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: DECEMBER YEAR: 2008 **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: January 6, 2009

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.

Dry weather prevailed over the HSA during the first 12 days of the month as an upper level ridge of High pressure dominated the pattern. A weak storm system that moved into southern California on the 7th and 8th brought showers as far north as the Kern County mountains and desert while the remainder of the central California interior remained precipitation-free. Temperatures averaged much above normal over the higher terrain during the first 13 days of the month while low clouds and fog remained trapped in the San Joaquin Valley with significantly cooler weather.

The pattern changed abruptly by the 14th and remained so through Christmas Day as a series of deep upper level troughs with origins from Alaska tracked southward into the Golden State. The first of these storm systems brought heavy snow to the mountains and generous rain in the lower elevations. Cold air that accompanied this storm produced frozen precipitation as low as 1500 feet. Accumulating snow fell over the Grapevine along Interstate 5 on the evening of the 14th. By the time the storm exited into the Great Basin on the 15th, new snow accumulations ranged from up to a foot in the Kern County mountains to as much as four feet over the high Sierra. A double-barreled storm system tracked southward across the state between the 21st and 25th. Both storms combined brought up to a few inches of snow to elevations as low as 2000 feet. Meanwhile, a foot of new snow fell over the higher elevations of Kern County with another 2-3 feet of snow over the high Sierra. Showers occurred in the San Joaquin Valley during the period with rainfall totals of generally a half inch. Dry weather finished out the remaining days of 2008 as the storm track shifted north of California.

In summary, the month brought a substantial increase in the snowpack over the southern Sierra Nevada and by month's end, averaged about 76 percent of normal for the season. Despite, beneficial precipitation in the lower elevations, the month ended up slightly drier than normal in the San Joaquin Valley with a lagging seasonal deficit.

NO HYDROLOGIC PRODUCTS ISSUED

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W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO