

California Monthly Climate Summary August 2008

Weather Highlights

August 2008 was another month of above average temperatures and below average precipitation. According to the Western Region Climate Center's [California Climate Tracker](#), the monthly average temperature was 73.5°F which is 1.6°F above the long-term average temperature for the state. With a statewide average of 0.17 inches, precipitation for August was 60% of the long term average.

During the first week of August high pressure provided warm and dry conditions for California. This pattern continued into the second week with a few disturbances reaching the northern end of the state causing some shower activity. Ridging during the third week of the month brought triple digit temperatures to parts of the Central Valley and temperatures in the 80s and 90s along the coast. A strong upper level trough brought temperatures back down on the 19th and 20th. These were the only days Fresno and Bakersfield recorded high temperatures below 90°F for the month. Seasonably warm and dry weather continued until the end of the month when a cold front knocked temperatures back down in the northern part of the state.

Preliminary records, reported on the National Weather Service Record Event Report, show that statewide there were 26 temperature records tied or broken, and two precipitation records tied or broken for the month. Of the 26 temperature records, 21 were for new high maximums. Redding broke a 1920 record of 110°F with a reading of 112°F on August 15th. Ukiah tied a 1951 record on the 15th with a reading of 107°F. They topped their 1951 record of 107°F on the 28th with a reading of 108°F. Red Bluff also set a new high maximum temperature on the 28th with a reading of 110°F beating the old record of 109°F set in 1944 by one degree. August 30th continues to be a record setting day for Modesto. In 2007 Modesto set a new high temperature record with a reading of 106°F. In 2008, this short-lived record fell with a reading of 107°F. The two precipitation records were set at opposite ends of the state. On August 21st, Eureka set a new daily precipitation record with 0.16 inches which beat the old record set in 1971 by 0.02 inches. Earlier in the month on August 8th, Needles smashed their daily rainfall record with a reading of 1.48 inches. The previous record was 0.33 inches set back in 1997. The 1.48 inches of precipitation was the 4th greatest calendar day precipitation total to fall in August.

For the California Data Exchange Center's (CDEC) network of temperature gages used in this report, 4 stations recorded a minimum temperature below freezing, and 113 stations recorded a maximum temperature above 100°F. Statewide extremes from the CDEC network of temperature gages are shown below. Also shown are the monthly average extremes from the CIMIS network. A table of regional average minimum, mean, and maximum temperatures from the CDEC and CIMIS networks is also shown.

Precipitation in August fell short of normal again. The largest amount of precipitation recorded in the CDEC precipitation gages for August 2008 was Gasquet Ranger Station which recorded 0.72 inches. This is 106% of average for this site for August. At the other end of the spectrum, 96 stations recorded no rain for the month. For the CIMIS network, Meloland in Imperial County topped the precipitation charts with 0.59 inches for the month. Ninety-seven stations in the CIMIS network recorded zero for precipitation for the month. The 8-Station Index for northern California precipitation recorded 0.02 inches in August. On average 0.27 inches of precipitation is recorded for the 8-Station index in August. This is the driest March-August period for the 8-Station Index in the period on record with only 3.45 inches recorded. Statewide, the average precipitation for August was 23.9% of the long-term average based on the California Data Exchange Center (CDEC) gages. Precipitation percentages by region from the CDEC gages are shown in a table at the end of this document.

In August, the Drought Monitor expanded the depiction of drought conditions in California. The maps for California for August 5, 2008 and August 26, 2008 are shown below. The Drought Monitor maps can be found on the National Drought Mitigation Center's (NDMC) website <http://drought.unl.edu/dm/>. These maps are largely a reflection of precipitation and soil moisture deficit estimates. As of August 26, 2008, the California depiction has 0% of the state drought free, 2.3% listed in the D0 – Abnormally Dry, 54.6% listed in the D1 – Moderate Drought, and 43.1% listed in the D2 – Severe Drought category. Rangeland conditions are the major impact of concern. Maps are updated weekly.

