California Monthly Climate Summary
January 2015

Weather Highlights

January 2015 was a warm and dry month for California. According to the Western Region Climate Center's California Climate Tracker, the monthly average temperature was 45.8°F which is 4.4°F higher than the long-term average of 41.4°F. This is the fourth warmest January in 121 years of record. With a statewide average of 0.44 inches, precipitation in January was only 10% of average. This is the second driest January in 121 years of record. Only last year's total of 0.43 inches was smaller. Regional plots of precipitation and temperature for the past month are included at the end of the document.

January started out with dry cold weather for most of the State. An influx of moisture into the state later in the week led to coastal and Valley fog events. Light precipitation in the southern part of the state came from a disturbance along the southern portion of a split jet stream with accumulations under half an inch. A quiet weather pattern dominated the second week of January. In the third week, a second surge of moisture into the state led to more coastal and Central Valley fog events. January closed out with a Santa Ana wind event in the Los Angeles area resulting in unusually warm temperatures for January. Normally the wettest month of the year, little to no precipitation fell this year.

Preliminary records, reported on the National Weather Service Record Event Report, show that statewide there were 117 temperature records tied or broken and 2 precipitation records set for the month. Of the 117 temperature records set, 74 were for new high maximum temperatures and 36 were for new high minimum temperatures. Records were set on 17 days of the month.

For the California Data Exchange Center's (CDEC) network of temperature gages used in this report, 240 stations recorded a minimum temperature below freezing in January while zero stations reached or exceeded 100°F at least once during the month. 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 stations is also shown at the end of the summary.

Precipitation in January was below average across the state. For the CDEC precipitation gages for January 2015, the largest amount of precipitation recorded was at Gasquet Ranger Station in the North Coast region with 5.0 inches. This is just 30% of the average precipitation for this station the month. At the other end of the spectrum, 17 stations recorded no precipitation for the month. For the CIMIS network, Moorpark in Ventura County topped the precipitation charts with 1.82 inches for the month and 16 stations recorded no precipitation. Some CIMIS gages may show large precipitation totals if the gages are not covered during irrigation activities so care should be given to review precipitation data used from this network. The 8-Station

Index for northern California precipitation recorded 0.3 inches in January. On average, 9.0 inches of precipitation is recorded for the 8-Station index for the month. The San Joaquin 5-Station Index recorded 0.2 inches of precipitation for the month. On average, 7.5 inches of precipitation is recorded for the 5-Station Index for the month.

CoCoRaHS Update

Water Year 2015 continues California's sixth year with CoCoRaHS – the Community Collaborative Rain, Hail and Snow Network. This group uses citizen volunteers to record rain, hail and snow data. The users enter the data online at the CoCoRaHS web site. The web site provides the opportunity to see spatial detail of rain and snow patterns. A map from January 17, 2015 is shown at the end of the document. As of the end of January, California has 1254 volunteers signed up spanning 56 of California's 58 counties. The counties without volunteers are Alpine and Modoc. The counties with the most volunteers are Sonoma and San Diego and with 110 and 106 volunteers respectively. For the month of January, 12,727 reports were recorded for California. The largest daily rain total for CoCoRaHS- CA in January was in Del Norte County where 2.53 inches was recorded on 01/18/2015. There were 2 reports of snowfall recorded during the month with the largest daily snowfall recorded in Placer County with 2 inches recorded on 01/28/2015. No hail reports were filed. To join CoCoRaHS or find more information, please visit http://www.cocorahs.org.

Snowpack and Water Supply Conditions

As of January 31, 2015, the regional snow pillow report shows 4 inches of snow water equivalent in the northern region. This is 15% of the April 1 average and 24% of average for the date. For the central region, 4 inches of snow water equivalent is being reported which is 15% of the April 1 average and 24% of average for the date. For the southern region 4 inches of snow water equivalent is being reported which is 15% of the April 1 average and 26% of average for the date. The Water Supply Index (WSI) for WY2014 for the Sacramento Basin and the San Joaquin Basin fell into the critical category. More information 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.

Drought Monitor and Seasonal Outlook

The maps for California for December 30, 2014 and January 27, 2015 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 the January 27th depiction, 39.99% of California is depicted in the D4 or exceptional drought category, 37.53% of California is depicted in the D3 or extreme drought category, and 16.82% of California is depicted in D2 or severe drought category, 3.79% of California is depicted in D1 or moderate drought, and 1.87% depicted in abnormally dry or D0. Maps are updated weekly.

The U.S. Monthly Drought Outlook for February from NOAA depicts California in persisting drought conditions. This forecast is based primarily on climatology and forecast models. Maps and information can be found at http://www.cpc.noaa.gov/products/expert_assessment/seasonal_drought.html. Updates are provided twice per month.

For more information on water conditions in California, visit http://www.water.ca.gov/waterconditions/. A table showing end-of-January reservoir storage by hydrologic region is shown at the end of this document.

ENSO Conditions and Long-Range Outlooks

The El Niño/Southern Oscillation (ENSO) is currently in neutral conditions. Equatorial sea surface temperature anomalies for the tropical Pacific have been positive with values of 0.5°C in the Niño 3.4 at the end of January. The November through January 3-month running mean of the Ocean Niño Index (ONI) is 0.7 which is the third 3-month running mean value above the 0.5 threshold for an El Niño event. Five consecutive ONI values need to be above the 0.5 threshold need to be observed for classification as an El Niño event. Most forecast models have the tropical sea surface transitioning to neutral conditions in the spring. 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 (February through April) from NOAA indicates a higher probability for above normal temperatures for the State. For precipitation, a higher probability of above average conditions is forecast for the southern third of the state and equal chances of above or below normal outcomes for the rest of the state. Outlook plots and discussions can be fount 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

January 2015 saw further crop packing and field preparations for spring planting. Orchards were pruned while harvested fruits and nuts were processed and packaged. Citrus were harvested and packed. Strawberries progressed well. Onions were fertilized and irrigated. Some wheat fields were irrigated due to lack of rain. Cattle were relocated to foothill and valley pastures. The rainfall helped with the germination of new grasses but more rain will be needed in the future to ensure proper growth and development. Supplemental feeding continued due to the lack of quality forage. For further crop 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 – 90°F (Santa Fe, South Coast)
Low Temperature – -22°F (Casa Vieja Meadow, Tulare)
High Precipitation –5.0 inches (Gasquet Ranger Station, North Coast)
Low Precipitation – 0 inches (17 stations)

Statewide Extremes (CIMIS)

High Average Maximum Temperature – 74.5 ^{0}F (Santa Paula, Ventura County)
Low Average Minimum Temperature – 20.2^{0}F (Buntingville, Lassen County)
High Precipitation – 1.82 inches (Moorpark, Ventura County)*
Low Precipitation – 0 inches (16 stations)
*Sometimes irrigation water from sprinklers gets counted as precipitation if the gage is not covered.

Statewide Mean Temperature Data by Hydrologic Region (degrees F)

Hydrologic Region	No. Stations	Minimum	Average	Maximum
North Coast	27	27.6	45.2	69.4
SF Bay	9	34.0	51.9	70.9
Central Coast	12	30.5	53.4	78.8
South Coast	50	28.4	54.8	77.9
Sacramento	78	25.1	45.5	71.7
San Joaquin	44	23.0	43.1	68.6
Tulare Lake	19	14.2	35.1	58.3
North Lahontan	26	10.2	34.9	56.8
South Lahontan	15	15.8	39.2	64.5
Colorado River Desert	6	28.7	56.4	79.2
Statewide Weighted Average	286	24.5	45.1	69.7

Statewide Precipitation Statistics

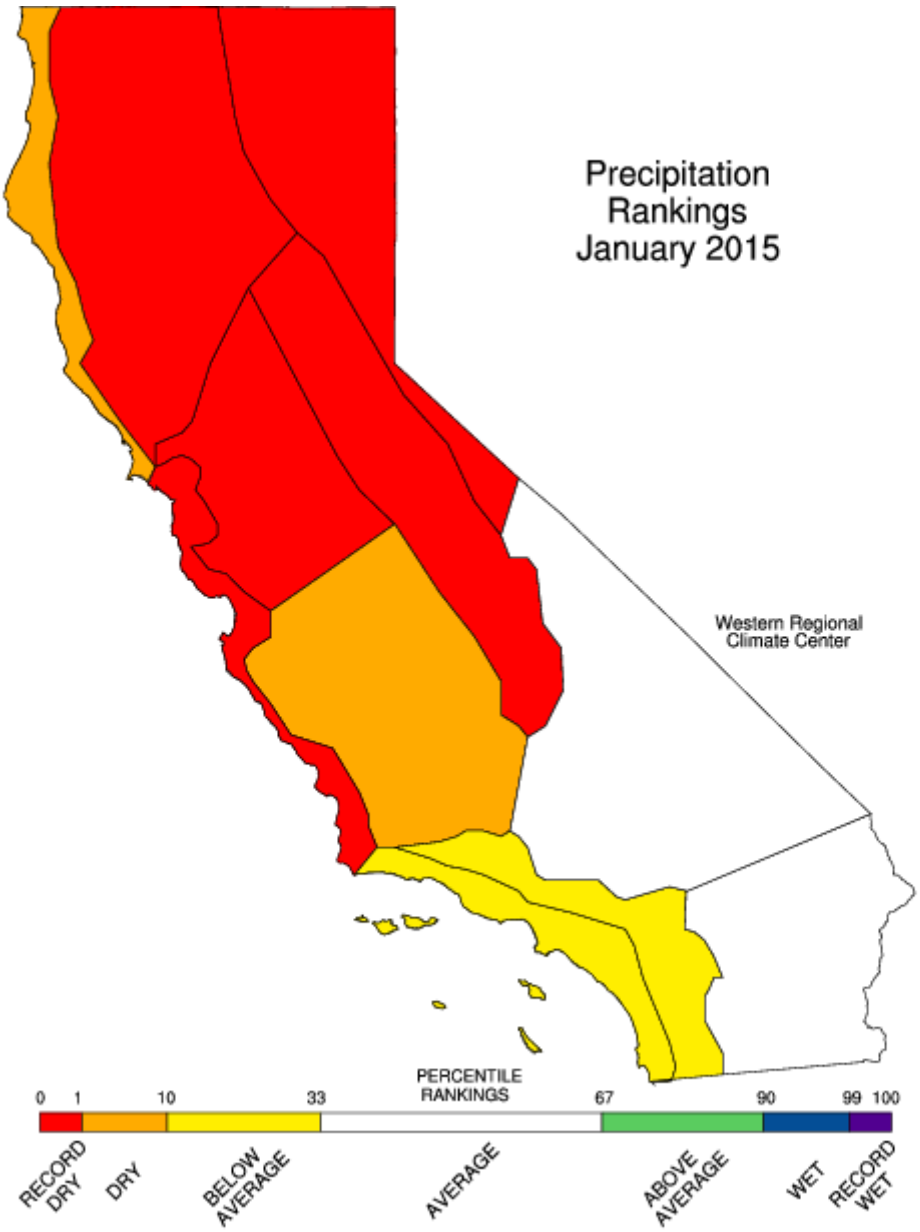
Hydrologic Region	Region Weight	Basin Reporting			Stations Reporting			% of Historic Average	
		Basins	Jan	Oct-Jan	Stations	Jan	Oct-Jan	Jan	Oct-Jan
North Coast	0.27	5	5	5	17	13	12	19.7%	88%
SF Bay	0.03	2	2	2	6	5	5	0.3%	110%
Central Coast	0.06	3	3	3	11	10	10	9.7%	92%
South Coast	0.06	3	3	3	14	13	11	32.5%	80%
Sacramento River	0.26	5	5	5	41	33	32	3.0%	86%
San Joaquin River	0.12	6	6	6	24	21	20	1.4%	62%
Tulare Lake	0.07	5	5	5	29	23	19	10.7%	63%
North Lahontan	0.04	3	3	3	13	9	9	3.3%	50%
South Lahontan	0.06	3	3	3	15	10	10	133%	103%
Colorado River	0.03	1	1	1	6	5	4	73.2%	58%
Statewide Weighted Average	1	36	36	36	176	142	132	19.9%	81.5%

