

Oklahoma Water Resources Bulletin & Summary of Current Conditions

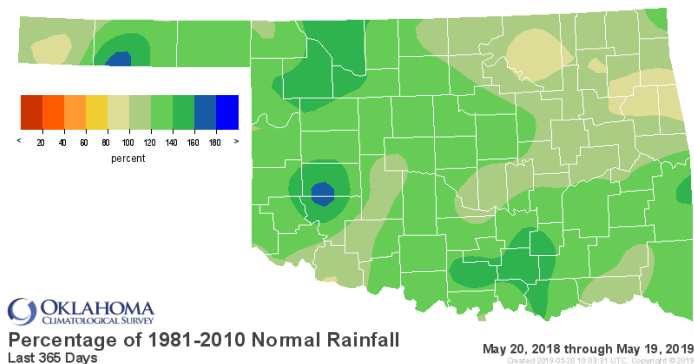
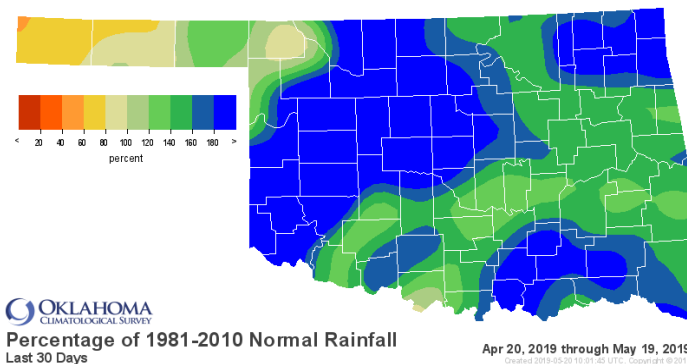


May 20, 2019

PRECIPITATION

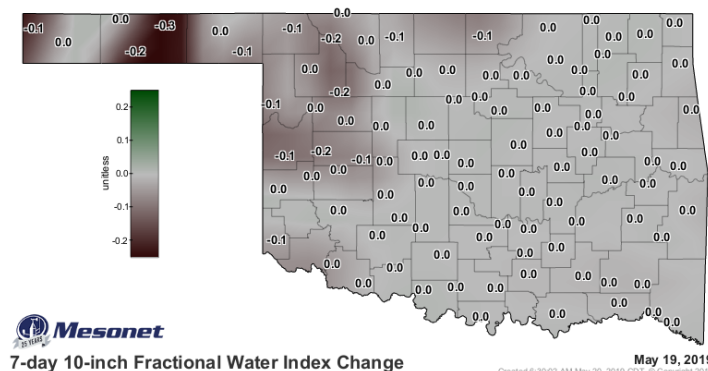
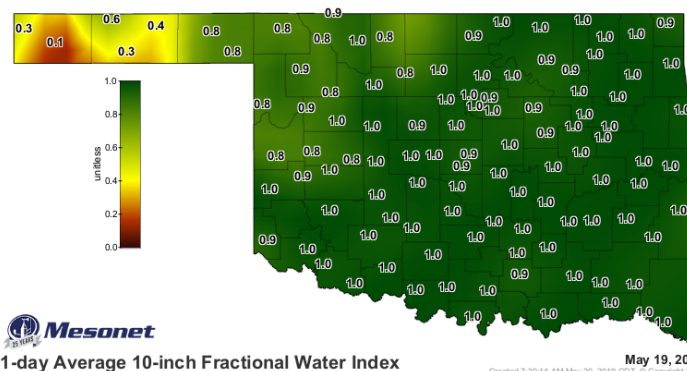
Statewide Precipitation

Climate Division	Last 30 Days April 20, 2019 – May 19, 2019				Last 365 Days May 20, 2018 – May 19, 2019			
	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	2.18"	+0.02"	101%	49th driest	25.64"	+5.06"	125%	13th wettest
NORTH CENTRAL	6.62"	+2.92"	179%	11th wettest	40.67"	+9.25"	129%	6th wettest
NORTHEAST	8.86"	+3.74"	173%	8th wettest	45.09"	+2.42"	106%	28th wettest
WEST CENTRAL	7.73"	+4.48"	238%	6th wettest	40.24"	+11.84"	142%	3rd wettest
CENTRAL	8.29"	+3.83"	186%	8th wettest	47.69"	+10.06"	127%	6th wettest
EAST CENTRAL	7.67"	+2.34"	144%	24th wettest	51.06"	+4.92"	111%	17th wettest
SOUTHWEST	6.82"	+3.24"	191%	13th wettest	37.59"	+7.32"	124%	9th wettest
SOUTH CENTRAL	7.63"	+2.78"	157%	14th wettest	54.83"	+14.12"	135%	3rd wettest
SOUTHEAST	9.36"	+3.59"	162%	13th wettest	63.54"	+12.95"	126%	10th wettest
STATEWIDE	7.22"	+2.97"	170%	9th wettest	45.04"	+8.57"	124%	7th wettest



SOIL MOISTURE

Fractional Water Index May 19, 2019



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 April 2019		
Climate Division	Status 5/11/19	Value 4/6	5/11	Change in Value	3-month	12-month	24-month
NORTHWEST	Very Moist Spell	2.99	3.38	0.39(+)	Near Normal	Very Moist	Abnormally Moist
NORTH CENTRAL	Extremely Moist	3.38	4.78	1.4(+)	Near Normal	Very Moist	Near Normal
NORTHEAST	Unusual Moist Spell	1.72	2.82	1.1(+)	Near Normal	Near Normal	Near Normal
WEST CENTRAL	Extremely Moist	3.77	5.37	1.6(+)	Abnormally Moist	Extremely Moist	Abnormally Moist
CENTRAL	Extremely Moist	3.29	4.54	1.25(+)	Near Normal	Very Moist	Moderately Moist
EAST CENTRAL	Unusual Moist Spell	2.57	3.34	0.77(+)	Near Normal	Moderately Moist	Moderately Moist
SOUTHWEST	Extremely Moist	3.41	5.09	1.68(+)	Moderately Moist	Very Moist	Moderately Moist
SOUTH CENTRAL	Extremely Moist	3.47	4.92	1.45(+)	Near Normal	Extremely Moist	Very Moist
SOUTHEAST	Extremely Moist	3.1	4.26	1.16(+)	Abnormally Moist	Moderately Moist	Moderately 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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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, as of May 11, all climate regions in the state were experiencing unusually moist conditions or wetter.

exceptionally dry -2.00 and below	extremely dry -1.99 to -1.60	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
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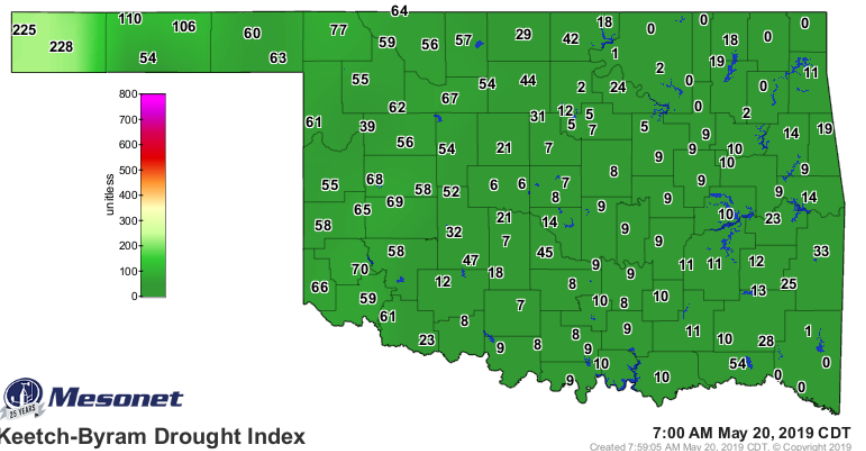
The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. For all three time periods shown, all climate regions were near normal or wetter.

Keetch-Byram Drought Fire Index

May 20, 2019, 7:00 a.m., zero stations are above 600.

Zero stations were above 600 on April 15, 2019.

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 20, 2019

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

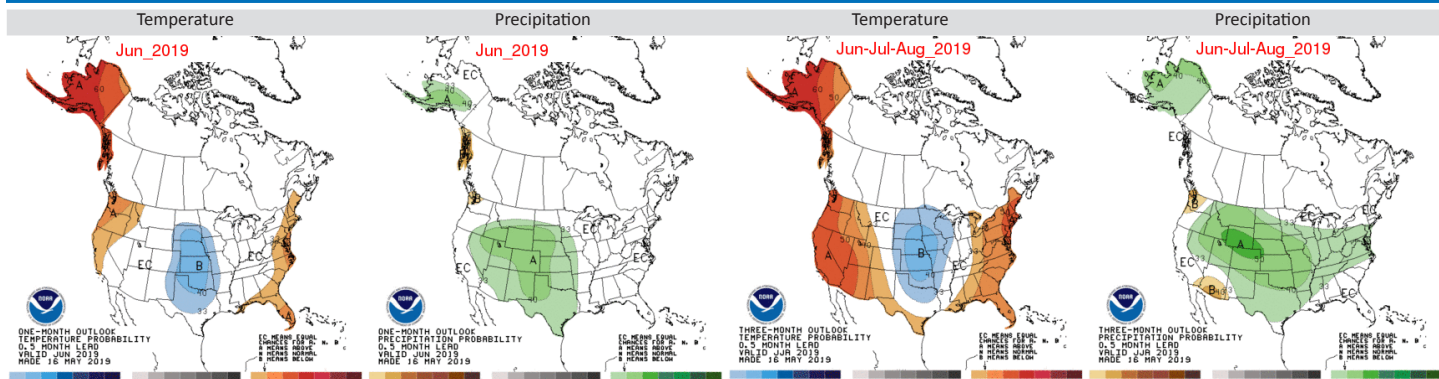
Visit waterwatch.usgs.gov for real-time streamflow information.

Real-time streamflow on May 20, 2019, at 7:30 a.m. compared to historical streamflow for day of year.



WEATHER/DROUGHT FORECAST

Seasonal Outlook



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.

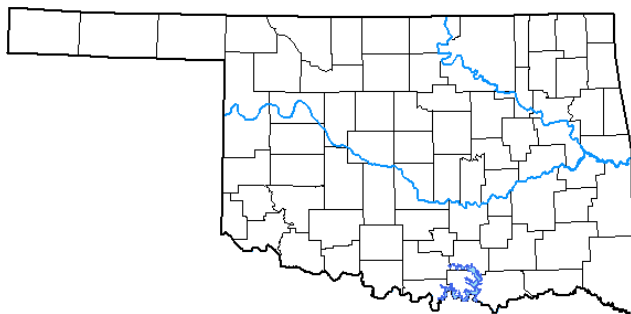
Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

May 14, 2019

(Released Thursday, May 16, 2019)

Valid 8 a.m. EDT



Author:
Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 05-07-2019	98.28	1.72	0.00	0.00	0.00	0.00
3 Months Ago 02-12-2019	92.41	7.59	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	94.85	5.15	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	72.93	27.07	9.11	4.16	0.00	0.00
One Year Ago 05-15-2018	44.84	55.16	47.34	42.80	34.36	17.10

Intensity

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

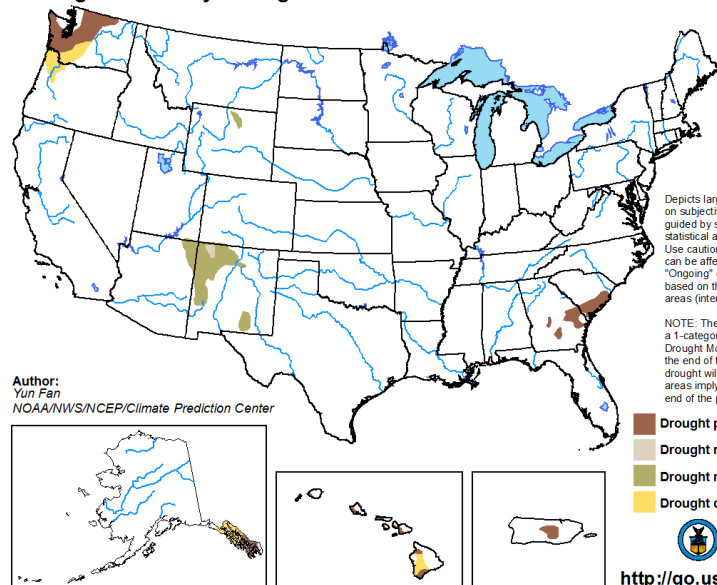
The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.

According to the latest U.S. Drought Monitor, as of May 14, the estimated Oklahoma population in drought areas is still at zero.

According to the latest seasonal drought outlook for the period of May 16, 2019, through August 31, 2019, Oklahoma is predicted to be free of drought development.

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

Valid for May 16 - August 31, 2019
Released May 16



Author:
Yun Fan
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>

RESERVOIR STORAGE

Oklahoma Surface Water Resources

Reservoir Levels and Storage as of 5/13/2019

