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: NOVEMBER YEAR: 2010 **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, 2010 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).

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

November was certainly a month of temperature extremes, ranging from summerlike warmth during the first 6 days of the month to sub freezing temperatures and winterlike cold during the week of Thanksgiving. The warmest day occurred on the 5th when afternoon temperatures peaked above 90 degrees in many San Joaquin Valley localities. In Fresno, it was the first 90 degree reading ever recorded in the month of November since record keeping began there in 1887. A repeat of unseasonably warm weather occurred during the middle of the month and peaked on the 18th when afternoon temperatures topped 80 degrees in the southern San Joaquin Valley. The temperature pendulum swung in the other direction the following week when an Arctic airmass invaded the central California interior. Residents in the San Joaquin Valley awoke to the first killing frost of the season on the 24th while a hard freeze occurred in the Kern County desert. Thanksgiving Day morning was equally as cold with minimum temperatures ranging from the teens in the coldest locations of the Kern County desert to the mid 20s in the San Joaquin Valley.

Hydrologically, the month ended up being much wetter than normal with an abundance of snow over the southern Sierra Nevada and generous rainfall in the lower elevations. The first system tapped into some subtropical moisture as it trekked southward across the HSA on the 7th and 8th and left up to three guarters of an inch of rain in the San Joaquin Valley with upwards of 1.5 inches of rain in the adjacent foothills. In the southern Sierra Nevada, precipitation fell as snow above 7000 feet with accumulations of 8 to 16 inches by the morning of the 8th. The next storm packed a wallop as it tracked southeastward from the Gulf of Alaska. This storm was a slow mover, and brought precipitation to the HSA from the 19th through the 23rd. During this 5-day period, rainfall totals of a half inch to as much as two inches occurred in the San Joaquin Valley and lower foothills. Cold air that accompanied this storm lowered snow levels to about 2500 feet in the Sierra. Many foothill communities above this elevation received their first snow of the season with accumulations of 5 to 10 inches. Meanwhile, the storm dumped up to 3 feet of snow over the higher terrain and left up to 4 inches of snow in the Kern County mountains above 5000 feet. The third storm of the month also originated in the Gulf Of Alaska, but tracked considerably faster across the HSA during the final weekend of November. By midday on the 28th, the storm blanketed the Sierra foothills above 2500 feet with up to five inches of snow and produced a foot of new snow over the high Sierra. In the Kern County mountains, precipitation was mostly in the form of rain with amounts ranging from only a few hundredths to as much as three quarters of an inch. However, rain did end as a little snow in the Kern County mountains above 4500 feet on the morning of the 28th where a light dusting was observed. In the San Joaquin Valley, rain amounts from this storm ranged from just a trace at the south end to nearly a third of an inch in Merced County. By the end of the month, precipitation averaged about 150 percent of normal across the HSA.

HYDROLOGIC PRODUCTS ISSUED

Urban and Small Stream Flood Advisory...San Joaquin Valley

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