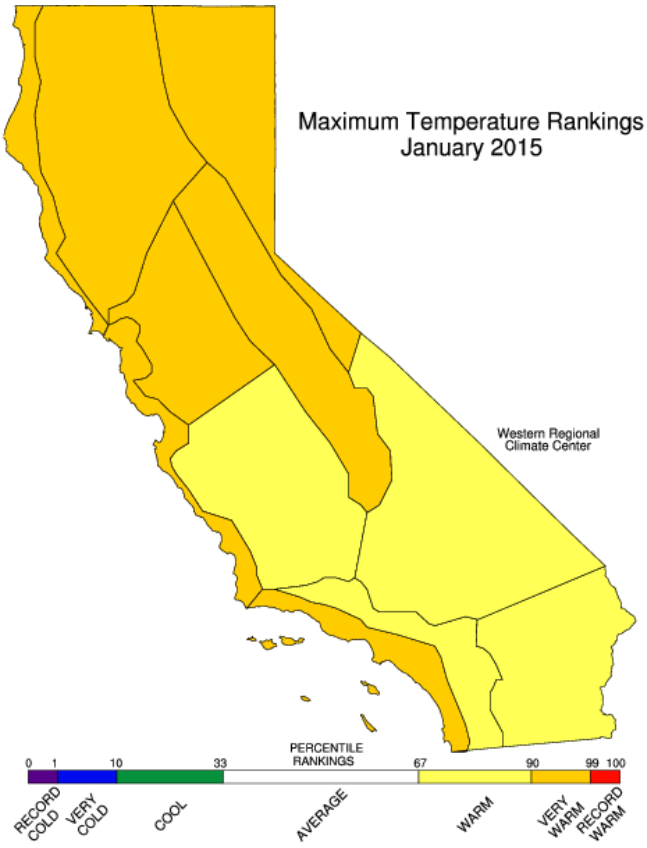
End-of-January Reservoir Storage by Hydrologic Region

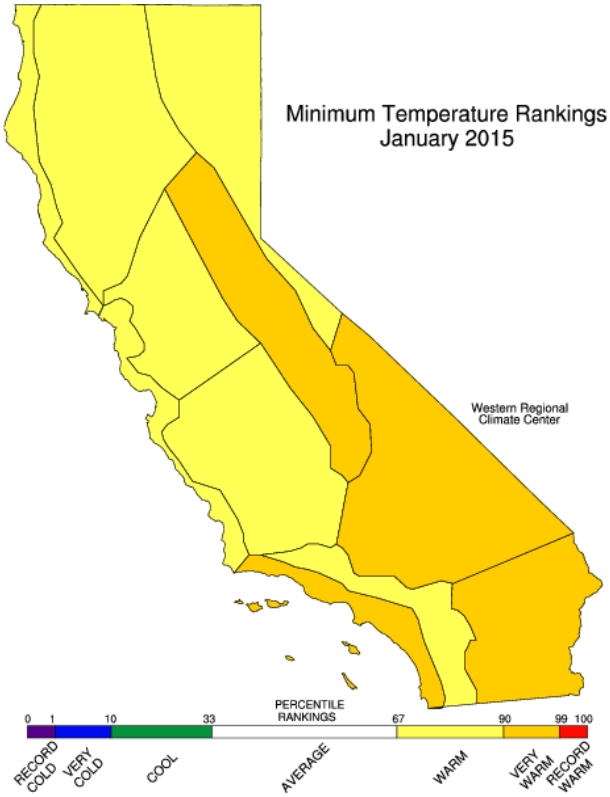
Storage in Thousand Acre-Feet (taf)