The U.S. Seasonal Drought Outlook for September through November from NOAA depicts California with persisting drought conditions across most of the state with some improvement possible for the North Coast area. Updates are provided twice per month. Maps and information can be found at http://www.cpc.noaa.gov/products/expert_assessment/seasonal_drought.html.

Outlooks for the water year 2008 water supply index categories can be found in the [executive update of hydrologic conditions](#). As of the September 2, 2008 update, the median Sacramento Basin outlook was critical and the median outlook for the San Joaquin Basin was dry. Statewide water-year runoff is expected to be approximately 60% of average this year. Water supply information for California can be found at http://cdec.water.ca.gov/water_supply.html. A Historical listing of water year categories for both basins can be found at <http://cdec.water.ca.gov/cgi-progs/iodir/WSIHIST>.

ENSO Conditions and Long-Range Outlooks

The El Niño/Southern Oscillation (ENSO) is now in a neutral pattern. Some tropical atmospheric conditions reflect lingering La Nina conditions as sea surface temperature anomalies continue to change. Equatorial sea surface temperature anomalies for the tropical Pacific for July varied between 1.0°C and -0.4°C. The June through August 3-month running mean of the Ocean Niño Index was -0.1. Most

statistical and dynamical models forecast ENSO neutral conditions through winter of 2009. More information can be found at the Climate Prediction Center's web site: http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ Updates are posted weekly. The latest three month outlook (September through November) from NOAA indicates equal chance for above or below normal temperatures for California with the exception of the southeastern (above normal) part of the state. For precipitation, equal chance for above or below normal conditions applies across the entire state. Outlook plots and discussions can be found at <http://www.wrcc.dri.edu/longrang/>. General weather information of interest can be found at <http://www.noaawatch.gov/>. For anomaly information please see http://www.wrcc.dri.edu/anom/cal_anom.html.

Agricultural Data

In August, wheat and barley fields were harvested as was the fifth cutting of alfalfa. Corn for grain was dried down for harvest. Cotton fields were in full bloom. Fall sugar beets were being irrigated and treated for insects. Rice fields continued to grow nicely. Harvest is on schedule for California grapes. Several varieties of stone fruits were harvested as were lemons. Olives and kiwis were sizing along with navel oranges. Valencia orange harvest remained slow. Almond harvest is under way while pistachio and walnut growers prepared for theirs. Fall produce harvest started in the Imperial Valley. The summer carrot harvest was nearly completed in the San Joaquin valley. Heavy harvest volumes dragged on the tomato market. Melon harvest was steady. Very poor grazing conditions continued in most areas of the state as summer progressed. Livestock were receiving supplemental feeding and fire danger remains high. Irrigated pastures were in good condition. Hot weather continued to decrease milk production. For further crop and livestock information see <http://www.nass.usda.gov/index.asp>

Other Climate Summaries

[California Climate Tracker](#) (new product of Western Region Climate Center)
[Golden Gate Weather Service Climate Summary](#)
[NOAA Monthly State of the Climate Report](#)

Statewide Extremes (CDEC)

High Temperature – 117°F (Buttercup, Colorado River Desert)
Low Temperature – 27°F (Tuolumne Meadows, San Joaquin Basin
Charlotte Lake, Kings River
Upper Burnt Corral, Kings River)
High Precipitation – 0.72 inches (Gasquet Ranger Station, North Coast)
Low Precipitation – 0 inches (96 stations)

Statewide Extremes (CIMIS)

High Average Maximum Temperature – 105.9°F (Seeley, Imperial County)
Low Average Minimum Temperature – 42.5°F (Alturas, Modoc County)
High Precipitation – 0.59 inches (Meloland, Imperial County)
Low Precipitation – 0 inches (97 stations)

