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: NOVEMBER YEAR: 2011

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: December 1, 2011

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.

November brought a significant change in the overall weather pattern across central California, and the change was beneficial from a hydrologic aspect. During the first 3 weeks of the month, storm systems tracked southeastward across the state on the average of every 5 days. Two of these storms brought wet weather to the HSA during the first week. These back to back storms, which occurred on the 3rd and the 6th, produced up to 8 inches of snow over the highest elevations of the Sierra with 1 to 4 inches down to about 3000 feet in the Sierra foothills. Precipitation was much lighter in the Kern county mountains with up to a couple inches of snow falling above pass level. In the San Joaquin Valley, combined rainfall from these two storms totaled about a quarter of an inch to a half inch. The next storm system moved through the HSA on Veteran's Day and produced another 1 to 4 inches of snow in the mountains above 5000 feet with locally higher amounts. The Kern county mountains fared much better with this storm with reports of up to 7 inches of snow in Pine Mountain Club (elevation 6100 feet) by the morning of the 12th. Two cold frontal passages, one during the early morning hours of the 18th and the second during the early morning hours of the 19th, did not produce any measureable precipitation across the HSA, however, some drizzle was observed in the wake of the second cold front at the south end of the San Joaquin Valley and along the north facing slopes of the Tehachapi mountains. Within 36 hours, another storm brought generous precipitation to the central California interior. By the time this storm system exited into the Great Basin on the evening of the 20th, it blanketed the higher elevations of the Sierra with up to 10 inches of new snow. In the Kern county mountains, precipitation was lighter with up to 3 inches of fresh snow above 6000 feet. Rain in the lower elevations averaged about a third of an inch in the San Joaquin Valley with up to three quarters of an inch in the Sierra foothills. The final storm of the month fizzled when it moved inland from the Pacific on Thanksgiving Day. Precipitation from this weak storm system was scanty at best with local amounts of up to a few hundredths of an inch. Even the highest elevations of the Sierra got nothing more than snow flurries out of it.

Storms aside, the month did have its stretches of dry weather, too, but none of them were very long lasting. A dry northwesterly flow aloft prevailed from the 13th through the 19th. After Thanksgiving Day, a strong upper level ridge of high pressure anchored itself over southern California and remained in control through the 29th. During this time, night and morning fog and low clouds frequented the San Joaquin Valley while the higher elevations remained mostly clear with mild afternoon temperatures. Low clouds and fog were finally scoured out of the San Joaquin Valley during the afternoon of the 30th as blustery northerly winds associated with a deepening upper level trough over the Great Basin brought a much drier airmass into the central California interior.

In summary, November was slightly cooler than normal. Despite the frequency of storm systems, precipitation averaged slightly below normal in most areas, with the exception of the Bakersfield area, which ended up slightly wetter than normal.

NO HYDROLOGIC PRODUCTS ISSUED THIS MONTH

cc: W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO