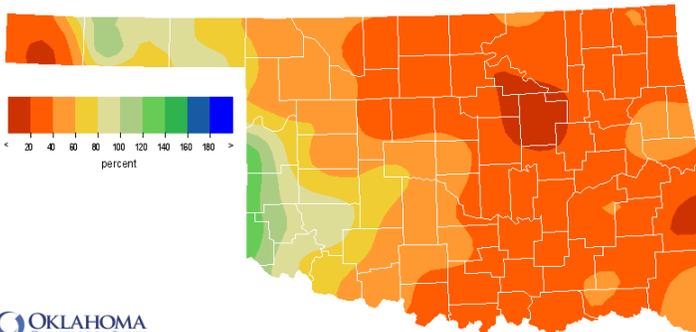


December 31, 2016

PRECIPITATION

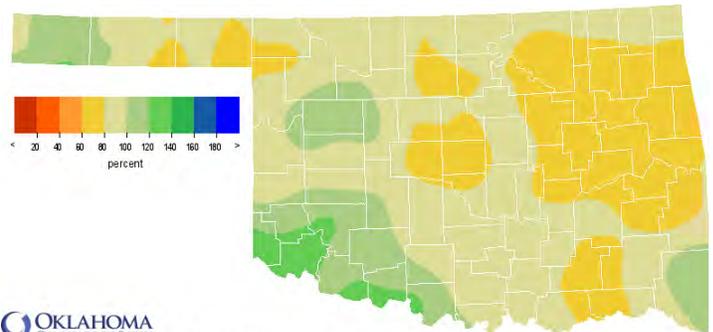
Statewide Precipitation

Climate Division	Last 30 Days December 1, 2016 – December 30, 2016				Last 365 Days January 1, 2016 – December 30, 2016			
	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	RANK SINCE 1921
PANHANDLE	0.50"	-0.27"	65%	45th wettest	18.27"	-2.29"	89%	33rd driest
NORTH CENTRAL	0.46"	-0.78"	37%	26th driest	27.72"	-3.67"	88%	39th driest
NORTHEAST	0.66"	-1.68"	28%	15th driest	32.80"	-9.81"	77%	18th driest
WEST CENTRAL	0.85"	-0.34"	71%	42nd wettest	28.89"	+0.52"	102%	34th wettest
CENTRAL	0.68"	-1.26"	35%	22nd driest	30.38"	-7.20"	81%	27th driest
EAST CENTRAL	1.06"	-1.97"	35%	19th driest	33.40"	-12.65"	73%	12th driest
SOUTHWEST	1.05"	-0.35"	75%	45th wettest	34.81"	+4.58"	115%	19th wettest
SOUTH CENTRAL	0.88"	-1.64"	35%	18th driest	37.06"	-3.58"	91%	43rd driest
SOUTHEAST	1.44"	-2.46"	37%	11th driest	44.52"	-5.97"	88%	33rd driest
STATEWIDE	0.82"	-1.19"	41%	21st driest	31.70"	-4.71"	87%	33rd driest



OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Dec 1, 2016 through Dec 30, 2016
Created 2016-12-31 10:01:30 UTC. Copyright © 2016

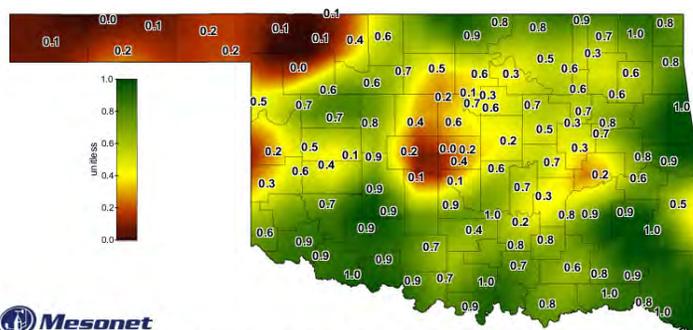


OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Jan 1, 2016 through Dec 30, 2016
Created 2016-12-31 10:03:26 UTC. Copyright © 2016

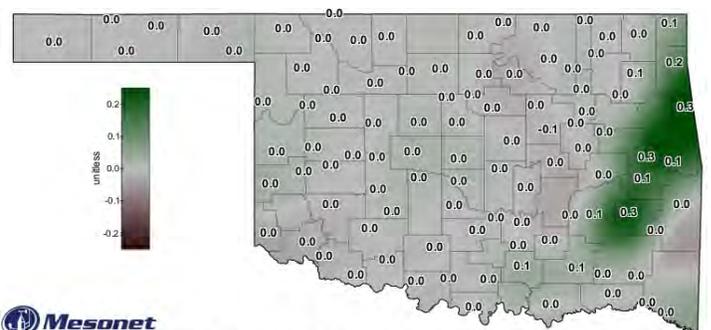
SOIL MOISTURE

Fractional Water Index December 31, 2016



Mesonet
1-day Average 10-inch Fractional Water Index

December 30, 2016
Created 6:30:14 AM December 31, 2016. Copyright © 2016



Mesonet
7-day 10-inch Fractional Water Index Change

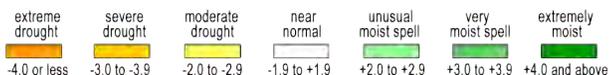
December 30, 2016
Created 5:30:01 AM December 31, 2016. Copyright © 2016

The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1. [1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

DROUGHT INDICES

Palmer Drought Severity Index (PDSI)	Standardized Precipitation Index (SPI) Through November 2016
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Climate Division	Status 12/24/16	Value 11/26	12/24	Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	-1.32	-1.38	0.06	Moderately Dry	Near Normal	Extremely Moist
NORTH CENTRAL	Near Normal	-0.01	-0.75	0.74	Near Normal	Near Normal	Moderately Moist
NORTHEAST	Near Normal	-1.51	-1.84	0.33	Near Normal	Near Normal	Abnormally Moist
WEST CENTRAL	Near Normal	-0.49	-0.82	0.33	Near Normal	Near Normal	Extremely Moist
CENTRAL	Moderate Drought	-1.76	-1.98	0.22	Abnormally Dry	Near Normal	Extremely Moist
EAST CENTRAL	Moderate Drought	-2.34	-2.53	0.19	Moderately Dry	Near Normal	Extremely Moist
SOUTHWEST	Near Normal	1.33	1.02	0.31	Near Normal	Moderately Moist	Exceptionally Moist
SOUTH CENTRAL	Near Normal	-1.41	-1.77	0.36	Near Normal	Abnormally Moist	Exceptionally Moist
SOUTHEAST	Near Normal	-1.65	-1.76	0.11	Moderately Dry	Abnormally Moist	Extremely Moist



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, all climate regions in the state are classified as Near Normal except the Central and East Central regions, which are experiencing Moderate Drought conditions.

The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. All climate divisions had Near Normal precipitation or wetter for 12-month and 24-month time periods, but the Central region was Abnormally Dry during the 3-month period, and the Northwest, East Central, and Southeast were Moderately dry.

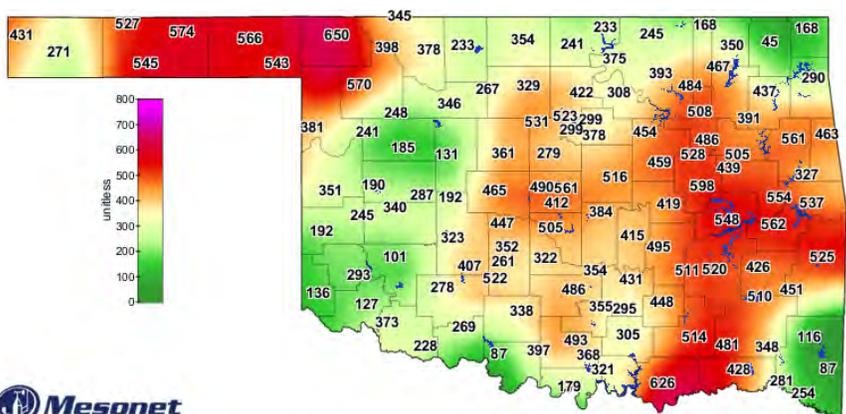
Keetch-Byram Drought Fire Index

December 31, 1:00 p.m.--2 stations are above 600.

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE
Buffalo	Panhandle	650
Durant	South Central	626

Three stations were above 600 on November 28.

The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.



Mesonet
Keetch-Byram Drought Index

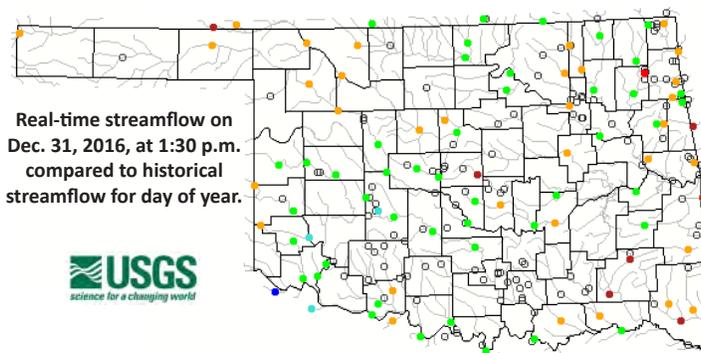
1:00 PM December 31, 2016 CST
Created 2:14:02 PM December 31, 2016 CST. © Copyright 2016

STREAMFLOW CONDITIONS

December 31, 2016

Explanation - Percentile classes						
●	●	●	●	●	●	●
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High
						Not ranked

Visit waterwatch.usgs.gov for real-time streamflow information.

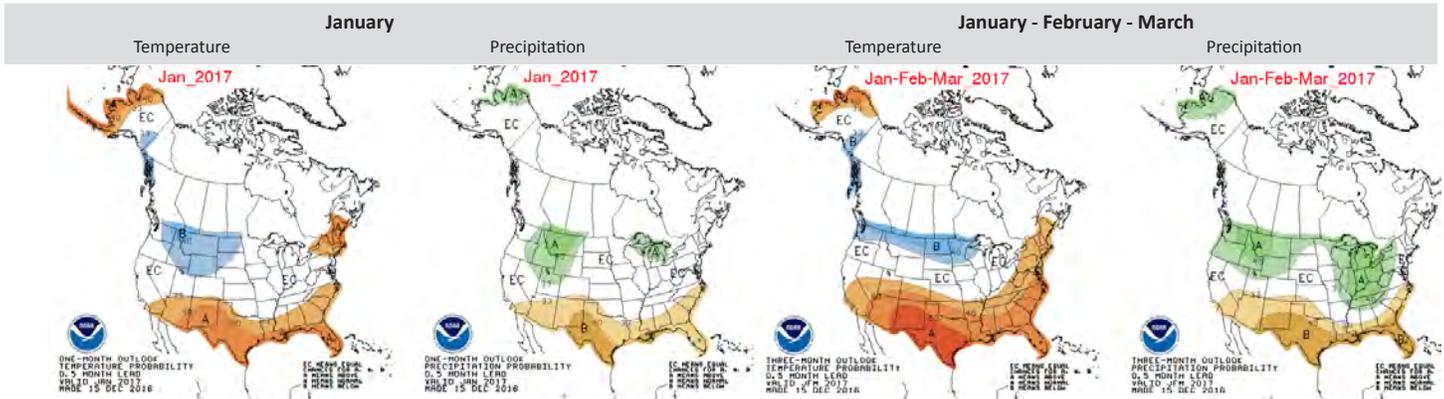


Real-time streamflow on Dec. 31, 2016, at 1:30 p.m. compared to historical streamflow for day of year.



WEATHER/DROUGHT FORECAST

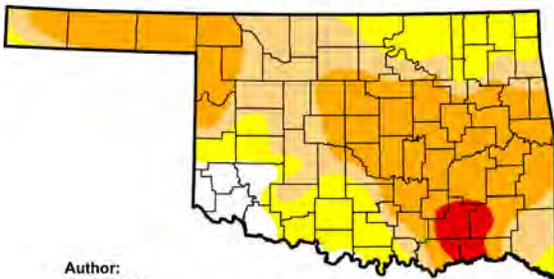
Seasonal Outlook



The contours on the maps show the total probability of three categories—above, indicated by the letter “A”; below, indicated by the letter “B”; and the middle category, indicated by the letter “N”. “EC” stands for “Equal Chances” for A, N, or B

Drought Summary & Outlook

U.S. Drought Monitor Oklahoma



Author:
Brad Rippey
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

December 27, 2016
(Released Thursday, Dec. 29, 2016)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	5.63	94.37	72.32	45.73	3.14	0.00
Last Week 12/20/2016	11.94	88.06	72.83	42.47	3.14	0.00
3 Months Ago 9/27/2016	57.82	42.18	19.04	3.05	0.00	0.00
Start of Calendar Year 12/29/2015	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 9/22/2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 12/29/2015	100.00	0.00	0.00	0.00	0.00	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.

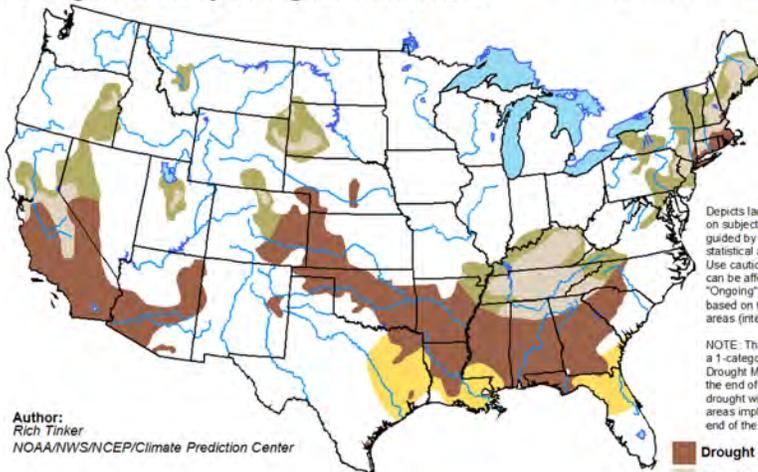
According to the U.S. Drought Monitor, the number of Oklahomans currently affected by drought is 2,876,612, up by almost 700,000 in the last month. More than 72% of the state in area is now in Moderate Drought (D1) or worse. More than 45% of the state is now in Severe Drought (D2) or worse, and more than 3% is in Extreme Drought, which includes large portions of Atoka, Pushmataha, Bryan, and Choctaw counties, and extends into southeastern Coal and southern Pittsburg counties.

According to the seasonal drought outlook, from mid December through the end of March, drought conditions are likely to persist in most of the state. This is shown as a large swathe running from the northwest corner to the southeast corner.

Drought is also likely to persist and develop in many other areas across the southern half of the U.S. and a small portion of New England along the coast.

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for December 15 - March 31, 2017
Released December 15, 2016



Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Drought persists
 Drought remains but improves
 Drought removal likely
 Drought development likely