Statewide Precipitation Statistics

Hydrologic Region	Region Weight	Basin Reporting			Stations Reporting			% of Historic Average	
		Basins	Aug	Oct-Aug	Stations	Aug	Oct-Aug	Aug	Oct-Aug
North Coast	0.27	5	5	4	19	10	8	62.6%	88%
SF Bay	0.03	2	2	2	6	5	5	4.2%	88%
Central Coast	0.06	3	3	3	11	7	6	53.7%	90%
South Coast	0.06	3	1	1	15	4	4	6.2%	82%
Sacramento River	0.26	5	5	5	43	26	20	2.0%	76%
San Joaquin River	0.12	6	6	6	25	19	16	0.0%	74%
Tulare Lake	0.07	5	4	5	28	20	21	10.5%	80%
North Lahontan	0.04	3	3	3	14	9	7	7.6%	82%
South Lahontan	0.06	5	4	4	15	8	7	16.7%	78%
Colorado River	0.03	1	1	1	6	1	1	22.1%	69%
Statewide Weighted Average	1	36	33	33	182	109	95	23.9%	81 %

Statewide Mean Temperature Data by Hydrologic Region (degrees F)

Hydrologic Region	No. Stations	Minimum	Average	Maximum
North Coast	32	42.6	67.5	96.4
SF Bay	19	52.5	67.4	90.6
Central Coast	34	52.6	65.8	83.4
South Coast	68	57.0	73.2	94.9
Sacramento	83	48.8	73.3	99.1
San Joaquin	73	52.3	72.9	93.3
Tulare Lake	15	46.2	67.3	87.3
North Lahontan	27	40.3	63.0	84.4
South Lahontan	18	51.6	71.6	90.2
Colorado River Desert	22	74.1	89.9	105.0
Statewide Weighted Average	391	48.8	70.6	94.4

U.S. Drought Monitor

California

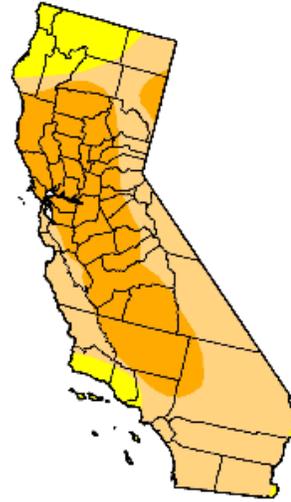
August 5, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.1	99.9	88.9	38.7	0.0	0.0
Last Week (07/29/2008 map)	0.1	99.9	88.9	38.7	0.0	0.0
3 Months Ago (05/13/2008 map)	7.8	92.2	48.4	9.3	0.0	0.0
Start of Calendar Year (01/01/2008 map)	8.9	91.1	84.7	58.0	14.6	0.0
Start of Water Year (10/02/2007 map)	0.0	100.0	92.6	64.6	33.8	0.0
One Year Ago (08/07/2007 map)	0.0	100.0	92.3	65.3	35.2	0.0

Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements



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Author: Brian Fuchs, National Drought Mitigation Center

<http://drought.unl.edu/dm>

U.S. Drought Monitor

California

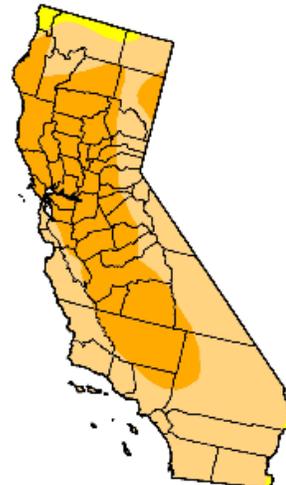
August 26, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.0	100.0	97.7	43.1	0.0	0.0
Last Week (08/19/2008 map)	0.0	100.0	96.9	41.4	0.0	0.0
3 Months Ago (06/03/2008 map)	4.8	95.2	63.7	9.3	0.0	0.0
Start of Calendar Year (01/01/2008 map)	8.9	91.1	84.7	58.0	14.6	0.0
Start of Water Year (10/02/2007 map)	0.0	100.0	92.6	64.6	33.8	0.0
One Year Ago (08/28/2007 map)	0.0	100.0	92.6	65.3	35.2	0.0

Intensity:

- D0 Abnormally Dry
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Author: J. Lawrimore/L. Love-Brotak, NOAA/NESDIS/NCDC

<http://drought.unl.edu/dm>