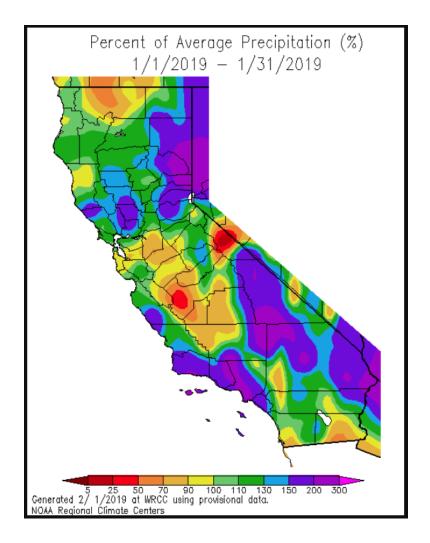
The frequency of storms during the month brought water levels up in the reservoirs, with a water capacity that averaged 41 percent of normal as of February 1<sup>st</sup>. The snowpack over the southern Sierra, which at one point increased to about 118 percent of normal until warmer storms moved into the HSA during mid-month, ended up at about 97 percent of normal by February 1<sup>st</sup>.

## HYDROLOGIC PRODUCTS ISSUED

Flash Flood Warnings*		
Ferguson/Detwiler Burn Scar	0150Z	17-JAN
Ferguson/Detwiler Burn Scar	0947Z	17-JAN

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

Flash Flood Watches		
Foothills and higher elevations of the Sierra below 7,000 ft	1323Z	15-JAN
Foothills and higher elevations of the Sierra below 7,000 ft	1845Z	31-JAN
Flood Advisories		
Urban/Small Stream for the valley and mountains of Kern County	1400Z	17-JAN
Hydrologic Statements		
Bear Creek at McKee Road	0601Z	17-JAN
Bear Creek at McKee Road	1116Z	17-JAN
Hydrologic Outlooks		



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