

# Oklahoma Water Resources Bulletin & Summary of Current Conditions

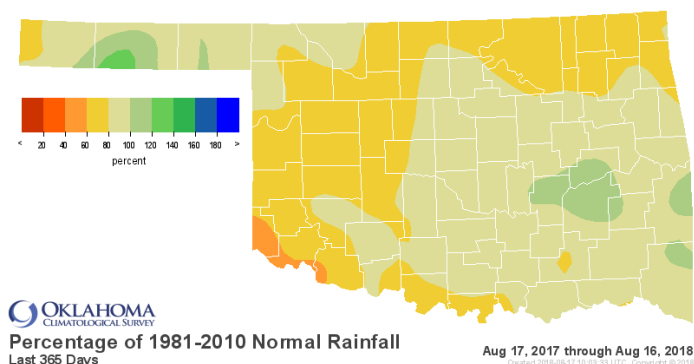
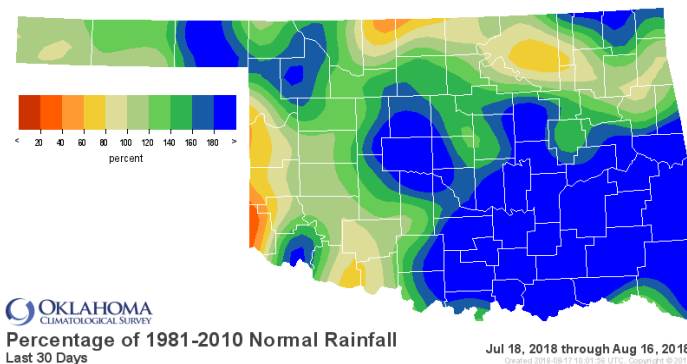


August 17, 2018

## PRECIPITATION

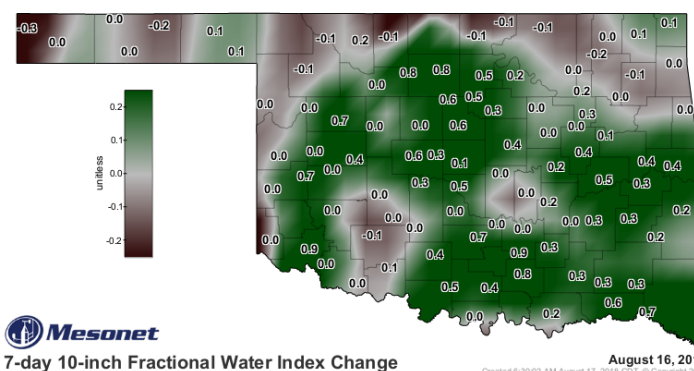
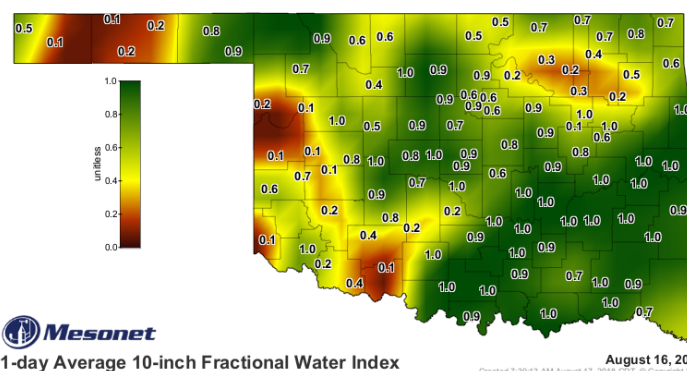
### Statewide Precipitation

Climate Division	Last 30 Days July 18 – August 16, 2018				Last 365 Days August 17, 2017 – August 16, 2018			
	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	3.38"	+0.74"	128%	23rd wettest	18.65"	-1.93"	91%	38th driest
NORTH CENTRAL	3.77"	+0.93"	133%	28th wettest	24.74"	-6.68"	79%	25th driest
NORTHEAST	3.69"	+0.57"	118%	40th wettest	32.21"	-10.46"	75%	19th driest
WEST CENTRAL	3.04"	+0.55"	122%	28th wettest	21.19"	-7.21"	75%	17th driest
CENTRAL	5.00"	+2.22"	180%	14th wettest	33.74"	-3.89"	90%	47th driest
EAST CENTRAL	5.77"	+2.73"	190%	11th wettest	42.28"	-3.86"	92%	45th driest
SOUTHWEST	2.75"	+0.48"	121%	33rd wettest	22.87"	-7.40"	76%	17th driest
SOUTH CENTRAL	5.62"	+3.26"	238%	6th wettest	34.90"	-5.81"	86%	38th driest
SOUTHEAST	7.52"	+4.53"	251%	3rd wettest	47.21"	-3.38"	93%	42nd driest
STATEWIDE	4.51"	+1.78"	165%	11th wettest	30.87"	-5.60"	85%	33rd driest



## SOIL MOISTURE

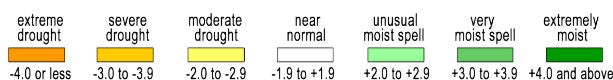
### Fractional Water Index August 16, 2018



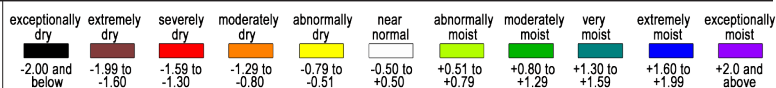
The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1.  
[1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

## DROUGHT INDICES

Palmer Drought Severity Index (PDSI)					Standardized Precipitation Index (SPI) Through June 2018		
Climate Division	Status 8/11/18	Value 7/14	8/11	Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	-1.89	-0.57	1.32(+)	Abnormally Moist	Near Normal	Near Normal
NORTH CENTRAL	Near Normal	-1.51	-1.24	0.27(+)	Near Normal	Near Normal	Near Normal
NORTHEAST	Moderate Drought	-2.29	-2.32	0.03(-)	Extremely Dry	Near Normal	Near Normal
WEST CENTRAL	Severe Drought	-3.47	-3.51	0.04(-)	Near Normal	Near Normal	Near Normal
CENTRAL	Near Normal	-1.07	-0.23	0.84(+)	Near Normal	Abnormally Moist	Near Normal
EAST CENTRAL	Near Normal	-1.38	-1.66	0.28(-)	Moderately Dry	Near Normal	Near Normal
SOUTHWEST	Severe Drought	-3.13	-3.61	0.48(-)	Moderately Dry	Near Normal	Near Normal
SOUTH CENTRAL	Moderate Drought	-2.25	-2.45	0.2(-)	Moderately Dry	Near Normal	Near Normal
SOUTHEAST	Moderate Drought	-2.17	-1.93	0.24(+)	Moderately Dry	Near Normal	Near Normal



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 August 11, most climate regions in the state were experiencing drought conditions. The West Central and Southwest regions were experiencing Severe 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. For the 3-month period, all regions were near or below normal except Northwest, which was abnormally moist. For the 12-month period all regions were near normal except Central, which was abnormally moist. For the 24-month period, all regions were near normal.

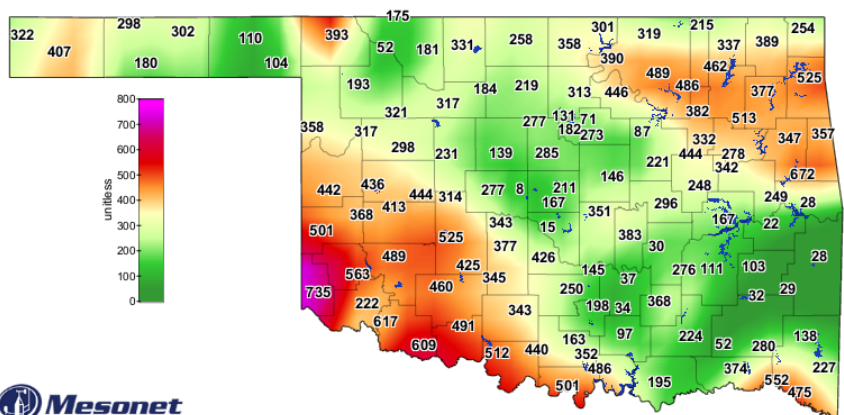
## Keetch-Byram Drought Fire Index

August 17, 9:00 a.m.--1 station is above 600.

STATION	REGION	KBDI
Hollis	Southwest	735

Nine stations were above 600 on July 19, 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 August 17, 2018 CDT  
Created 9:59:05 AM August 17, 2018 CDT. © Copyright 2018

## STREAMFLOW CONDITIONS

August 17, 2018

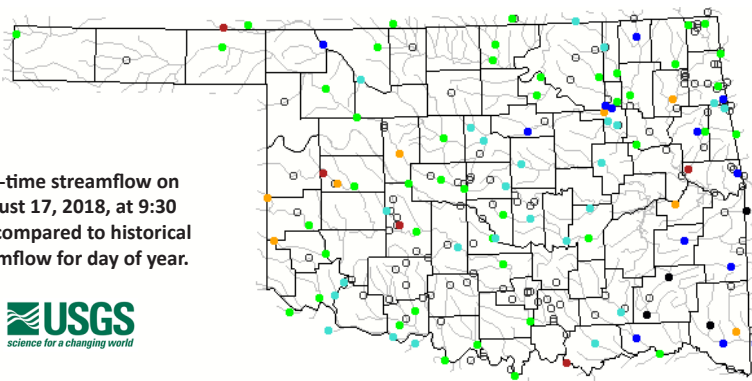
Explanation - Percentile classes						
<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>
Low	<10 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](http://waterwatch.usgs.gov) for real-time streamflow information.

Real-time streamflow on August 17, 2018, at 9:30 a.m. compared to historical streamflow for day of year.

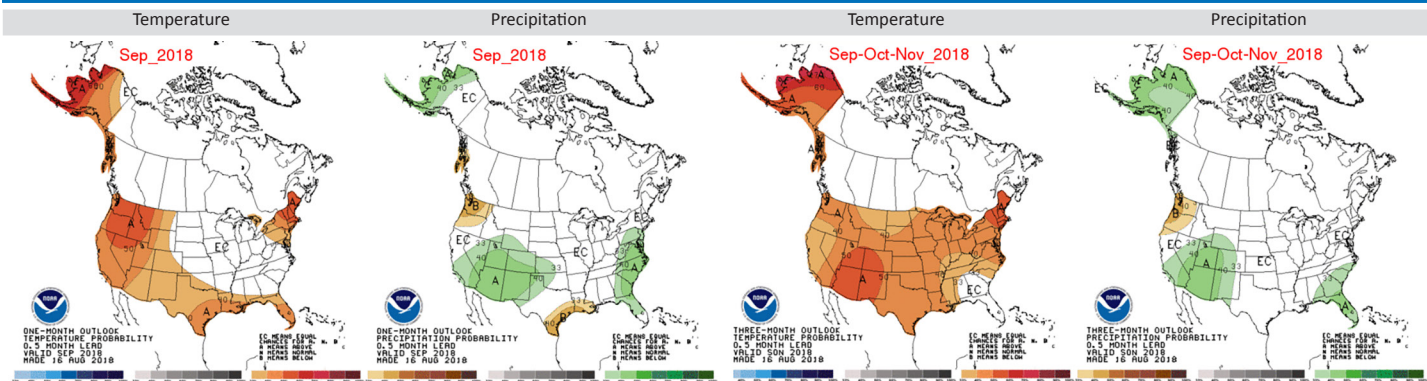


science for a changing world



# WEATHER/DROUGHT FORECAST

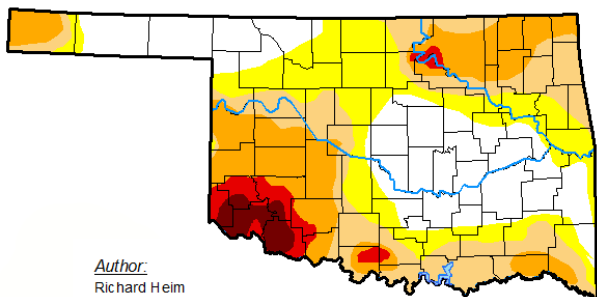
## Seasonal Outlook



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:  
Richard Heim  
NCEI/NOAA



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

**August 14, 2018**

(Released Thursday, Aug. 16, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	30.28	69.72	46.86	25.68	6.30	2.55
Last Week 08-07-2018	24.42	75.58	54.88	32.30	7.72	2.55
3 Months Ago 05-15-2018	44.84	55.16	47.34	42.80	34.36	17.10
Start of Calendar Year 01-02-2018	0.00	100.00	77.15	38.76	0.00	0.00
Start of Water Year 09-26-2017	64.46	35.54	0.77	0.00	0.00	0.00
One Year Ago 08-15-2017	86.05	13.95	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.

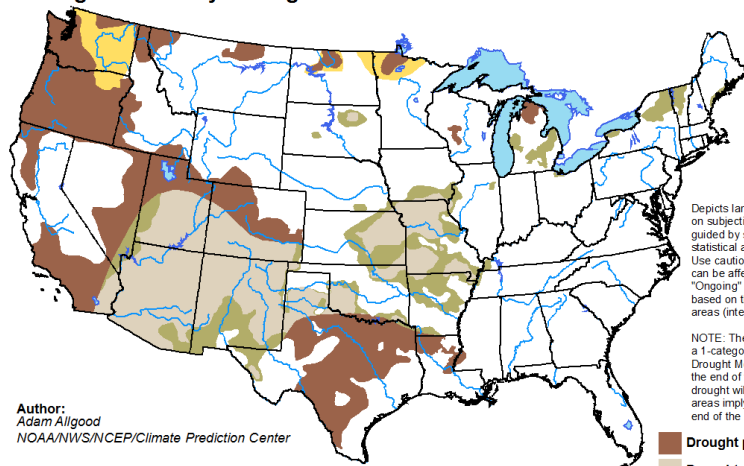
According to the latest U.S. Drought Monitor, as of August 14, the estimated Oklahoma population in drought areas was 1,415,413, up by more than 225,000 from this time last month. More than 2.5% of the state (in area) is in Exceptional Drought (D4), the highest category, which is concentrated across several counties in the Southwest climate division. Another 6.3% of the state is in extreme drought (D3), also mostly in the southwest, while more than 25% of the state is suffering from Severe Drought (D2). Almost 47% of the state is in Moderate Drought (D1) or worse, and almost 70% has Abnormally Dry conditions (D0) or worse.

According to the latest seasonal drought outlook for the period of August 16 through November 30, 2018, conditions in drought-stricken areas across Oklahoma are predicted to improve. Drought is predicted to persist in many areas in Texas, Colorado, Utah, Nevada, Idaho, and along the Pacific coastline.

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

Valid for August 16 - November 30, 2018

Released August 16, 2018



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>



