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: **JUNE** YEAR: **2017**

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: July 10, 2017

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.

June, 2017 ended up much warmer than normal across the central California interior. As records go, it was one of the top 10 hottest Junes on record in Fresno and Bakersfield with historical archives dating back to the late 19th century. A long stretch of triple digit heat that began on the 17th and continued through the last weekend of the month established new records for maximum and high minimum temperatures. During the peak of the heat wave, thermometer readings topped 110 degrees in the San Joaquin Valley and the Kern county desert and nightly lows stayed above 80 degrees in Fresno, Bakersfield and Mojave. The heat proved fatal to thousands of cattle in the San Joaquin Valley. Hot weather during this period accelerated snowmelt over the high Sierra and produced significant water rises at the dams, many of which filled to the brim and were forced to make large water releases to avoid overtopping.

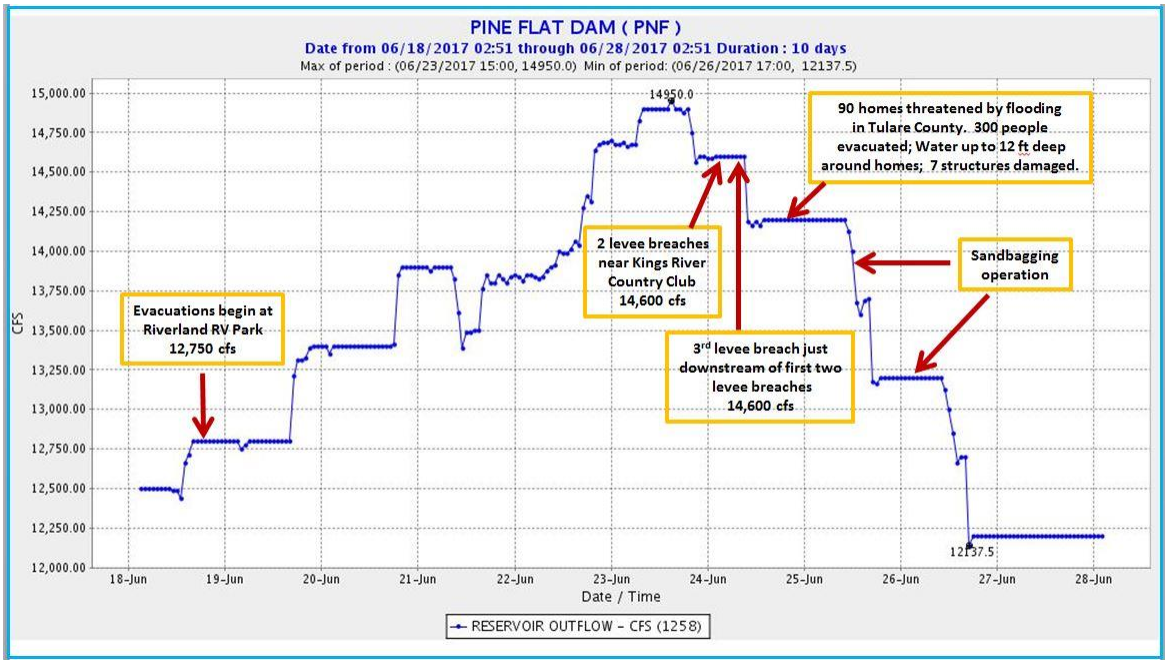
High flows persisted on all of the mainstem rivers through the month and made them particularly vulnerable to anyone unknowing of the dangers of the deep, cold, swift currents in them. Swollen rivers took the lives of those that drowned in them while other people became innocent victims of water rescues far too numerous to individually document. Flooding along a section of the Kings River forced the evacuation of nearly 300 residents in Riverland RV Park near Kingsburg Father's Day weekend and for several days thereafter as extremely large water releases continued out of Pine Flat Dam. The high volume of water flowing out of Pine Flat reservoir between the 20th and 26th (up to nearly 15,000 cfs) produced at least two levee breaches downstream on the Kings River with resultant flooding of a golf course and the evacuation of about 90 homes adjacent to the river where flood waters reached a depth of up to 12 feet. Consequently, Tulare county emergency officials had to fortify flood threatened areas downstream along the Kings River with more than 1,000 sandbags. The graph below depicts the water releases out of Pine Flat Reservoir during this flood event and impacts associated with these releases downstream on the Kings River in Tulare County. Additionally, there were several occurrences of minor flooding on the Merced River at Pohono Bridge in Yosemite National Park. Specific details of this flooding are documented in the supplemental Flood Stage Report (WS Form E-3). All remaining river forecast points in the HSA experienced no flooding and remained below their respective monitor stages during the month. As mentioned earlier, most reservoirs throughout the central California interior were nearly maxed out in their storage of water this month. The only exceptions were Isabella Dam and Hidden Dam, which were close to 60 percent of their total water capacity.

