Oklahoma Water Resources Bulletin
& Summary of Current Conditions

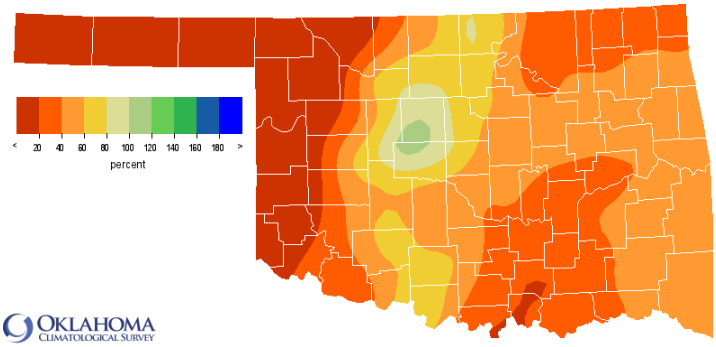
OWRB the water agency

March 18, 2017

Precipitation

Statewide Precipitation

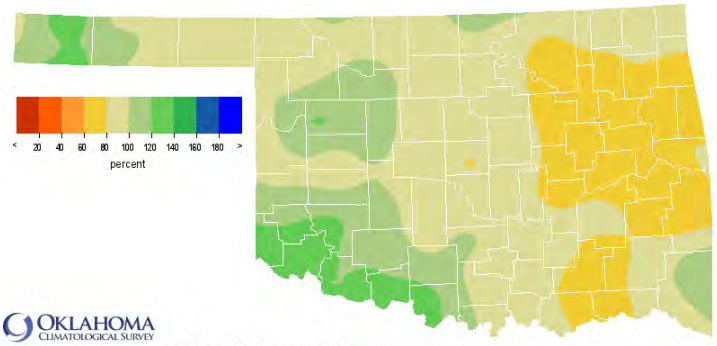
Climate Division	Last 30 Days (February 16, 2017 – March 17, 2017) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days (March 18, 2016 – March 17, 2017) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	0.01"	-1.02"	1%	3rd driest	20.33"	-0.25"	99%	42nd wettest
NORTH CENTRAL	0.90"	-1.09"	45%	38th driest	29.98"	-1.44"	95%	44th wettest
NORTHEAST	1.12"	-1.82"	38%	19th driest	34.87"	-7.80"	82%	23rd driest
WEST CENTRAL	0.47"	-1.32"	27%	22nd driest	30.39"	+1.99"	107%	21st wettest
CENTRAL	1.53"	-1.00"	61%	45th driest	32.09"	-5.54"	85%	36th driest
EAST CENTRAL	1.50"	-1.87"	45%	19th driest	34.04"	-12.10"	74%	14th driest
SOUTHWEST	0.86"	-1.10"	44%	33rd driest	36.02"	+5.75"	119%	13th wettest
SOUTH CENTRAL	1.05"	-1.97"	35%	16th driest	37.90"	-2.81"	93%	44th wettest
SOUTHEAST	1.94"	-2.09"	48%	14th driest	43.62"	-6.97"	86%	25th driest
STATEWIDE	1.05"	-1.46"	42%	20th driest	33.03"	-3.44"	91%	41st driest



OKLAHOMA CLIMATOLOGICAL SURVEY

Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Feb 16, 2017 through Mar 17, 2017



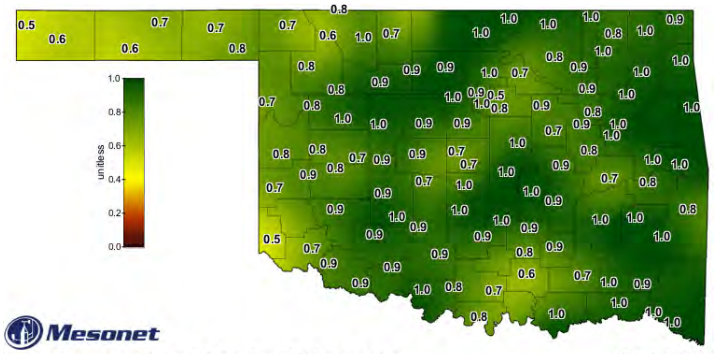
OKLAHOMA CLIMATOLOGICAL SURVEY

Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Mar 18, 2016 through Mar 17, 2017

Soil Moisture

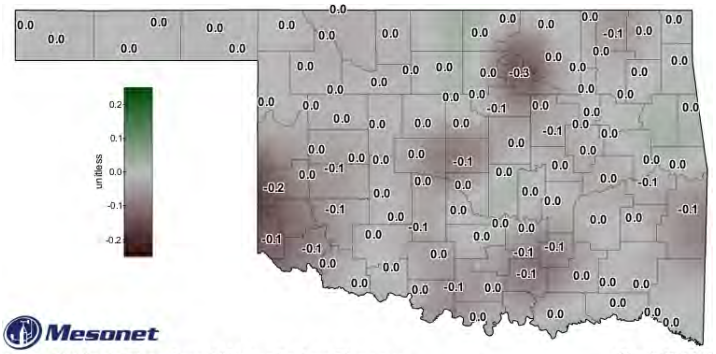
Fractional Water Index
March 17, 2017



Mesonet

1-day Average 10-inch Fractional Water Index

March 17, 2017



Mesonet

7-day 10-inch Fractional Water Index Change

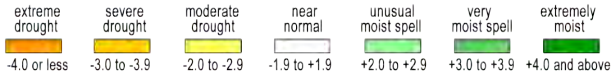
March 17, 2017

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)

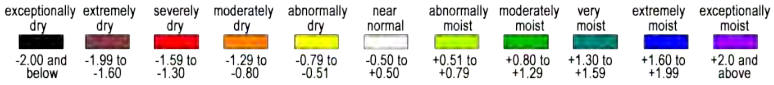
Climate Division	Status 3/11/17	Value 2/25	Value 3/11	Change in Value
NORTHWEST	Near Normal	-0.54	-0.89	0.35
NORTH CENTRAL	Near Normal	1.04	0.14	0.9
NORTHEAST	Near Normal	-0.68	-1.02	0.34
WEST CENTRAL	Near Normal	0.86	0.5	0.36
CENTRAL	Near Normal	-0.37	-1.08	0.71
EAST CENTRAL	Near Normal	-1.66	-1.84	0.18
SOUTHWEST	Near Normal	2.32	1.06	1.26
SOUTH CENTRAL	Near Normal	-0.21	-0.99	0.78
SOUTHEAST	Near Normal	-1.31	-1.31	0.19



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. The East Central region is very close to moving into Moderate Drought.

Standardized Precipitation Index (SPI)
Through February 2017

3-month	12-month	24-month
Moderately Moist	Near Normal	Extremely Moist
Moderately Moist	Near Normal	Moderately Moist
Near Normal	Near Normal	Moderately Moist
Very Moist	Moderately Moist	Extremely Moist
Abnormally Moist	Near Normal	Extremely Moist
Near Normal	Abnormally Dry	Extremely Moist
Moderately Moist	Very Moist	Exceptionally Moist
Near Normal	Near Normal	Exceptionally Moist
Abnormally Dry	Near Normal	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. The Southeast climate division was Abnormally Dry during the 3-month period. The East Central division was Abnormally Dry for the 12-month perio. However, all climate divisions had Moderately Moist conditions or wetter for the 24-month period.

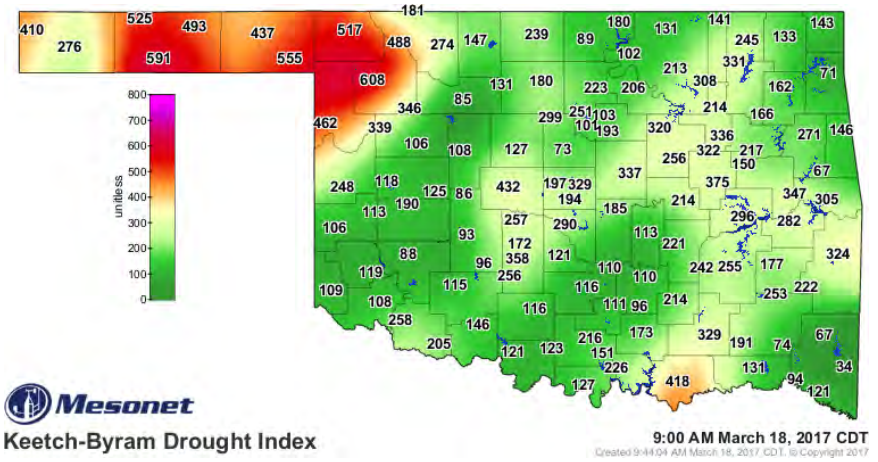
Keetch-Byram Drought Fire Index

March 18, 9:00 a.m.--1 station is above 600.

Woodward 608 North Central Region

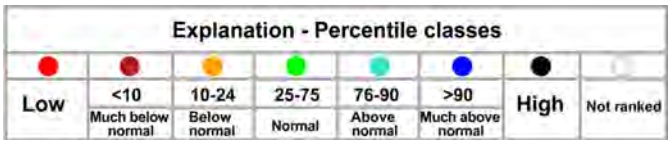
Zero stations were above 600 on February 28, 2017.

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.

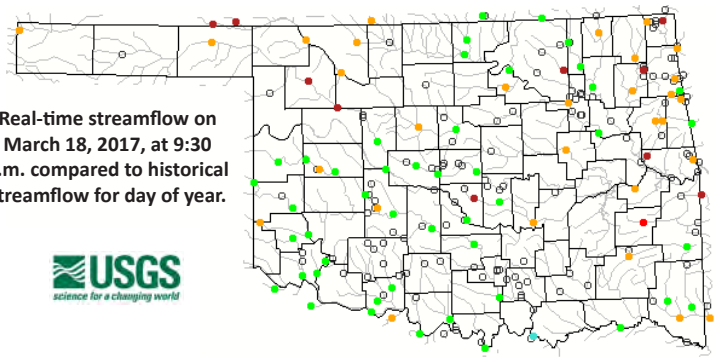


Streamflow Conditions

March 18, 2017



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



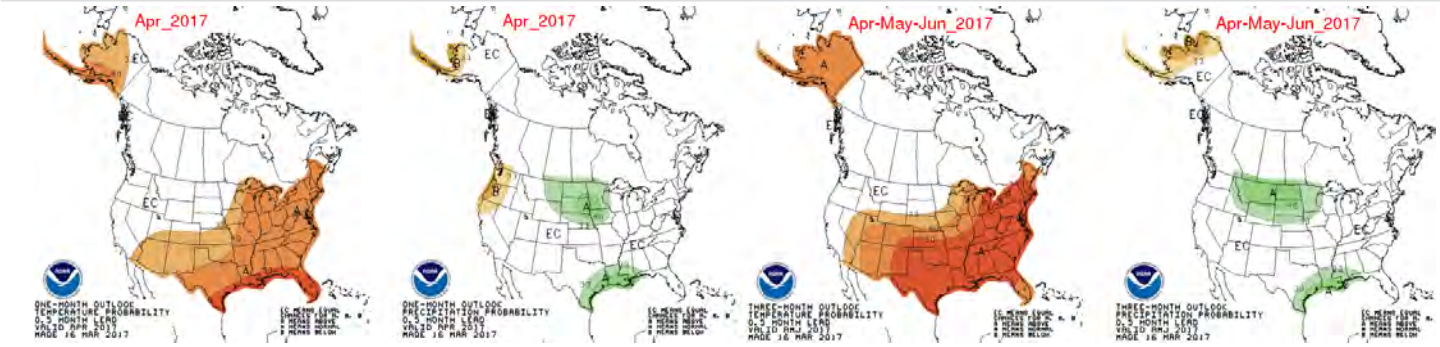
Real-time streamflow on March 18, 2017, at 9:30 a.m. compared to historical streamflow for day of year.

USGS science for a changing world

Weather/Drought Forecast

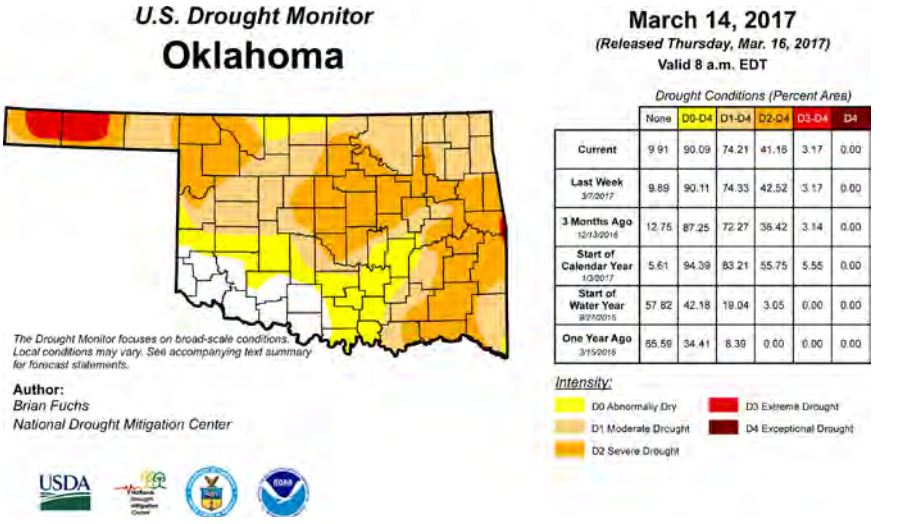
Seasonal Outlook

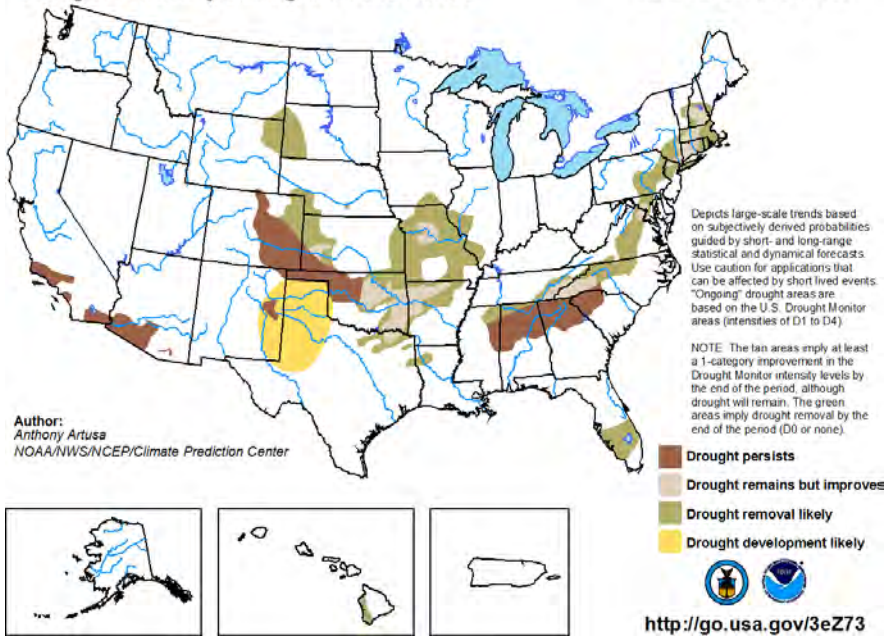
Temperature | Precipitation | Temperature | Precipitation



The contours on the maps show the total probability of three categories—above, indicated by the letter "A"; and below, indicated by the letter "B". "EC" indicates "Equal Chances" for A or B. For the March-May period, the entire state is shown as having equal chances for above to below normal precipitation.

