

Oklahoma Water Resources Bulletin & Summary of Current Conditions

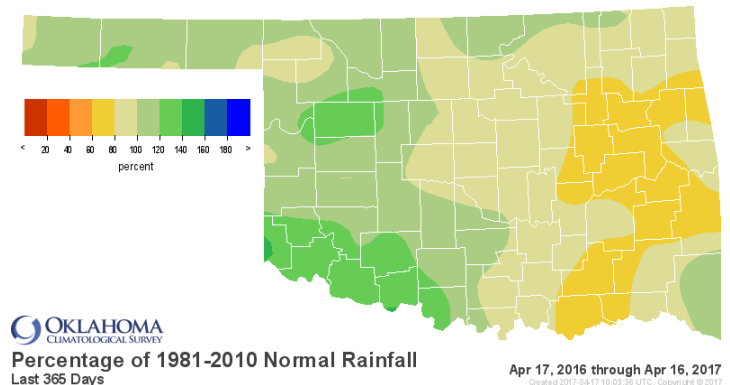
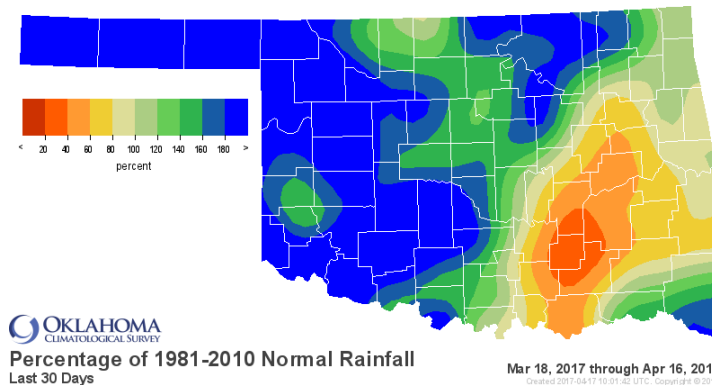


April 17, 2017

PRECIPITATION

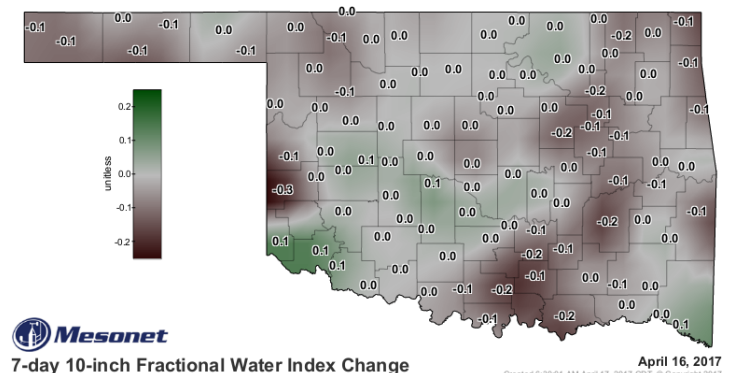
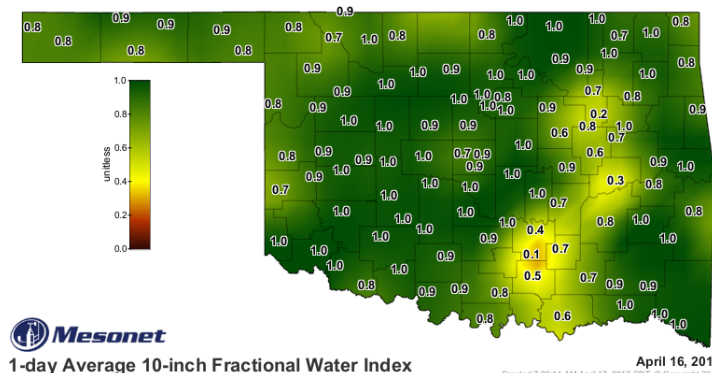
Statewide Precipitation

Climate Division	Last 30 Days March 18, 2017 – April 16, 2017				Last 365 Days April 17, 2016 – April 16, 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	4.25"	+2.69"	272%	2nd wettest	22.31"	+1.73"	108%	29th wettest
NORTH CENTRAL	4.36"	+1.70"	164%	12th wettest	32.70"	+1.28"	104%	30th wettest
NORTHEAST	4.93"	+1.34"	137%	18th wettest	37.89"	-4.78"	89%	38th driest
WEST CENTRAL	4.43"	+2.20"	199%	6th wettest	32.79"	+4.39"	115%	16th wettest
CENTRAL	4.86"	+1.76"	157%	15th wettest	35.50"	-2.13"	94%	41st wettest
EAST CENTRAL	2.78"	-1.00"	73%	34th driest	35.68"	-10.46"	77%	20th driest
SOUTHWEST	4.98"	+2.71"	219%	6th wettest	37.87"	+7.60"	125%	11th wettest
SOUTH CENTRAL	3.17"	-0.10"	97%	43rd wettest	38.48"	-2.23"	95%	42nd wettest
SOUTHEAST	4.63"	+0.44"	110%	36th wettest	44.73"	-5.86"	88%	34th driest
STATEWIDE	4.28"	+1.32"	144%	16th wettest	35.17"	-1.30"	96%	41st wettest



SOIL MOISTURE

Fractional Water Index April 16, 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 March 2017		
Climate Division	Status 4/15/17	Value 3/25 4/15		Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	-1.38	1.25	-2.63	Very Moist	Abnormally Moist	Exceptionally Moist
NORTH CENTRAL	Near Normal	-0.66	0.78	-1.44	Very Moist	Abnormally Moist	Very Moist
NORTHEAST	Near Normal	-1.68	-0.84	-0.84	Near Normal	Near Normal	Moderately Moist
WEST CENTRAL	Near Normal	-0.76	1.12	-1.88	Extremely Moist	Moderately Moist	Extremely Moist
CENTRAL	Near Normal	-2.08	-0.06	-2.02	Moderately Moist	Near Normal	Extremely Moist
EAST CENTRAL	Moderate Drought	-2.43	-2.71	0.28	Near Normal	Moderately Dry	Extremely Moist
SOUTHWEST	Unusual Moist Spell	-0.16	2.47	-2.63	Extremely Moist	Very Moist	Exceptionally Moist
SOUTH CENTRAL	Near Normal	-1.91	-1.78	-0.13	Near Normal	Near Normal	Exceptionally Moist
SOUTHEAST	Moderate Drought	-1.71	-1.96	0.25	Near Normal	Abnormally Dry	Extremely 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. According to the latest PDSI, all climate regions in the state are classified as Near Normal or wetter except the East Central and Southeast regions, which are experiencing Moderate Drought.

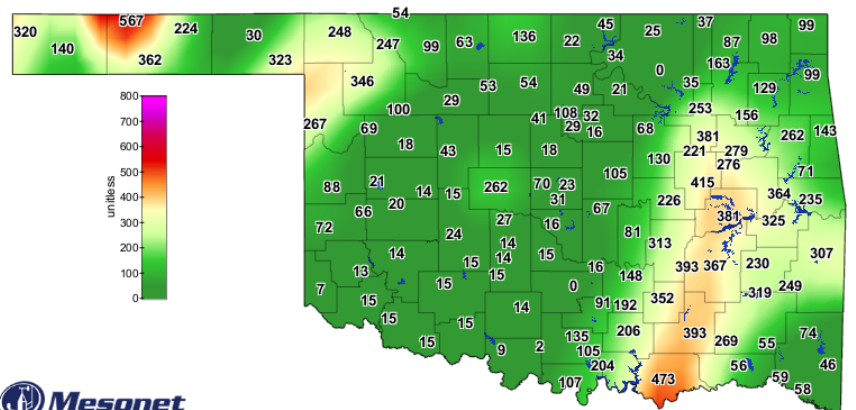
exceptionally dry -2.00 and below	extremely dry -1.99 to -1.60	severely dry -1.59 to -1.30	moderately dry -1.29 to -0.80	abnormally dry -0.79 to -0.51	near normal -0.50 to +0.50	abnormally moist +0.51 to +0.79	moderately moist +0.80 to +1.29	very moist +1.30 to +1.59	extremely moist +1.60 to +1.99	exceptionally 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 the 12-month time period, the East Central region had Moderately Dry conditions and the Southeast region had Abnormally Dry conditions. All climate regions had Near Normal conditions or wetter for the 3-month and 24-month periods.

Keetch-Byram Drought Fire Index

April 17, 4:00 p.m.--0 stations are above 600.

Zero stations were above 600 on March 31 2017.



Keetch-Byram Drought Index

4:00 PM April 17, 2017 CDT

Created 4:59:54 PM April 17, 2017 CDT. © Copyright 2017

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.

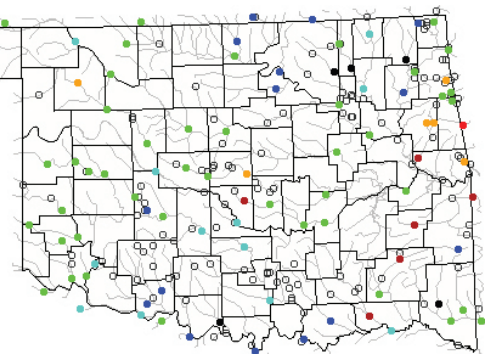
STREAMFLOW CONDITIONS

April 17, 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

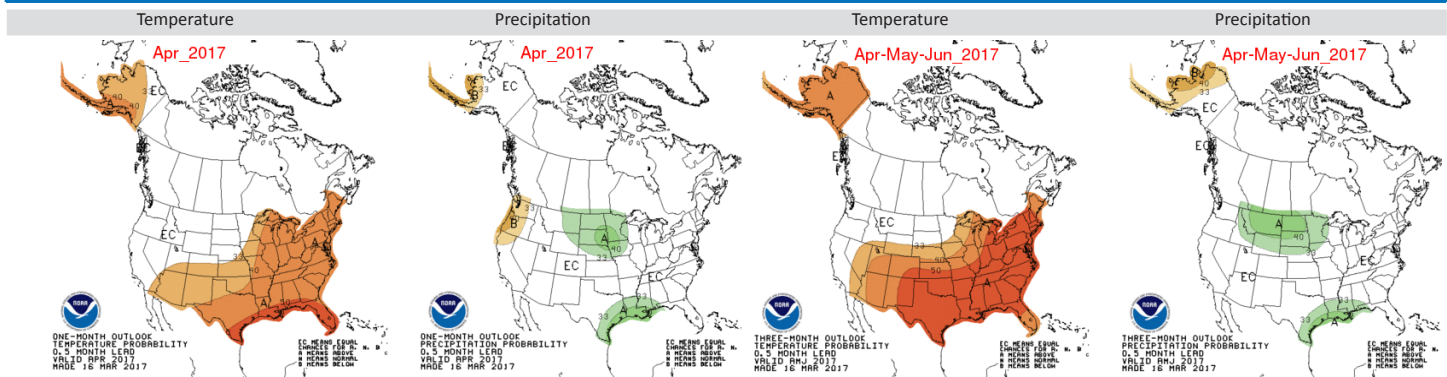
Visit waterwatch.usgs.gov for real-time streamflow information.

Real-time streamflow on April 17, 2017, at 4:30 p.m. compared to historical streamflow for day of year.



WEATHER/DROUGHT FORECAST

Seasonal Outlook

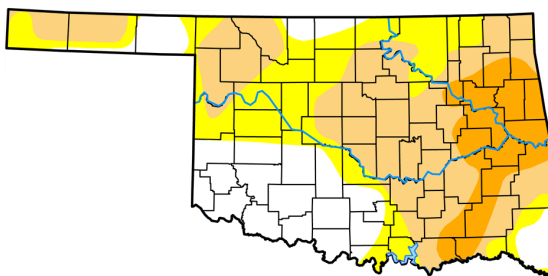


The contours on the maps show the total probability of three categories—above, indicated by the letter “A”; and below, indicated by the letter “B”. “EC” indicates “Equal Chances” for A or B. For April-June, the probability for precipitation in all areas of the state has equal chances of being above or below normal.

Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

April 11, 2017
(Released Thursday, Apr. 13, 2017)
Valid 8 a.m. EDT



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC



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

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	23.65	76.35	50.92	13.65	0.00	0.00
Last Week 04-04-2017	19.43	80.57	54.67	14.50	0.00	0.00
3 Months Ago 01-10-2017	2.81	97.19	87.61	58.35	5.66	0.00
Start of Calendar Year 01-03-2017	5.61	94.39	83.21	55.75	5.55	0.00
Start of Water Year 09-27-2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 04-12-2016	31.85	68.15	31.90	5.45	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.

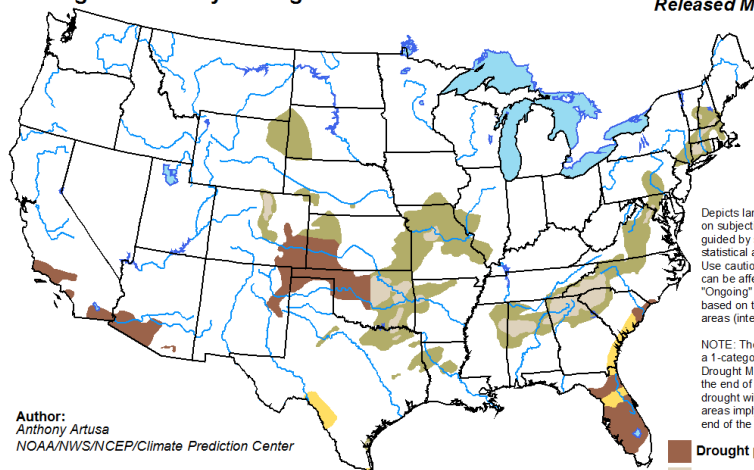
According to the latest *U.S. Drought Monitor*, the number of Oklahomans currently affected by drought is 2,830,801, down by about 400,000 from this time last month.

While no areas are suffering from Exceptional Drought (D4) or Extreme Drought (D3), nearly 14% of the state (in area) is in Severe Drought (D2) and about 51% of the state is in Moderate Drought (D1) or worse. The largest area of Severe Drought is in the East Central region, which corresponds with less than average rainfall for the region—only at 73% of normal for the past 30 days.

According to the latest seasonal drought outlook, during the month of April, drought will persist in the northwest quadrant and panhandle of the state. The largest contiguous area of drought for the period is predicted to spread from Oklahoma to the north and west into neighboring states.

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

Valid for April 2017
Released March 31, 2017



Author:
Anthony Artusa
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

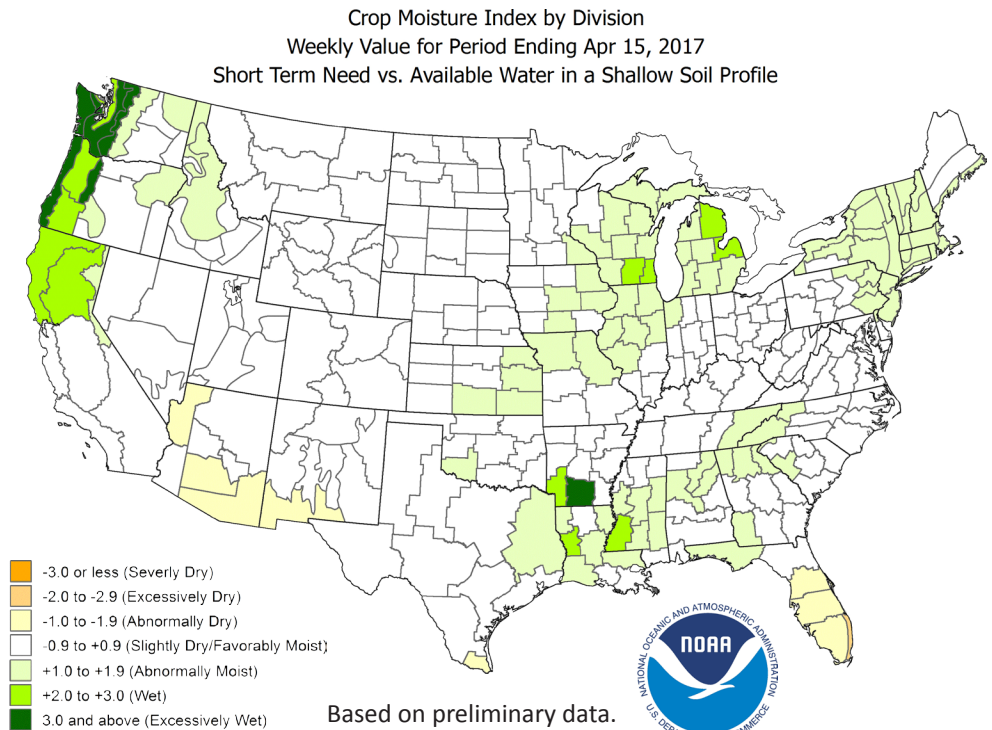


<http://go.usa.gov/3eZGd>

CROP MOISTURE INDEX

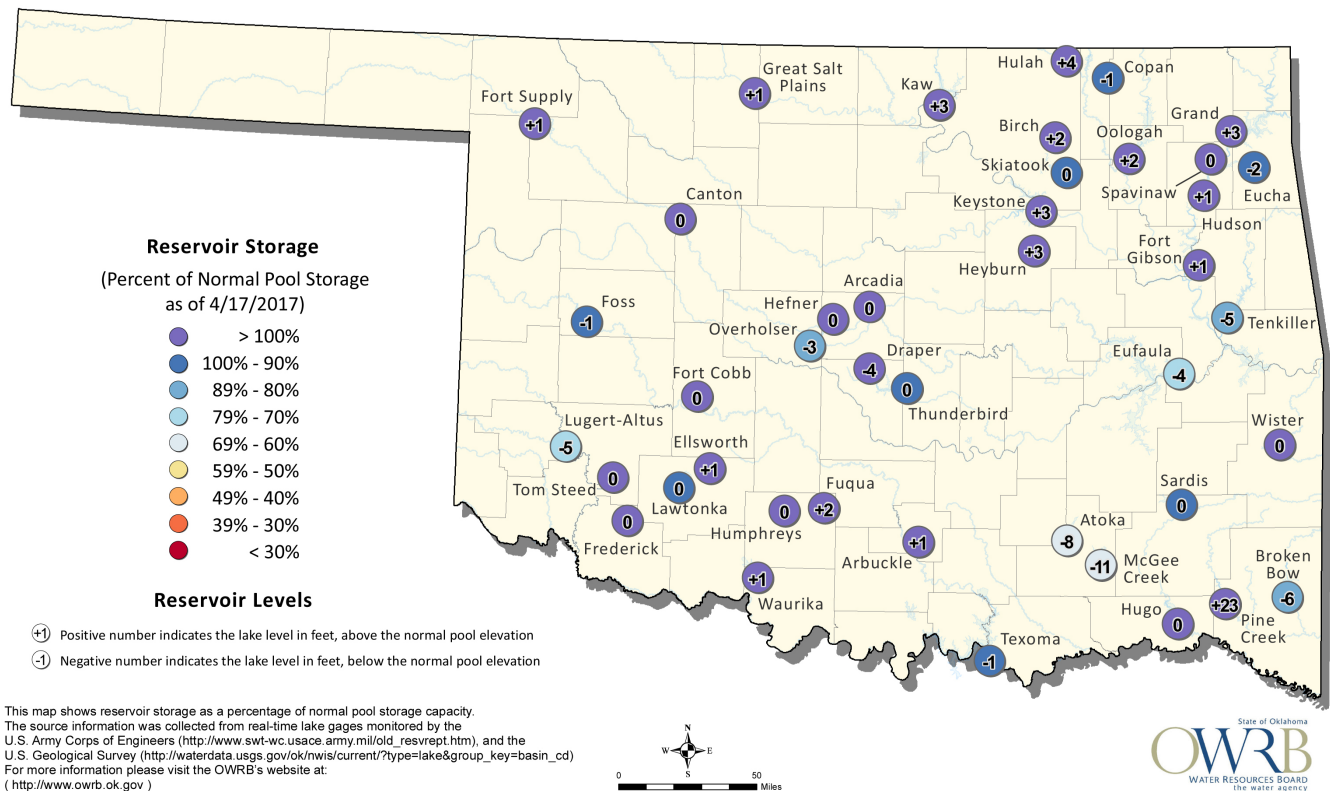
According to the NOAA Crop Moisture Index by Division, for the period ending April 15, 2017, all regions of the state are shown as Slightly Dry/Favorably Moist (-0.9 to +0.9) except the southwest region, which is shown as Abnormally Moist (+1.0 to +1.6).

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 4/17/2017



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.