

Oklahoma Water Resources Bulletin & Summary of Current Conditions

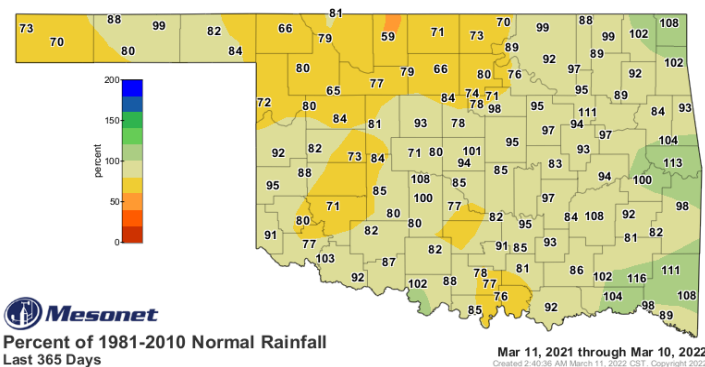
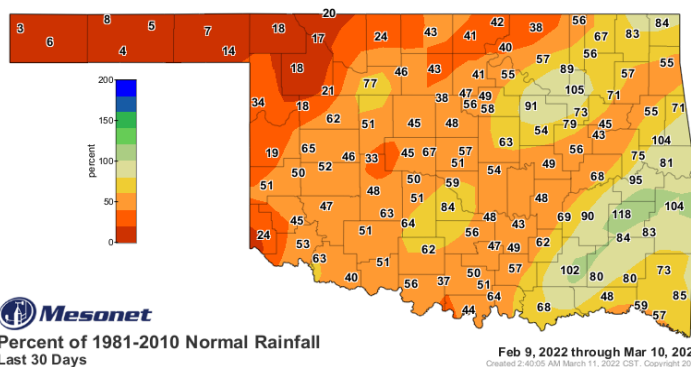


March 10, 2022

PRECIPITATION

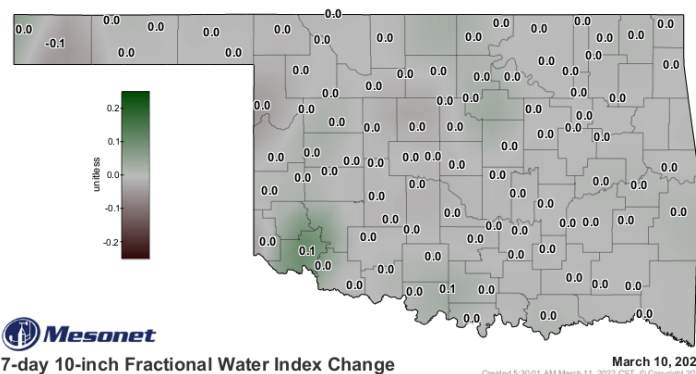
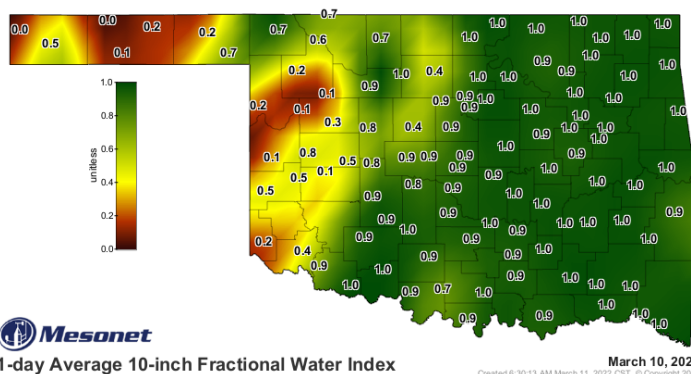
Statewide Precipitation

Last 30 Days February 9, 2022 – March 10, 2022					Last 365 Days March 11, 2021 – March 10, 2022			
Climate Division	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	0.12"	-0.72"	15%	16th driest	16.13"	-4.45"	78%	22nd driest
N. CENTRAL	0.66"	-1.05"	39%	31st driest	22.77"	-8.65"	72%	14th driest
NORTHEAST	1.66"	-0.98"	63%	36th driest	40.98"	-1.69"	96%	45th wettest
W. CENTRAL	0.74"	-0.80"	48%	40th driest	24.68"	-3.72"	87%	42nd driest
CENTRAL	1.30"	-0.98"	57%	45th driest	32.74"	-4.89"	87%	39th driest
E. CENTRAL	2.23"	-0.89"	72%	46th driest	44.61"	-1.53"	97%	50th wettest
SOUTHWEST	0.87"	-0.91"	49%	43rd driest	26.18"	-4.09"	86%	37th driest
S. CENTRAL	1.59"	-1.23"	56%	34th driest	35.12"	-5.59"	86%	37th driest
SOUTHEAST	3.05"	-0.80"	79%	40th driest	49.88"	-0.71"	99%	49th wettest
STATEWIDE	1.33"	-0.94"	59%	37th driest	32.40"	-4.07"	89%	40th driest



