#### Storm Data and Unusual Weather Phenomena - December 2015

Drought

Location Date/Time Deaths & Property & Event Type and Details Injuries Crop Dmg

### **CALIFORNIA**, South Central

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z092) SE S.J. VALLEY, (CA-Z093) S SIERRA FOOTHILLS, (CA-Z094) TULARE CTY FOOTHILLS, (CA-Z095) KERN CTY MTNS, (CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS, (CA-Z098) INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT

12/01/15 00:00 PST 0

12/31/15 23:59 PST 0

The California drought continues in full force during the month of December, 2015. Fresno received 2.97 inch of rainfall while Bakersfield only received 0.58 of precipitation during the month of December. Even with these rainfall amount there has been little response in water storage across Central California.

The U.S. Drought Monitor continued to report exceptional drought conditions across the entire Central California region. This extent of exceptional drought is extremely unusual for California. The general trend of below normal precipitation and above normal temperatures has continued this year.

There continues to be significant media coverage on the on-going drought conditions. These reports include discussion of significant re-allocation of water resources from the east to west side of the San Joaquin Valley, farmers forgoing planting of some crops, loss or reduction of ground water, wells drying up in several communities leaving them with no water, and an unprecedented increase in fire danger across the Southern Sierra Nevada and Tehachapi Mountains. Also, communities in Central California interior face state mandated reductions in municipal water use.

### (CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z092) SE S.J. VALLEY

12/10/15 03:02 PST 0 Dense Fog

12/11/15 04:00 PST

Surface high pressure built into the area after a wet rain event. This resulted in areas of fog development.

12/11/15 10:00 PST 0 High Wind (MAX 58 kt)

12/11/15 22:00 PST 0

Upper level trough moving through the area pushed a strong mid and upper level jet through the area. These jets moved across the mountains of Kern County which resulted in some gusty winds on the desert floor.

## (CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS

12/13/15 12:00 PST 0 Heavy Snow

12/14/15 10:00 PST 0

(CA-Z095) KERN CTY MTNS

12/13/15 16:00 PST 0 Winter Weather

12/14/15 12:00 PST 0

KERN COUNTY --- 2.2 SSE GRAPE VINE [34.89, -118.91], 2.2 SSE GRAPE VINE [34.89, -118.91], 2.3 SSE GRAPE VINE [34.89, -118.91] 2.3 SSE GRAPE VINE [34.89, -118.91]

 12/13/15 18:30 PST
 0
 Flash Flood (due to Heavy Rain)

 12/13/15 21:11 PST
 0
 Source: Law Enforcement

California Highway Patrol reported debris and mud flowing on the northbound lanes of Interstate 5, which shutdown traffic for several hours.

An upper level trough and an associated cold front moved through the region bringing a round of mountain snow showers and valley rain. This system dropped snow levels to around 4000 ft, though the main impact remained in the higher elevations.

### (CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z092) SE S.J. VALLEY

12/15/15 02:00 PST 0 Frost/Freeze

12/16/15 08:00 PST 0

Cold northerly flow developed after a cold system moved through the area days prior. This left the region under a fairly cold air mass, which resulted in sub freezing temperatures in the valley.

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(CA-Z090) E CENTRAL S.J. VALLEY, (C	CA-Z091) SW S.J. VALLEY, (CA-Z092)	SE S.J. VALLEY		
	12/20/15 00:11 PST		0	Dense Fog
	12/20/15 19:00 PST		0	
Progressive systems moved through a overnight cooling lead to fog developr	_	rea around the 201	h, though deep so	oil moisture and
(CA-Z096) S SIERRA MTNS, (CA-Z097)	TULARE CTY MTNS			
	12/21/15 10:00 PST		0	Heavy Snow
	12/22/15 16:00 PST		0	
(CA-Z099) SE KERN CTY DESERT				
OA-2000) SE RENN OTT DESERT	12/21/15 20:00 PST		0	Winter Storm
	12/22/15 20:00 PST		0	THIRD COM
	12/22/13 20:00 F 31		U	
KERN COUNTY 6.8 NE MAGUNDEN [35.42, -118.78]	12/22/15 10:04 PST	SPGS [35.57, -118.	63 <b>], 4.1 WNW HAV</b> 0	Flash Flood (due to Heavy Rain)
	12/22/15 15:00 PST		0	Source: Department of Highways
California highway department reported		n Canyon at 1004	-	-
A strong upper level jet and associate good moisture tap which enhanced the system began to exit the region.	a mudslide on highway 178 in the Kerr d trough moved through the area, brit e precipitation rates and amounts. Th	nging heavy rain a le strong jet with t	PST, which closed	the roadway for several hours. s. This system also had a
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A strong upper level jet and associate good moisture tap which enhanced the the system began to exit the region.  (CA-Z090) E CENTRAL S.J. VALLEY, (C	a mudslide on highway 178 in the Kern d trough moved through the area, bring e precipitation rates and amounts. The CA-Z091) SW S.J. VALLEY, (CA-Z092) 12/26/15 23:56 PST 12/27/15 10:06 PST	nging heavy rain a ne strong jet with t SE S.J. VALLEY	PST, which closed and snow showers his system also b	the roadway for several hours.  5. This system also had a rought gusty winds as  Dense Fog
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A strong upper level jet and associate good moisture tap which enhanced the the system began to exit the region.  (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z089) W CENTRA	a mudslide on highway 178 in the Kern d trough moved through the area, brin e precipitation rates and amounts. Th  CA-Z091) SW S.J. VALLEY, (CA-Z092)  12/26/15 23:56 PST  12/27/15 10:06 PST  CA-Z090) E CENTRAL S.J. VALLEY, (C  12/27/15 01:00 PST  12/27/15 09:00 PST  ng of skies, light winds, and relatively vernight developed fog.	nging heavy rain a le strong jet with t SE S.J. VALLEY CA-Z091) SW S.J.	PST, which closed and snow showers his system also b  0 0 0 VALLEY, (CA-Z092 0 0 to freezing temper	the roadway for several hours.  S. This system also had a rought gusty winds as  Dense Fog  P. SE S.J. VALLEY  Frost/Freeze  Pratures across the valley.
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Northwesterly flow aloft lead shortwave energy to only skirt the forecast area, though this did allow for cold air to settle into the valley. The shortwave also reinforced the cold air supply early on the 30th.

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