Oklahoma Water Resources Bulletin
& Summary of Current Conditions

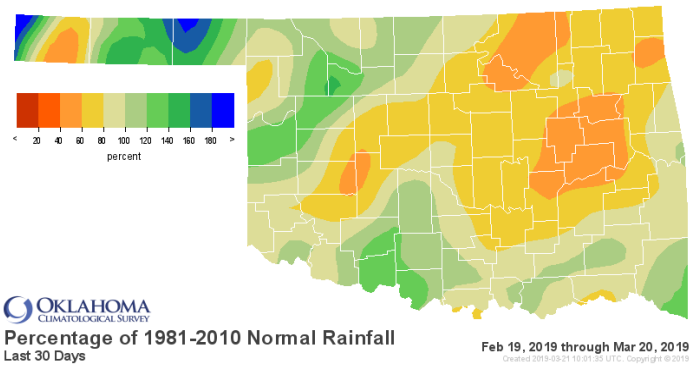
OWRB the water agency

March 21, 2019

Precipitation

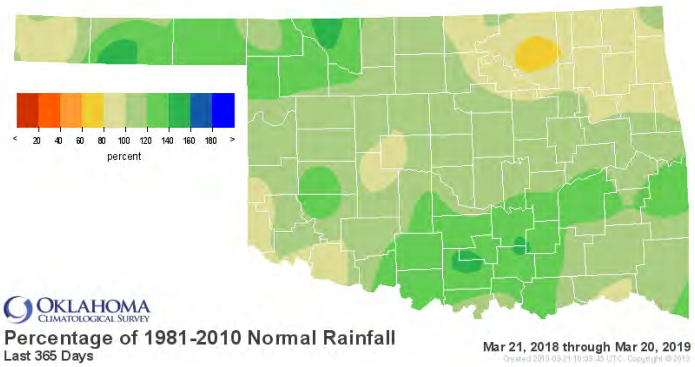
Statewide Precipitation

Climate Division	Last 30 Days (February 19, 2019 – March 20, 2019) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days (March 21, 2018 – March 20, 2019) Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
PANHANDLE	1.39"	+0.27"	125%	27th wettest	24.24"	+3.66"	118%	17th wettest
NORTH CENTRAL	2.16"	+0.04"	102%	29th wettest	35.62"	+4.20"	113%	16th wettest
NORTHEAST	1.93"	-1.14"	63%	43rd driest	39.19"	-3.48"	92%	48th driest
WEST CENTRAL	1.93"	+0.03"	101%	32nd wettest	32.88"	+4.48"	116%	14th wettest
CENTRAL	2.13"	-0.53"	80%	42nd wettest	41.63"	+4.00"	111%	16th wettest
EAST CENTRAL	2.26"	-1.22"	65%	41st driest	50.15"	+4.01"	109%	19th wettest
SOUTHWEST	1.90"	-0.14"	93%	35th wettest	32.20"	+1.93"	106%	22nd wettest
SOUTH CENTRAL	2.86"	-0.23"	93%	42nd wettest	52.77"	+12.05"	130%	4th wettest
SOUTHEAST	4.01"	-0.07"	98%	41st wettest	57.55"	+6.96"	114%	18th wettest
STATEWIDE	2.26"	-0.34"	87%	48th wettest	40.63"	+4.16"	111%	17th wettest



Percentage of 1981-2010 Normal Rainfall
Last 30 Days

Feb 19, 2019 through Mar 20, 2019

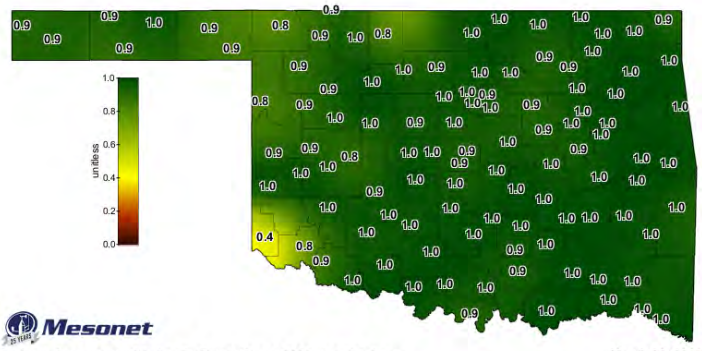


Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Mar 21, 2018 through Mar 20, 2019

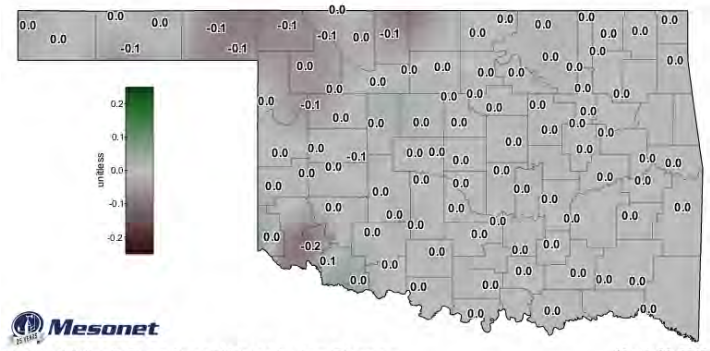
Soil Moisture

Fractional Water Index
March 20, 2019



1-day Average 10-inch Fractional Water Index

March 20, 2019



7-day 10-inch Fractional Water Index Change

March 20, 2019

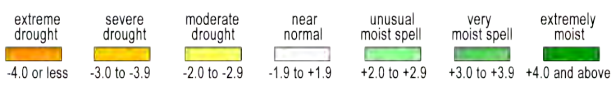
The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1.
[1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

Drought Indices

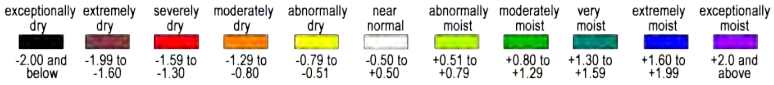
Palmer Drought Severity Index (PDSI)

Standardized Precipitation Index (SPI)
Through February 2019

Climate Division	Status 3/16/19	Value 2/09	Value 3/16	Change in Value	3-month	12-month	24-month
NORTHWEST	Very Moist Spell	2.64	3.15	0.51(+)	Abnormally Moist	Very Moist	Moderately Moist
NORTH CENTRAL	Very Moist Spell	3.26	3.75	0.49(+)	Moderately Moist	Moderately Moist	Abnormally Moist
NORTHEAST	Unusual Moist Spell	2.00	2.03	0.03(+)	Very Moist	Near Normal	Abnormally Moist
WEST CENTRAL	Very Moist Spell	2.95	3.4	0.45(+)	Near Normal	Moderately Moist	Moderately Moist
CENTRAL	Very Moist Spell	3.19	3.4	0.21(+)	Very Moist	Moderately Moist	Moderately Moist
EAST CENTRAL	Unusual Moist Spell	2.96	2.86	0.1(-)	Very Moist	Abnormally Moist	Very Moist
SOUTHWEST	Very Moist Spell	3.23	3.64	0.41(+)	Abnormally Moist	Abnormally Moist	Moderately Moist
SOUTH CENTRAL	Extremely Moist	4.61	4.66	0.05(+)	Very Moist	Very Moist	Moderately Moist
SOUTHEAST	Very Moist Spell	3.42	3.73	0.31(+)	Very Moist	Moderately Moist	Moderately Moist



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 February 9, all climate regions in the state were experiencing an unusual moist spell or wetter.



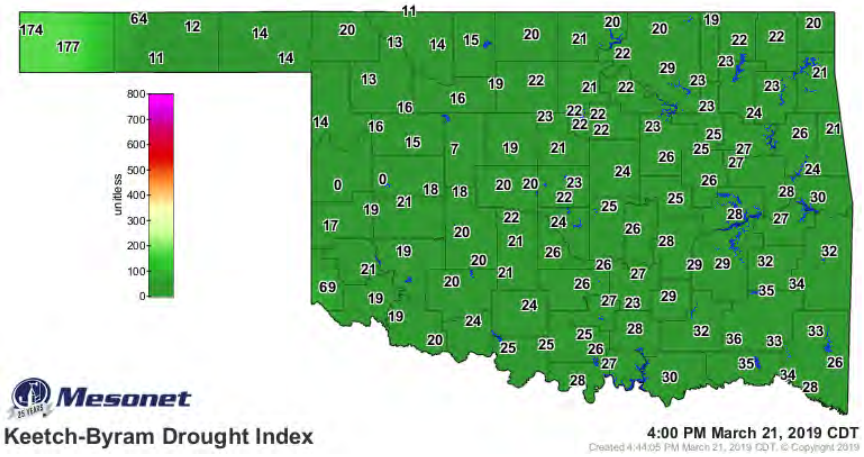
The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. For all three time periods shown, all climate regions were near normal or wetter.

Keetch-Byram Drought Fire Index

March 21, 2019, 4:00 p.m., zero stations are above 600.

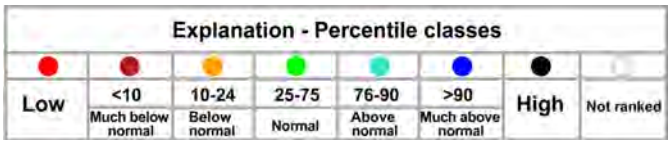
Zero stations were above 600 on February 15, 2019.

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.

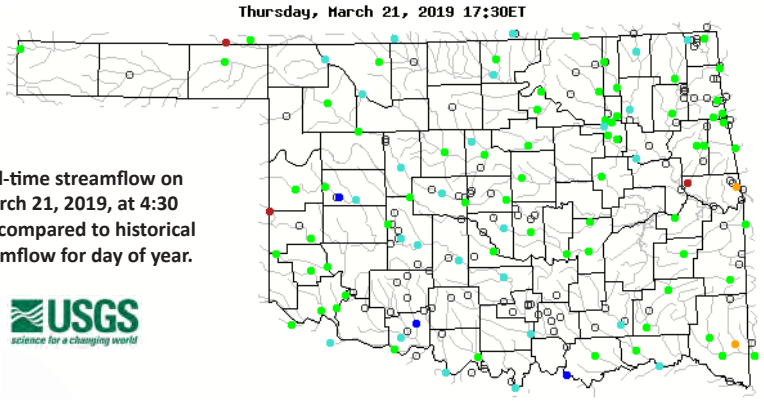


Streamflow Conditions

March 21, 2019



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



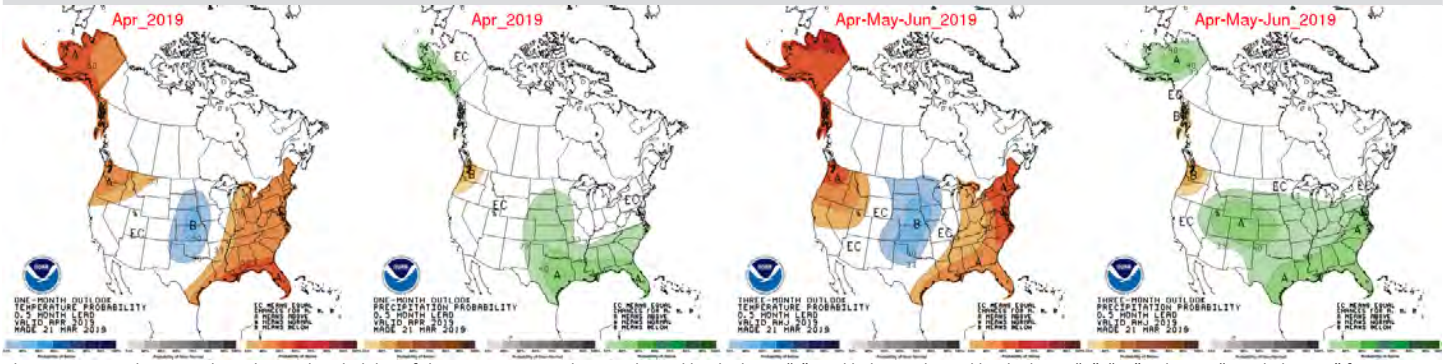
Real-time streamflow on March 21, 2019, at 4:30 p.m. compared to historical streamflow for day of year.

USGS science for a changing world

Weather/Drought Forecast

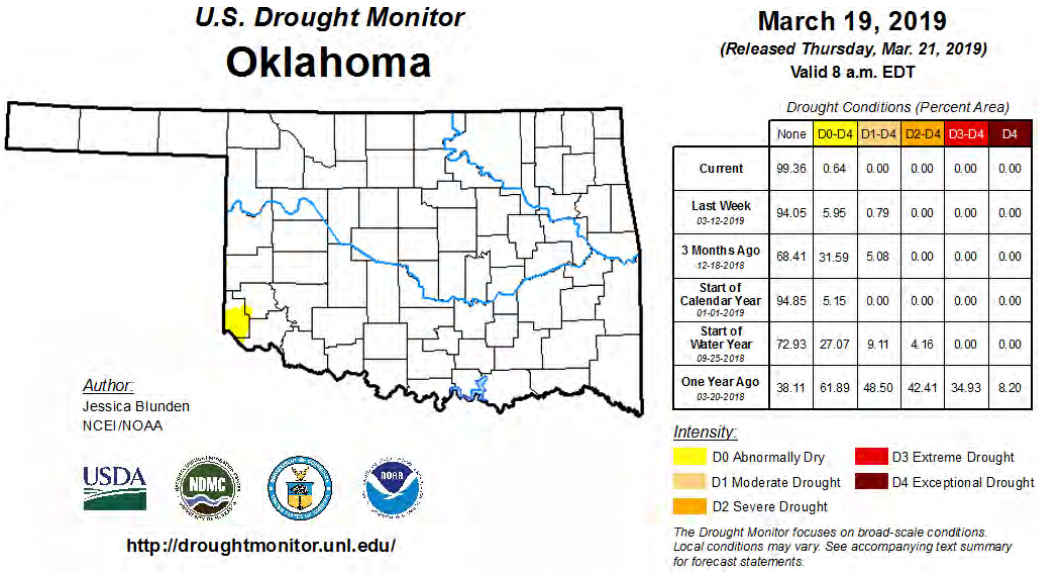
Seasonal Outlook

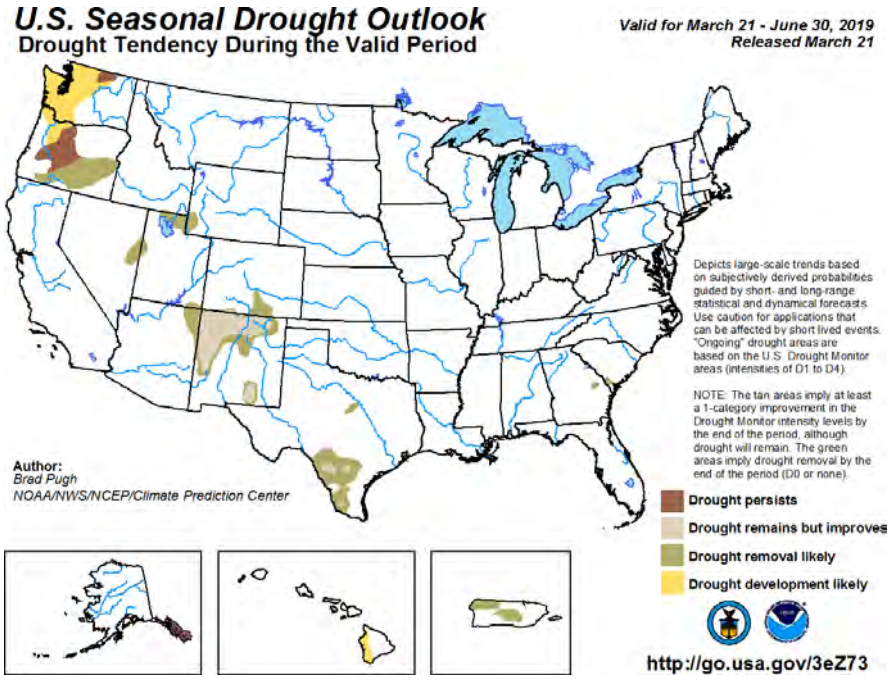
Temperature | Precipitation | Temperature | Precipitation



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





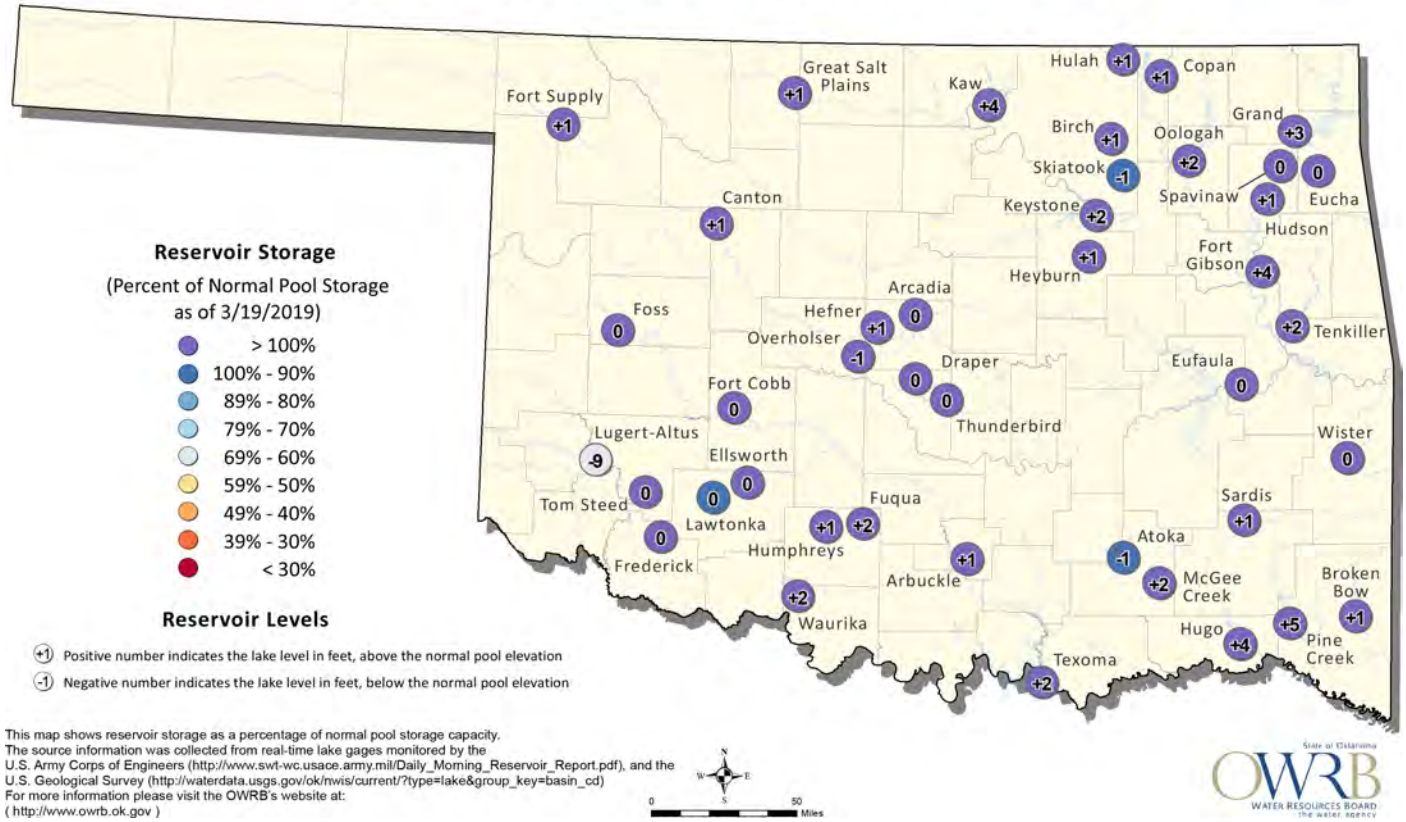
According to the latest U.S. Drought Monitor, as of March 19, the estimated Oklahoma population in drought areas is still at zero. Only 0.64% of the state (in area)--in the far southwest corner of the state--has been classified as abnormally dry.

According to the latest seasonal drought outlook for the period of March 21, 2019, through June 30, 2019, Oklahoma is predicted to be unaffected by drought.

Reservoir Storage

Oklahoma Surface Water Resources

Reservoir Levels and Storage as of 3/19/2019



This map shows reservoir storage as a percentage of normal pool storage capacity.
The source information was collected from real-time lake gages monitored by the U.S. Army Corps of Engineers (http://www.swt-wc.usace.army.mil/Daily_Morning_Reservoir_Report.pdf), and the U.S. Geological Survey (http://waterdata.usgs.gov/ok/nwis/current/?type=lake&group_key=basin_cd)
For more information please visit the OWRB's website at:
(http://www.owrb.ok.gov)

0 50 Miles

The Oklahoma Water Resources Bulletin is compiled and distributed monthly by the Oklahoma Water Resources Board utilizing products and information developed by the Oklahoma Climatological Survey, Oklahoma Mesonet, National Oceanic and Atmospheric Administration, National Drought Mitigation Center, US Geological Survey, US Army Corps of Engineers, and US Department of Agriculture. For questions or comments contact Darla Whitley, Editor.