Oklahoma Water Resources Bulletin
& Summary of Current Conditions

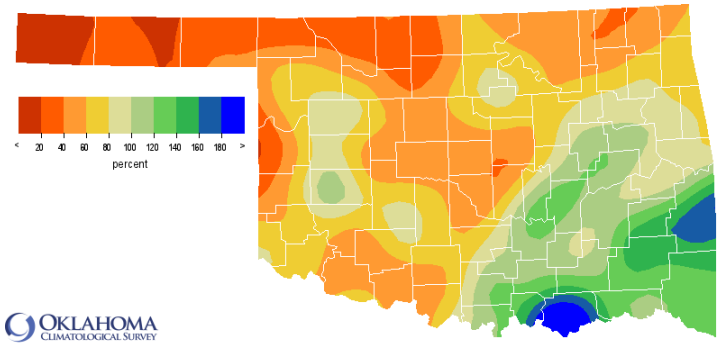
OWRB the water agency

March 28, 2016

Precipitation

Statewide Precipitation

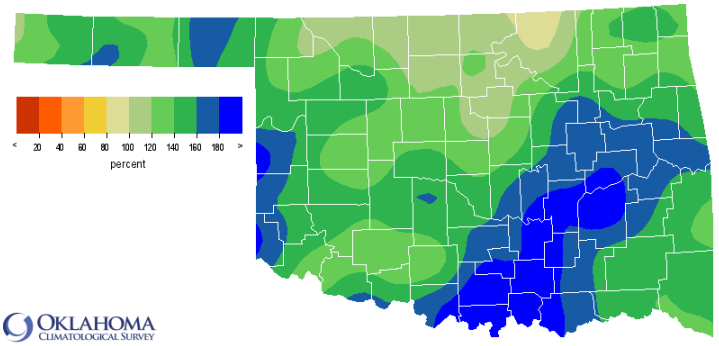
Climate Division	Last 30 Days (February 27, 2016 – March 27, 2016) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days (March 29, 2015 – March 27, 2016) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	0.39"	-0.91"	30%	26th driest	29.80"	+9.28"	145%	3rd wettest
N. CENTRAL	1.19"	-1.17"	50%	41st driest	38.01"	+6.69"	121%	11th wettest
NORTHEAST	2.04"	-1.21"	63%	36th driest	56.25"	+13.70"	132%	3rd wettest
W. CENTRAL	1.61"	-0.47"	77%	39th wettest	42.69"	+14.37"	151%	3rd wettest
CENTRAL	1.87"	-0.99"	66%	43rd driest	53.04"	+15.52"	141%	2nd wettest
E. CENTRAL	3.59"	-0.01"	100%	33rd wettest	77.92"	+31.91"	169%	1st wettest
SOUTHWEST	1.43"	-0.72"	67%	47th driest	44.53"	+14.34"	148%	2nd wettest
S. CENTRAL	3.52"	+0.34"	111%	23rd wettest	71.73"	+31.13"	177%	1st wettest
SOUTHEAST	5.61"	+1.48"	136%	17th wettest	75.56"	+25.12"	150%	1st wettest
STATEWIDE	2.30"	-0.46"	83%	44th wettest	54.14"	+17.77"	149%	1st wettest



Oklahoma Climatological Survey

Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Feb 27, 2016 through Mar 27, 2016



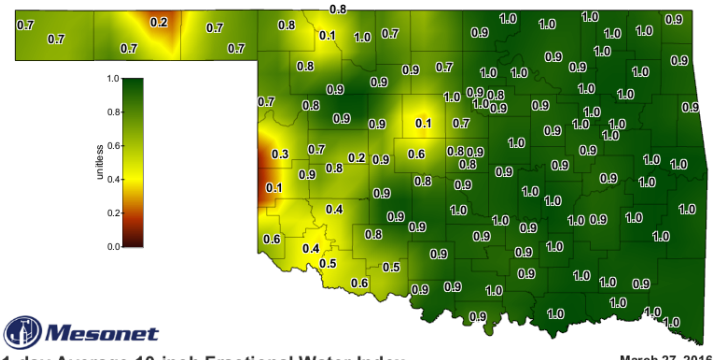
Oklahoma Climatological Survey

Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Mar 29, 2015 through Mar 27, 2016

Soil Moisture

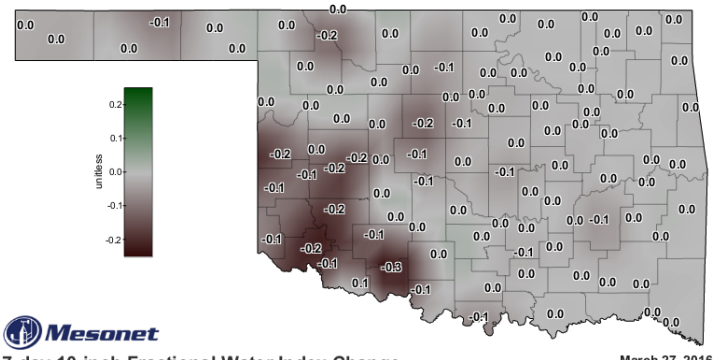
Fractional Water Index
March 27, 2016



Mesonet

1-day Average 10-inch Fractional Water Index

March 27, 2016



Mesonet

7-day 10-inch Fractional Water Index Change

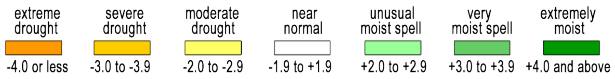
March 27, 2016

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)

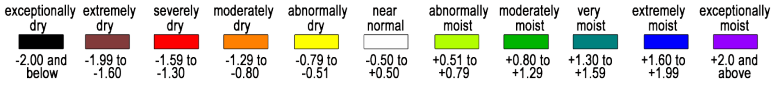
Climate Division	Status 3/26/16	Value 2/20	Value 3/26	Change in Value
NORTHWEST	Near Normal	2.95	1.24	1.71
NORTH CENTRAL	Near Normal	2.12	1.25	0.87
NORTHEAST	Near Normal	2.68	1.74	0.94
WEST CENTRAL	Near Normal	2.35	1.57	0.78
CENTRAL	Unusual Moist Spell	3.00	2.76	0.24
EAST CENTRAL	Extremely Moist	4.57	4.76	-0.19
SOUTHWEST	Unusual Moist Spell	2.73	2.42	0.31
SOUTH CENTRAL	Extremely Moist	4.03	4.77	-0.74
SOUTHEAST	Extremely Moist	3.09	4.39	-1.3



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, the East Central, South Central, and Southeast regions experienced moisture increases in the past month while all other climate divisions have had decreases in moisture. The drought status of all regions of the state is near normal or better.

Standardized Precipitation Index (SPI)
Through February 2016

3-month	12-month	24-month
Near Normal	Exceptionally Moist	Very Moist
Near Normal	Very Moist	Abnormally Moist
Moderately Moist	Very Moist	Abnormally Moist
Near Normal	Exceptionally Moist	Moderately Moist
Moderately Moist	Exceptionally Moist	Very Moist
Very Moist	Exceptionally Moist	Extremely Moist
Near Normal	Exceptionally Moist	Moderately Moist
Moderately Moist	Exceptionally Moist	Exceptionally Moist
Very Moist	Exceptionally Moist	Exceptionally 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 12-month and 24-month time periods. For the 3-month time period, the Northwest, North Central, West Central, and Southwest regions were near normal.

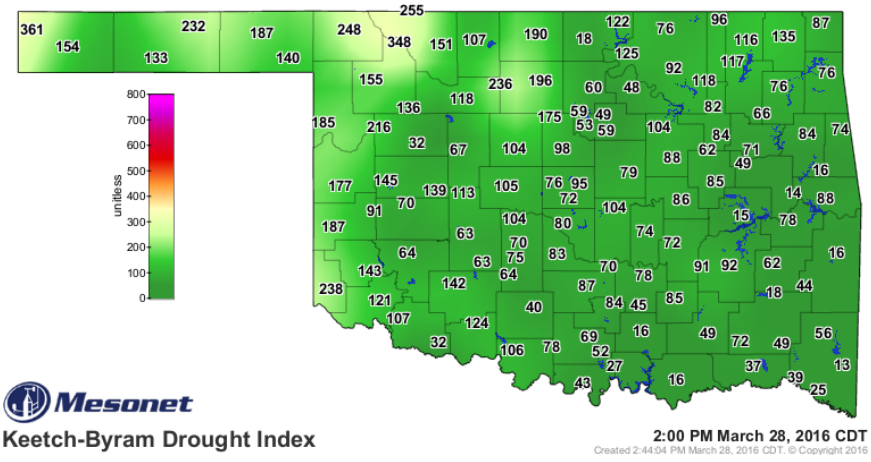
Keetch-Byram Drought Fire Index

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE

No stations are currently near 600 (March 28).

Stations above 600 on February 26 = 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.

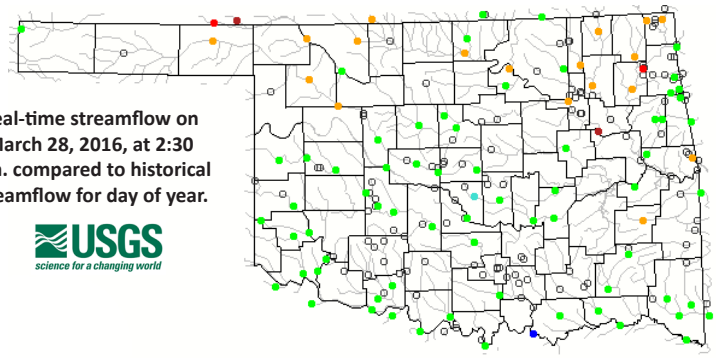


Streamflow Conditions

March 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.



Real-time streamflow on March 28, 2016, at 2:30 p.m. compared to historical streamflow for day of year.

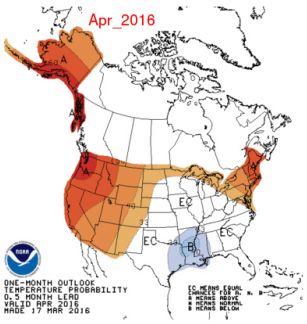
USGS science for a changing world

Weather/Drought Forecast

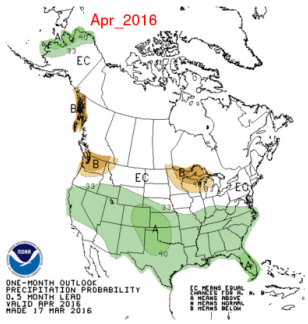
Seasonal Outlook

April 2016

Temperature

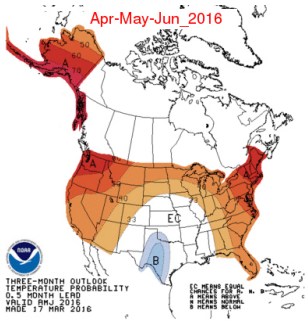


Precipitation

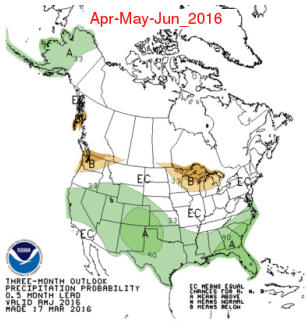


April-May-June

Temperature



Precipitation

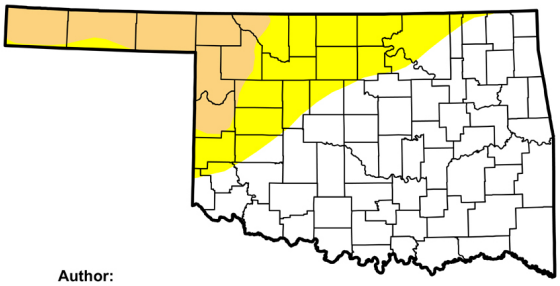


The contours on the maps show the total probability of three categories—above, indicated by the letter "A"; below, indicated by the letter "B"; and the middle category, indicated by the letter "N". "EC" stands for "Equal Chances" for A, N, or B

Regional Drought Summary & Outlook

U.S. Drought Monitor

Oklahoma



Author:
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U.S. Department of Agriculture

March 22, 2016
(Released Thursday, Mar. 24, 2016)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	65.15	34.85	14.26	0.00	0.00	0.00
Last Week 3/15/2016	65.59	34.41	8.39	0.00	0.00	0.00
3 Months Ago 12/22/2015	100.00	0.00	0.00	0.00	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 3/24/2015	14.36	85.64	70.40	50.96	35.74	8.41

Intensity:

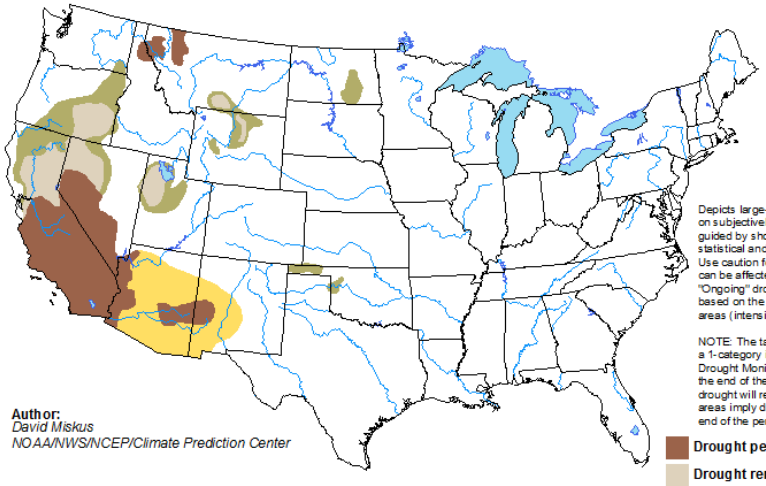
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

http://droughtmonitor.unl.edu/

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

Valid for March 17 - June 30, 2016
Released March 17, 2016



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

Author:
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NOAA/NWS/NCEP/Climate Prediction Center

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

According to the U.S. Drought Monitor, the number of Oklahomans currently affected by drought (category D1-D4) is 55,372, up from 0 at this time last month. About 35% of the state (in area) is experiencing abnormally dry conditions, and about 14% is in Moderate Drought. A year ago more than 70% of the state was suffering from drought, and more than 8% of the state was in Exceptional Drought, the worst category.

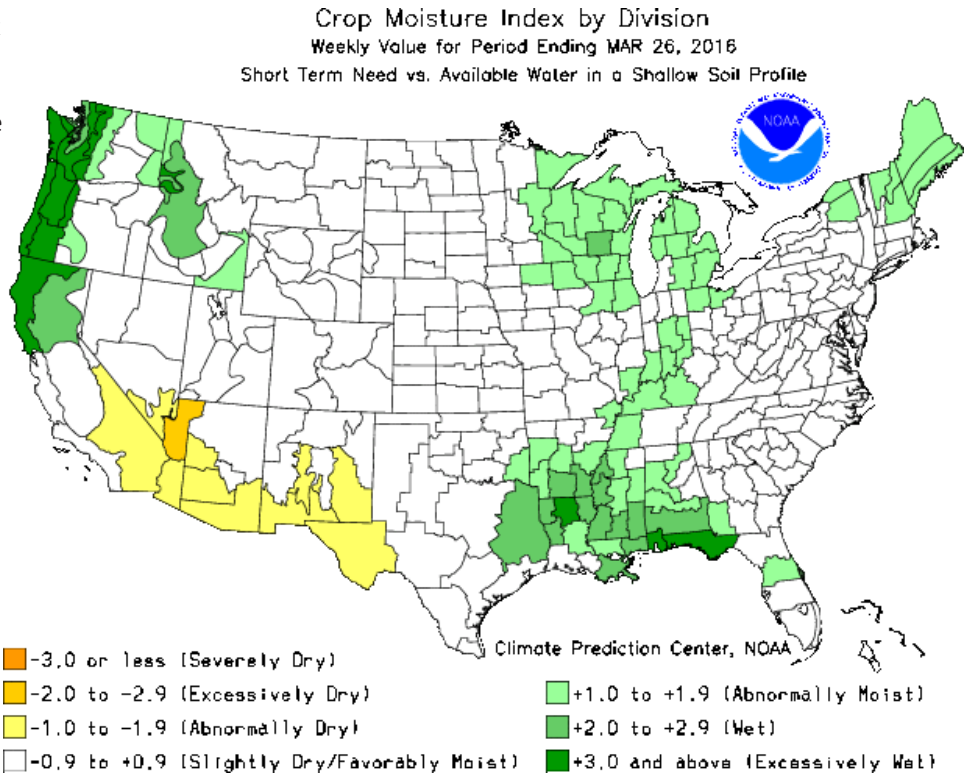
According to the seasonal drought outlook, from mid March through the end of June drought conditions are not likely to develop in any parts of Oklahoma.

Drought is likely to persist in most of southern California and southwestern Nevada, and drought development is likely throughout Arizona and western New Mexico.

Crop Report

According to the NOAA Crop Moisture Index by Division, for the period ending March 26, the Southeast region was classified as Abnormally Moist but all other regions 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