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: **2009**

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: January 7, 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).

| **X** |

An **X** inside this box indicates that no flooding occurred for the month within this hydrologic service area.

December ended up much wetter than normal as several storm systems trekked southward from the Gulf of Alaska and frequently teamed up with an active subtropical branch of the jet stream The first of these storms moved into the central California interior on the morning of the 7th. Within a 24-hour period, this storm system dumped nearly a foot of snow over the Grapevine with similarly heavy amounts over the higher elevations of the Sierra. Light accumulations of snow fell in the Sierra foothills as low as 2200 feet while lower elevations received up to a half inch of rain, including the San Joaquin Valley. Cold air that followed this storm brought the first killing frost of the season with minimum temperatures of 29 degrees or lower in much of the San Joaquin Valley.

A series of storm systems moved eastward across the state from the 10th through the 13th. Although these were somewhat warmer storms with higher elevation snow, moisture associated with each of them was abundant. During this three-day period, the San Joaquin Valley was drenched with one to two inches of rain. Three to five inch rain totals were common to the Sierra foothills. The storms dumped a combined total of up to 5 feet of new snow above 7000 feet.

A week-long break from the storminess occurred from the 14th through the 20th as an upper level ridge of high pressure settled over the state. During this time, low clouds and fog prevailed in the San Joaquin Valley while the surrounding higher elevations enjoyed clear skies and relatively mild afternoons.

The pattern became active again on the 21st and 22nd as another storm system originating from the Gulf of Alaska tracked southward across the state The most impressionable aspect of this storm was its strong wind and the cold air that followed it. The storm produced wind gusts to 45 mph in the San Joaquin Valley and throughout the Kern County mountains. Winds briefly gusted to 78 mph near Mojave. Blustery winds combined with a small accumulation of snow and ice closed Interstate 5 through the Grapevine on the morning of the 22nd.

Although brief, the HSA enjoyed a respite from wet weather from the 23rd through Christmas Day. A southward shift of the jet stream brought several more storm systems southward into California from the 26th through the 30th. During this period, an additional quarter to a half inch of rain fell in the San Joaquin Valley while the surrounding foothills received up to an inch of water. A fresh 5 to 8 inches of snow fell above 5500 feet while local amounts of up to a foot were reported over the highest elevations of the Sierra.

As the month drew to a close, Fresno received about 180 percent of its normal monthly rainfall while December rainfall in Bakersfield was 218 percent of normal. Over the southern Sierra Nevada, the snow pack averaged about 88 percent of normal at the end of the month.

HYDROLOGIC PRODUCTS ISSUED THIS MONTH…see next page…

Urban and Small Stream Flood Advisory…	San Joaquin Valley portion of Kern County	0519Z	11-DEC
Urban and Small Stream Flood Advisory…	San Joaquin Valley portion of Fresno County	1244Z	11-DEC

cc:

W/OH12x1
W/WR2
CNRFC
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WFO STO