End-of-January Reservoir Storage	Number of Reservoirs	Average Storage (taf)	2015 Storage (taf)	% of Average
North Coast	6	2,114	1,201	57%
San Francisco Bay	17	466	438	94%
Central Coast	6	597	178	30%
South Coast	29	1,375	912	66%
Sacramento	43	10,538	7,945	75%
San Joaquin	34	6,933	4,079	59%
Tulare	6	763	276	36%
North Lahontan	5	503	72	14%
South Lahontan	8	267	221	83%
Total	154	23,558	15,325	65%

California Climate Tracker Images




Maximum Temperature Rankings
January 2015
Western Regional
Climate Center
PERCENTILE
RANKINGS
0 1 10 33 67 90 99 100
RECORD COLD
VERY COLD
COOL
AVERAGE
WARM
VERY WARM
RECORD WARM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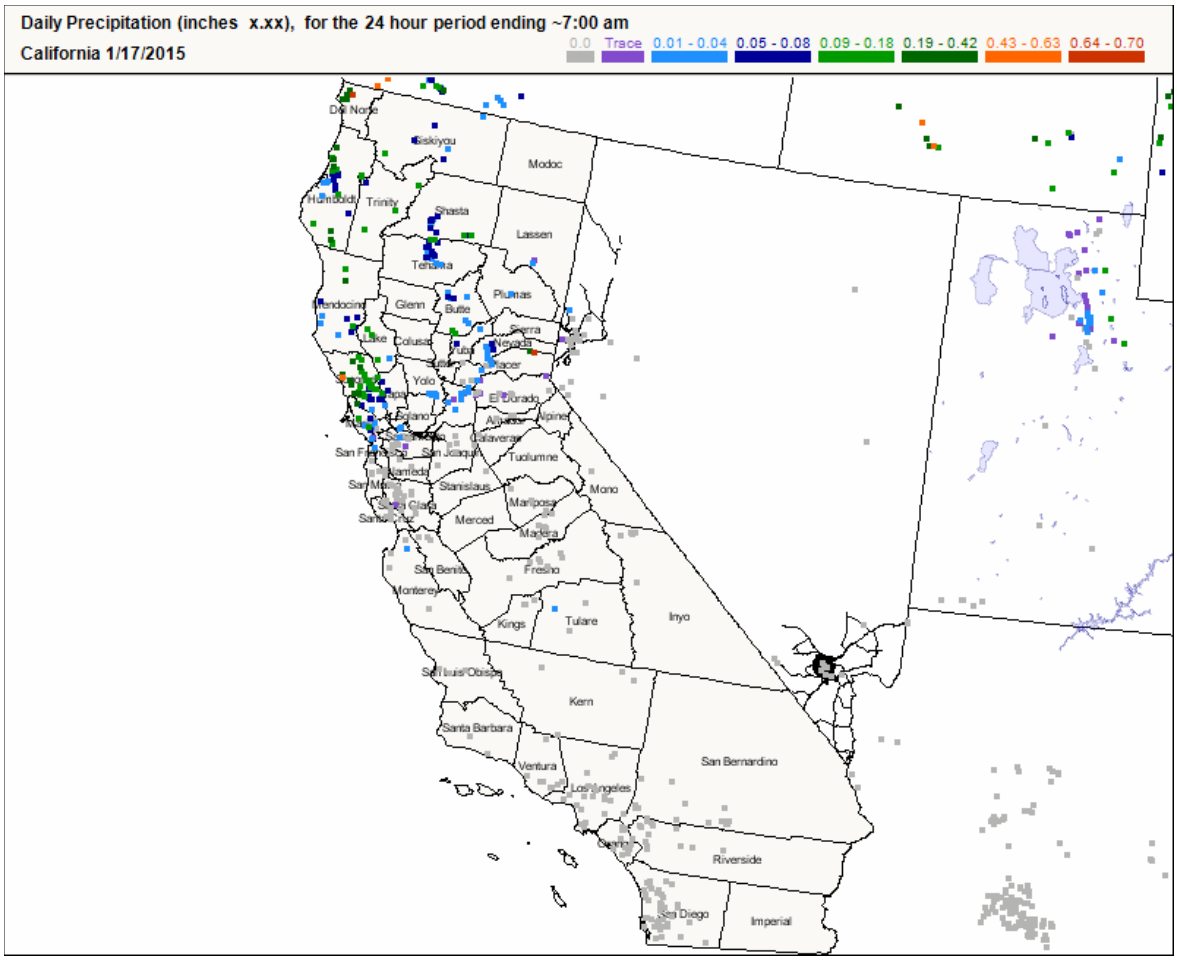
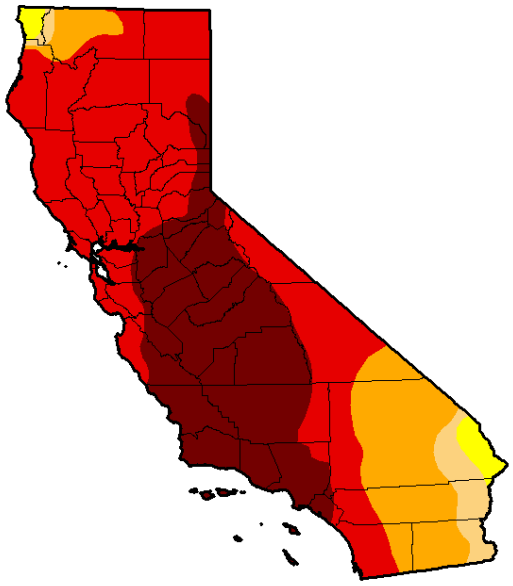
CoCoRaHS Map



