Oklahoma Water Resources Bulletin
& Summary of Current Conditions

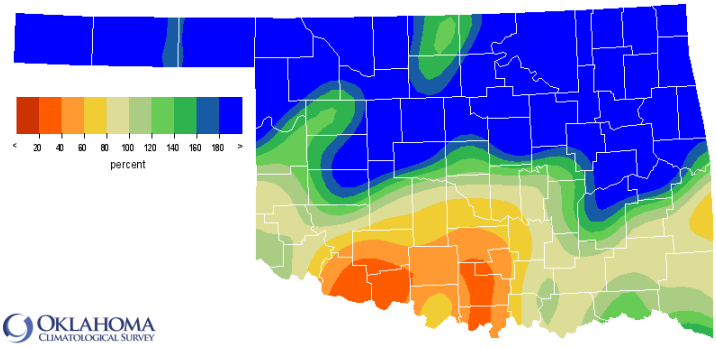
OWRB the water agency

May 15, 2017

Precipitation

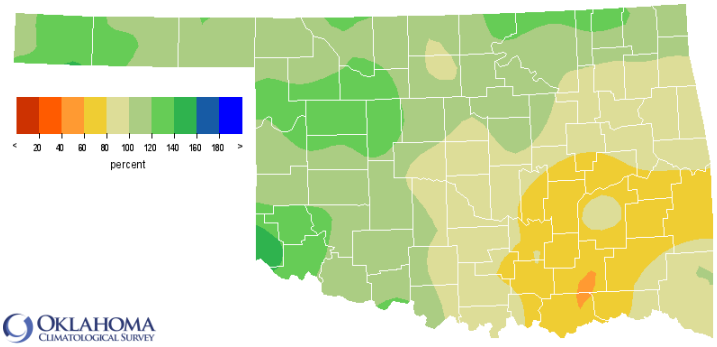
Statewide Precipitation

Climate Division	Last 30 Days (April 16, 2017 – May 14, 2017) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days (May 15, 2016 – May 14, 2017) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	4.83"	+2.83"	241%	5th wettest	24.24"	+3.66"	118%	22nd wettest
NORTH CENTRAL	6.91"	+3.43"	199%	5th wettest	35.61"	+4.19"	113%	21st wettest
NORTHEAST	13.42"	+8.55"	276%	1st wettest	45.13"	+2.46"	106%	27th wettest
WEST CENTRAL	4.84"	+1.86"	162%	16th wettest	34.84"	+6.44"	123%	9th wettest
CENTRAL	6.98"	+2.79"	167%	11th wettest	36.81"	-0.82"	98%	32nd wettest
EAST CENTRAL	10.84"	+5.80"	215%	3rd wettest	38.20"	-7.94"	83%	25th driest
SOUTHWEST	2.96"	-0.42"	88%	44th driest	36.51"	+6.24"	121%	10th wettest
SOUTH CENTRAL	2.97"	-1.65"	64%	25th driest	33.38"	-7.33"	82%	31st driest
SOUTHEAST	5.68"	+0.18"	103%	47th driest	40.62"	-9.97"	80%	14th driest
STATEWIDE	6.71"	+2.69"	167%	9th wettest	36.11"	-0.36"	99%	37th wettest



Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Apr 15, 2017 through May 14, 2017

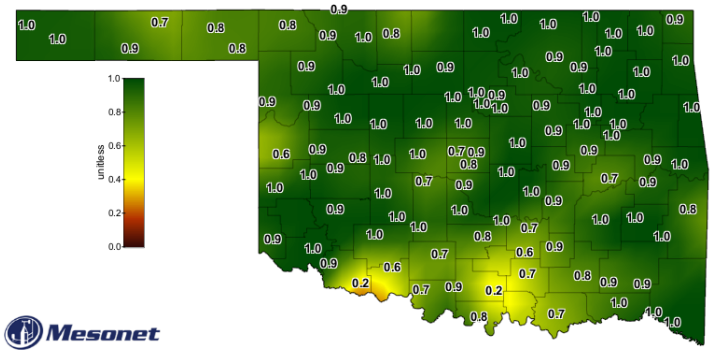


Percentage of 1981-2010 Normal Rainfall
Last 365 Days

May 15, 2016 through May 14, 2017

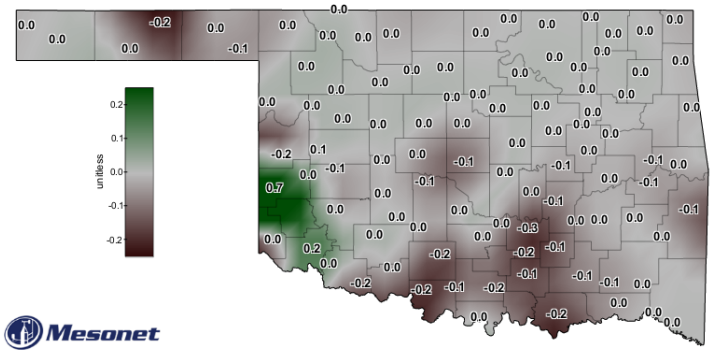
Soil Moisture

Fractional Water Index
May 14, 2017



1-day Average 10-inch Fractional Water Index

May 14, 2017



7-day 10-inch Fractional Water Index Change

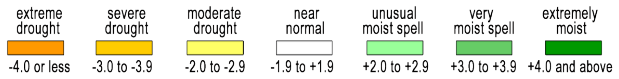
May 14, 2017

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)

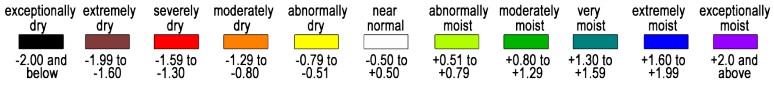
Climate Division	Status 4/15/17	Value 4/15	Value 5/6	Change in Value
NORTHWEST	Moderate Drought	1.25	2.78	-1.53
NORTH CENTRAL	Moderate Drought	0.78	2.19	-1.41
NORTHEAST	Moderate Drought	-0.84	2.66	-3.5
WEST CENTRAL	Near Normal	1.12	1.76	-0.64
CENTRAL	Near Normal	-0.06	1.74	-1.8
EAST CENTRAL	Near Normal	-2.71	1.47	-4.18
SOUTHWEST	Moderate Drought	2.47	2.24	0.23
SOUTH CENTRAL	Near Normal	-1.78	-1.15	-0.63
SOUTHEAST	Near Normal	-1.96	-0.56	-1.4



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, four climate regions are experiencing moderate drought: Northwest, North Central, Northeast, and Southwest.

Standardized Precipitation Index (SPI)
Through April 2017

3-month	12-month	24-month
Extremely Moist	Abnormally Moist	Exceptionally Moist
Very Moist	Moderately Moist	Extremely Moist
Exceptionally Moist	Near Normal	Very Moist
Very Moist	Moderately Moist	Extremely Moist
Extremely Moist	Near Normal	Extremely Moist
Exceptionally Moist	Abnormally Dry	Exceptionally Moist
Abnormally Moist	Moderately Moist	Exceptionally Moist
Abnormally Moist	Near Normal	Exceptionally Moist
Abnormally Moist	Moderately Dry	Extremely Moist



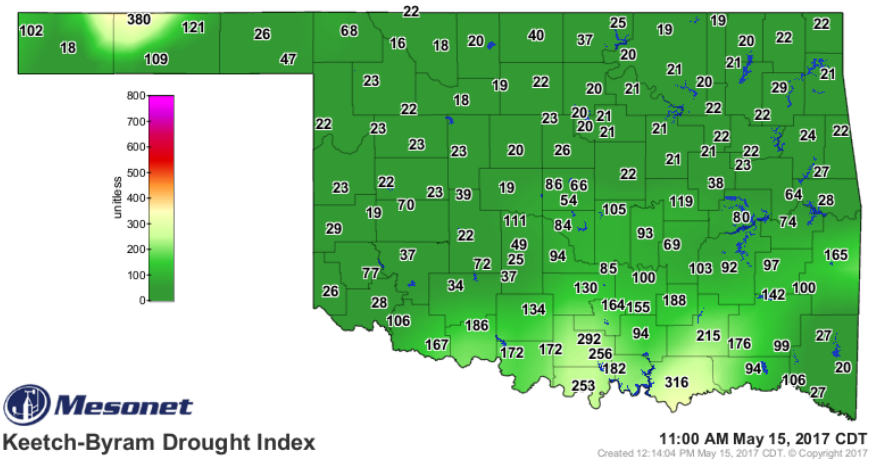
The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. For the 12-month time period, the East Central and Southeast regions had Moderately Dry conditions. All regions had very moist conditions or wetter for the 24-month time period.

Keetch-Byram Drought Fire Index

May 15, 11:00 a.m.--0 stations are above 600.

Zero stations were above 600 on April 15, 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.

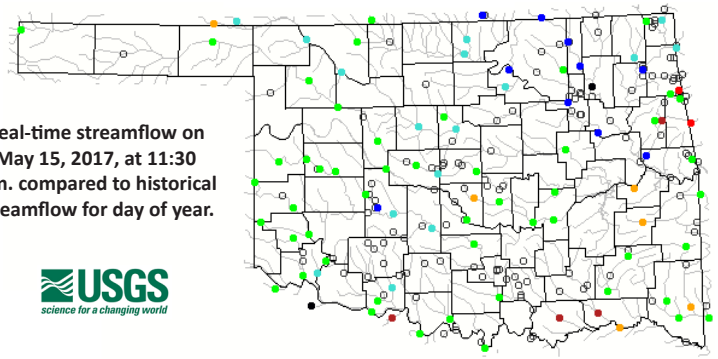


Streamflow Conditions

May15, 2017

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.



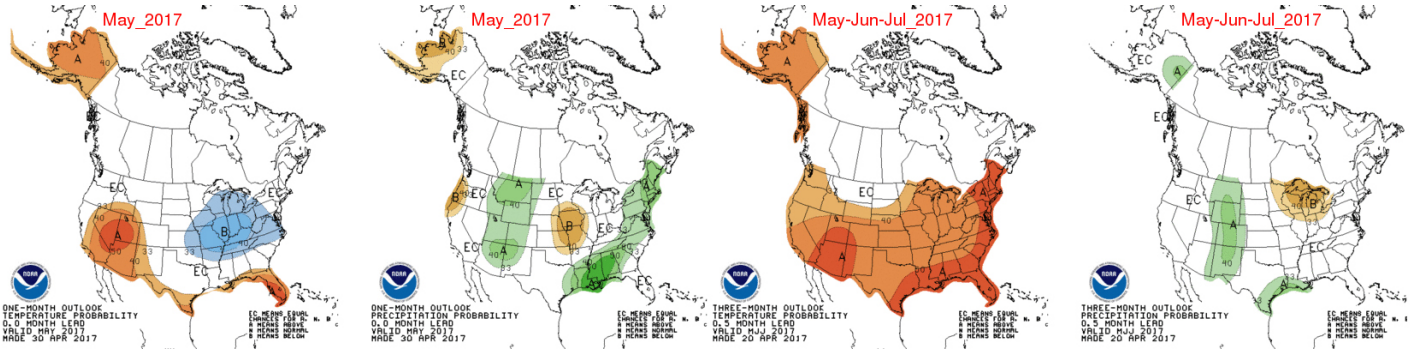
Real-time streamflow on May 15, 2017, at 11:30 a.m. compared to historical streamflow for day of year.

USGS science for a changing world

Weather/Drought Forecast

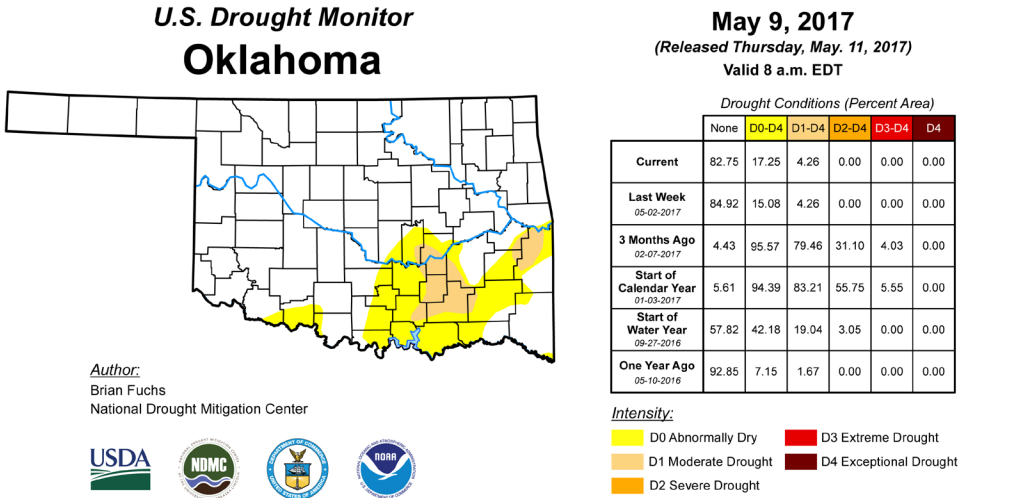
Seasonal Outlook

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 April-June, the probability for precipitation in all areas of the state has equal chances of being above or below normal.

Drought Summary & Outlook

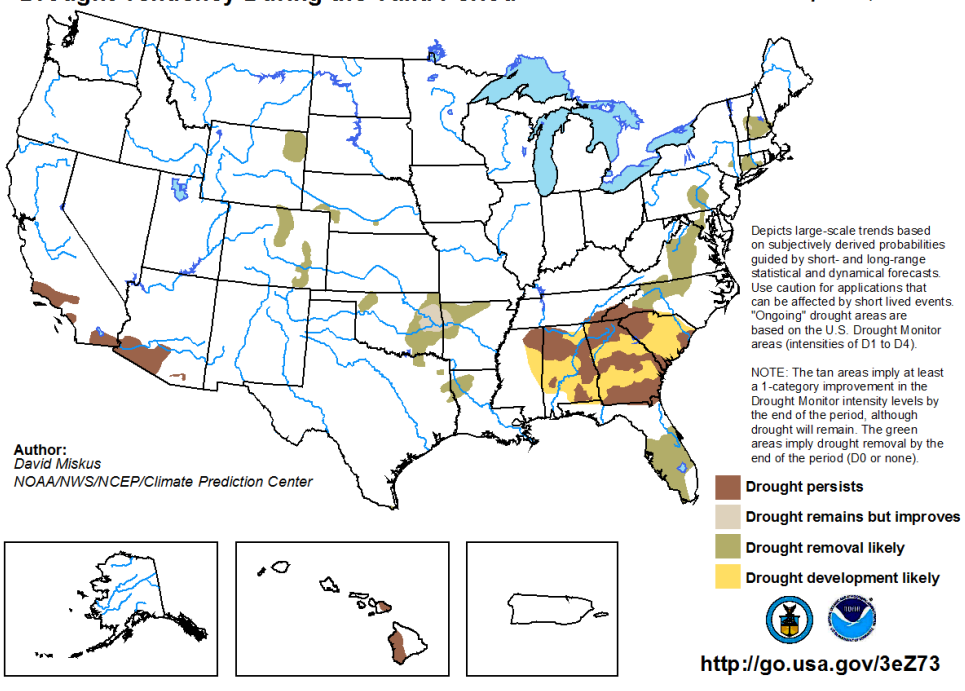


Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	82.75	17.25	4.26	0.00	0.00	0.00
Last Week 05-02-2017	84.92	15.08	4.26	0.00	0.00	0.00
3 Months Ago 02-07-2017	4.43	95.57	79.46	31.10	4.03	0.00
Start of Calendar Year 01-03-2017	5.61	94.39	83.21	55.75	5.55	0.00
Start of Water Year 09-27-2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 05-10-2016	92.85	7.15	1.67	0.00	0.00	0.00

Intensity:

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



According to the latest *U.S. Drought Monitor*, the number of Oklahomans currently affected by drought is 61,290, down by more than 2.3 million from this time last month.

No areas of the state are suffering from exceptional, extreme, or severe drought (D4-D2). However, about 4.26% of the state (in area) is in moderate drought (D1).

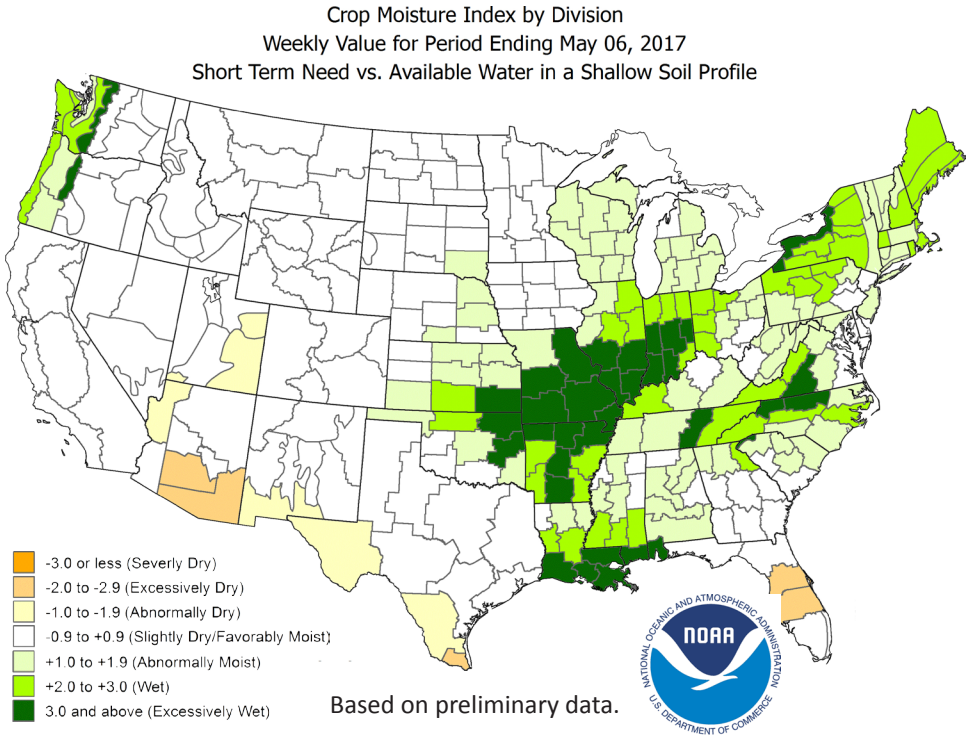
According to the latest seasonal drought outlook for the period of April 20 through July 31, a few areas of drought will persist in the state, mostly in the eastern half.

Drought is likely to develop and persist Alabama, Georgia, and South Carolina, and in some parts of southern California and Arizona.

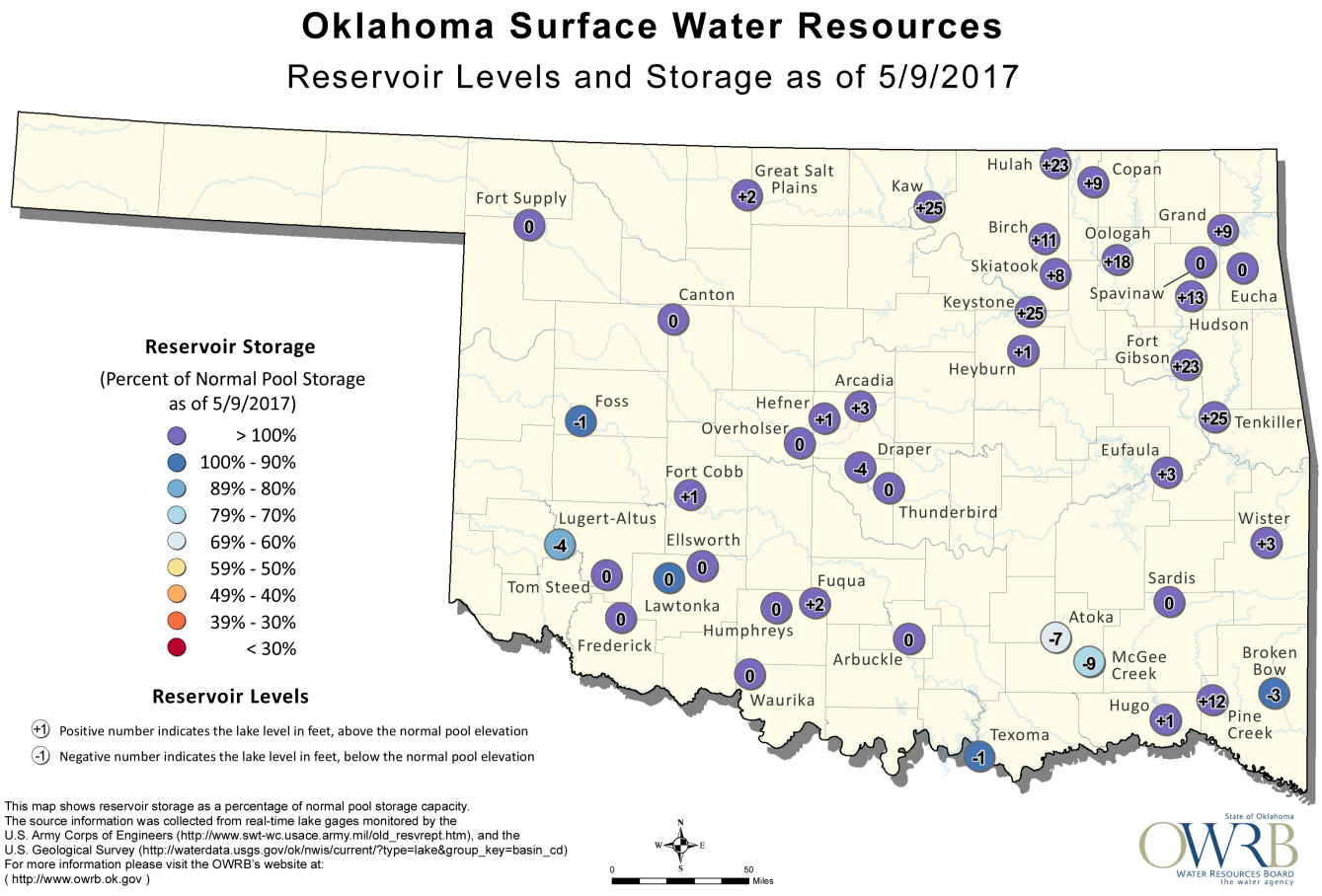
Crop Moisture Index

According to the NOAA Crop Moisture Index by Division, for the period ending May 6, 2017, the West Central, Southwest, and South Central regions are Slightly Dry/Favorably Moist (-0.9 to +0.9). All other regions are Abnormally Moist or wetter.

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



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