

Oklahoma Water Resources Bulletin & Summary of Current Conditions

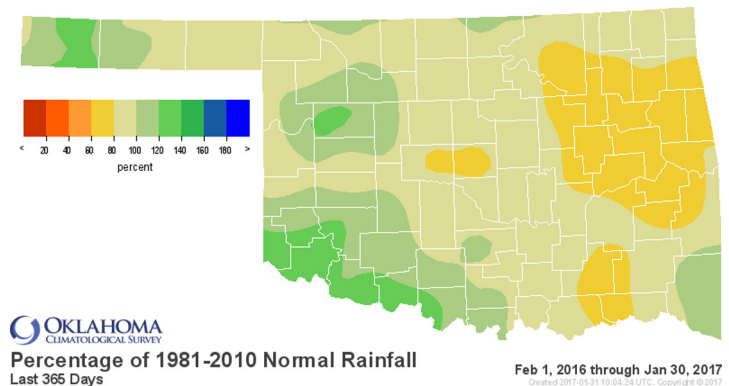
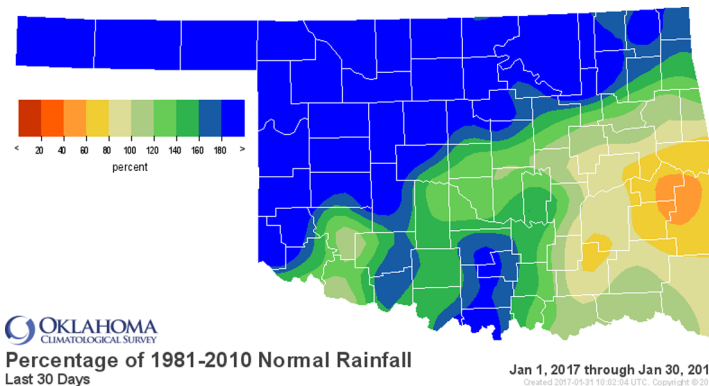


January 31, 2017

PRECIPITATION

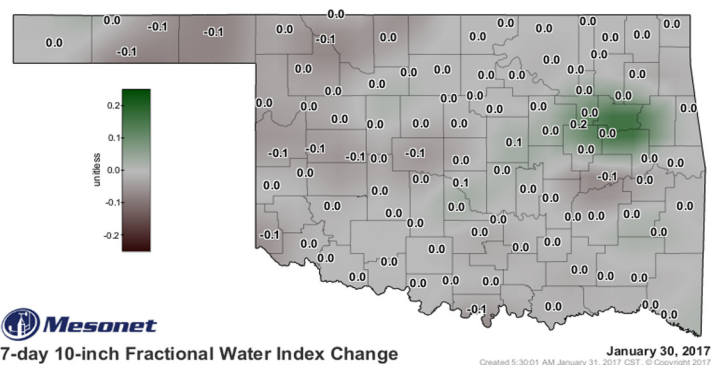
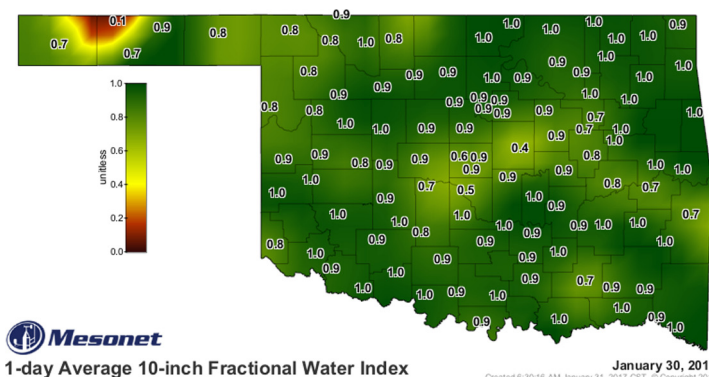
Statewide Precipitation

Climate Division	Last 30 Days January 1, 2017 – January 30, 2017				Last 365 Days February 1, 2016 – January 30, 2017			
	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	2.41"	+1.81"	402%	1st wettest	20.56"	+0.00"	100%	42nd wettest
NORTH CENTRAL	2.68"	+1.76"	291%	3rd wettest	29.84"	-1.54"	95%	45th wettest
NORTHEAST	3.15"	+1.42"	182%	9th wettest	35.37"	-7.24"	83%	28th driest
WEST CENTRAL	2.68"	+1.77"	295%	3rd wettest	30.31"	+1.95"	107%	21st wettest
CENTRAL	2.17"	+0.79"	158%	16th wettest	32.07"	-5.51"	85%	30th driest
EAST CENTRAL	2.20"	-0.14"	94%	36th wettest	34.89"	-11.17"	76%	16th driest
SOUTHWEST	1.83"	+0.76"	171%	16th wettest	35.68"	+5.46"	118%	15th wettest
SOUTH CENTRAL	2.85"	+0.90"	146%	16th wettest	39.24"	-1.40"	97%	40th wettest
SOUTHEAST	2.71"	-0.23"	92%	49th wettest	45.87"	-4.62"	91%	35th driest
STATEWIDE	2.52"	+1.00"	166%	9th wettest	33.51"	-2.91"	92%	41st driest



SOIL MOISTURE

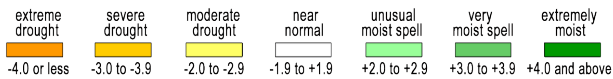
Fractional Water Index January 30, 2017



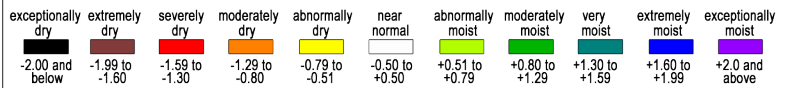
The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1. [1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

DROUGHT INDICES

Palmer Drought Severity Index (PDSI)					Standardized Precipitation Index (SPI) Through December 2016		
Climate Division	Status 1/28/17	Value 12/24	1/28	Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	-1.38	0.97	-2.35	Moderately Dry	Near Normal	Extremely Moist
NORTH CENTRAL	Near Normal	-0.75	0.92	-1.67	Abnormally Dry	Near Normal	Moderately Moist
NORTHEAST	Near Normal	-1.84	-0.27	-1.57	Near Normal	Abnormally Dry	Abnormally Moist
WEST CENTRAL	Near Normal	-0.82	0.68	-1.5	Moderately Dry	Near Normal	Very Moist
CENTRAL	Near Normal	-1.98	-1.34	-0.64	Moderately Dry	Abnormally Dry	Very Moist
EAST CENTRAL	Moderate Drought	-2.53	-2.27	-0.26	Moderately Dry	Moderately Dry	Very Moist
SOUTHWEST	Near Normal	1.02	1.11	-0.09	Abnormally Dry	Moderately Moist	Extremely Moist
SOUTH CENTRAL	Near Normal	-1.77	-1.09	-0.68	Moderately Dry	Near Normal	Exceptionally Moist
SOUTHEAST	Near Normal	-1.76	-1.77	0.01	Moderately Dry	Near Normal	Extremely Moist



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, all climate regions in the state are classified as Near Normal except the East Central region, which is experiencing Moderate Drought conditions.

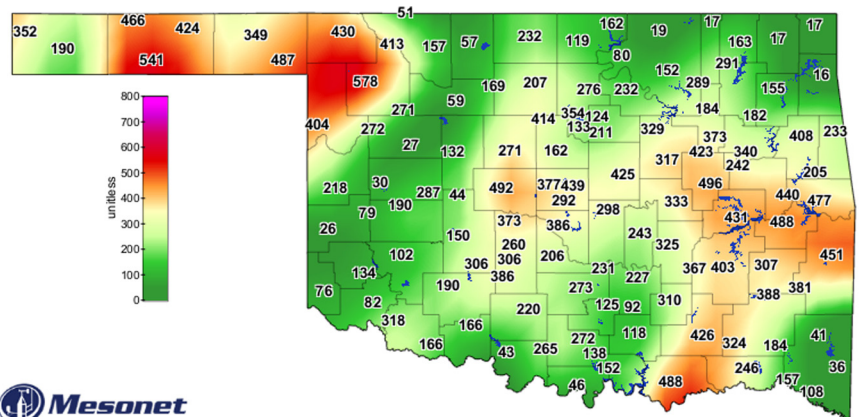


The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. The Northeast and East Central climate divisions had Abnormally Dry conditions for the 12-month period, and the East Central division was Moderately Dry, but all climate divisions had Abnormally Moist conditions or wetter for the 24-month period.

Keetch-Byram Drought Fire Index

January 31, 2017 8:00 a.m.--0 stations are above 600.

Two stations were above 600 on December 31, 2016.



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

8:00 AM January 31, 2017 CST
Created 8:59:04 AM January 31, 2017 CST. © Copyright 2017

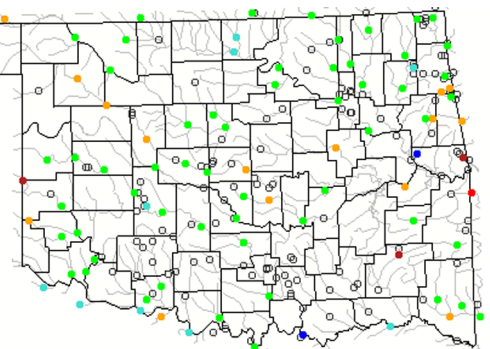
STREAMFLOW CONDITIONS

January 31, 2017

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

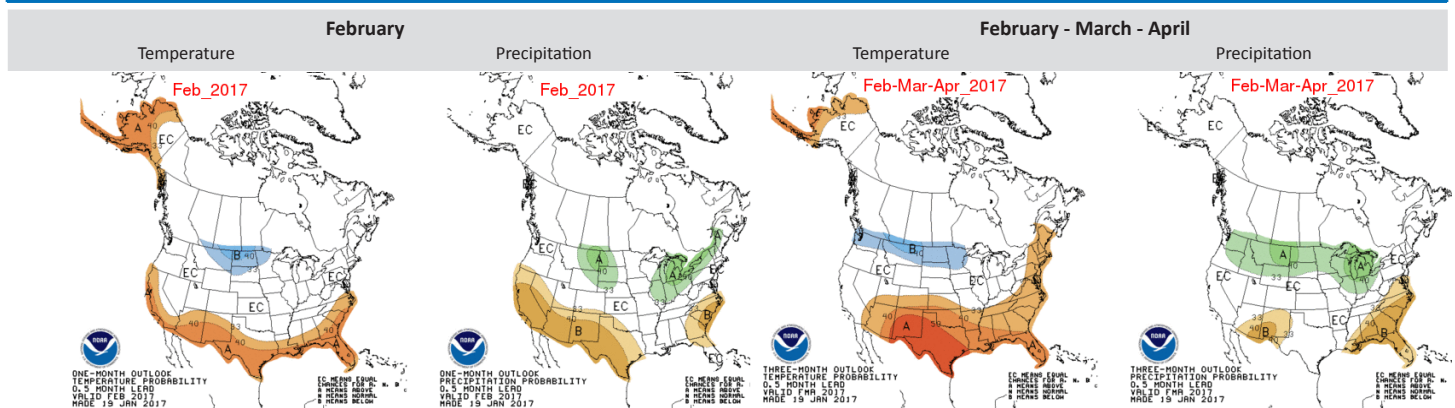
Visit waterwatch.usgs.gov for real-time streamflow information.

Real-time streamflow on Jan. 31, 2017, at 8:30 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”; below, indicated by the letter “B”; and the middle category, indicated by the letter “N”. “EC” stands for “Equal Chances” for A, N, or B

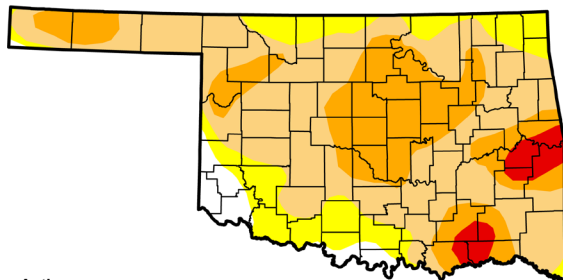
Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

January 24, 2017

(Released Thursday, Jan. 26, 2017)