SOIL MOISTURE

Fractional Water Index



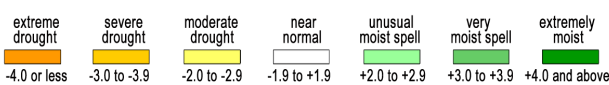
The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1.
[1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

DROUGHT INDICES

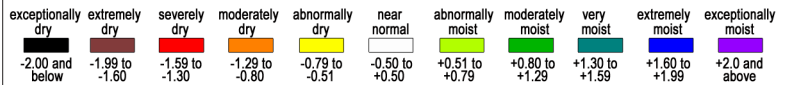
Palmer Drought Severity Index (PDSI)

Standardized Precipitation Index (SPI) Through February 2022

Climate Division	Status 03/05/22	Value 02/05 03/05	Change in Value	3-month	12-month	24-month
NORTHWEST	Moderate Drought	-2.24 -2.67	0.43(-)	Extremely Dry	Moderately Dry	Moderately Dry
NORTH CENTRAL	Near Normal	-1.00 -1.40	0.40(-)	Severely Dry	Abnormally Dry	Near Normal
NORTHEAST	Near Normal	-0.63 -0.63	0	Abnormally Dry	Near Normal	Near Normal
WEST CENTRAL	Near Normal	-1.04 -1.51	0.47(-)	Moderately Dry	Near Normal	Abnormally Dry
CENTRAL	Near Normal	-0.89 -0.90	0.01(-)	Moderately Dry	Near Normal	Near Normal
EAST CENTRAL	Near Normal	-0.04 0.21	0.25(+)	Near Normal	Near Normal	Abnormally Moist
SOUTHWEST	Near Normal	-1.32 -1.47	0.15(-)	Moderately Dry	Near Normal	Near Normal
SOUTH CENTRAL	Near Normal	-0.93 -0.82	0.11(+)	Moderately Dry	Near Normal	Near Normal
SOUTHEAST	Near Normal	-0.27 -0.00	0.27(+)	Abnormally Dry	Near Normal	Moderately Moist

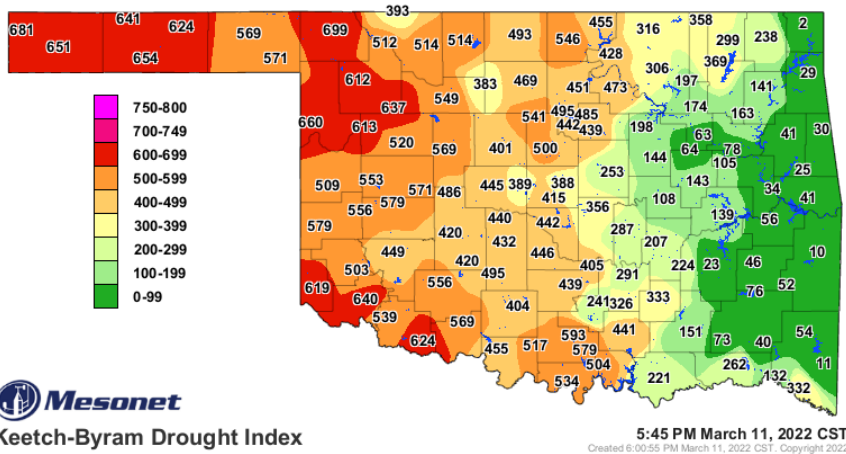


The *PDSI* is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland, spanning from -10 (dry) to +10 (wet). According to the latest PDSI, as of March 5, 2022, all climate regions are near normal except the Northwest, which is in Moderate Drought.