Drought Summary & Outlook





According to the latest *U.S. Drought Monitor*, the number of Oklahomans currently affected by drought is 3,225,139, up by about 100,000 in the last month.

While there are currently no areas in Oklahoma with Exceptional Drought, 3.17% of the state (in area) is experiencing Extreme Drought conditions. This includes large portions of Cimarron and Texas counties in the Panhandle, and a small area in far eastern Sequoyah and Le Flore counties in the East Central region. Currently, 41.16% of the state is in Severe Drought or worse, and 74% is in Moderate Drought or worse, including areas in all regions but the Southwest.

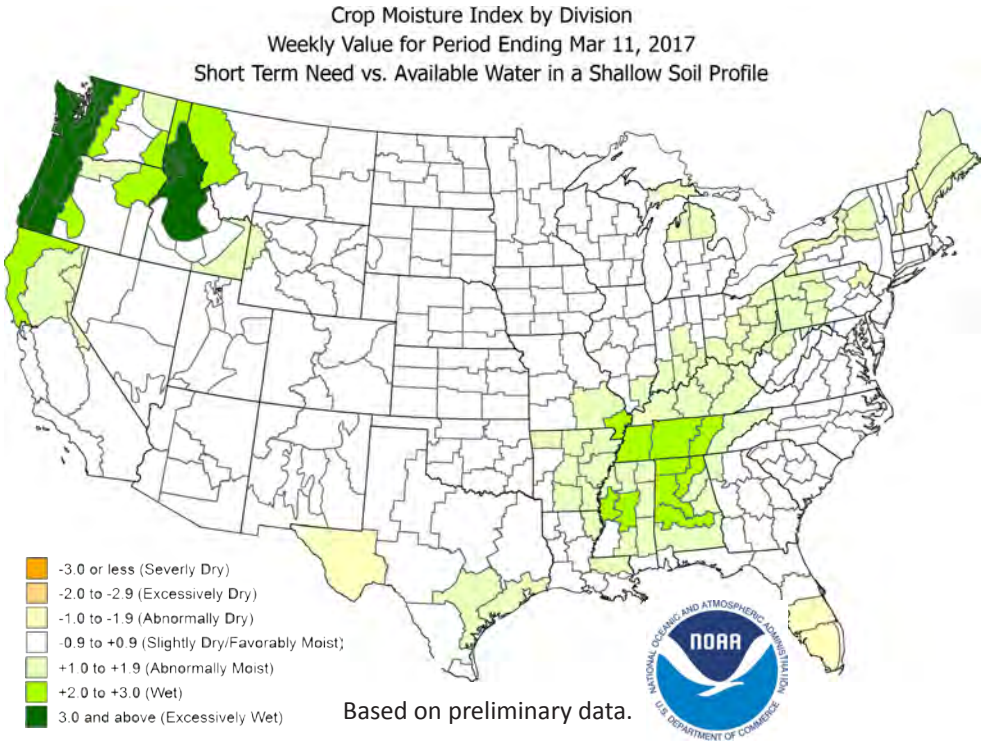
According to the seasonal drought outlook, from mid March through the end of June, drought conditions are likely to persist in the Panhandle and most of northwest Oklahoma, but for the rest of the state, conditions are likely to improve.

Drought is also likely to persist in a few other areas across the southern half of the U.S., and is likely to develop in the panhandle and throughout northwest areas of Texas.

