Oklahoma Water Resources Bulletin
& Summary of Current Conditions

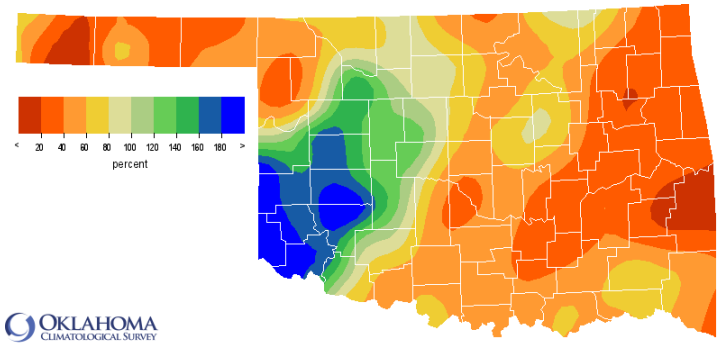
OWRB the water agency

January 28, 2016

Precipitation

Statewide Precipitation

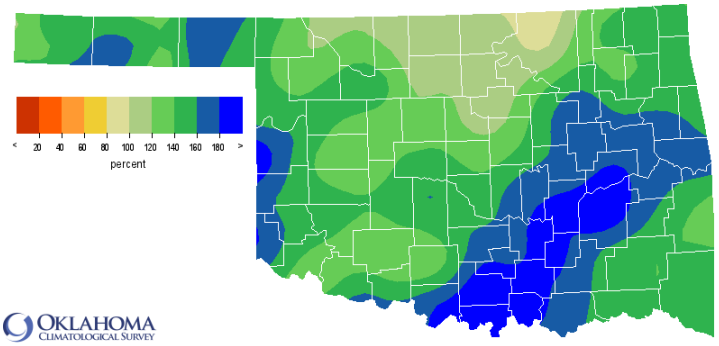
Climate Division	Last 30 Days (December 29, 2015 – January 27, 2016) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days (January 28, 2015 – January 27, 2016) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	0.24"	-0.35"	41%	37th driest	30.81"	+10.23"	150%	2nd wettest
N. CENTRAL	0.71"	-0.20"	78%	38th wettest	38.01"	+6.59"	121%	11th wettest
NORTHEAST	0.72"	-1.01"	42%	22nd driest	57.53"	+14.86"	135%	2nd wettest
W. CENTRAL	1.40"	+0.50"	155%	17th wettest	42.08"	+13.68"	148%	2nd wettest
CENTRAL	0.85"	-0.53"	61%	43rd driest	53.19"	+15.56"	141%	1st wettest
E. CENTRAL	0.75"	-1.62"	32%	16th driest	79.26"	+33.12"	172%	1st wettest
SOUTHWEST	1.49"	+0.43"	140%	22nd wettest	44.01"	+13.74"	145%	2nd wettest
S. CENTRAL	0.90"	-1.07"	46%	31st driest	71.55"	+30.84"	176%	1st wettest
SOUTHEAST	1.36"	-1.58"	46%	21st driest	76.19"	+25.60"	151%	1st wettest
STATEWIDE	0.90"	-0.62"	59%	36th driest	54.50"	+18.03"	149%	1st wettest



OKLAHOMA CLIMATOLOGICAL SURVEY

Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Dec 29, 2015 through Jan 27, 2016



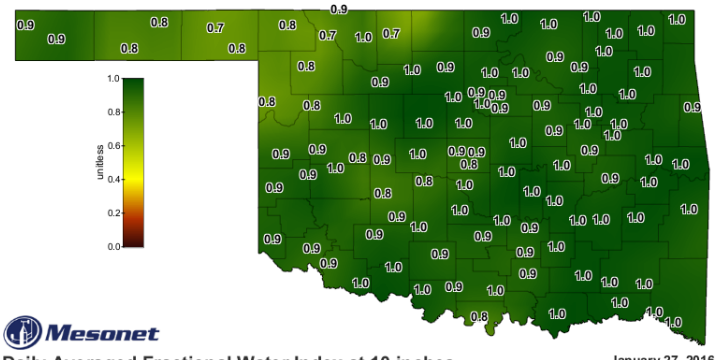
OKLAHOMA CLIMATOLOGICAL SURVEY

Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Jan 28, 2015 through Jan 27, 2016