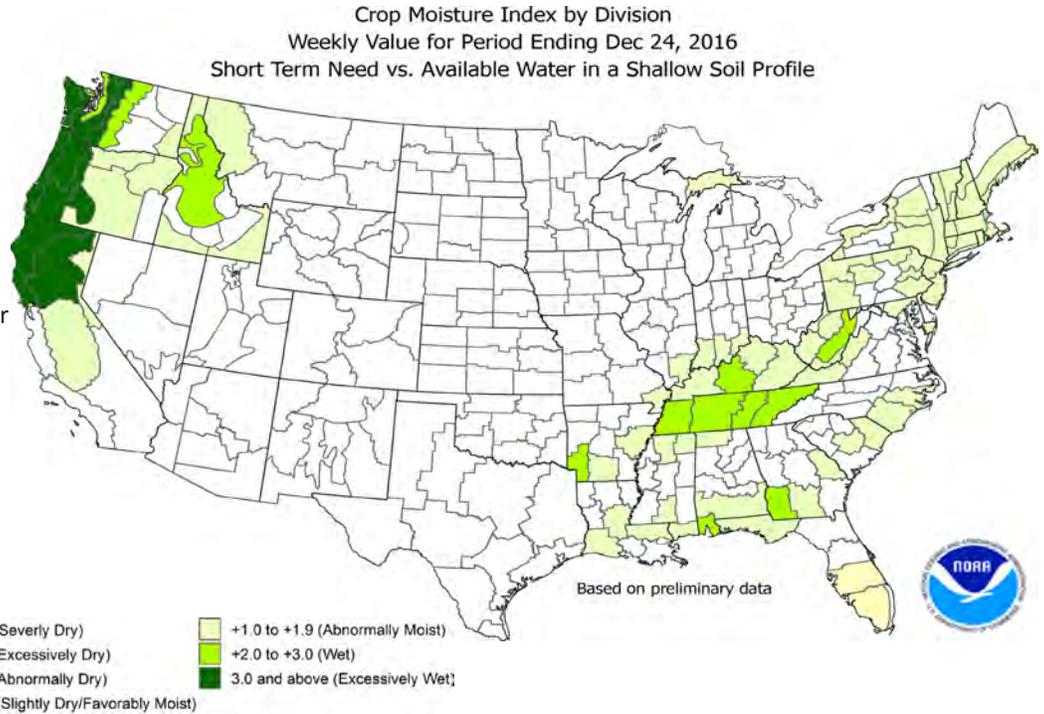
<http://go.usa.gov/3eZ73>



CROP MOISTURE INDEX

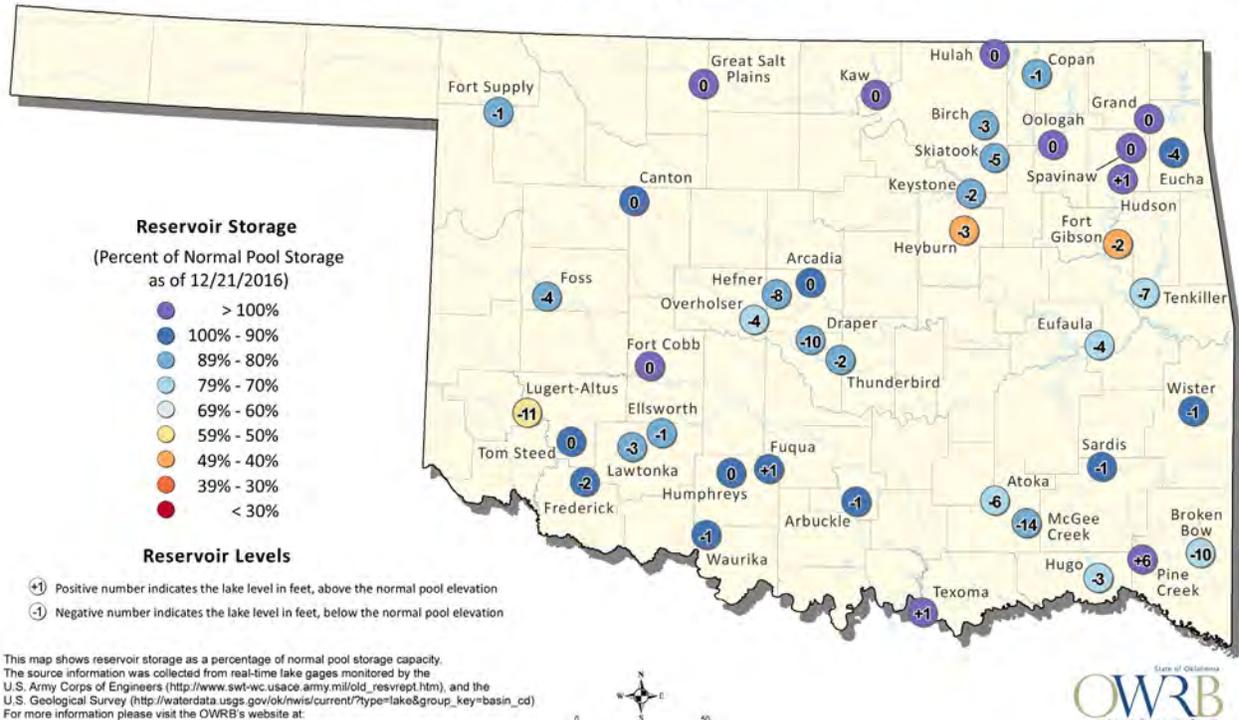
According to the NOAA Crop Moisture Index by Division, for the period ending December 24, all regions of the state are Slightly Dry/Favorably Moist (-0.9 to +0.9).

Derived from the Palmer Drought Severity Index (PDSI), the Crop Moisture Index reflects moisture supply in the short-term across major crop-producing regions. It identifies potential agricultural droughts. It is not intended to assess long-term droughts.



RESERVOIR STORAGE

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 12/21/2016



The Oklahoma Water Resources Bulletin is compiled and distributed monthly by the Oklahoma Water Resources Board utilizing products and information developed by the Oklahoma Climatological Survey, Oklahoma Mesonet, National Oceanic and Atmospheric Administration, National Drought Mitigation Center, US Geological Survey, US Army Corps of Engineers, and US Department of Agriculture. For questions or comments contact Darla Whitley, Editor.