From a synoptic perspective, a strong upper level ridge of high pressure dominated the weather pattern across the Golden State for the bulk of June and kept the central California interior dry. The one exception was a rare Gulf of Alaska storm that tracked through central California during the 2nd weekend of June. This storm brought wintery weather and up to 3 inches of snow to the highest elevations of the Sierra on the 11th. Hikers in the Sierra back country that weekend shivered in wind chill temperatures as low as the teens. Unseasonably cool weather resided over the remainder of the HSA that weekend. Afternoon temperatures remained below 80 degrees in the San Joaquin Valley on the 11th and 12th and dipped as low as the 40s in the chilliest locations prior to daybreak. The weather remained cooler than normal in the wake of this storm system through the 13th. Less than one week later, heat returned with a vengeance! It would not be until

the 27th that temperatures finally fell back to seasonable levels.

There were very few days this month when afternoon thunderstorms popped up over the Sierra. The Gulf of Alaska storm system spawned a scattering of afternoon thunderstorms over the higher terrain as far south as the Tehachapi mountains on the 11th. June 24th ended up being a relatively active day for convection. Isolated thunderstorms rumbled over the southern Sierra during the late afternoon hours that day and lightning from one of them sparked a wildfire over the Tulare county mountains. (Schaeffer wildfire)

Flood Event along the Kings River…June 18th through June 27th



HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flood Warnings

Merced River @Pohono Bridge	1713Z	2-JUN
Merced River @Pohono Bridge	1528Z	18-JUN
Kings River (Reedley to Grangeville)	2103Z	23-JUN
Kings River (Reedley to Grangeville)	1903Z	26-JUN

Flood Statements

Merced River @Pohono Bridge	1352Z	1-JUN
Merced River @Pohono Bridge	1954Z	2-JUN
Merced River @Pohono Bridge	0624Z	3-JUN
Merced River @Pohono Bridge	1420Z	3-JUN
Merced River @Pohono Bridge	1557Z	4-JUN
Merced River @Pohono Bridge	1454Z	5-JUN
Merced River @Pohono Bridge	2013Z	5-JUN
Merced River @Pohono Bridge	1604Z	6-JUN
Merced River @Pohono Bridge	2022Z	6-JUN
Merced River @Pohono Bridge	1537Z	7-JUN
Merced River @Pohono Bridge	1611Z	19-JUN
Merced River @Pohono Bridge	2239Z	19-JUN
Merced River @Pohono Bridge	1614Z	20-JUN
Merced River @Pohono Bridge	1625Z	20-JUN
Merced River @Pohono Bridge	2047Z	20-JUN

Merced River @Pohono Bridge	1618Z	21-JUN
Kings River (Reedley to Grangeville)	2146Z	21-JUN
Merced River @Pohono Bridge	2147Z	21-JUN
Merced River @Pohono Bridge	1514Z	22-JUN
Merced River @Pohono Bridge	2047Z	22-JUN
Kings River (Reedley to Grangeville)	2117Z	22-JUN
Kings River (Reedley to Grangeville)	2242Z	22-JUN
Kings River (Reedley to Grangeville)	2106Z	23-JUN
Kings River (Reedley to Grangeville)	2314Z	23-JUN
Merced River @Pohono Bridge	2322Z	23-JUN
Kings River (Reedley to Grangeville)	1057Z	24-JUN
Kings River (Reedley to Grangeville)	1308Z	24-JUN
Kings River (Reedley to Grangeville)	2245Z	24-JUN
Kings River (Reedley to Grangeville)	1233Z	25-JUN
Kings River (Reedley to Grangeville)	0614Z	26-JUN
Kings River (Reedley to Grangeville)	1306Z	26-JUN
Kings River (Reedley to Grangeville)	0539Z	27-JUN
Kings River (Reedley to Grangeville)	2025Z	27-JUN
Kings River (Reedley to Grangeville)	1936Z	28-JUN
Kings River (Reedley to Grangeville)	1342Z	29-JUN

Hydrologic Outlooks

Heads up for Flood threat along the upper Merced River @Pohono Bridge	2016Z	1-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	1510Z	15-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	0628Z	16-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	1545Z	16-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	0410Z	17-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	1811Z	17-JUN
Heads up for Flood threat along the upper Merced River @Pohono Bridge	0401Z	18-JUN
Cold Water Safety for area rivers	0116Z	20-JUN
Cold Water Safety for area rivers	0120Z	22-JUN

CC:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO