Oklahoma Water Resources Bulletin
& Summary of Current Conditions

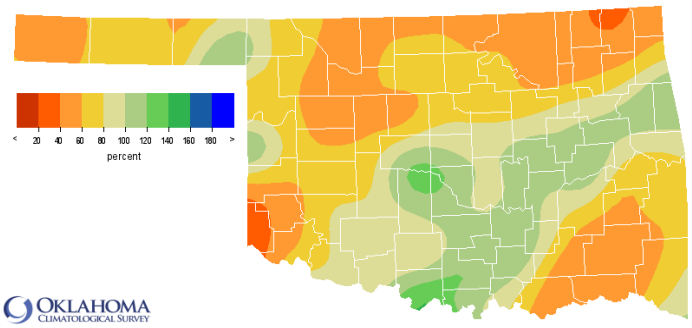
OWRB the water agency

May 12, 2018

Precipitation

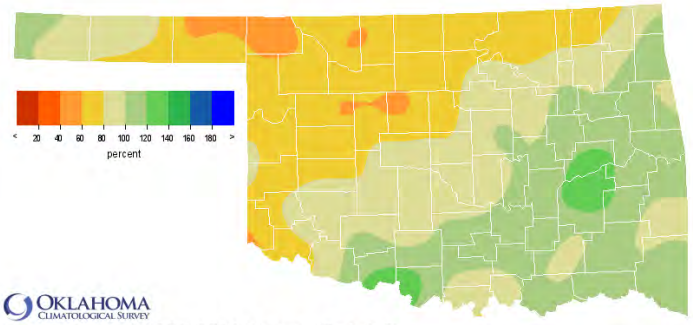
Statewide Precipitation

Climate Division	Last 30 Days April 12 – May 11, 2018 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days May 12, 2017 – May 11, 2018 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	1.37"	-0.53"	72%	36th driest	15.37"	-5.21"	75%	18th driest
NORTH CENTRAL	1.94"	-1.40"	58%	18th driest	21.25"	-10.17"	68%	10th driest
NORTHEAST	2.68"	-2.02"	57%	20th driest	37.18"	-5.49"	87%	40th driest
WEST CENTRAL	1.90"	-0.93"	67%	25th driest	21.07"	-7.33"	74%	15th driest
CENTRAL	3.72"	-0.28"	93%	47th driest	32.33"	-5.30"	86%	34th driest
EAST CENTRAL	4.62"	-0.21"	96%	43rd driest	50.96"	+4.82"	110%	18th wettest
SOUTHWEST	2.35"	-0.86"	73%	31st driest	27.23"	-3.04"	90%	40th driest
SOUTH CENTRAL	4.38"	-0.06"	99%	47th wettest	42.33"	+1.62"	104%	26th wettest
SOUTHEAST	3.19"	-2.07"	61%	13th driest	54.77"	+4.18"	108%	26th wettest
STATEWIDE	2.95"	-0.89"	77%	28th driest	33.38"	-3.09"	92%	44th driest



Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Apr 12, 2018 through May 11, 2018

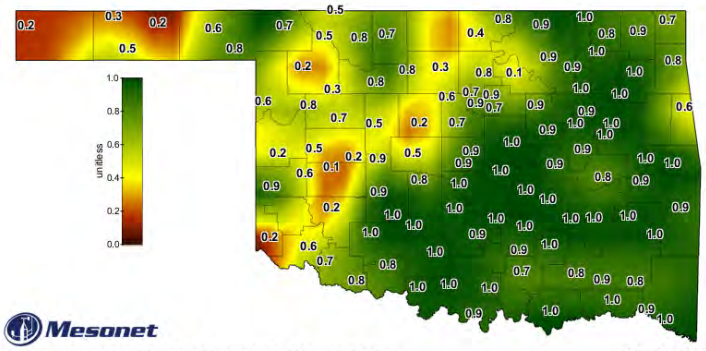


Percentage of 1981-2010 Normal Rainfall
Last 365 Days

May 12, 2017 through May 11, 2018

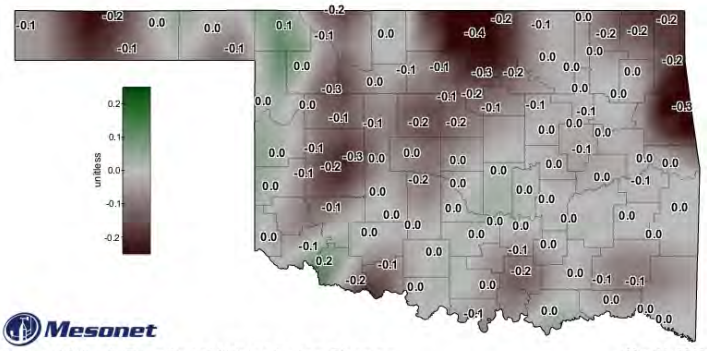
Soil Moisture

Fractional Water Index
May 11, 2018



1-day Average 10-inch Fractional Water Index

May 11, 2018



7-day 10-inch Fractional Water Index Change

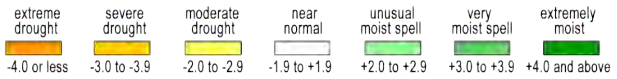
May 11, 2018

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)

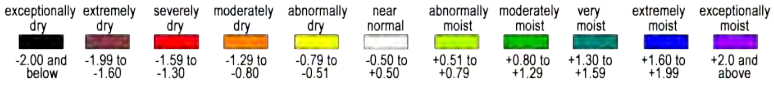
Climate Division	Status 5/5/18	Value 4/7	Value 5/5	Change in Value
NORTHWEST	Moderate Drought	-2.45	-2.01	0.44(+)
NORTH CENTRAL	Near Normal	-1.6	-1.46	0.14(+)
NORTHEAST	Near Normal	0.68	0.17	0.51(-)
WEST CENTRAL	Near Normal	-1.92	-1.74	0.18(+)
CENTRAL	Near Normal	0.3	1.27	0.97(+)
EAST CENTRAL	Very Moist Spell	3.4	3.44	0.04(+)
SOUTHWEST	Near Normal	-1.03	-0.61	0.42(+)
SOUTH CENTRAL	Near Normal	1.89	2.24	0.35(+)
SOUTHEAST	Unusual Moist Spell	2.8	2.03	0.77(-)



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland, spanning from -10 (dry) to +10 (wet). According to the latest PDSI, all climate regions in the state are experiencing near normal conditions or wetter except the Northwest, which is in moderate drought.

Standardized Precipitation Index (SPI)
Through March 2018

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



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 3-month period, the Northwest region is shown as Extremely Dry, the North Central and West Central are Moderately Dry, and the Southwest is Abnormally Dry, but all regions are shown as Near Normal or wetter for the 12- and 24-month periods.

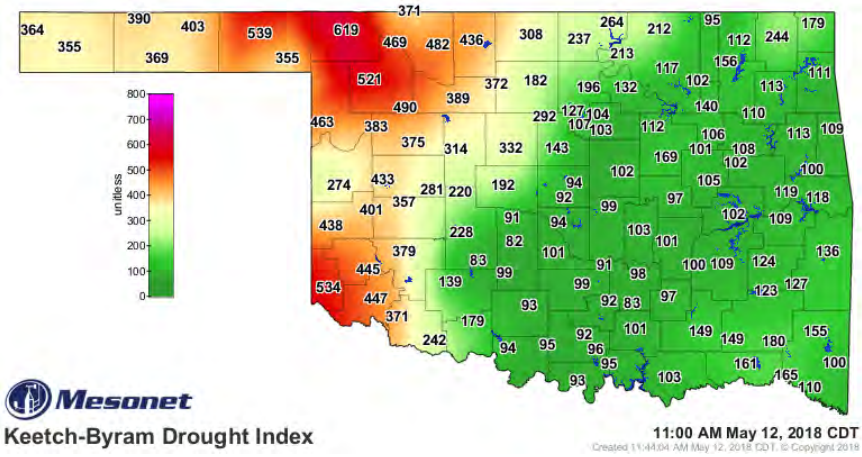
Keetch-Byram Drought Fire Index

May 12, 11:00 a.m.--1 station is above 600.

STATION	REGION	KBDI
Buffalo	Northwest	619

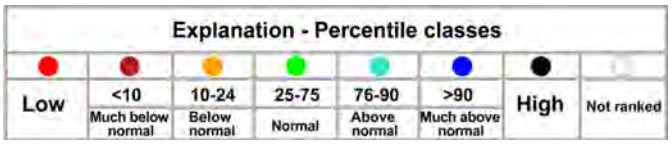
One station was above 600 on April 16, 2018.

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.

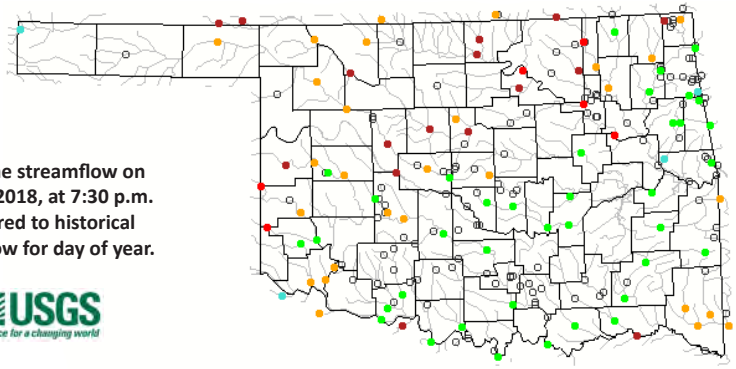


Streamflow Conditions

May 12, 2018



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



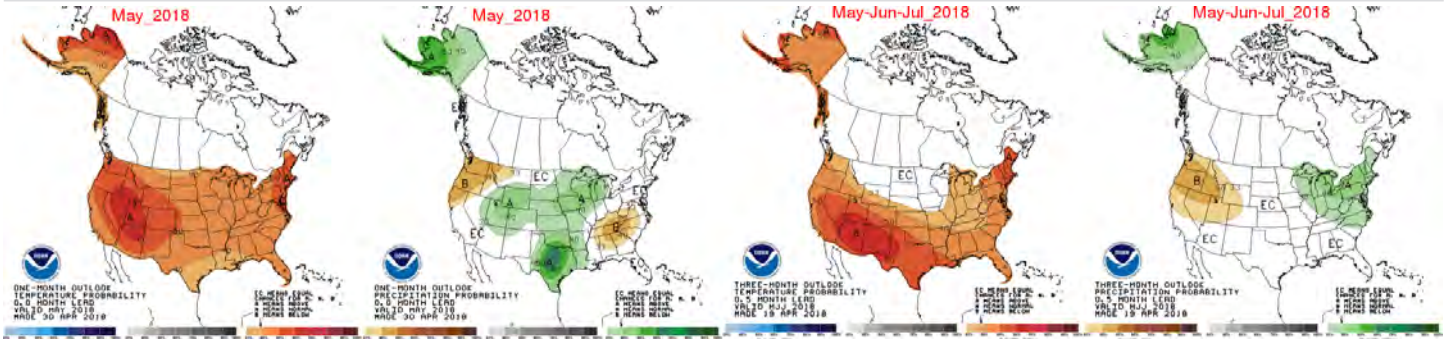
Real-time streamflow on May 12, 2018, at 7:30 p.m. compared to historical streamflow for day of year.

USGS science for a changing world

Weather/Drought Forecast

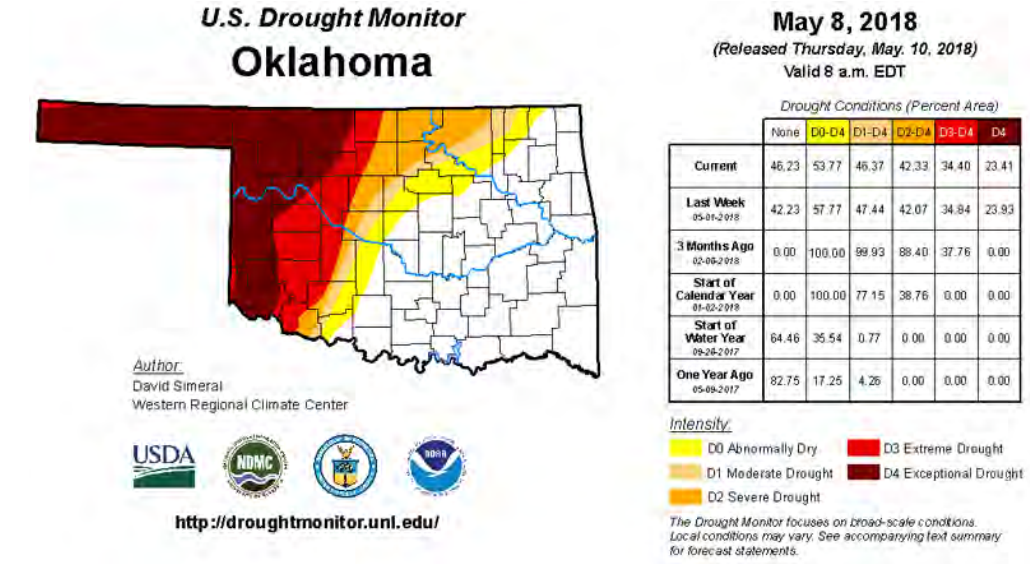
Seasonal Outlook

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.

Drought Summary & Outlook



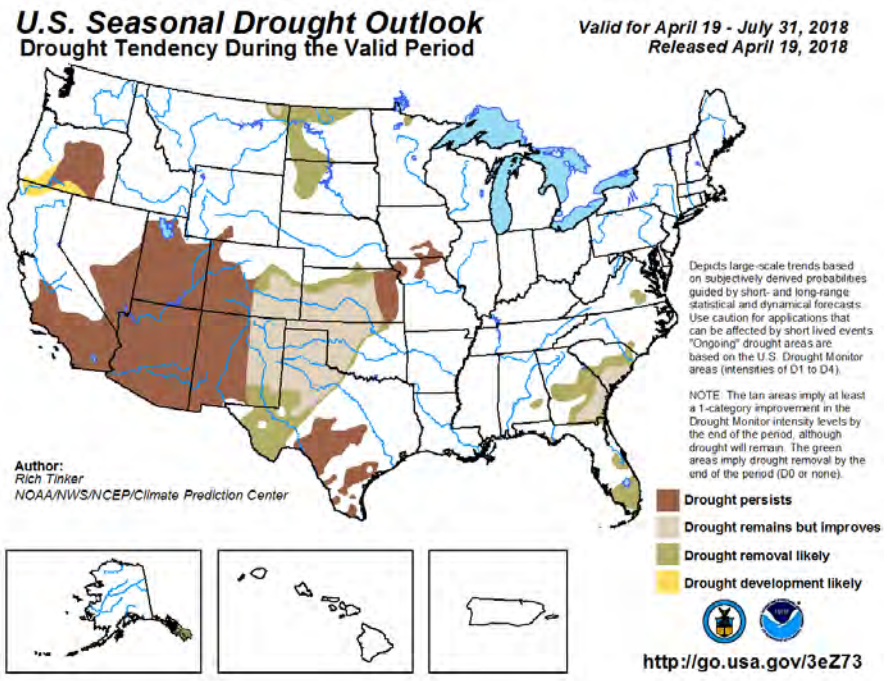
May 8, 2018
(Released Thursday, May. 10, 2018)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	46.23	53.77	46.37	42.33	34.40	23.41
Last Week 05-01-2018	42.23	57.77	47.44	42.07	34.84	23.93
3 Months Ago 02-06-2018	0.00	100.00	99.93	88.40	37.76	0.00
Start of Calendar Year 01-02-2018	0.00	100.00	77.15	38.76	0.00	0.00
Start of Water Year 09-26-2017	64.46	35.54	0.77	0.00	0.00	0.00
One Year Ago 05-09-2017	82.75	17.25	4.26	0.00	0.00	0.00

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.



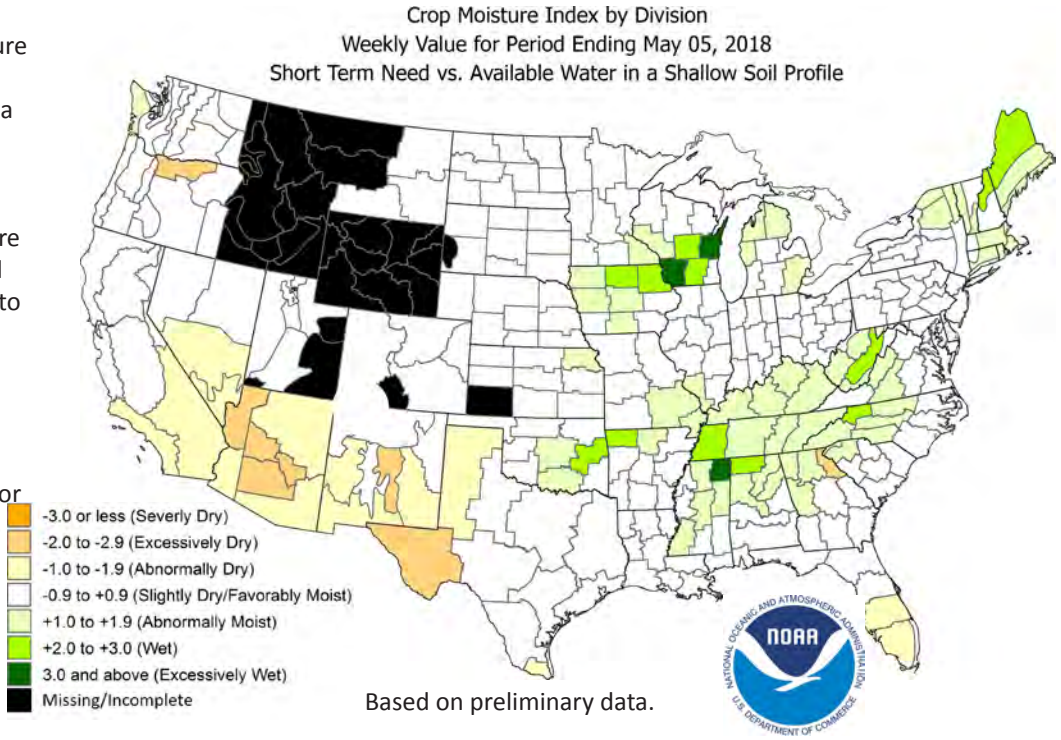
According to the latest *U.S. Drought Monitor*, as of May 8, the estimated Oklahoma population in drought areas is 649,913, down by about 60,000 from this time last month. Almost all of the western half of the state is abnormally dry or worse. More than 23% of the state is in exceptional drought (D4), the driest category. More than 34% of the state is in extreme drought (D3) or worse, while 42.3% is in severe drought (D2) or worse and 46.4% is in moderate drought or worse.

According to the latest seasonal drought outlook for the period of April 19 through July 31, 2018, the western half of Oklahoma will have improved conditions. The western halves of Colorado and New Mexico, most of Arizona and Utah, and southern Nevada and California will remain in persistent drought.

Crop Moisture Index

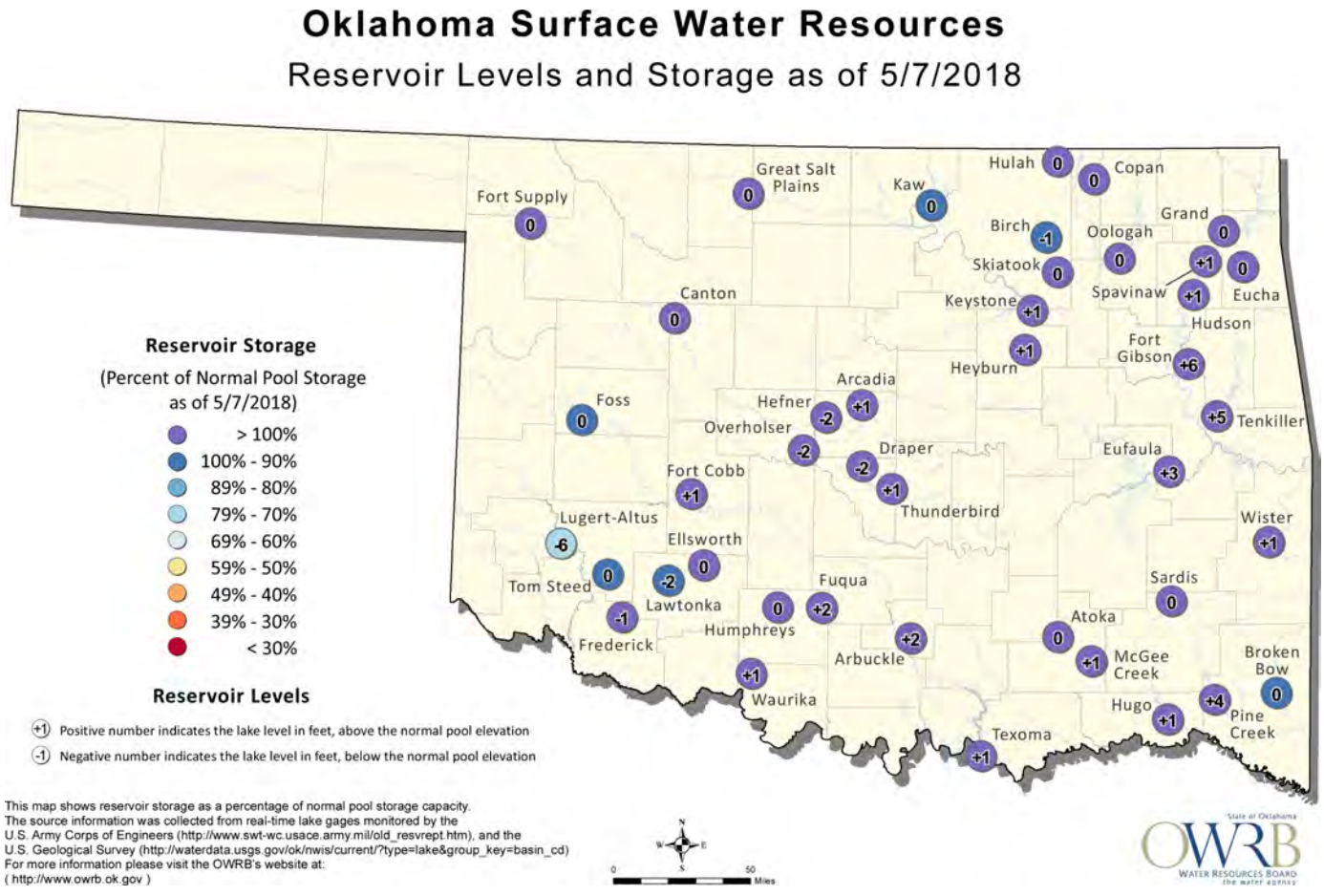
According to the NOAA Crop Moisture Index by Division, for the period ending May 5, 2018, most Oklahoma climate regions are experiencing Slightly Dry/Favorably Moist conditions (-0.9 to +0.9), but the Central and South Central regions are abnormally moist (+1.0 to +1.9) and the East Central region is wet (+2.0 to +3.0).

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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