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: MAY 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: June 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).

By May standards, precipitation for the month ended up well below normal across most of the HSA. The only exception was over the highest elevations of the Sierra from Fresno county northward. This was a region that was lucky enough to be brushed by showers from storm systems that stalled over Nevada. Not that these communities could have bragging rights, since precipitation totals for the month along the Sierra crest were generally less than 2 inches. Maps of monthly and seasonal precipitation across California with respect to normal have been included at the end of this summary. Despite a large precipitation deficit in both cases, most reservoirs are holding plenty of water in them to sustain hydrologic needs through the Summer. As of June 1<sup>st</sup>, the water capacity of the 9 major reservoirs over the central California interior averaged about 74% of normal. Melting and sublimation of snow diminished the snowpack over the southern Sierra to about 3% of normal by month's end.

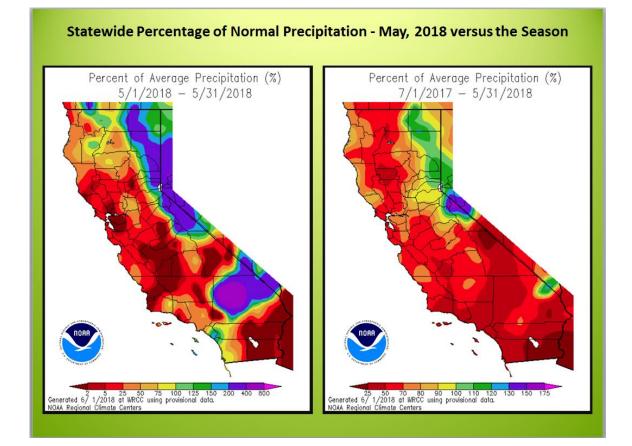
In the larger synoptic picture, closed lows, several of them in fact, tracked southeastward from the Gulf of Alaska during the month, moved inland through the Pacific Northwest, then dropped southward into Nevada. The Great Basin ended up as a graveyard for many of these closed lows. In addition to bringing showers and isolated thunderstorms to the eastern slopes of the Sierra, these systems produced a persistent onshore flow across central California. Frequent invasions of marine air occurred in the San Joaquin Valley as a result and were carried in by brisk westerly winds below the coastal ranges. The deepest marine intrusions in the San Joaquin Valley were accompanied by low stratus on the mornings of the 16<sup>th</sup> and the 25<sup>th</sup>. Otherwise, valley temperatures rose no higher than the 70s during each of these marine pushes. (There were at least 6 of them.) In contrast, there were only 3 to at most 5 days when high temperatures exceeded 90 degrees in the San Joaquin Valley. May 29<sup>th</sup> was the hottest day and it was the first occurrence of triple digit heat this year for many San Joaquin Valley locations as a strong ridge of high pressure aloft temporarily kicked a nearly stationary closed low out of the Great Basin. Nonetheless, by the end of the month, temperatures averaged pretty close to normal.

Only two storm systems brought precipitation into the HSA during the month. The storm at the beginning of May was the wettest, and although it brought a threat of flash flooding to the Detwiler burn scar in Mariposa County, there were no reports of any significant flooding. Rain amounts of up to six tenths of an inch occurred in the mountains and desert. Only a handful of locations received measurable rain in the San Joaquin Valley, and even in those locations the highest totals were less than a tenth of an inch. The storm system on the 25<sup>th</sup> produced up to two tenths of an inch of rain in the southern Sierra. Measurable rain was scarce in the San Joaquin Valley and adjacent foothills, although isolated thunderstorms north of Fresno County during the early morning hours of the 25<sup>th</sup> produced local amounts of up to a quarter of an inch.

While there were only modest water releases out of the dams, swift flows continued on most downstream rivers throughout the month. Several water rescues occurred along the San Joaquin River and the Kings River during the Memorial Day weekend. The San Joaquin River also took the life of a teenage boy during the second weekend of May as he was swept away by rising water.

## HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Flash Flood Warnings Western Mariposa County/Detwiler Burn Scar	2304Z	1-MAY
Flash Flood Statements Western Mariposa County/Detwiler Burn Scar Western Mariposa County/Detwiler Burn Scar	2356Z 0012Z	1-MAY 2-MAY
Flood/Hydrologic Statements Arroyo/Small Stream Flood AdvisoryKern County Desert Small Stream Flood Advisorycentral Mariposa County	2121Z 2141Z	1-MAY 1-MAY



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