United States Drought Monitor

U.S. Drought Monitor

California



December 30, 2014

(Released Wednesday, Dec. 31, 2014)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	98.12	94.34	77.94	32.21
Last Week 12/23/2014	0.00	100.00	98.41	94.42	77.94	32.21
3 Months Ago 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
Start of Calendar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00

Intensity:

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

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

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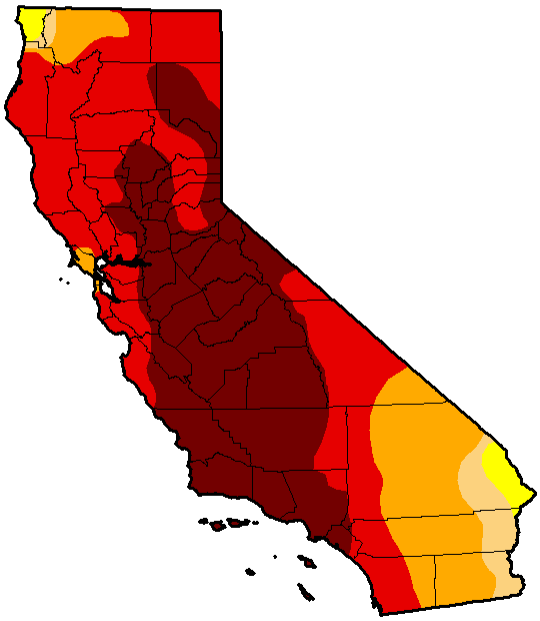
http://droughtmonitor.unl.edu/

U.S. Drought Monitor

California



January 27, 2015

(Released Thursday, Jan. 29, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	98.13	94.34	77.52	39.99
Last Week 1/20/2015	0.00	100.00	98.13	94.34	77.52	39.15
3 Months Ago 10/28/2014	0.00	100.00	100.00	95.04	81.92	58.41
Start of Calendar Year 12/30/2014	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago 1/28/2014	1.43	98.57	94.18	89.91	67.13	8.77

Intensity:

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

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

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