

Oklahoma Water Resources Bulletin & Summary of Current Conditions

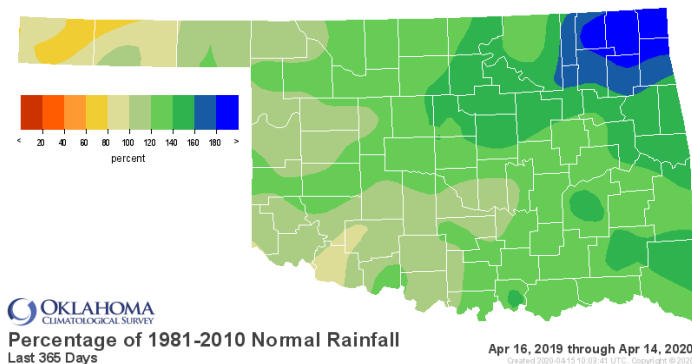
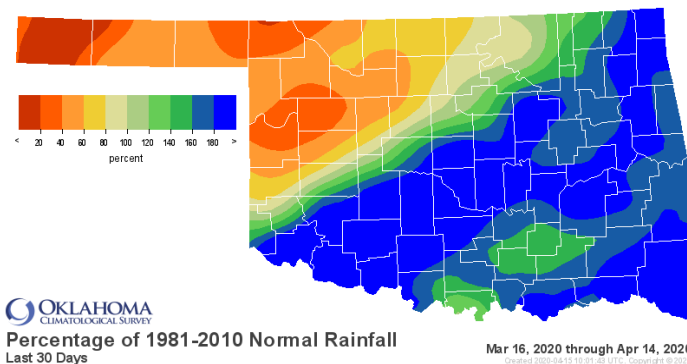


April 15, 2020

PRECIPITATION

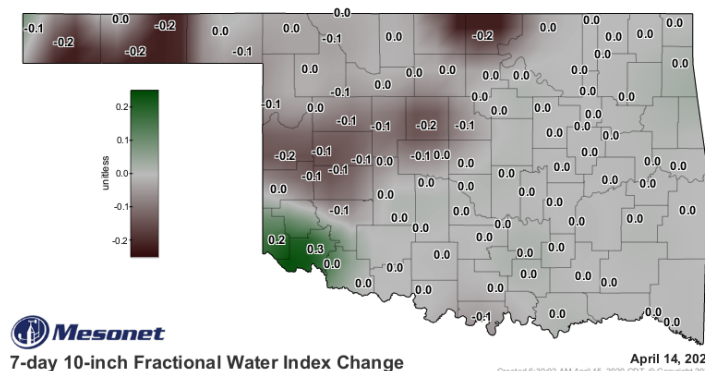
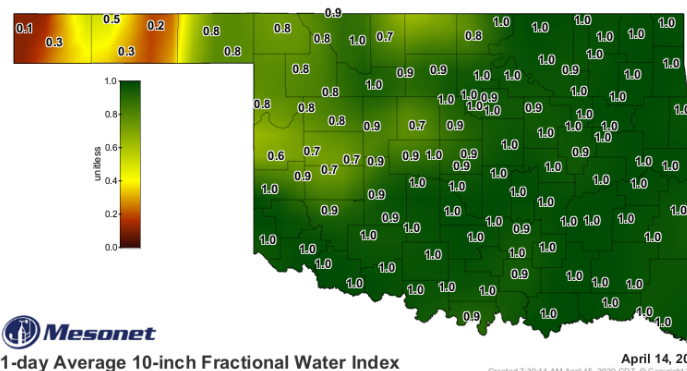
Statewide Precipitation

Climate Division	Last 30 Days March 16, 2020 – April 14, 2020				Last 365 Days April 16, 2019 – April 14, 2020			
	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	0.55"	-1.02"	35%	30th driest	20.23"	-0.30"	99%	47th wettest
NORTH CENTRAL	1.66"	-0.99"	63%	44th driest	41.23"	+9.90"	132%	5th wettest
NORTHEAST	5.34"	+1.77"	150%	15th wettest	69.02"	+26.48"	162%	1st wettest
WEST CENTRAL	1.28"	-0.96"	57%	36th driest	34.40"	+6.08"	121%	11th wettest
CENTRAL	4.88"	+1.77"	157%	14th wettest	50.62"	+13.09"	135%	4th wettest
EAST CENTRAL	6.78"	+3.01"	180%	7th wettest	65.52"	+19.51"	142%	3rd wettest
SOUTHWEST	4.46"	+2.20"	197%	8th wettest	33.86"	+3.67"	112%	18th wettest
SOUTH CENTRAL	5.38"	+2.11"	165%	13th wettest	50.73"	+10.13"	125%	6th wettest
SOUTHEAST	8.09"	+3.88"	192%	8th wettest	68.80"	+18.35"	136%	3rd wettest
STATEWIDE	4.26"	+1.30"	144%	16th wettest	48.41"	+12.04"	133%	2nd wettest