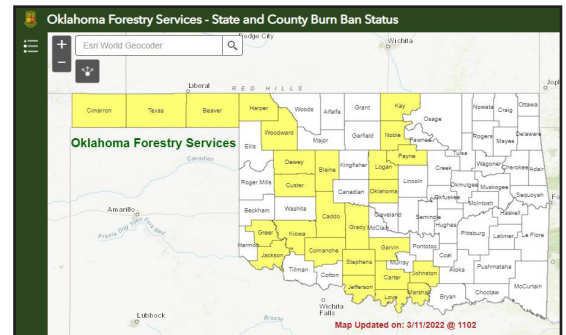
The *SPI* provides a comparison of precipitation over several specified periods with totals from the periods for all years in the historical record. Through February 2022, all regions except East Central were below normal moisture for the 3-month period.

Keetch-Byram Drought Fire Index and County Burn Ban Status



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.

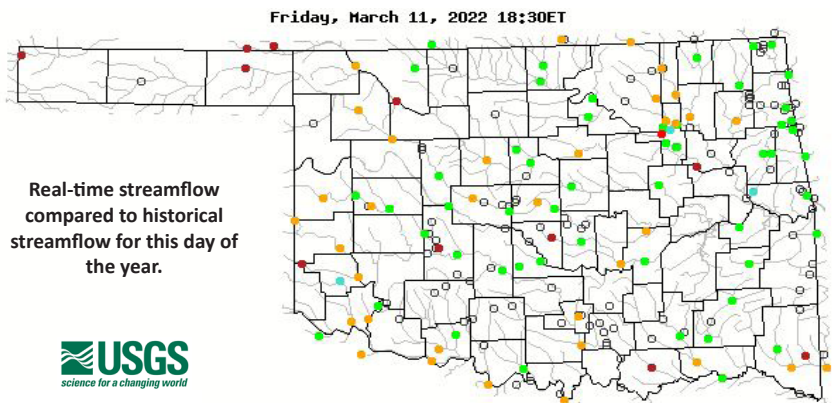


Keetch-Byram Drought Index

Streamflow Conditions

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.



WEATHER/DROUGHT FORECAST

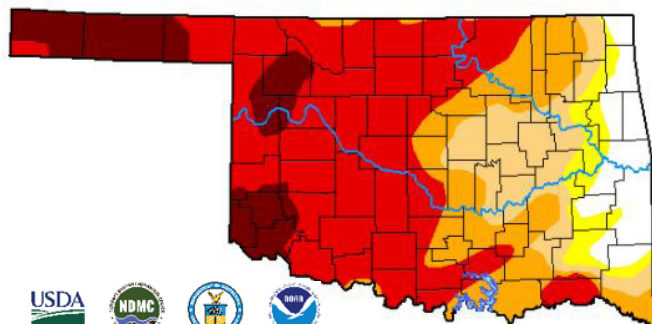
Drought Summary for Oklahoma

U.S. Drought Monitor Oklahoma

March 8, 2022

(Released Thursday, Mar. 10, 2022)

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

D0 - Abnormally Dry

- Crops are stressed (wheat, canola, alfalfa, pecans); winter wheat germination is delayed
- Stock pond levels decline

D1 - Moderate Drought

- Summer crop and forage yields are reduced
- Wildfire risk increases
- Lake recreation activities are affected; deer reproduction is poor

D2 - Severe Drought

- Dryland crops are severely reduced; pasture growth is stunted
- Cattle are stressed
- Burn bans begin

D3 - Extreme Drought

- Grasses are dormant, and hay is nonexistent; planting is delayed; fields are spotty; bare, land is abandoned
- Cattle have little water and feed
- Wildfires are increasing in number and severity; air quality is poor, with dust storms and smoke

D4 - Exceptional Drought

- Ground is cracking; farmers are bailing failed crops or abandoning fields; pastures are bare; land is abandoned
- Cost of hay and water is high and supplies are scarce; producers are liquidating herds
- Burn restrictions increase; fire season is long



droughtmonitor.unl.edu

Drought Conditions (percent area)

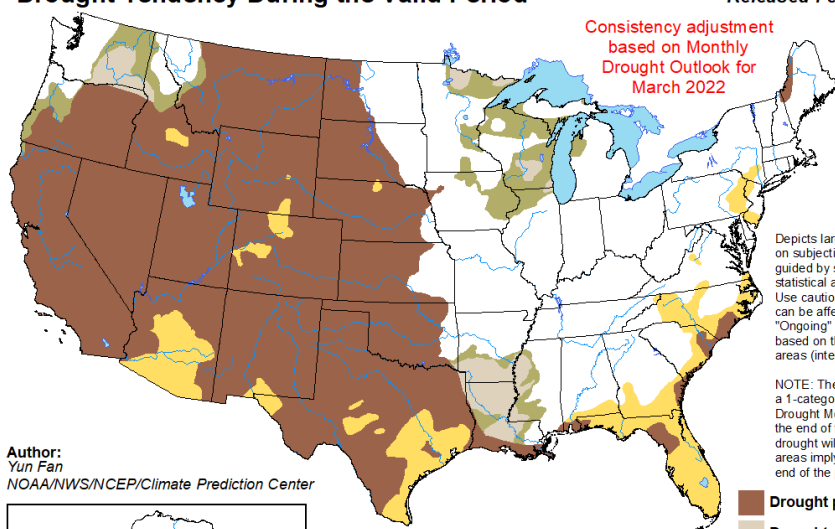
Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2022-03-08	8.16	91.84	86.62	74.46	56.52	12.03	321
Last Week	2022-03-01	7.72	92.28	86.65	74.04	52.05	3.05	308
3 Months Ago	2021-12-07	7.31	92.69	81.96	28.72	4.49	0.00	208
Start of Calendar Year	2021-12-28	4.92	95.08	90.17	72.51	22.62	0.00	280
Start of Water Year	2021-09-28	6.45	93.55	73.23	23.72	2.65	0.00	193
One Year Ago	2021-03-09	47.66	52.34	22.55	5.01	0.86	0.00	81

According to the latest U.S. Drought Monitor, as of March 8, 2022, an estimated 3,371,714 Oklahomans were experiencing drought conditions, with 12.03% of the state in area in Exceptional Drought (D4), the worst category, 56.52% of the state in Extreme Drought (D3-4) or worse, 74.46% in Severe Drought (D2) or worse, and 86.62% in Moderate Drought (D1) or worse.

Drought Probability

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

Valid for March 1 - May 31, 2022
Released February 28, 2022



Consistency adjustment
based on Monthly
Drought Outlook for
March 2022

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

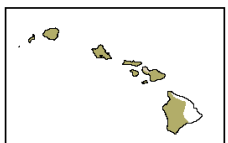
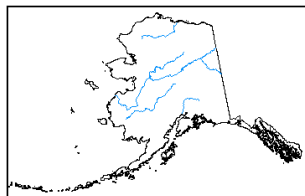


<http://go.usa.gov/3eZ73>

Author:

Yun Fan

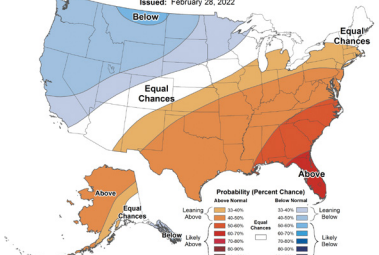
NOAA/NWS/NCEP/Climate Prediction Center



Monthly/Seasonal Outlook

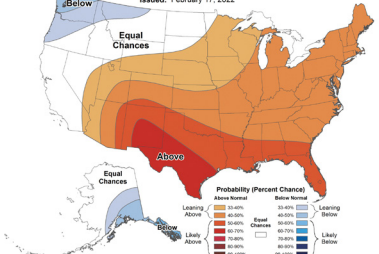
Monthly Temperature Outlook

Valid: March 2022
Issued: February 28, 2022



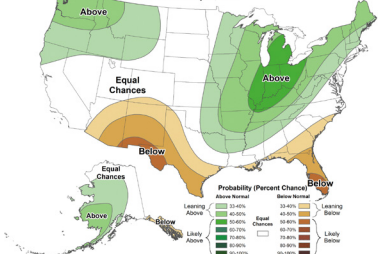
Seasonal Temperature Outlook

Valid: Mar-Apr-May 2022
Issued: February 17, 2022



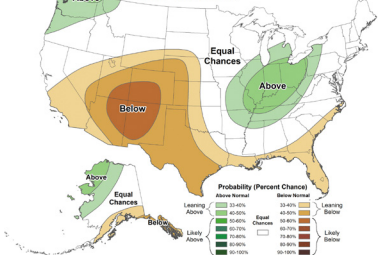
Monthly Precipitation Outlook

Valid: March 2022
Issued: February 28, 2022



Seasonal Precipitation Outlook

Valid: Mar-Apr-May 2022
Issued: February 17, 2022



RESERVOIR STORAGE

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 3/7/2022