Valid 7 a.m. EST



Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



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

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	4.49	95.51	79.90	30.95	3.90	0.00
Last Week 1/17/2017	4.08	95.92	81.05	31.71	4.17	0.00
3 Months Ago 10/25/2016	47.43	52.57	25.04	4.26	0.00	0.00
Start of Calendar Year 1/3/2017	5.61	94.39	83.21	55.75	5.55	0.00
Start of Water Year 9/27/2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 1/26/2016	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

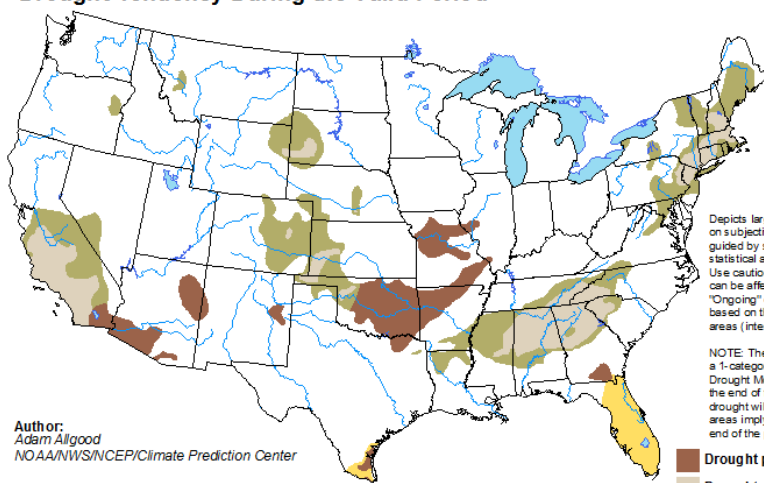
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

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*, the number of Oklahomans currently affected by drought is 3,426,240, up by more than half a million in the last month, with 79.9% of the state (in area) in Moderate Drought (D1) or worse. About 31% of the state is in Severe Drought (D2) or worse, and almost 4% is in Extreme Drought (D3) or worse. These small areas in D3 are found in the East Central, South Central, and Southeast regions, while a large portion of the Southwest region is free of drought conditions altogether.

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

Valid for January 19 - April 30, 2017
Released January 19, 2017



Author:
Adam Algood
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>

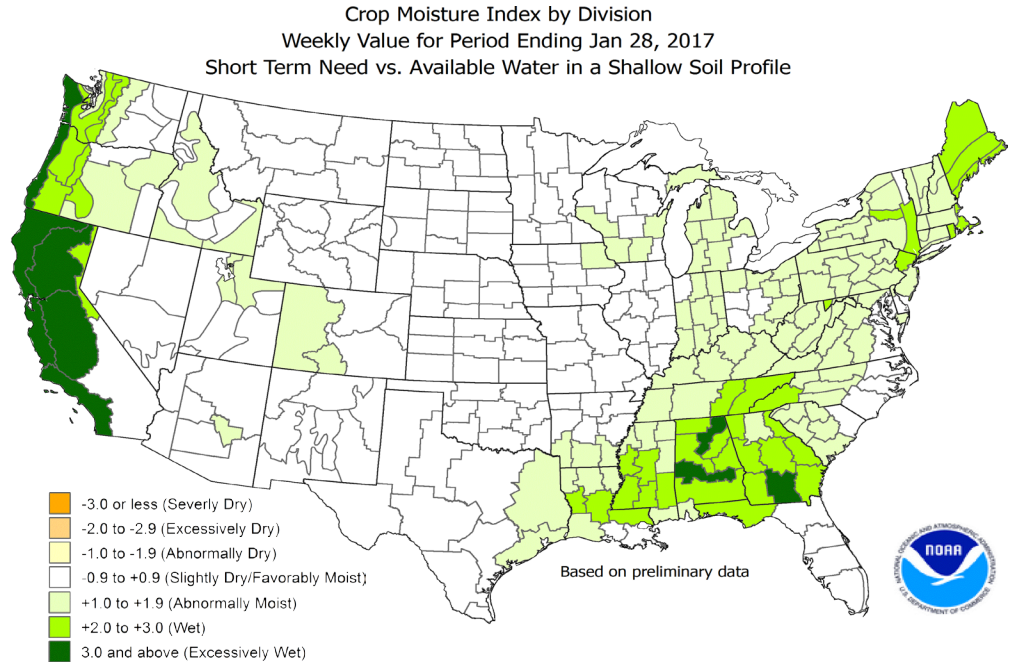
According to the seasonal drought outlook, from mid January through the end of April, drought conditions are likely to persist in most of the central and eastern portions of the state, while drought conditions are likely to improve in the Panhandle and western part of the state.

Drought is also likely to persist and develop in a few other areas across the southern half of the U.S., but the largest contiguous area of persistent drought will likely be in Oklahoma and generally will spread northeast through parts of Arkansas and Missouri.

CROP MOISTURE INDEX

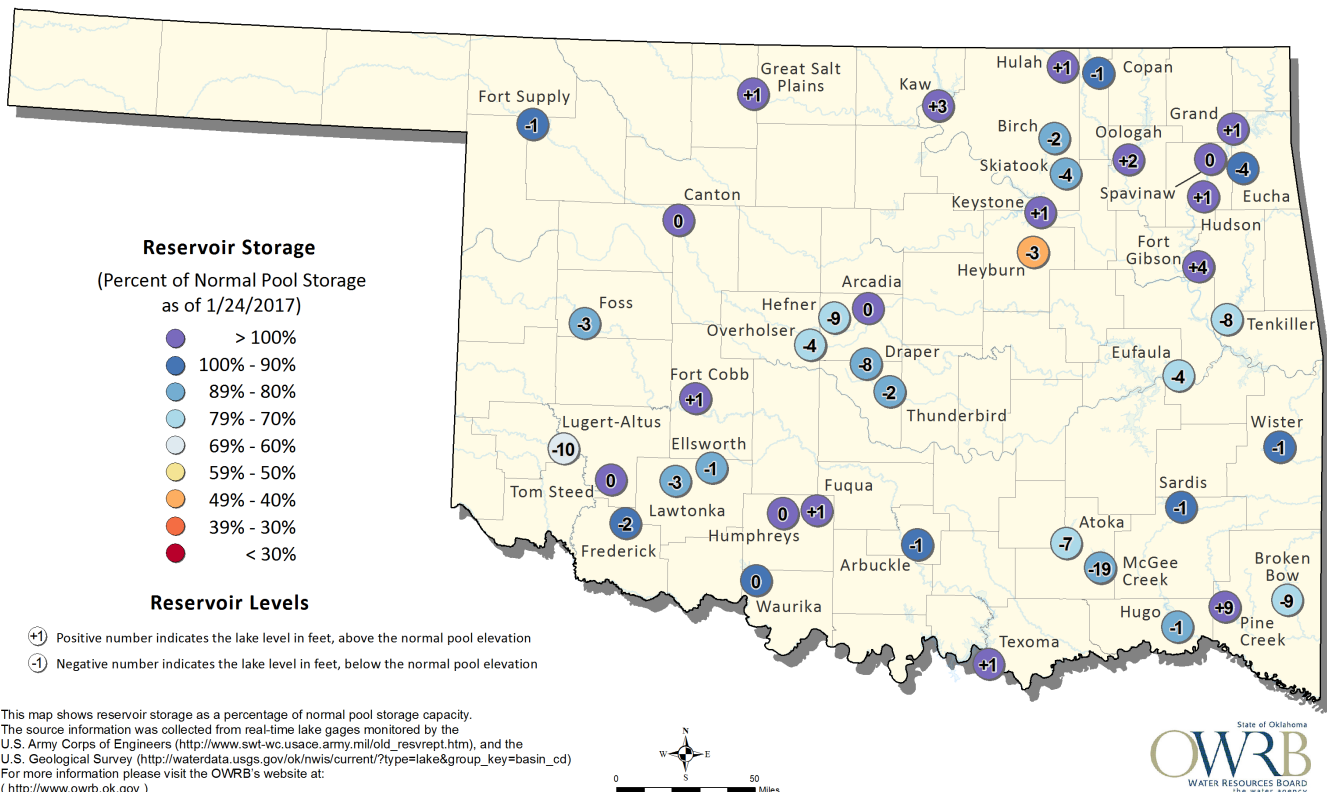
According to the NOAA Crop Moisture Index by Division, for the period ending January 28, 2017, all regions of the state are Slightly Dry/Favorably Moist (-0.9 to +0.9).

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 1/24/2017



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.