

Oklahoma Water Resources Bulletin

Summary of Current Conditions

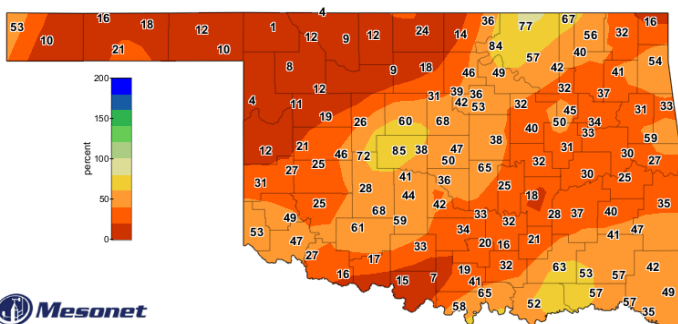
March 14, 2024

Precipitation

Last 30 Days: February 13, 2024 – March 13, 2024

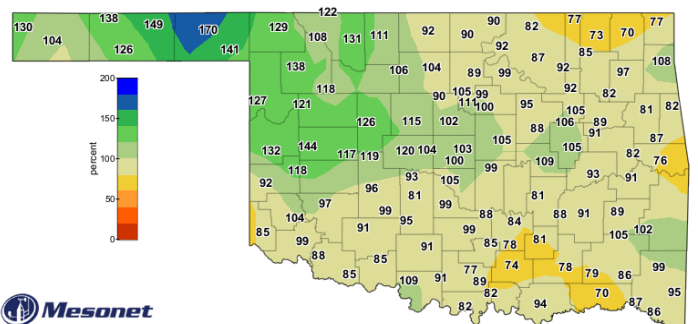
Last 365 Days: March 15, 2023 – March 13, 2024

Climate Division	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Climate Division	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	RANK SINCE 1921
PANHANDLE	0.11"	-0.78"	13%	11th driest	PANHANDLE	26.43"	+5.90"	129%	7th wettest
N. CENTRAL	0.30"	-1.46"	17%	14th driest	N. CENTRAL	33.32"	+1.99"	106%	28th wettest
NORTHEAST	1.12"	-1.56"	42%	19th driest	NORTHEAST	37.07"	-5.49"	87%	37th driest
W. CENTRAL	0.34"	-1.25"	22%	25th driest	W. CENTRAL	33.95"	+5.63"	120%	11th wettest
CENTRAL	0.92"	-1.37"	40%	27th driest	CENTRAL	36.80"	-0.72"	98%	40th wettest
E. CENTRAL	0.97"	-2.16"	31%	12th driest	E. CENTRAL	40.83"	-5.19"	89%	39th driest
SOUTHWEST	0.67"	-1.12"	38%	30th driest	SOUTHWEST	28.27"	-1.92"	94%	51st wettest
S. CENTRAL	0.92"	-1.89"	33%	15th driest	S. CENTRAL	34.50"	-6.10"	85%	34th driest
SOUTHEAST	1.78"	-2.02"	47%	15th driest	SOUTHEAST	45.68"	-4.76"	91%	36th driest
STATEWIDE	0.79"	-1.50"	34%	14th driest	STATEWIDE	35.10"	-1.27"	97%	47th wettest



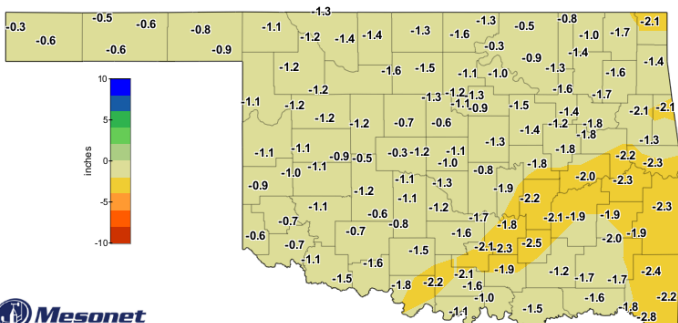
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 30 Days

Feb 13, 2024 through Mar 13, 2024
Created 3:42:29 AM March 14, 2024 CDT. Copyright 2024



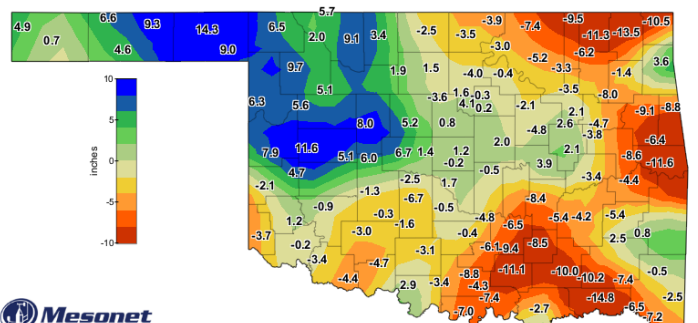
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 365 Days

Mar 15, 2023 through Mar 13, 2024
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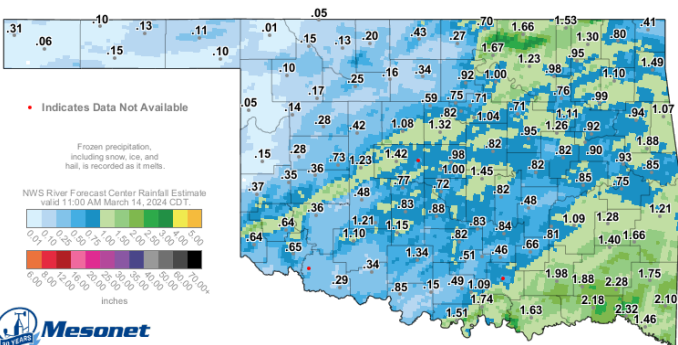
Mesonet
Departure from 1991-2020 Normal Rainfall
Last 30 Days

Feb 13, 2024 through Mar 13, 2024
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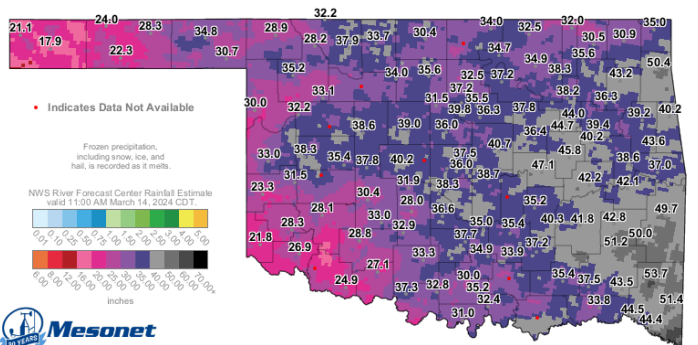
Mesonet
Departure from 1991-2020 Normal Rainfall
Last 365 Days

Mar 15, 2023 through Mar 13, 2024
Created 3:43:08 AM March 14, 2024 CDT. Copyright 2024



Mesonet
30-Day Rainfall Accumulation (inches)

12:15 PM March 14, 2024 CDT
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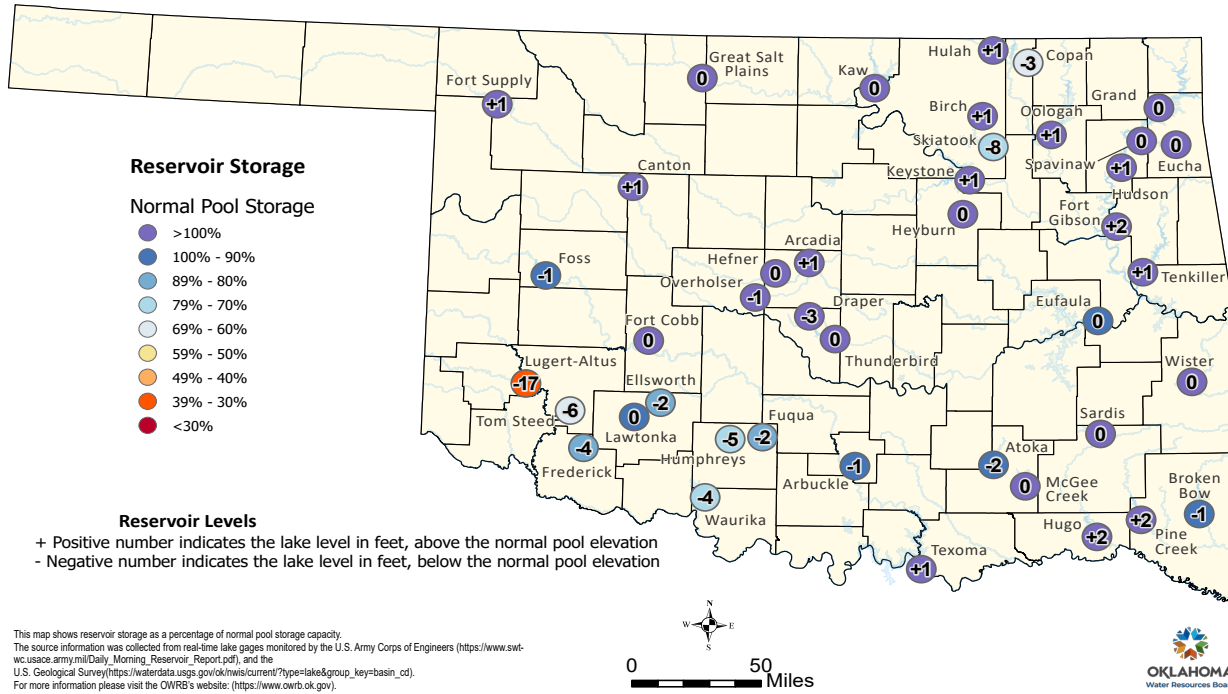


Mesonet
365-Day Rainfall Accumulation (inches)

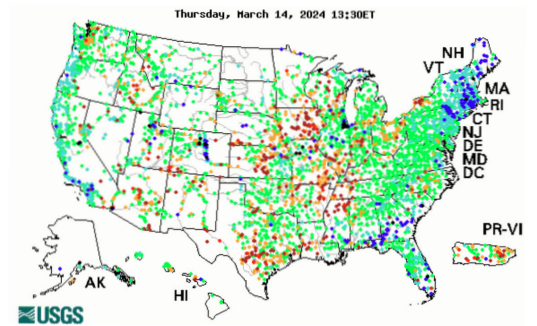
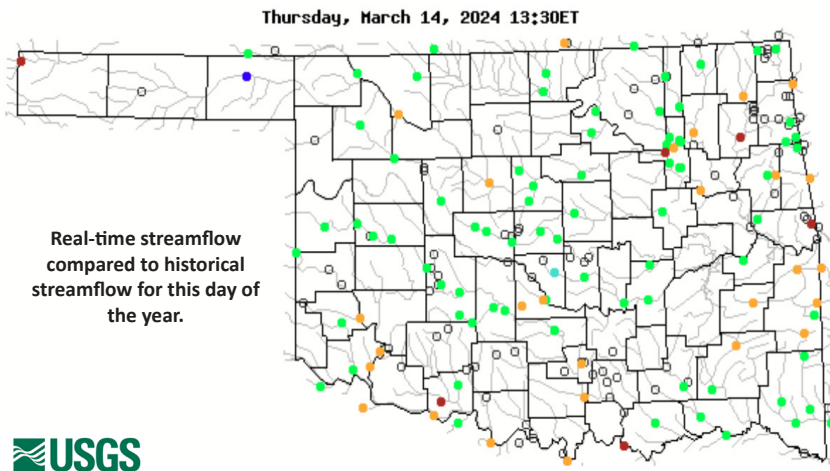
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Reservoir Levels

Oklahoma Reservoir Levels and Storage as of 3/12/2024



Streamflow



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

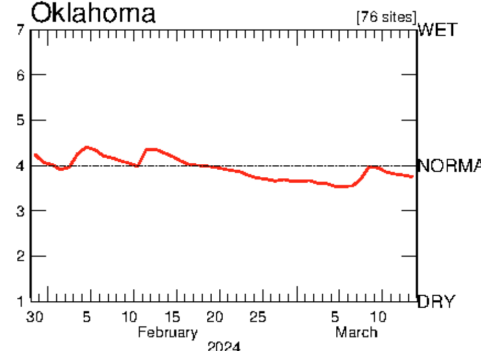
Visit waterwatch.usgs.gov for additional real-time streamflow information.

Visit the OWRB's [Water Data and Analysis Portal](#) for continuous and discrete water quality and quantity data for Oklahoma lakes, streams, and aquifers across the state.

Average Streamflow Index

Last 45 Days

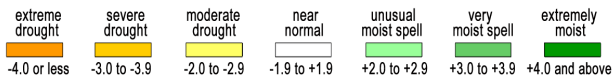
Oklahoma



Drought Conditions

Palmer Drought Severity Index (PDSI)

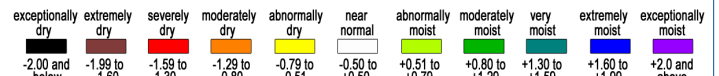
Climate Division	Status 03/09/24	Value		Change in Value
		02/10	03/09	
NORTHWEST	Near Normal	3.15	1.89	-1.26
NORTH CENTRAL	Unusual Moist Spell	3.61	2.66	-0.95
NORTHEAST	Near Normal	0.82	0.61	-0.21
WEST CENTRAL	Unusual Moist Spell	3.22	2.72	-0.5
CENTRAL	Near Normal	1.71	1.53	-0.18
EAST CENTRAL	Near Normal	0.87	-0.02	-0.89
SOUTHWEST	Near Normal	1.42	1.37	-0.05
SOUTH CENTRAL	Near Normal	1.28	0.87	-0.41
SOUTHEAST	Near Normal	1.28	0.56	-0.72



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 9, all climate regions are Near Normal or wetter.

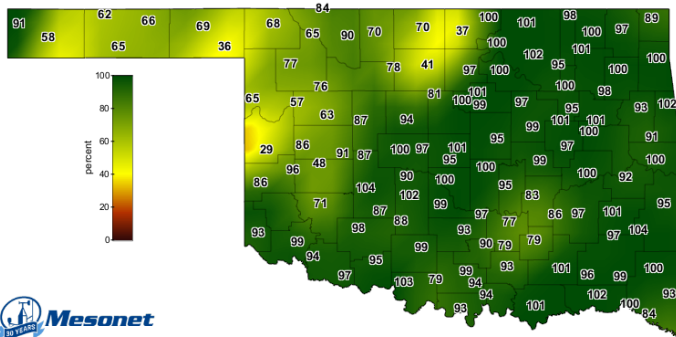
Standardized Precipitation Index (SPI) Through February 2024

3-month	12-month	24-month
Extremely Moist	Extremely Moist	Near Normal
Very Moist	Abnormally Moist	Near Normal
Abnormally Moist	Near Normal	Near Normal
Extremely Moist	Moderately Moist	Near Normal
Moderately Moist	Abnormally Moist	Near Normal
Near Normal	Near Normal	Near Normal
Very Moist	Near Normal	Near Normal
Near Normal	Near Normal	Near Normal
Near Normal	Near Normal	Near Normal



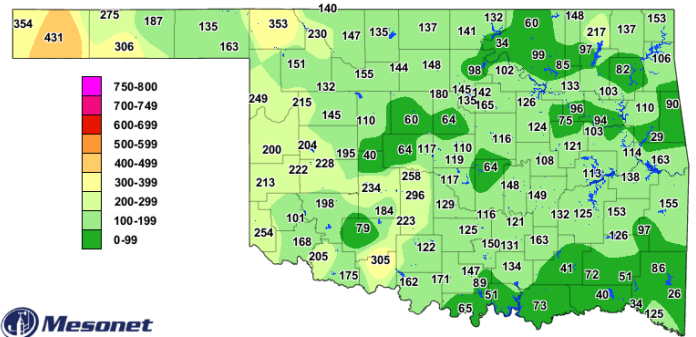
The **SPI** provides a comparison of precipitation over several specified time periods with totals for the periods for all years in the historical record. Through February 2024, all regions were near normal or wetter for all three time periods shown.

Soil Moisture



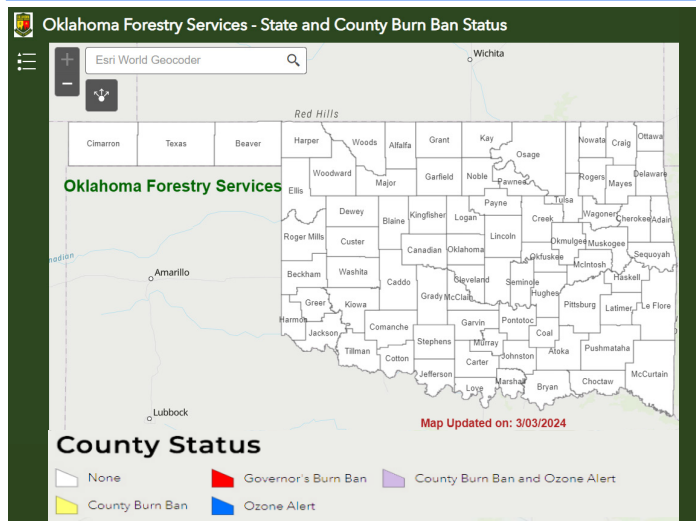
1-day Average 4-inch Percent Plant Available Water
 The 1-day Average 4-inch Bare Soil Fractional Water Index map displays the 24-hour-averaged soil moisture at 4 inches under bare soil for the previous day. Fractional water index ranges from 0 (as dry as the sensor can read) to 1.0 (as wet as the sensor can read).

Keetch-Byram Drought Index

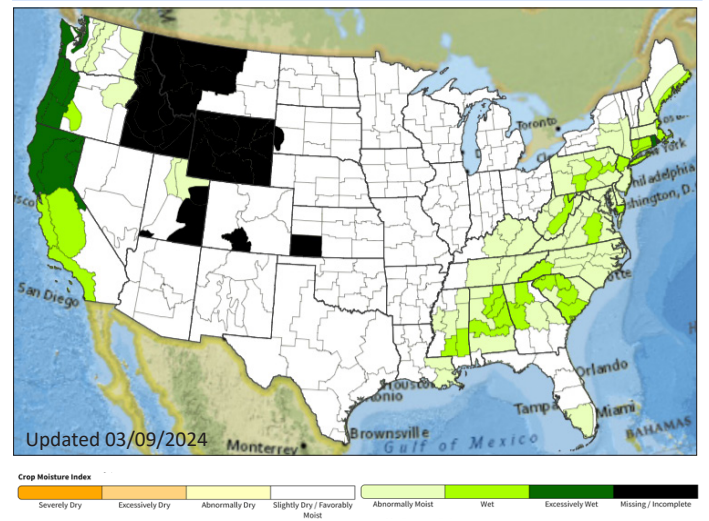


Keetch-Byram Drought Index
 The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values > 600 are often associated with severe drought and increased wildfire occurrence.

State & County Burn Ban Status



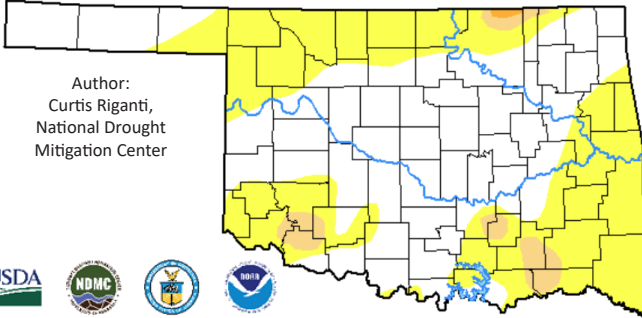
Crop Moisture Index



Oklahoma Drought Monitor

<p>74 counties with USDA Drought Disaster Designations (primary)</p> <p>— 0 counties since last week</p>	<p>~70,900 Oklahoma residents in areas of drought, according to the Drought Monitor</p> <p>↓ 0.5% since last week</p>	<p>51st driest February on record (since 1895)</p> <p>1.22 in. total precipitation ↓ 0.40 in. from normal</p>	<p>44th wettest January–February on record (since 1895)</p> <p>3.62 in. total precipitation ↑ 0.57 in. from normal</p>
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Statistics valid as of 3/14/24



Author:
Curtis Riganti,
National Drought
Mitigation Center



droughtmonitor.unl.edu

March 12, 2024
(Released Mar. 14, 2024)
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.

- 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; emergency CRP grazing is authorized
 - 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 baling 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

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2024-03-12	54.84	45.16	3.82	0.19	0.00	0.00	49
Last Week to Current	2024-03-05	65.39	34.61	3.85	0.19	0.00	0.00	39
3 Months Ago to Current	2023-12-12	32.32	67.68	32.88	10.38	1.15	0.00	112
Start of Calendar Year to Current	2023-12-26	53.62	46.38	21.64	3.08	0.00	0.00	71
Start of Water Year to Current	2023-09-26	34.29	65.71	46.76	30.93	12.91	0.00	156
One Year Ago to Current	2023-03-14	34.39	65.61	59.07	50.58	36.64	8.86	221

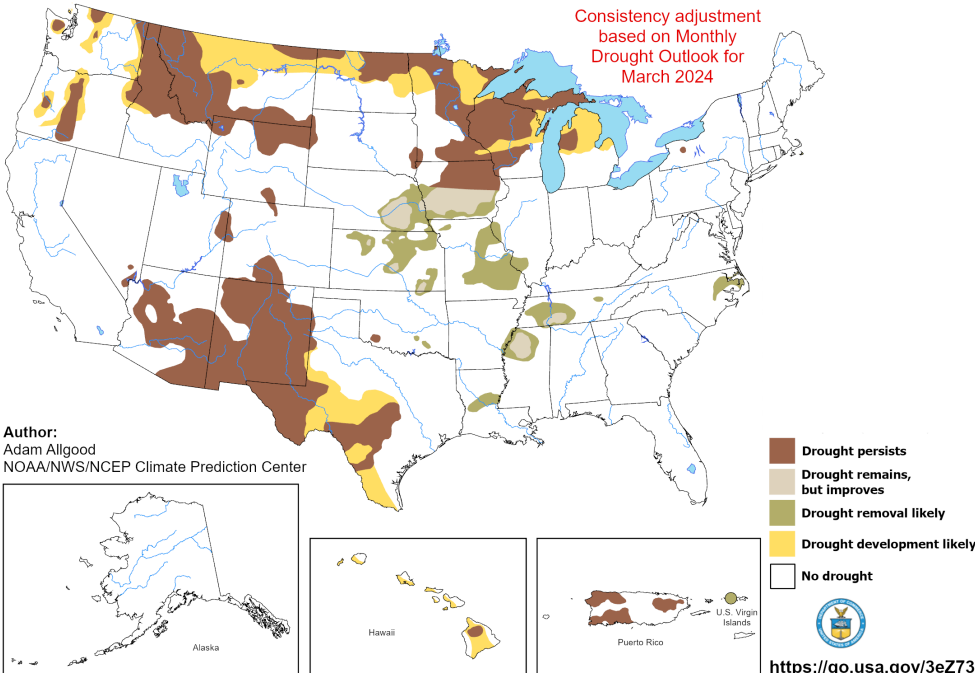
Drought Probability

U.S. Seasonal Drought Outlook

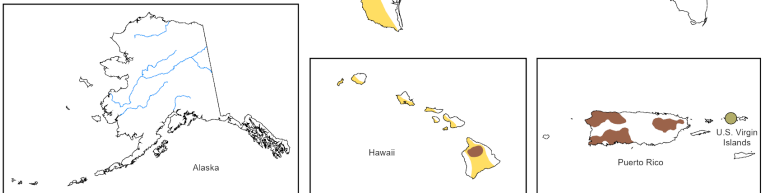
Drought Tendency During the Valid Period

Valid for March 1 - May 31, 2024
Released February 29, 2024

Consistency adjustment based on Monthly Drought Outlook for March 2024



Author:
Adam Allgood
NOAA/NWS/NCEP Climate Prediction Center

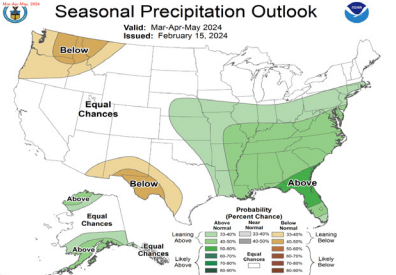
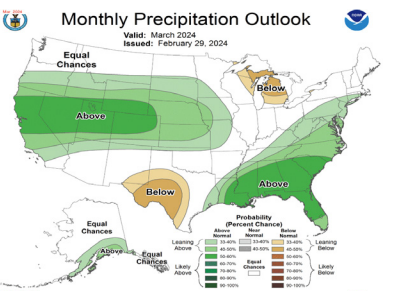
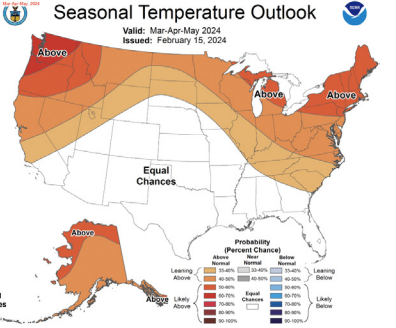
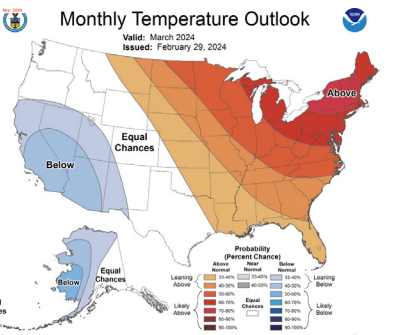


- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought

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

The map depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4). 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. Green areas imply drought removal by the end of the period.

Monthly/Seasonal Outlook



NOAA/ National Weather Service
National Centers for Environmental Prediction
Climate Prediction Center