

Oklahoma Water Resources Bulletin

Summary of Current Conditions

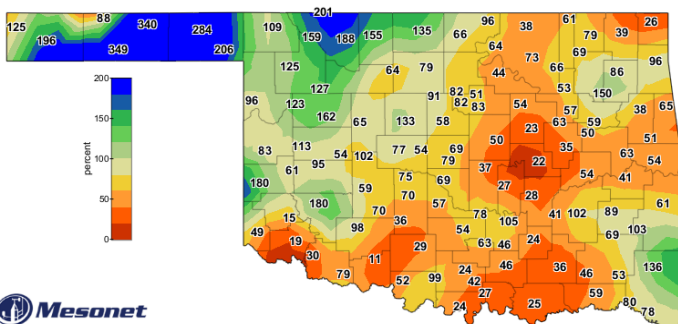
July 12, 2024

Precipitation

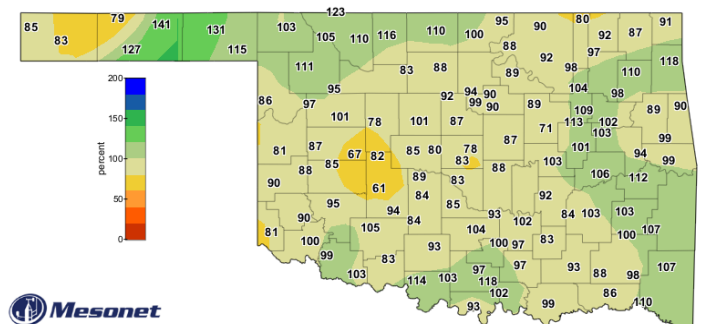
Last 30 Days: June 12, 2024, through July 11, 2024

Last 365 Days: July 13, 2023, through July 11, 2024

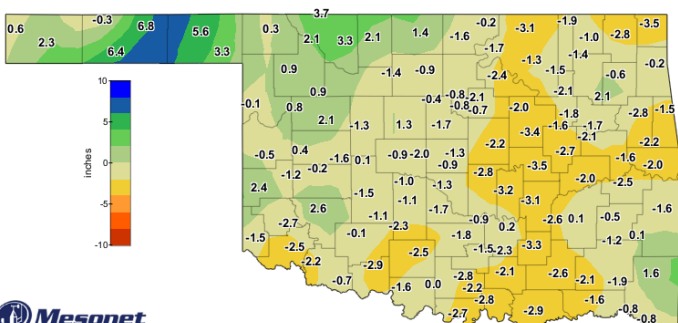
Climate Division	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Climate Division	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	RANK SINCE 1921
PANHANDLE	5.52"	+2.65"	192%	4th wettest	PANHANDLE	20.64"	+0.14"	101%	47th wettest
N. CENTRAL	4.53"	+0.60"	115%	30th wettest	N. CENTRAL	31.48"	+0.15"	100%	40th wettest
NORTHEAST	2.93"	-1.45"	67%	35th driest	NORTHEAST	40.89"	-1.66"	96%	44th wettest
W. CENTRAL	3.31"	+0.12"	104%	37th wettest	W. CENTRAL	23.62"	-4.72"	83%	29th driest
CENTRAL	2.57"	-1.55"	62%	36th driest	CENTRAL	32.33"	-5.21"	86%	41st driest
E. CENTRAL	2.27"	-1.72"	57%	28th driest	E. CENTRAL	45.51"	-0.53"	99%	42nd wettest
SOUTHWEST	2.17"	-1.26"	63%	40th driest	SOUTHWEST	26.68"	-3.51"	88%	41st driest
S. CENTRAL	1.89"	-2.02"	48%	27th driest	S. CENTRAL	39.74"	-0.88"	98%	44th wettest
SOUTHEAST	3.11"	-1.04"	75%	52nd driest	SOUTHEAST	50.81"	+0.34"	101%	46th wettest
STATEWIDE	3.14"	-0.66"	83%	51st driest	STATEWIDE	34.56"	-1.82"	95%	50th wettest



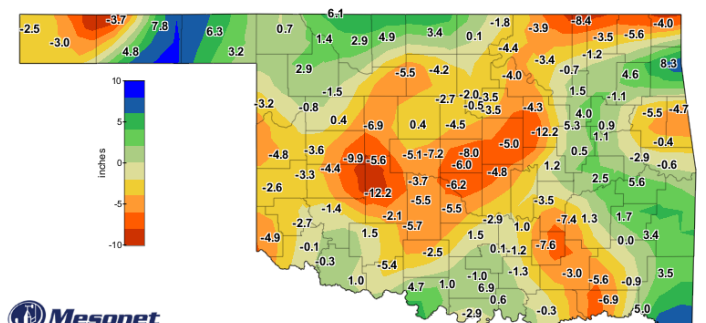
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 30 Days
Created 3:11:33 AM July 12, 2024 CDT. Copyright 2024



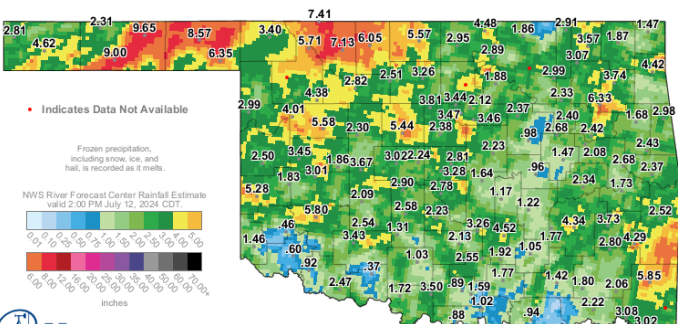
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 365 Days
Created 3:42:13 AM July 12, 2024 CDT. Copyright 2024



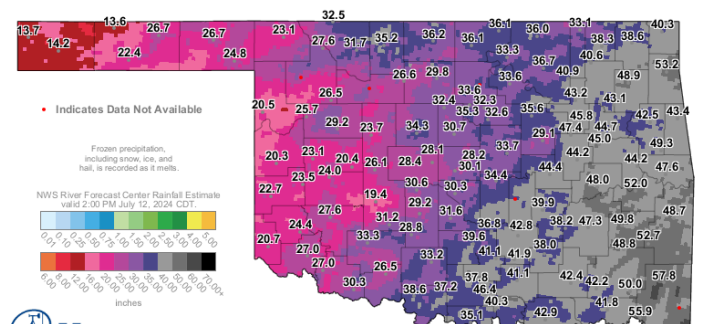
Mesonet
Departure from 1991-2020 Normal Rainfall
Last 30 Days
Created 3:11:33 AM July 12, 2024 CDT. Copyright 2024



Mesonet
Departure from 1991-2020 Normal Rainfall
Last 365 Days
Created 3:42:13 AM July 12, 2024 CDT. Copyright 2024



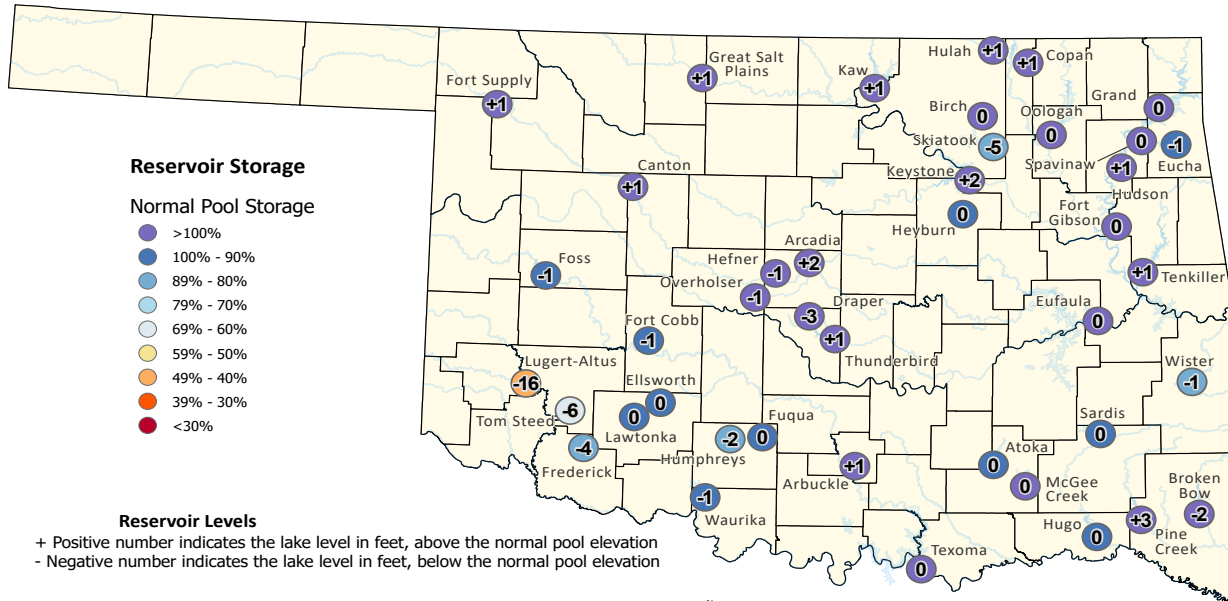
Mesonet
30-Day Rainfall Accumulation (inches)
2:50 PM July 12, 2024 CDT
Created 2:57:42 PM July 12, 2024 CDT. Copyright 2024



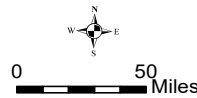
Mesonet
365-Day Rainfall Accumulation (inches)
2:50 PM July 12, 2024 CDT
Created 2:57:42 PM July 12, 2024 CDT. Copyright 2024

Reservoir Levels

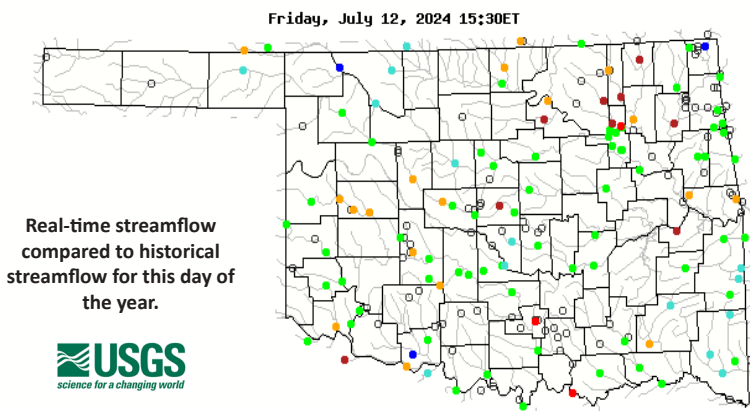
Oklahoma Reservoir Levels and Storage as of 7/8/2024



This map shows reservoir storage as a percentage of normal pool storage capacity. The source information was collected from real-time lake gages monitored by the U.S. Army Corps of Engineers (https://www.swf-wc.usace.army.mil/Daily_Morning_Reservoir_Report.pdf) and the U.S. Geological Survey (https://waterdata.usgs.gov/ok/nwis/current/?type=lake&group_key=basin_cd). For more information please visit the OWRB's website: (<https://www.owrb.ok.gov/>).



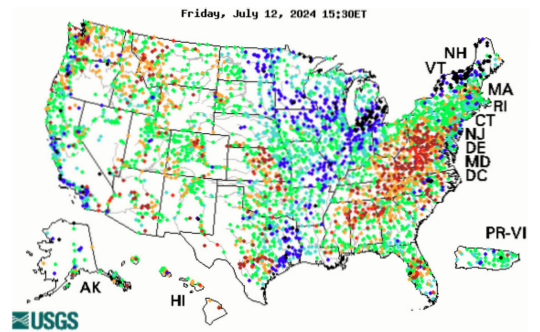
Streamflow



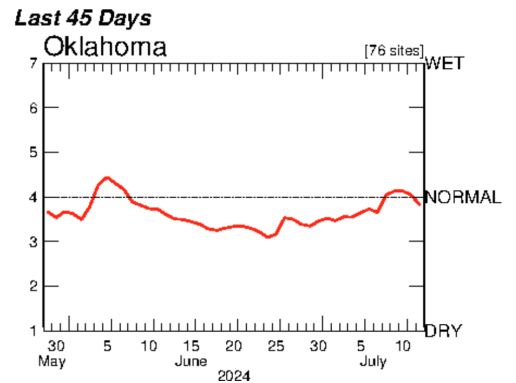
Explanation - Percentile classes							
	●	●	●	●	●	●	●
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

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.



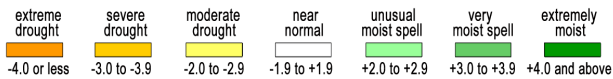
Average Streamflow Index



Drought Conditions

Palmer Drought Severity Index (PDSI)

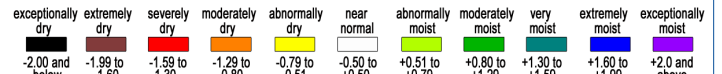
Climate Division	Status 07/06/24	Value 06/08	Value 07/06	Change in Value
PANHANDLE	Moderate Drought	-2.13	-2.94	-0.81
NORTH CENTRAL	Near Normal	1.47	1.24	-0.23
NORTHEAST	Unusually Moist	1.65	2.51	0.86
WEST CENTRAL	Near Normal	0.62	-0.77	-1.39
CENTRAL	Unusually Moist	2.35	2.75	0.4
EAST CENTRAL	Unusually Moist	2.17	2.66	0.49
SOUTHWEST	Near Normal	0.34	-1.56	-1.9
SOUTH CENTRAL	Near Normal	0.23	-1.64	-1.87
SOUTHEAST	Near Normal	0.47	-0.73	-1.2



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 July 6, 2024, all climate regions are Near Normal or wetter except the Panhandle region, which is in Moderate Drought.

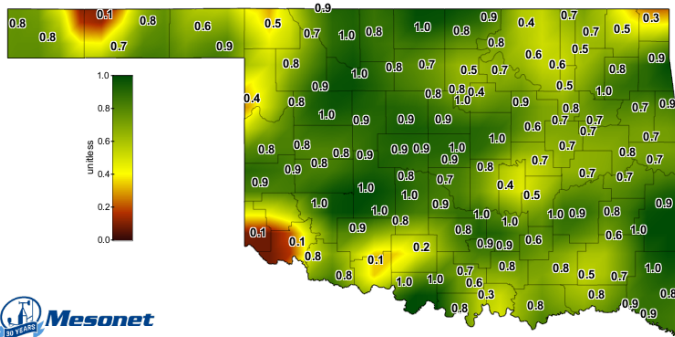
Standardized Precipitation Index (SPI) Through June 2024

Climate Division	3-month	12-month	24-month
PANHANDLE	Near Normal	Moderately Moist	Near Normal
NORTH CENTRAL	Near Normal	Abnormally Moist	Near Normal
NORTHEAST	Abnormally Moist	Near Normal	Abnormally Dry
WEST CENTRAL	Moderately Dry	Near Normal	Near Normal
CENTRAL	Near Normal	Abnormally Moist	Near Normal
EAST CENTRAL	Near Normal	Abnormally Moist	Near Normal
SOUTHWEST	Near Normal	Near Normal	Near Normal
SOUTH CENTRAL	Moderately Moist	Moderately Moist	Near Normal
SOUTHEAST	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 June 2024, the West Central region was Moderately Dry for the 3-month period and the Northeast region was Abnormally Dry for the 24-month period.

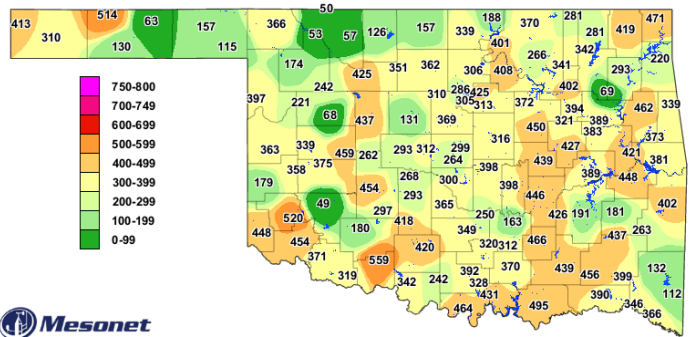
Soil Moisture



1-day Average 4-inch Fractional Water Index July 11, 2024

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).

