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: MARCH YEAR: 2013

TO: Hydrometeorological Information Center, W/OH12x1 SIGNATURE: National Weather Service/Office of Hydrology

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Silver Spring, MD 20910 (In Charge of Hydrologic Service Area)

DATE: April 10, 2013

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  $\boldsymbol{x}$  inside this box indicates that no flooding occurred for the month +---+ within this hydrologic service area.

March, 2013 was much drier than normal, and it was the 3<sup>rd</sup> consecutive month of below normal precipitation throughout the central California interior. In the San Joaquin Valley, measurable rain was observed on only 4 days this month, from a storm system on the 7<sup>th</sup> and 8<sup>th</sup> and another storm during Easter weekend, March 30<sup>th</sup> and 31<sup>st</sup>.

A cold frontal passage preceded the first storm on the morning of the 6<sup>th</sup> and brought generally light showers to much of the HSA. More substantial precipitation fell during the following two days as an unusually deep and cold upper level trough trekked southward along the California coast and into the Los Angeles basin. Although the storm tracked too far west to bring appreciable snow to the Sierra, it did bring up to 7 inches of snow to the higher elevations of Kern county. Enough snow fell at pass level to shut down the southbound lanes of Interstate 5 through the Grapevine from the evening of the 7<sup>th</sup> into the 8<sup>th</sup>. The storm drenched the lower elevations, including much of the San Joaquin Valley, with up to three quarters of an inch of rain. Minor flooding was reported along a few highways and secondary roads in the southern San Joaquin Valley on the 8<sup>th</sup>.

The Easter weekend storm had a definitive subtropical moisture tap and produced thunderstorms with vivid lightning and pea-sized hail throughout the central California interior on the night of the 30<sup>th</sup> and again the following afternoon. One thunderstorm produced one-inch diameter hail Easter Sunday afternoon about 10 miles southeast of Madera. Otherwise, this storm system brought generous rain to much of the central California interior. Up to three-quarters of an inch of rain fell in the San Joaquin Valley with upwards of nearly an inch and a half in the foothills and higher elevations of the Sierra. Due to the warm origins of this storm, snow levels remained well above 8000 feet. Snowmelt over the high Sierra throughout the month raised water levels in all of the major reservoirs which were holding about 74 percent of their normal water capacity by April 1<sup>st</sup>. The snowpack over the southern Sierra depleted to about 48 percent of normal by the end of the month.

Temperature-wise, March ended up much warmer than normal with several days of 80-degree weather in the San Joaquin Valley, lower foothills and the Kern county desert. In Fresno, afternoon highs of 80 degrees or better occurred on 9 days with a 5-day stretch occurring from the 12<sup>th</sup> through the 16<sup>th</sup>. It was also the third warmest March on record in Fresno where records date back to the late 1800's. The dry and frequently warm weather that characterized the month was caused by a strong and persistent upper level ridge of High pressure that anchored itself near and just offshore the southern California coast.

## HYDROLOGIC PRODUCTS ISSUED THIS MONTH

Urban/Small stream flood advisorySan Joaquin Valley	1658Z	08-MAR
Flood advisoryKern county mountains	0026Z	01-APR

cc:

W/OH12x1 W/WR2 CNRFC WFO HNX WFO STO