Soil Moisture

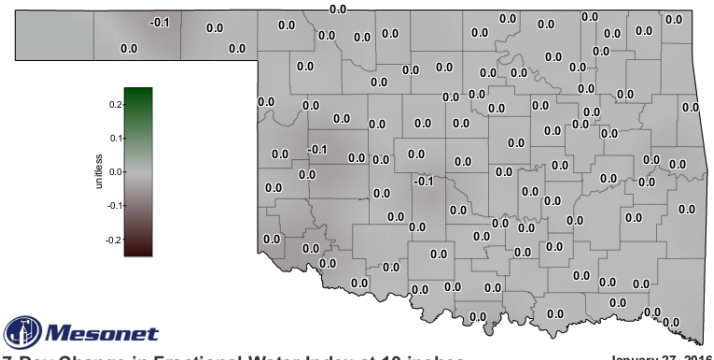
Fractional Water Index
January 27, 2016



Mesonet

Daily Averaged Fractional Water Index at 10 inches

January 27, 2016



Mesonet

7-Day Change in Fractional Water Index at 10 inches

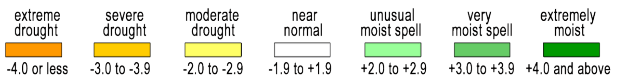
January 27, 2016

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)

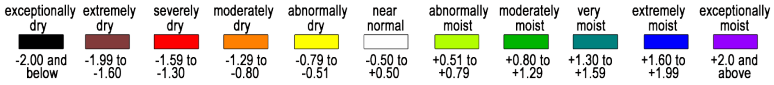
Climate Division	Status 1/23/16	Value 12/19	Value 1/23	Change in Value
NORTHWEST	Very Moist Spell	4.75	3.94	0.81
NORTH CENTRAL	Unusual Moist Spell	2.55	2.64	-0.09
NORTHEAST	Extremely Moist	3.02	4.12	-1.1
WEST CENTRAL	Very Moist Spell	3.12	3.25	-0.13
CENTRAL	Very Moist Spell	3.35	3.94	-0.59
EAST CENTRAL	Extremely Moist	5.11	6.46	-1.35
SOUTHWEST	Very Moist Spell	3.21	3.66	-0.45
SOUTH CENTRAL	Extremely Moist	5.01	5.69	-0.68
SOUTHEAST	Extremely Moist	4.2	5.15	-0.95



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 divisions in Oklahoma have undergone a moisture increase in the last month except the Northwest, which decreased slightly but still remains well above normal. All regions are classified as unusually moist, very moist, or extremely moist.

Standardized Precipitation Index (SPI)
Through December 2015

3-month	12-month	24-month
Extremely Moist	Exceptionally Moist	Very Moist
Abnormally Moist	Very Moist	Abnormally Moist
Extremely Moist	Extremely Moist	Abnormally Moist
Abnormally Moist	Exceptionally Moist	Moderately Moist
Extremely Moist	Exceptionally Moist	Moderately Moist
Exceptionally Moist	Exceptionally Moist	Extremely Moist
Abnormally Moist	Exceptionally Moist	Moderately Moist
Exceptionally Moist	Exceptionally Moist	Exceptionally Moist
Exceptionally Moist	Exceptionally Moist	Extremely Moist



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 above normal precipitation for the 3-month, 12-month, and 24-month time periods. The South Central region was classified as exceptionally moist, the wettest category, for all three time periods.

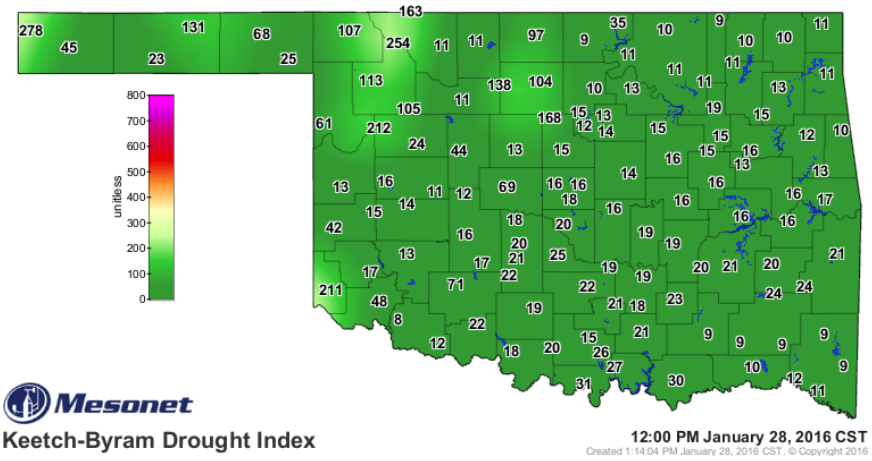
Keetch-Byram Drought Fire Index

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE

No stations are currently near 600 (January 28).

