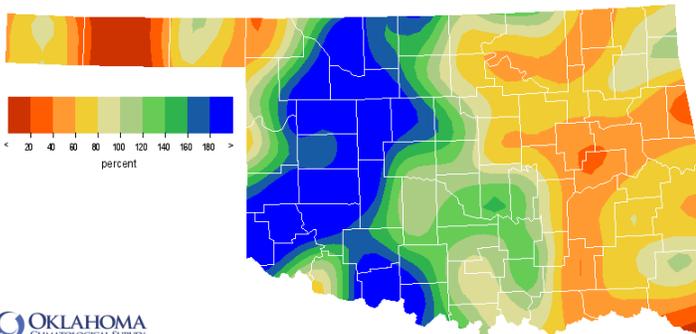


September 29, 2016

PRECIPITATION

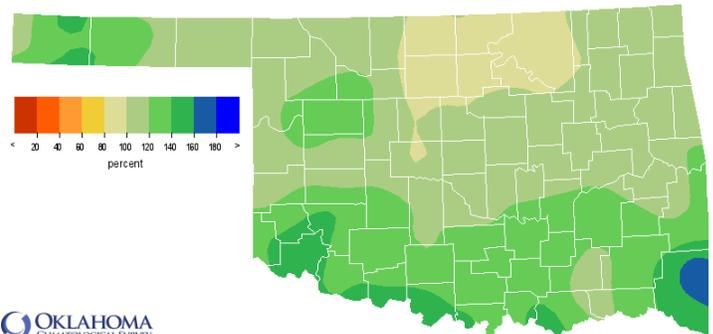
Statewide Precipitation

Climate Division	Last 30 Days August 30, 2016 – September 28, 2016				Last 365 Days September 30, 2015 – September 28, 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	1.03"	-0.74"	58%	25th driest	24.16"	+3.63"	118%	16th wettest
N. CENTRAL	4.08"	+1.18"	141%	24th wettest	31.97"	+0.64"	102%	35th wettest
NORTHEAST	3.15"	-1.30"	71%	37th driest	44.38"	+1.85"	104%	26th wettest
W. CENTRAL	5.40"	+2.59"	192%	10th wettest	34.52"	+6.21"	122%	8th wettest
CENTRAL	4.06"	+0.25"	107%	38th wettest	40.41"	+2.90"	108%	19th wettest
E. CENTRAL	2.37"	-2.34"	50%	28th driest	53.30"	+7.31"	116%	11th wettest
SOUTHWEST	5.56"	+2.53"	184%	13th wettest	41.28"	+11.10"	137%	4th wettest
S. CENTRAL	4.43"	+0.48"	112%	34th wettest	53.12"	+12.53"	131%	7th wettest
SOUTHEAST	2.94"	-1.27"	70%	39th driest	68.84"	+18.39"	136%	4th wettest
STATEWIDE	3.63"	+0.10"	103%	41st wettest	43.09"	+6.73"	118%	14th wettest



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

Aug 30, 2016 through Sep 28, 2016
Created 2016-09-29 10:01:46 UTC. Copyright © 2016

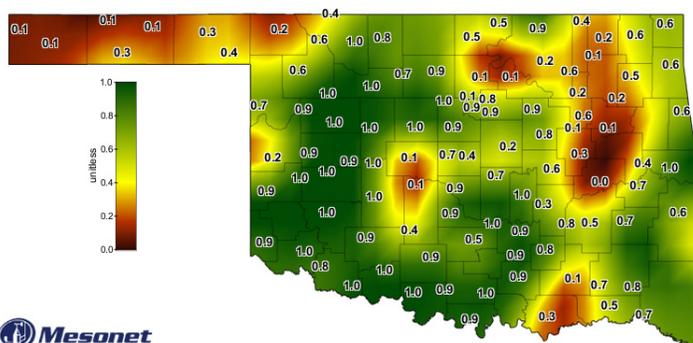


OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Sep 30, 2015 through Sep 28, 2016
Created 2016-09-29 10:03:21 UTC. Copyright © 2016

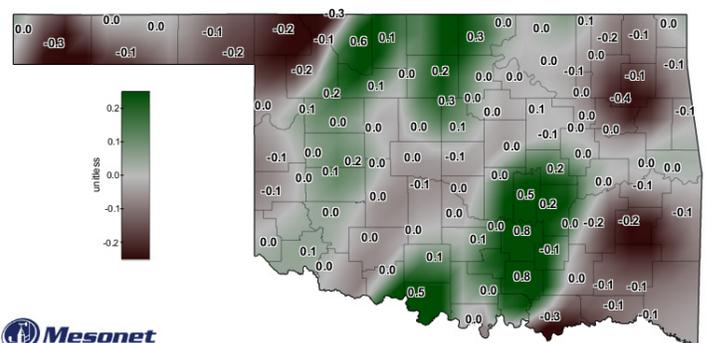
SOIL MOISTURE

Fractional Water Index September 28, 2016



Mesonet
1-day Average 10-inch Fractional Water Index

September 28, 2016
Created 7:30:14 AM September 29, 2016. CO11. © Copyright 2016



Mesonet
7-day 10-inch Fractional Water Index Change

September 28, 2016
Created 6:30:01 AM September 29, 2016. CO11. © 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 August 2016		
Climate Division	Status 9/24/16	Value 8/30 9/24		Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	2.26	1.65	0.61	Abnormally Moist	Moderately Moist	Extremely Moist
NORTH CENTRAL	Near Normal	0.06	1.67	-1.61	Near Normal	Near Normal	Moderately Moist
NORTHEAST	Near Normal	-1.72	-1.44	-0.28	Near Normal	Near Normal	Moderately Moist
WEST CENTRAL	Unusual Moist Spell	-0.31	2.1	-2.41	Moderately Moist	Abnormally Moist	Extremely Moist
CENTRAL	Near Normal	-1.14	-0.58	-0.56	Near Normal	Abnormally Moist	Extremely Moist
EAST CENTRAL	Near Normal	-0.41	-1.14	0.73	Near Normal	Moderately Moist	Exceptionally Moist
SOUTHWEST	Very Moist Spell	2.11	3.7	-1.59	Moderately Moist	Moderately Moist	Exceptionally Moist
SOUTH CENTRAL	Near Normal	-0.2	0.38	-0.58	Near Normal	Very Moist	Exceptionally Moist
SOUTHEAST	Near Normal	1.04	0.81	0.23	Near Normal	Extremely Moist	Exceptionally Moist

extreme drought -4.0 or less	severe drought -3.0 to -3.9	moderate drought -2.0 to -2.9	near normal -1.9 to +1.9	unusual moist spell +2.0 to +2.9	very moist spell +3.0 to +3.9	extremely moist +4.0 and above
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exceptionally dry -2.00 and below	extremely dry -1.99 to -1.80	severely dry -1.59 to -1.30	moderately dry -1.29 to -0.80	abnormally dry -0.79 to -0.51	near normal -0.50 to +0.50	abnormally moist +0.51 to +0.79	moderately moist +0.80 to +1.29	very moist +1.30 to +1.59	extremely moist +1.60 to +1.99	exceptionally moist +2.0 and above
--------------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------------------	-------------------------------	------------------------------------	------------------------------------	------------------------------	-----------------------------------	---------------------------------------

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 West Central and Southwest, which are classified as experiencing an Unusual Moist Spell and Very Moist Spell, respectively.

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 the 3 time periods shown. East Central, Southwest, South Central, and Southeast are classified as Extremely Moist for the 24-month period.

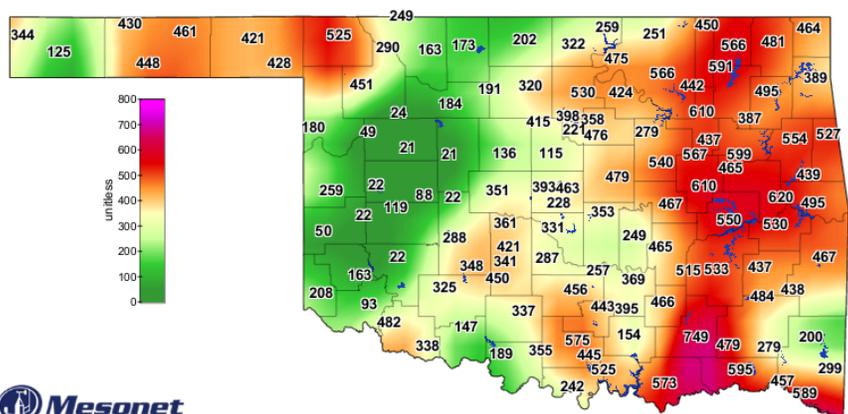
Keetch-Byram Drought Fire Index

Four stations are currently above 600 (Sep. 29).

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE
Lane	South Central	749
Webbers Falls	East Central	620
Tulsa	Northeast	610
Okmulgee	East Central	610

Fifteen stations were above 600 on August 31.

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.



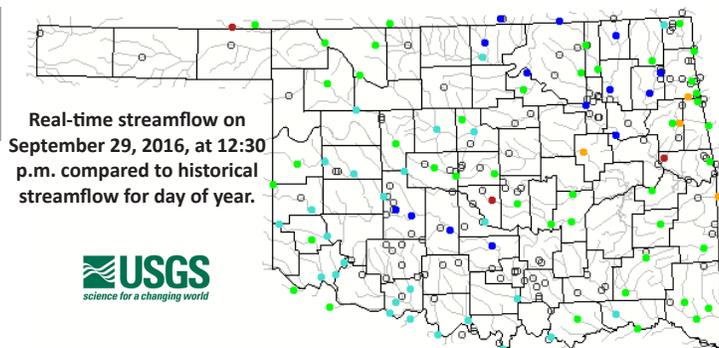
11:00 AM September 29, 2016 CDT
Created 12:14:03 PM September 29, 2016 CDT. © Copyright 2016

STREAMFLOW CONDITIONS

September 29, 2016

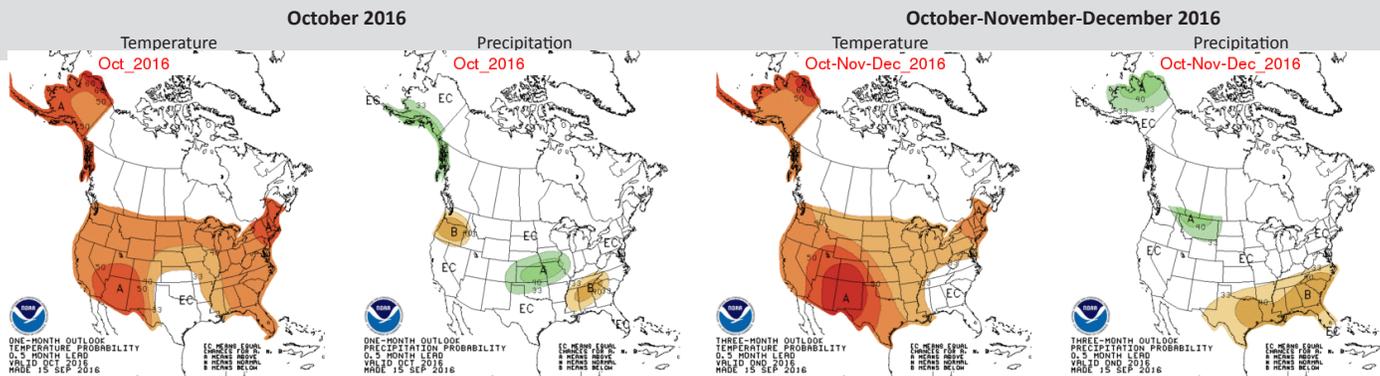
Explanation - Percentile classes							
●	●	●	●	●	●	●	●
Low	<10 <small>Much below normal</small>	10-24 <small>Below normal</small>	25-75 <small>Normal</small>	76-90 <small>Above normal</small>	>90 <small>Much above normal</small>	High	Not ranked

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



WEATHER/DROUGHT FORECAST

Seasonal Outlook

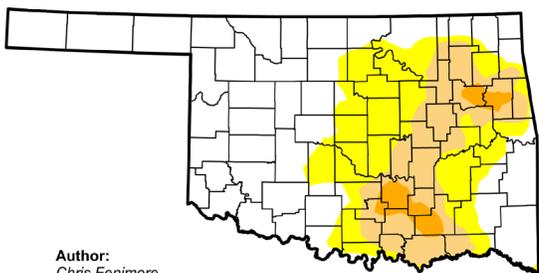


The contours on the maps show the total probability of three categories—above, indicated by the letter “A”; below, indicated by the letter “B”; and the middle category, indicated by the letter “N”. “EC” stands for “Equal Chances” for A, N, or B

Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

September 27, 2016
(Released Thursday, Sep. 29, 2016)
Valid 8 a.m. EDT



Author:
Chris Fenimore
NCEI/NESDIS/NOAA



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

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	57.82	42.18	19.04	3.05	0.00	0.00
Last Week 9/20/2016	55.17	44.83	13.24	2.39	0.00	0.00
3 Months Ago 6/28/2016	77.65	22.35	5.86	0.00	0.00	0.00
Start of Calendar Year 1/29/2016	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 3/29/2016	52.60	47.40	16.79	6.37	0.97	0.00
One Year Ago 9/29/2015	52.60	47.40	16.79	6.37	0.97	0.00

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

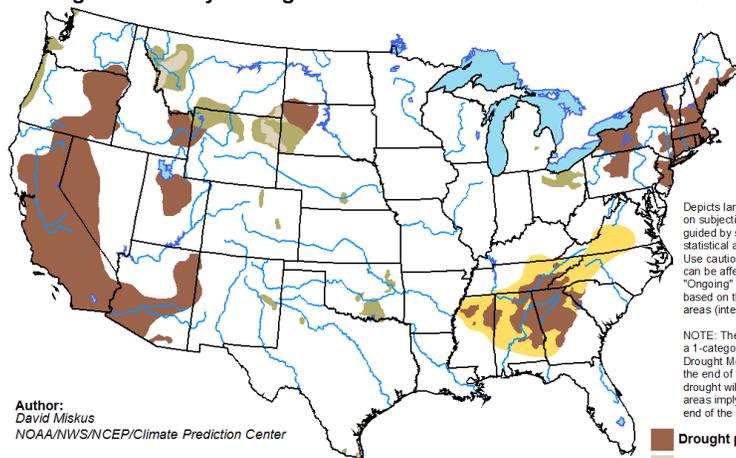
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

According to the U.S. Drought Monitor, the number of Oklahomans currently affected by drought is 1,174,741, more than double the number at this time last month. More than 19% of the state (in area) is now in Moderate Drought (D1), and more than 3% of the state is in Severe Drought (D2).

Rainfall totals varied widely across the state in the past month with the West Central region receiving 192% of normal precipitation, while the Panhandle region only received 58% of normal. The statewide average was 103% of normal.

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

September 15 - December 31, 2016
Released September 15, 2016



Author:
David Miskus
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>

According to the seasonal drought outlook, from mid September through the end of November, drought conditions are unlikely to develop in any additional parts of Oklahoma, and drought removal status is likely for areas currently affected by drought.

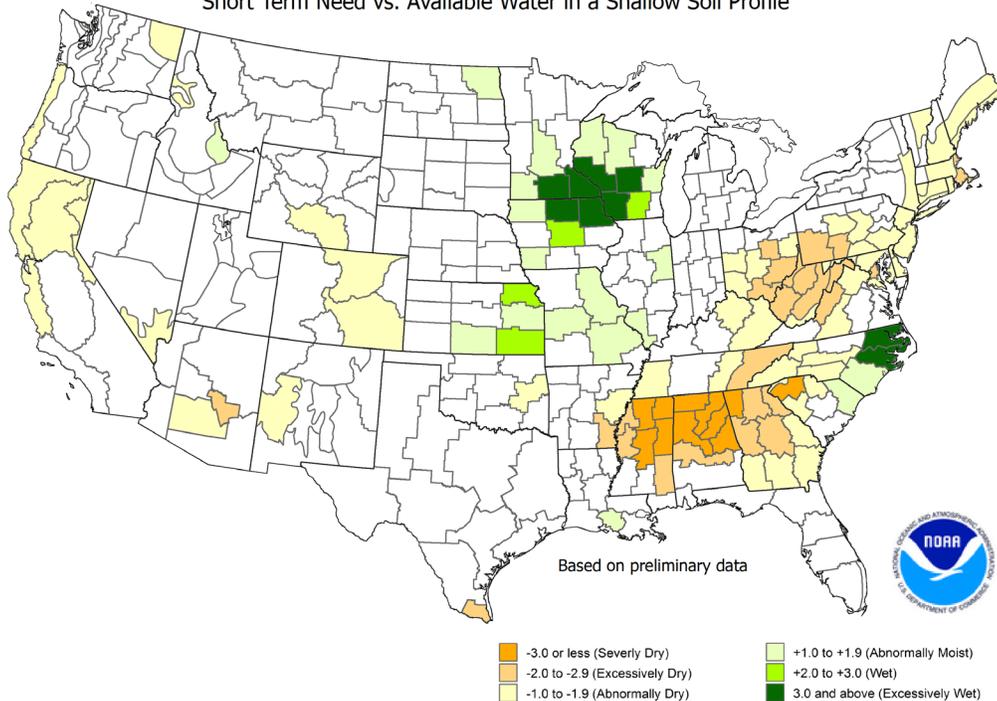
Drought is likely to persist in almost all of California and many other areas across the far western states, as well as several areas in New England and southeast areas of the nation.

