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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: **2011**

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: April 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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¦ ¦ An **X** inside this box indicates that no flooding occurred for the month
+---+ within this hydrologic service area.

March was exceptionally wet and slightly cooler than normal. Nearly 90 percent of the month's precipitation fell between the 18th and the 28th as a succession of storm systems trekked eastward across the central California interior. Outside of this period. the storm track resided well north of the HSA, although during the first week of the month, a couple of weak storm systems that moved eastward across the northern part of the state brushed the central California interior with light precipitation. A major buckling of the pattern took place after St. Patrick's Day as storm systems originating in the Gulf of Alaska dived southeastward along the West coast . At least two of these storms tapped into a rich supply of subtropical moisture as they approached from the northwest and were followed by below normal temperatures and low snow levels after they moved inland.

Out of all of these storm systems, the one on the 20th and 21st really packed a wallop. When this storm anchored itself off the coast of northern California, the cold front that preceded it slowed to a crawl over the central California interior and produced a prolonged period of precipitation that lasted for more than 18 hours. Consequently, rain deluged the lower elevations while mountain communities got buried with heavy snow. Rain totals from this storm ranged from 1 to 3 inches in the San Joaquin Valley to as much as 5 inches in the Sierra foothills. In the San Joaquin Valley, 24-hour rainfall records were shattered at several climate stations. Meanwhile, the higher elevations of the Sierra received a sizeable dump of snow with accumulations of up to 5 feet above 6500 feet. Several inches of snow also fell in Yosemite valley and at elevations as low as 2500 feet. The combination of heavy snow and gusty winds downed several trees and power lines in the Sierra foothills and prompted parkwide evacuations in Yosemite on the 21st. This was the first time since January, 1997 that Yosemite National Park closed as a result of bad weather. The storm also blanketed the Kern County mountains with heavy snow. In the Frazier Park area, for example, weather spotters reported nearly 2 feet of the white stuff with drifts up to 6 feet deep. Snow even fell down to pass level and forced Interstate 5 through the Grapevine to close for nearly 15 hours!

During the frequently stormy period that began on the 18th and ended on the 28th, as much as 7 inches of rain fell in the San Joaquin Valley and up to 10 inches of rain drenched the adjacent foothills while the higher elevations of the Sierra (above 7000 feet) received snow accumulations of up to 15 feet. Excessive runoff, combined with an increase in reservoir releases at the major dams caused higher than normal flows along rivers and streams through the end of the month. The Merced River at Stevinson peaked a half of a foot below flood stage at 4:30 pm on the 21st but otherwise remained well above monitor stage during the last two weeks of the month. Water levels along the San Joaquin River approached levels that had not been observed since January, 1997. At Newman, the river first rose above monitor stage on the morning of the 23rd and remained above monitor stage for the remainder of the month. Water flowed into the Fisherman's Bend trailer park along the San Joaquin River near Newman by the 28th where voluntary evacuations were conducted. In Merced County, several water swollen creeks briefly flowed out of their banks on the morning of the 20th and caused minor flooding.

By the end of the month, the snowpack over the Southern Sierra Nevada averaged 165 percent of normal

while most of the major reservoirs were holding 90 percent or more of their normal water capacity.

HYDROLOGIC PRODUCTS ISSUED

Hydrologic Statement……..Merced River at Stevinson		1823Z	01-MAR
Hydrologic Statement……..Merced River at Stevinson		1709Z	02-MAR
Hydrologic Statement……..Merced River at Stevinson		2023Z	02-MAR
Hydrologic Statement……..Merced River at Stevinson		1908Z	03-MAR
Hydrologic Statement……..Merced River at Stevinson		0003Z	04-MAR
Hydrologic Statement……..Merced River at Stevinson		0203Z	05-MAR
Hydrologic Statement……..Merced River at Stevinson		1610Z	18-MAR
Hydrologic Statement……..Merced River at Stevinson		1810Z	19-MAR
Urban/Small Stream Flood Advisory…Central San Joaquin Valley			
	And adjacent foothills	1510Z	20-MAR
Urban/Small Stream Flood Advisory…valley portion of Kern Co. added		1515Z	20-MAR
Urban/Small Stream Flood Advisory…Kings County added		1631Z	20-MAR
Urban/Small Stream Flood Advisory…east side of San Joaquin Valley		0135Z	21-MAR
Hydrologic Statement……..Merced River at Stevinson		0415Z	21-MAR
Flood Warning……..Merced River at Stevinson		1636Z	21-MAR
Flood Statement……..Merced River at Stevinson		2226Z	21-MAR
Hydrologic Statement……..Merced River at Stevinson		0945Z	22-MAR
Hydrologic Statement……..Merced River at Stevinson		1654Z	22-MAR
Flood Watch……..San Joaquin Valley and adjacent foothills			
	In addition to the Kern County mountains	2045Z	22-MAR
Hydrologic Statement……..Merced River at Stevinson		2128Z	22-MAR
Hydrologic Statement……..San Joaquin River at Newman		1320Z	23-MAR
Hydrologic Statement……..San Joaquin River at Newman		1620Z	23-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1717Z	23-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	0246Z	24-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1601Z	24-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	0252Z	25-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1640Z	25-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1723Z	26-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	2131Z	26-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1721Z	27-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1821Z	28-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	2220Z	28-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1718Z	29-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	2205Z	29-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1615Z	30-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	2202Z	30-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	1635Z	31-MAR
Hydrologic Statement……..San Joaquin River at Newman			
	Merced River at Stevinson	2155Z	31-MAR

cc:

W/OH12x1
W/WR2
CNRFC
WFO HNX
WFO STO