Stations above 600 on December 27 = 0

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.

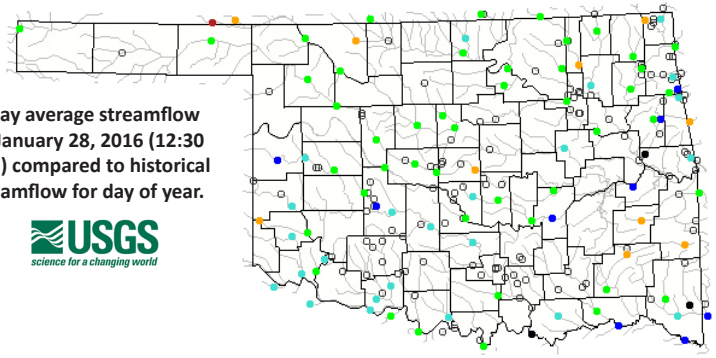


Streamflow Conditions

January 28, 2016

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

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



7-day average streamflow on January 28, 2016 (12:30 p.m.) compared to historical streamflow for day of year.

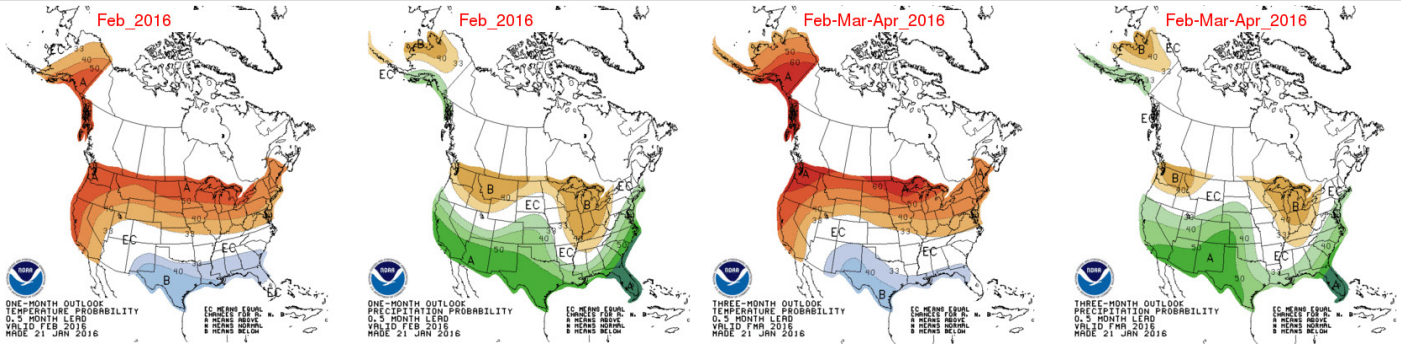
USGS science for a changing world

Weather/Drought Forecast

Seasonal Outlook

February 2016 — Temperature | Precipitation

February-March-April — Temperature | Precipitation

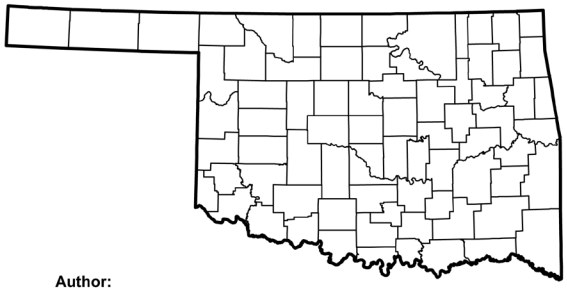


The contours on the maps show the total probability of three categories—above, indicated by the letter "A"; below, indicated by the letter "B"; and the middle category, indicated by the letter "N". "EC" stands for "Equal Chances" for A, N, or B

Regional Drought Summary & Outlook

U.S. Drought Monitor

Oklahoma



Author:
Mark Svoboda
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

January 26, 2016
(Released Thursday, Jan. 28, 2016)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 1/19/2016	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 10/27/2015	33.36	66.64	17.68	2.79	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 9/29/2015	52.60	47.40	16.79	6.37	0.97	0.00
One Year Ago 1/27/2015	5.03	94.97	60.60	45.34	22.58	5.69

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.