CROP MOISTURE INDEX

According to the NOAA Crop Moisture Index by Division, for the period ending September 24, all regions of the state are Slightly Dry/Favorably Moist (-0.9 to +0.9) except the East Central region, which is Abnormally Dry (-1.0 to -1.9).

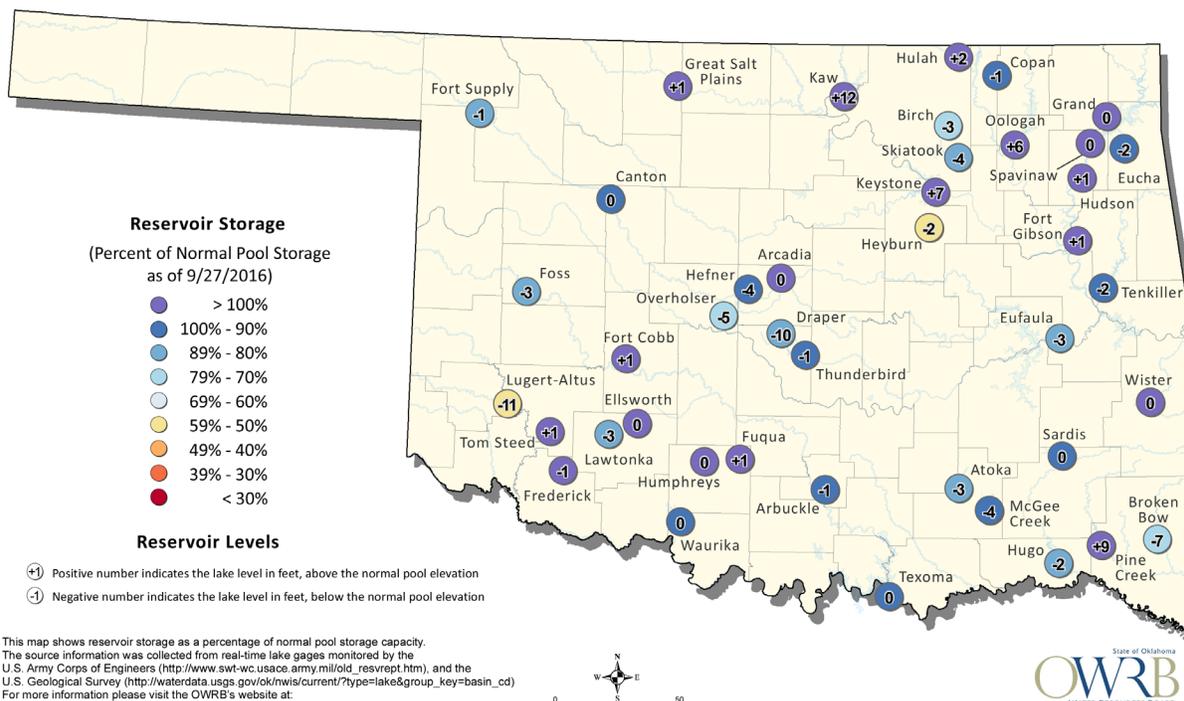
Derived from the Palmer Drought Severity Index (PDSI), the Crop Moisture Index reflects moisture supply in the short-term across major crop-producing regions. It identifies potential agricultural droughts. It is not intended to assess long-term droughts.

Crop Moisture Index by Division
Weekly Value for Period Ending Sep 24, 2016
Short Term Need vs. Available Water in a Shallow Soil Profile



RESERVOIR STORAGE

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 9/27/2016



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.