SOIL MOISTURE

Fractional Water Index April 14, 2020



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 2020		
Climate Division	Status 04/11/20	Value		Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	2.75	1.36	1.39(-)	Abnormally Moist	Abnormally Moist	Extremely Moist
NORTH CENTRAL	Very Moist Spell	3.85	3.44	0.41(-)	Moderately Moist	Exceptionally Moist	Exceptionally Moist
NORTHEAST	Extremely Moist	5.09	5.06	0.03(-)	Exceptionally Moist	Exceptionally Moist	Exceptionally Moist
WEST CENTRAL	Near Normal	1.59	1.70	0.11(+)	Moderately Moist	Very Moist	Extremely Moist
CENTRAL	Extremely Moist	4.47	4.67	0.2(+)	Extremely Moist	Exceptionally Moist	Exceptionally Moist
EAST CENTRAL	Extremely Moist	4.88	4.93	0.05(+)	Extremely Moist	Exceptionally Moist	Exceptionally Moist
SOUTHWEST	Unusual Moist Spell	0.42	2.73	2.31(+)	Extremely Moist	Moderately Moist	Abnormally Moist
SOUTH CENTRAL	Extremely Moist	4.00	4.40	0.4(+)	Exceptionally Moist	Extremely Moist	Exceptionally Moist
SOUTHEAST	Extremely Moist	4.39	4.64	0.25(+)	Extremely Moist	Extremely Moist	Extremely Moist

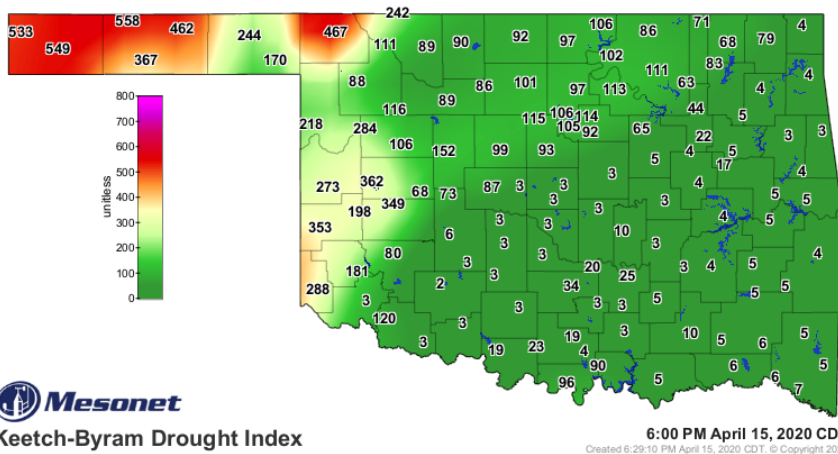
extreme drought -4.0 or less	severe drought -3.0 to -3.9	moderate drought -2.0 to -2.9	near normal -1.9 to +1.9	unusual moist spell +2.0 to +2.9	very moist spell +3.0 to +3.9	extremely moist +4.0 and above
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exceptionally dry -2.00 and below	extremely 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 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 April 11, the Northwest and West Central regions were near normal but the rest of the state's climate regions were above normal.

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 abnormally moist or wetter.

Keetch-Byram Drought Fire Index



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.

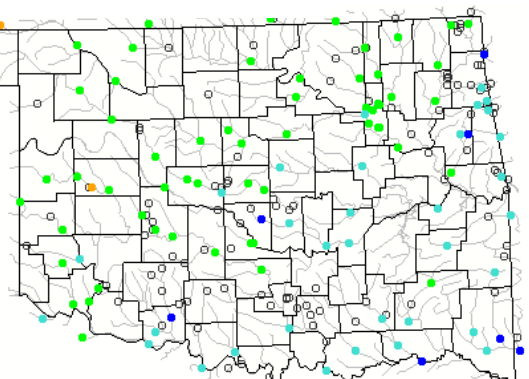
STREAMFLOW CONDITIONS

April 15, 2020

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 additional real-time streamflow information.

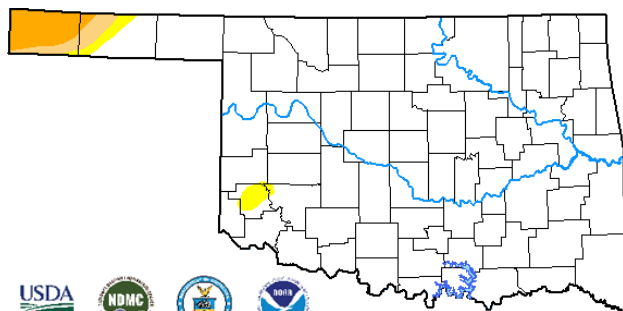
Real-time streamflow on April 15, 2020, at 6:30 p.m. compared to historical streamflow for this day of the year.



WEATHER/DROUGHT FORECAST

Drought Summary for Oklahoma

U.S. Drought Monitor Oklahoma



April 14, 2020

(Released Thursday, Apr. 16, 2020)

Valid 7 a.m. EDT

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

Author: Brian Fuchs

National Drought Mitigation Center

Drought Conditions (percent area)

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2020-04-14	95.47	4.53	3.35	2.27	0.00	0.00	10
Last Week	2020-04-07	95.47	4.53	3.35	2.27	0.00	0.00	10
3 Months Ago	2020-01-14	71.77	28.23	12.10	3.64	0.00	0.00	44
Start of Calendar Year	2019-12-31	76.45	23.55	10.47	3.64	0.00	0.00	38
Start of Water Year	2019-10-01	71.94	28.06	11.08	1.01	0.00	0.00	40
One Year Ago	2019-04-16	100.00	0.00	0.00	0.00	0.00	0.00	0

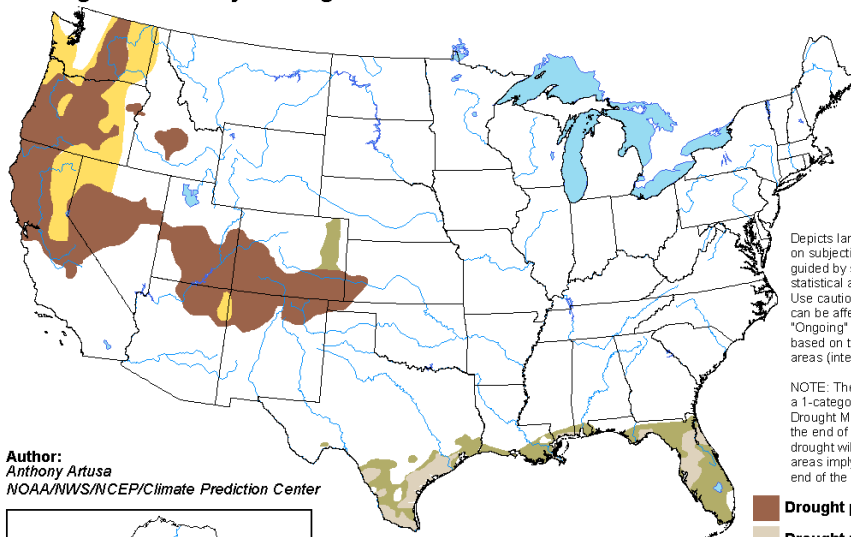
According to the latest U.S. Drought Monitor, as of April 14, 2020, the estimated Oklahoma population living in areas experiencing drought was 7,970, with 2.27% of the state in area experiencing Severe Drought (D2) conditions and 3.35% experiencing Moderate Drought (D1) conditions or worse. A total of 4.53% of the state has Abnormally Dry (D0) conditions or worse.

Drought Probability

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

Valid for April 16 - July 31, 2020

Released April 16



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).

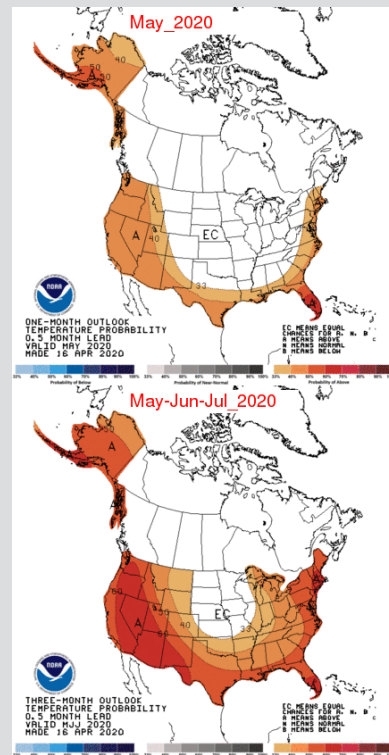
- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



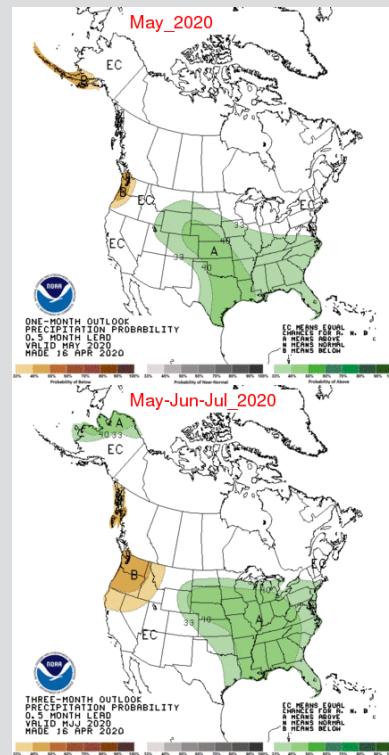
<http://go.usa.gov/3eZ73>

Seasonal Outlook

Temperature Probability



Precipitation Probability



The contours on the maps above show the total probability of three categories. "Above" is indicated by the letter "A"; "Below" is indicated by the letter "B"; "EC" indicates "Equal Chances" for A or B.

RESERVOIR STORAGE

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 4/14/2020