Crop Moisture Index

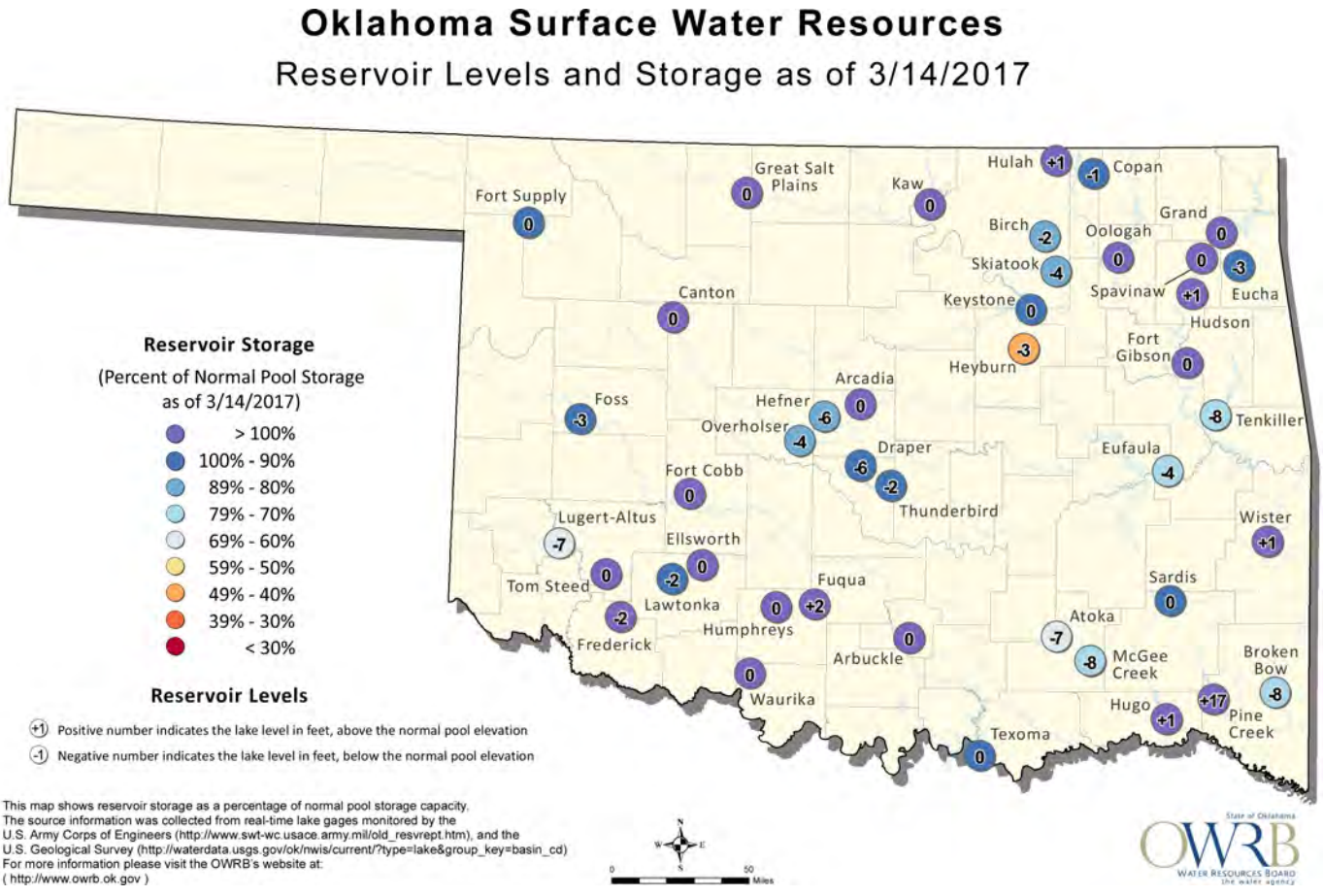
According to the NOAA Crop Moisture Index by Division, for the period ending March 11, 2017, all regions of the state are shown as Slightly Dry/ Favorably Moist (-0.9 to +0.9).

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.



Based on preliminary data.

Reservoir Storage



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