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

NS MONTH: SEPTEMBER YEAR: 2015

TO: Hydrometeorological Information Center, W/OH12x1 SIGNATURE:

National Weather Service/Office of Hydrology

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Silver Spring, MD 20910 (In Charge of Hydrologic Service Area)

DATE: October 6, 2015

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

Above normal temperatures and below normal precipitation exasperated the prolonged drought throughout the HSA during the month of September. Meanwhile, the Rough wildfire, which grew daily and became one of the top 15 largest wildfires in CA, continued to make national headlines. On numerous occasions, smoke aloft from this fire was brought into the lower foothills and the San Joaquin Valley by high altitude easterly winds. The smoke was particularly bad on the 11th and significantly worsened air quality in the San Joaquin Valley. It wasn't until the 14<sup>th</sup> that a strengthening onshore flow finally swept this smoke out of the lower elevations and brought a refreshingly cooler air mass into central California. Additionally, tropical moisture associated with the remnants of what was once Hurricane Linda was pulled northward into the HSA during mid month. Showers associated with this northward surge of moisture produced a wetting rain throughout much of the higher terrain from the 14<sup>th</sup> through the 15<sup>th</sup> with up to seven tenths of an inch of rain falling in the wettest locations of the Sierra. In the San Joaquin Valley, rain amounts varied from a trace to a tenth of an inch. A weather tidbit worth noting occurred in Bakersfield on the 15th. In all the years of record keeping (dating back to the late 1800's), rain never fell on September 15<sup>th</sup> in Bakersfield until this year, so the trace of rain at Meadows Field on the 15<sup>th</sup> went into the record books as the first ever occurrence of rain on that date. The cooler temperatures and higher humidities during mid month significantly slowed the growth of the Rough wildfire and finally gave firefighters an upper hand in its containment. Although moisture was eventually swept east of California by the 16th, an onshore flow prevailed through the 18th and kept temperatures cooler than normal throughout the HSA.

There were two other brief influxes of monsoonal moisture into the central California interior during the month. Moisture did not make it much farther north than Kern County on the 9<sup>th</sup> but provided an atmospheric environment favorable for isolated thunderstorm development that afternoon. Lightning sparked a new wildfire near Tehachapi that afternoon. Meanwhile, thunderstorms near the southern border of Kern County trained northwestward for a few hours and produced flooding in the vicinity of Pine Mountain Club. Nearly nine tenths of an inch of rain fell in just 75 minutes at a nearby community of Oak Ranch on the afternoon of the 9<sup>th</sup>. Monsoonal moisture flowed northward into the HSA from the 21<sup>st</sup> through the 22<sup>nd</sup> and produced scattered showers and isolated thunderstorms over primarily the Kern County mountains and desert. During the last few days of the month, tropical moisture became entrained in a southwesterly flow aloft over central California that originated over the Hawaiian islands. Little more than sprinkles fell out of this mid and high cloudiness which also helped to keep temperatures cooler than normal north of Kern County.

Outside of the above referenced periods, a strong upper level ridge of high pressure dominated the pattern and brought dry weather and well above normal temperatures to the HSA. The hottest spells occurred from the 9<sup>th</sup> until the 13<sup>th</sup> and again from the 20<sup>th</sup> through the 22<sup>nd</sup>. High temperatures were at or above the century mark during these periods throughout much of the San Joaquin Valley, lower foothills and the Kern County desert. Meanwhile, low water flows continued on the mainstem rivers through the end of September. Reservoirs remained historically low on water with an average water capacity of only 12 percent of normal.

## HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flash Flood Warning...Kern County mountains 2140Z 09-SEP Flash Flood Warning...Kern County mountains 2155Z 09-SEP

cc:

W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO