

Oklahoma Water Resources Bulletin & Summary of Current Conditions

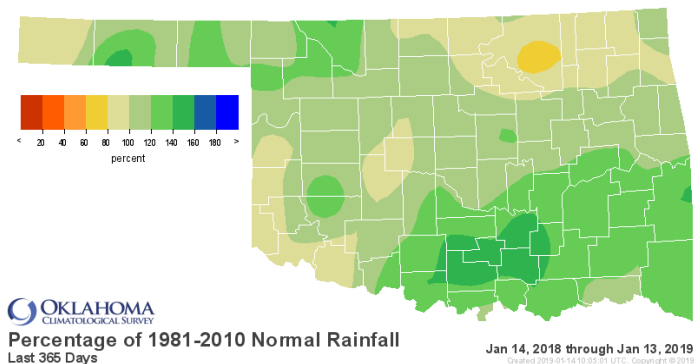
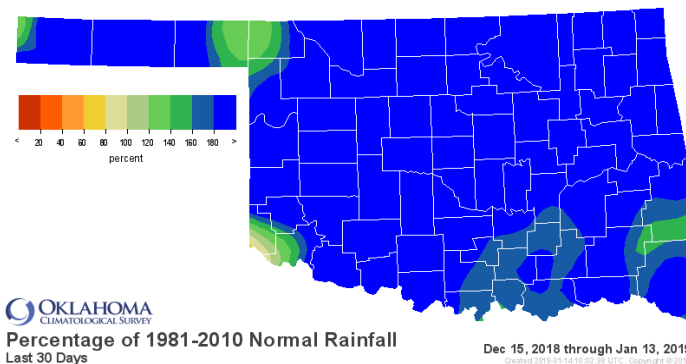


January 14, 2019

PRECIPITATION

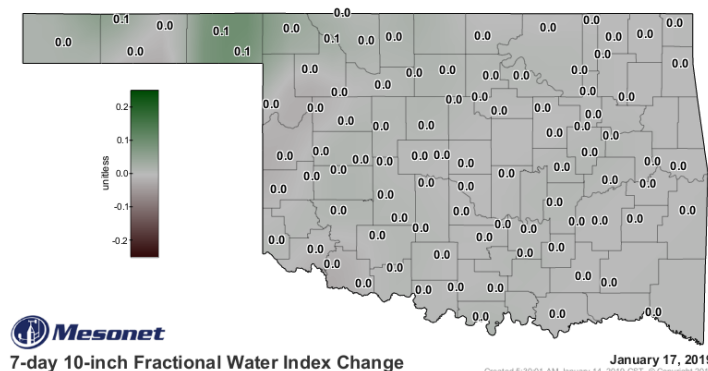
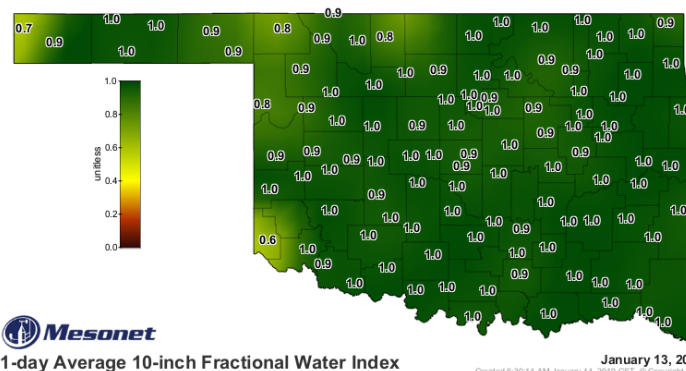
Statewide Precipitation

Climate Division	Last 30 Days December 15, 2018 – January 13, 2019				Last 365 Days January 14, 2018 – January 13, 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	1.48"	+0.81"	220%	9th wettest	22.91"	+2.33"	111%	25th wettest
NORTH CENTRAL	3.26"	+2.23"	316%	3rd wettest	34.43"	+3.01"	110%	24th wettest
NORTHEAST	5.42"	+3.40"	269%	6th wettest	40.63"	-2.04"	95%	47th wettest
WEST CENTRAL	3.07"	+2.08"	310%	7th wettest	31.41"	+3.01"	111%	15th wettest
CENTRAL	4.75"	+3.16"	298%	4th wettest	42.14"	+4.51"	112%	16th wettest
EAST CENTRAL	5.92"	+3.25"	222%	6th wettest	53.92"	+7.78"	117%	8th wettest
SOUTHWEST	2.86"	+1.70"	246%	8th wettest	31.61"	+1.34"	104%	28th wettest
SOUTH CENTRAL	4.19"	+1.97"	189%	10th wettest	55.62"	+14.91"	137%	5th wettest
SOUTHEAST	6.05"	+2.79"	186%	8th wettest	64.94"	+14.35"	128%	7th wettest
STATEWIDE	4.12"	+2.40"	239%	7th wettest	41.81"	+5.34"	115%	15th wettest



SOIL MOISTURE

Fractional Water Index January 13, 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 November 2018		
Climate Division	Status 1/05/19	Value 12/08	1/05	Change in Value	3-month	12-month	24-month
NORTHWEST	Very Moist Spell	2.74	3.15	0.41(+)	Very Moist	Moderately Moist	Very Moist
NORTH CENTRAL	Very Moist Spell	2.59	3.41	0.82(+)	Moderately Moist	Abnormally Moist	Moderately Moist
NORTHEAST	Near Normal	0.04	1.52	1.48(+)	Near Normal	Near Normal	Near Normal
WEST CENTRAL	Very Moist Spell	2.57	3.49	0.92(+)	Extremely Moist	Abnormally Moist	Moderately Moist
CENTRAL	Very Moist Spell	2.01	3.53	1.52(+)	Moderately Moist	Abnormally Moist	Moderately Moist
EAST CENTRAL	Unusual Moist Spell	0.95	2.84	1.89(+)	Abnormally Moist	Abnormally Moist	Moderately Moist
SOUTHWEST	Extremely Moist	3.01	3.94	0.93(+)	Exceptionally Moist	Near Normal	Moderately Moist
SOUTH CENTRAL	Extremely Moist	4.01	5.06	1.05(+)	Exceptionally Moist	Very Moist	Moderately Moist
SOUTHEAST	Extremely Moist	3.14	4.13	0.99(+)	Moderately Moist	Moderately Moist	Abnormally 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 January 5, all climate regions in the state were experiencing near normal 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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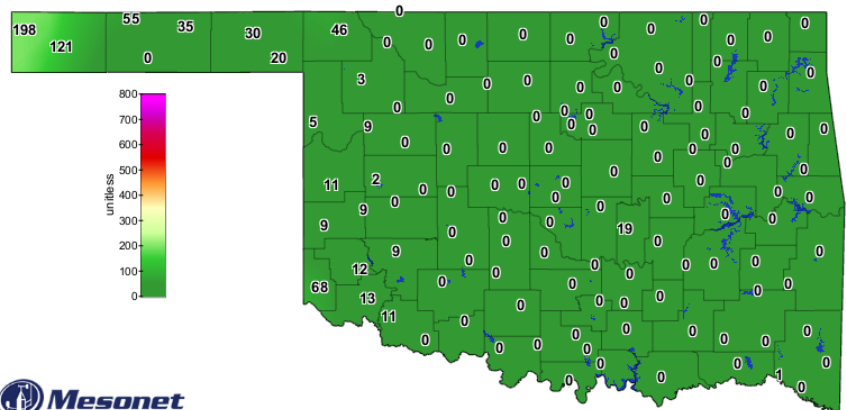
The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. For all three time periods shown, all climate regions were near normal or wetter. For the 3-month period, the Southwest and South Central climate regions were Exceptionally Moist, the wettest classification.

Keetch-Byram Drought Fire Index

January 14, 9:00 a.m., zero stations are above 600.

Zero stations were above 600 on December 13, 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.



Keetch-Byram Drought Index

9:00 AM January 14, 2019 CST
Created 10:14:04 AM January 14, 2019 CST. © Copyright 2019

STREAMFLOW CONDITIONS

January 14, 2019

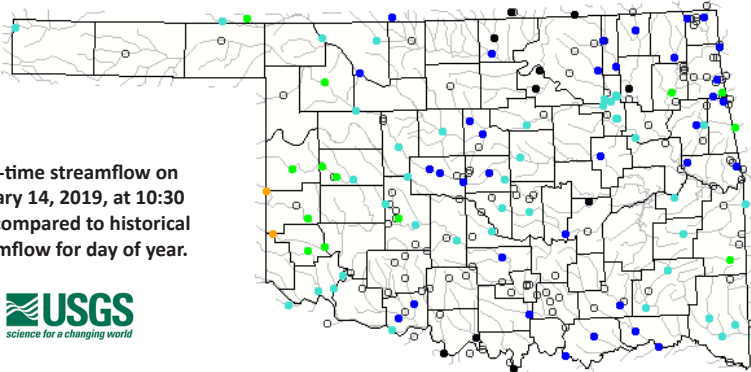
Explanation - Percentile classes						
●	●	●	●	●	●	●
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High
						Not ranked

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

Real-time streamflow on January 14, 2019, at 10:30 a.m. compared to historical streamflow for day of year.

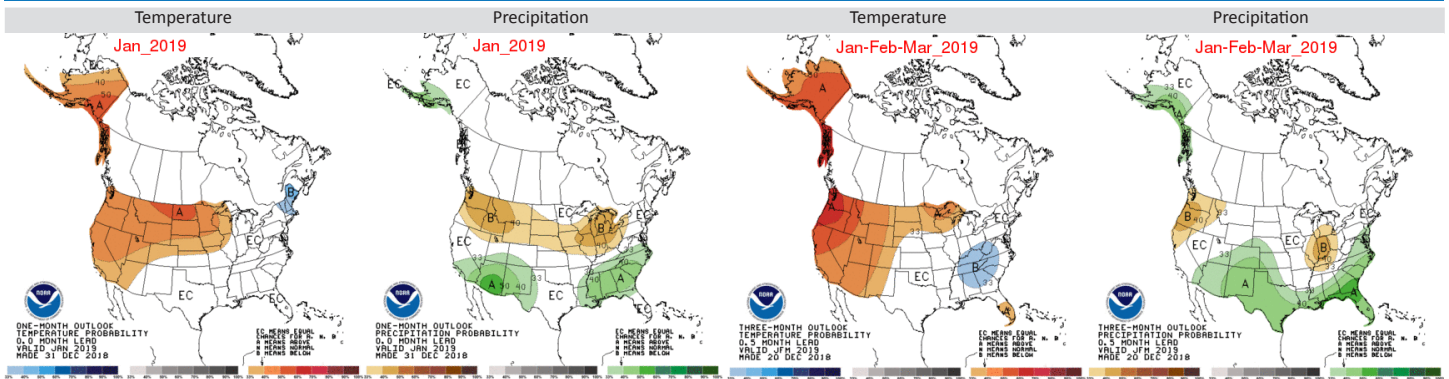


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WEATHER/DROUGHT FORECAST

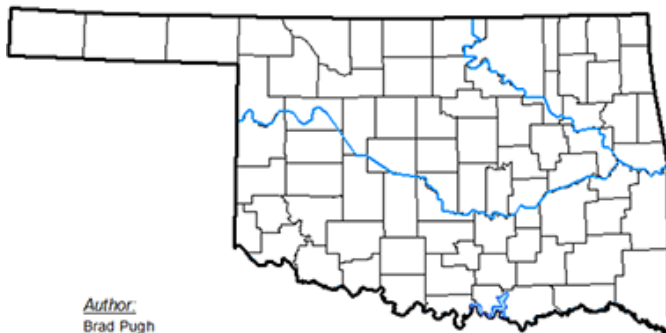
Seasonal Outlook



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



Author:
Brad Pugh
GPC/NOAA



<http://droughtmonitor.unl.edu/>

January 8, 2019
(Released Thursday, Jan. 10, 2019)
Valid 7 a.m. EST

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 01-01-2019	94.85	5.15	0.00	0.00	0.00	0.00
3 Months Ago 10-09-2018	88.12	11.88	2.29	0.37	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 01-09-2018	0.00	100.00	82.65	42.11	7.03	0.00

Intensity:

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

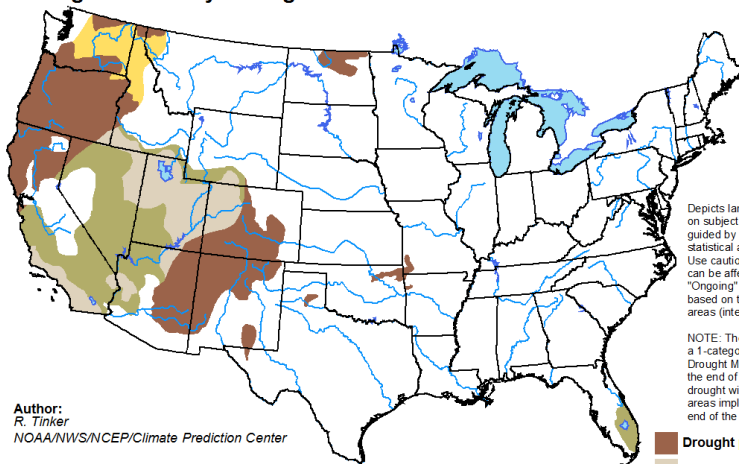
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

According to the latest U.S. Drought Monitor, as of January 8, the estimated Oklahoma population in drought areas was 0, which is down by about 225,000 from this time last month. No parts of the state are experiencing abnormally dry or drought conditions.

According to the latest seasonal drought outlook for the period of December 20, 2018, through March 31, 2019, there will be a small patch of persistent drought in the Northeast region, but the rest of the state should remain unaffected by drought. However, drought is predicted to persist in many states to the west of Oklahoma.

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

Valid for December 20, 2018 - March 31, 2019
Released December 20, 2018



Author:
R. Tinker
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

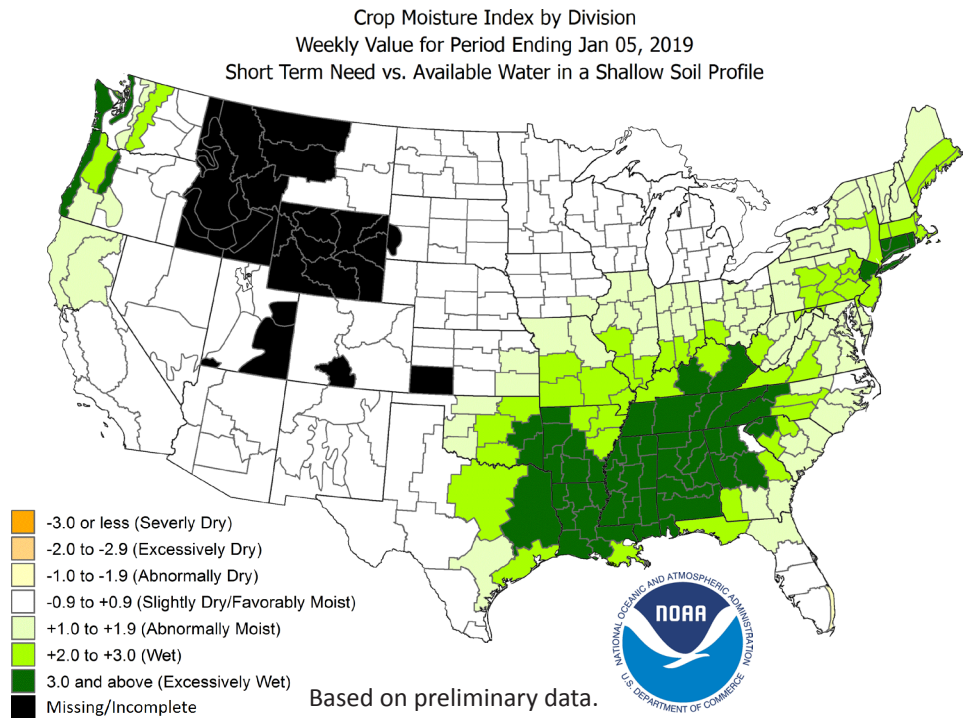


<http://go.usa.gov/3eZ73>

CROP MOISTURE INDEX

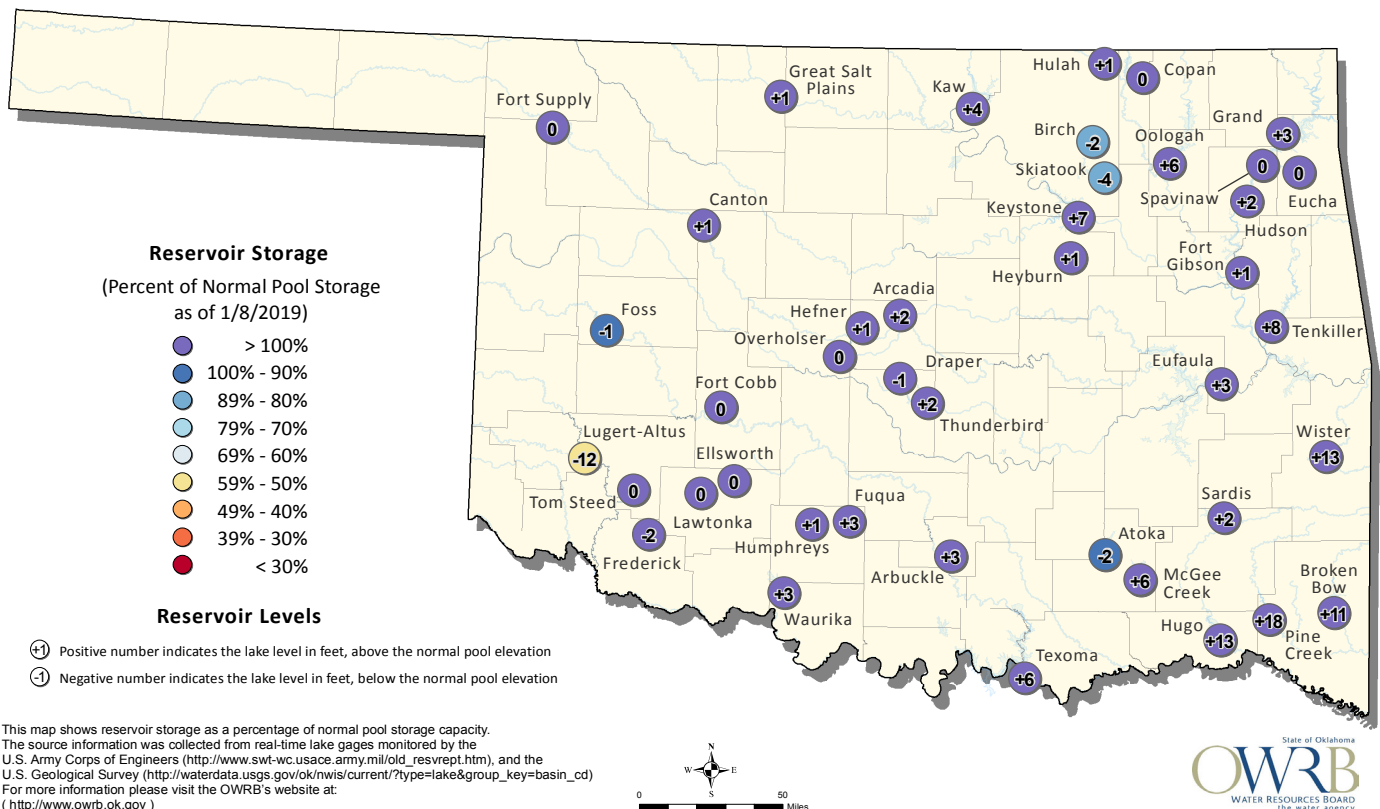
According to the NOAA Crop Moisture Index by Division, for the period ending January 5, 2019, the Northwest region was experiencing Slightly Dry/Favorably Moist conditions (-0.9 to +0.9), the North Central, West Central, and Southwest regions were experiencing Abnormally Moist Conditions (+1.0 to +1.9), the Northeast, Central, and South Central regions were Wet (+2.0 to +2.9), and the East Central and Southeast were Excessively Wet (+3.0 and above), the wettest category.

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

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 1/8/2019



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.