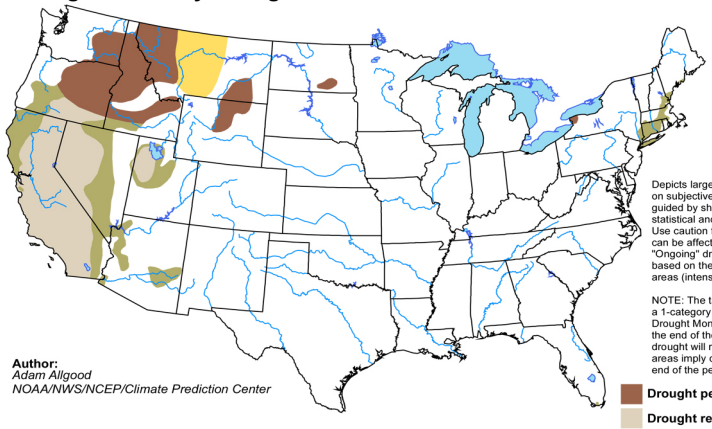
According to the U.S. Drought Monitor, the number of Oklahomans currently affected by drought (category D1-D4) is still at 0. No regions are experiencing abnormally dry conditions. A year ago more than 60% of the state was suffering from drought, and nearly 6% of the state was in Exceptional Drought, the worst category.

According to the seasonal drought outlook, from mid January through the end of April drought conditions are not likely to develop in any parts of Oklahoma.

Drought is likely to persist or intensify in northeastern parts of Oregon, southeastern Washington, and western Idaho and Montana, while conditions will likely improve in California, Nevada, and southern Oregon. Drought is likely to develop in central Montana.

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

Valid for January 21 - April 30, 2016
Released January 21, 2016



Author:
Adam Allgood
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).

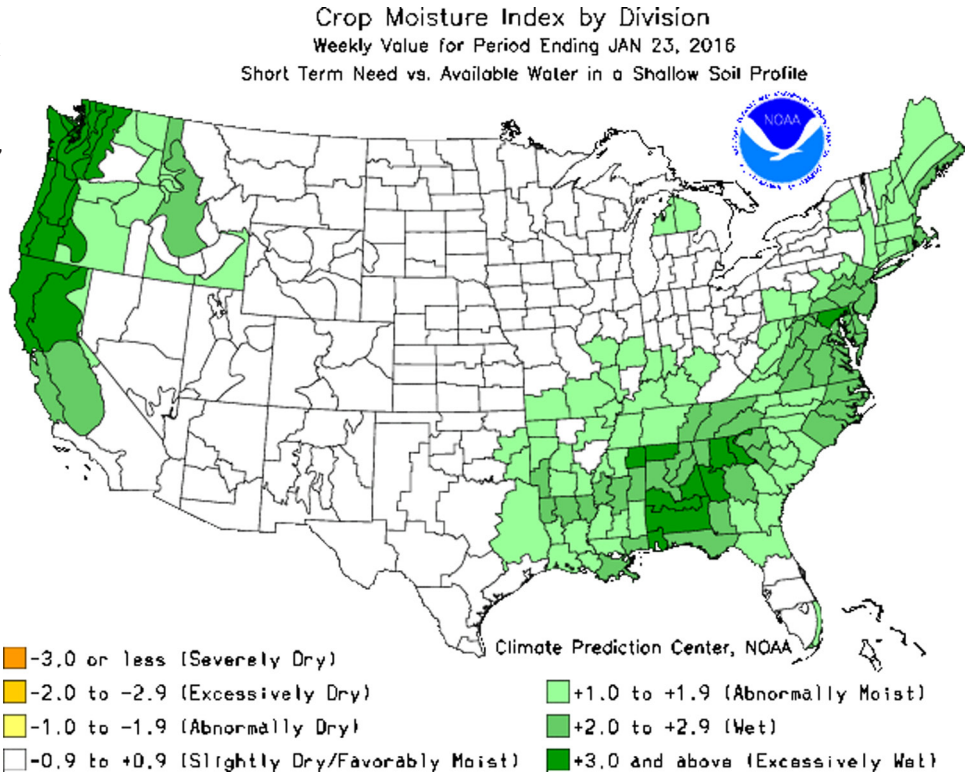
- **Drought persists**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

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

Crop Report

According to the NOAA Crop Moisture Index by Division, for the period ending January 23, the East Central and Southeast climate regions were classified as Abnormally Moist, while all other climate regions in Oklahoma were classified as Slightly Dry to Favorably Moist.

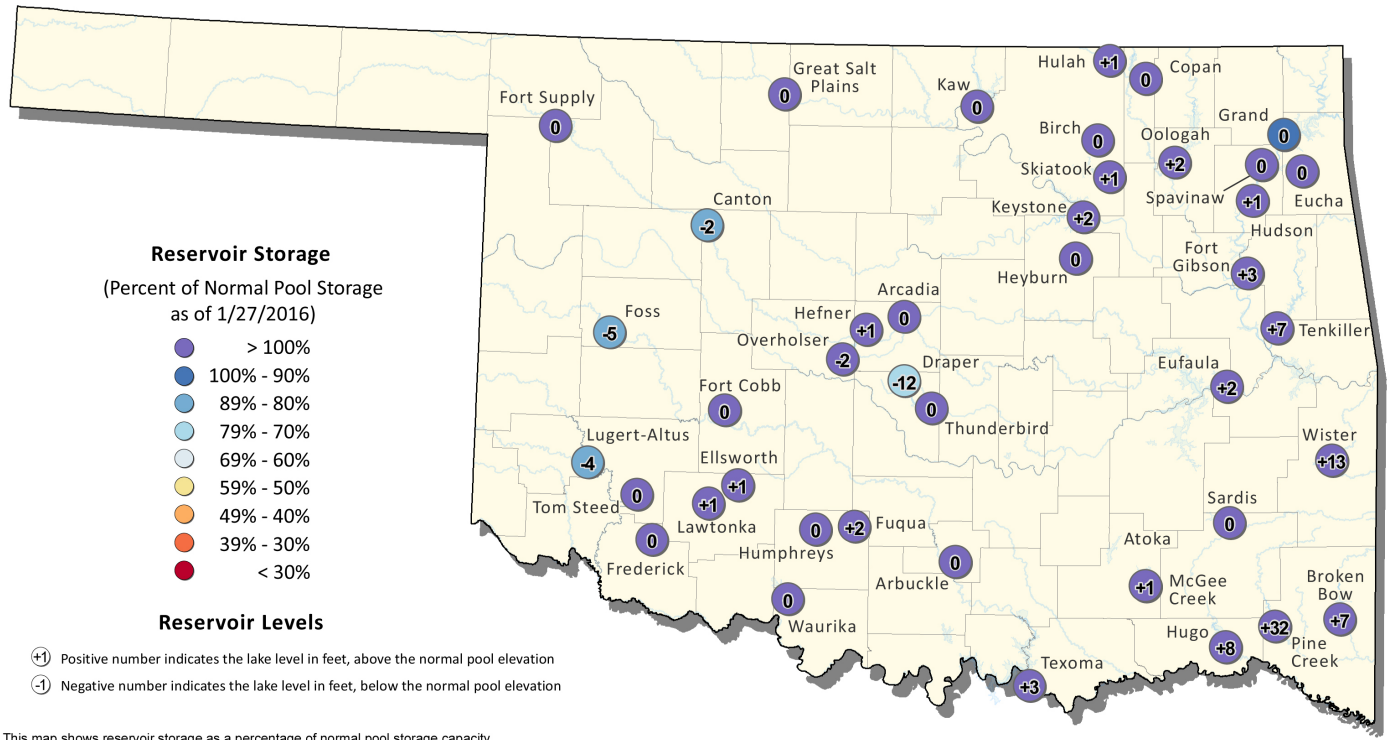
Derived from the Palmer Drought Severity Index (PDSI), the Crop Moisture Index reflects moisture supply in the short-term across major crop-producing regions. It identifies potential agricultural droughts. It is not intended to assess long-term droughts.



Reservoir Storage

Oklahoma Surface Water Resources

Reservoir Levels and Storage as of 1/27/2016



This map shows reservoir storage as a percentage of normal pool storage capacity.
The source information was collected from real-time lake gages monitored by the U.S. Army Corps of Engineers (http://www.swt-wc.usace.army.mil/old_resvrept.htm), and the U.S. Geological Survey (http://waterdata.usgs.gov/ok/nwis/current/?type=lake&group_key=basin_cd)
For more information please visit the OWRB's website at:
(http://www.owrb.ok.gov)