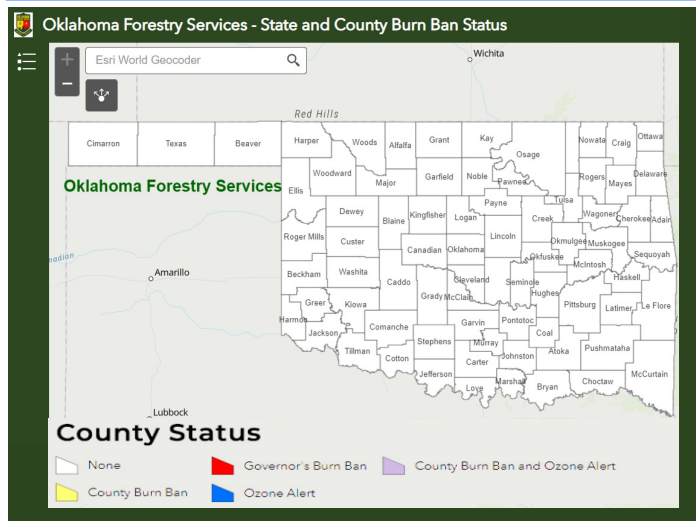
Keetch-Byram Drought Index



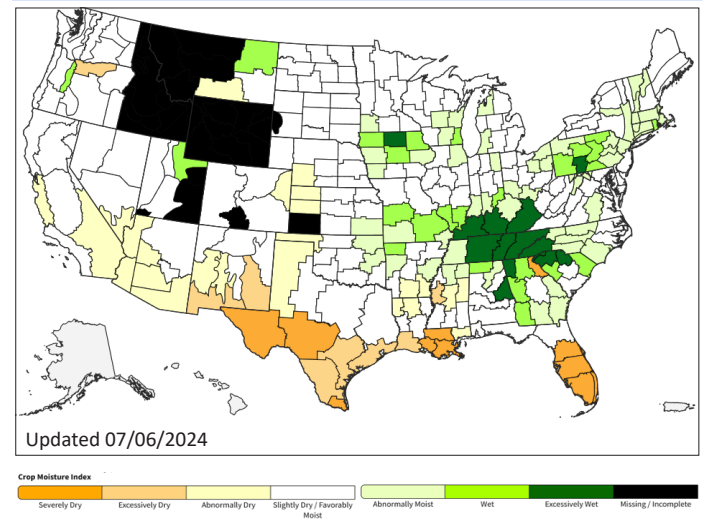
Keetch-Byram Drought Index 3:30 PM July 12, 2024 CDT

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

74

counties with USDA Drought Disaster Designations (primary)

— 0 counties since last week

~322,800

Oklahoma residents in areas of drought, according to the Drought Monitor

↓ 9.1% since last week

49th

driest June on record (since 1895)

3.23 in. total precipitation

↓ 0.79 in. from normal

54th

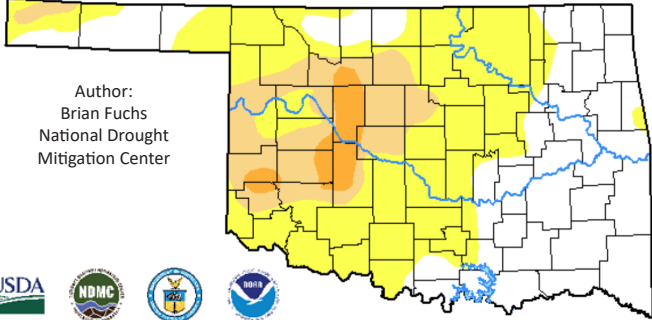
wettest January–June on record (since 1895)

18.55 in. total precipitation

↑ 0.75 in. from normal

- 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

Statistics valid as of 07/09/24



Author:
Brian Fuchs
National Drought
Mitigation Center



July 9, 2024

(Released July 11, 2024)

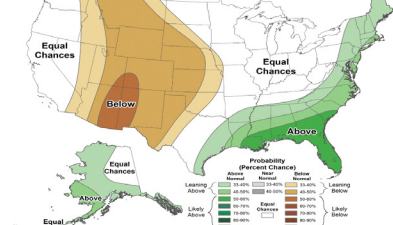
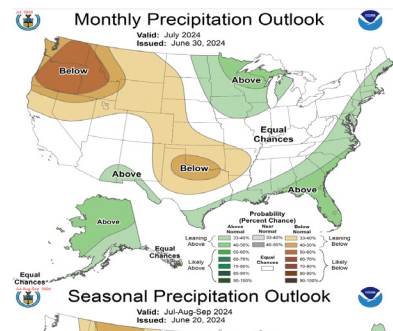
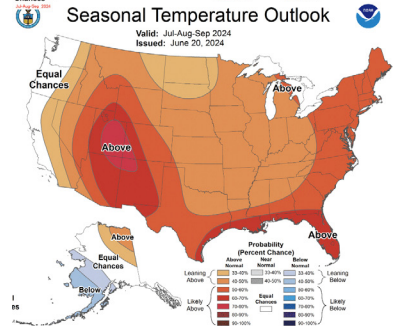
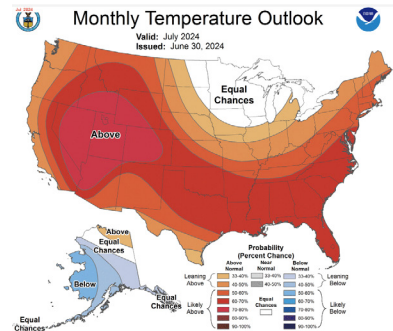
Valid 7 a.m. EDT

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.

Monthly/Seasonal Outlook



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

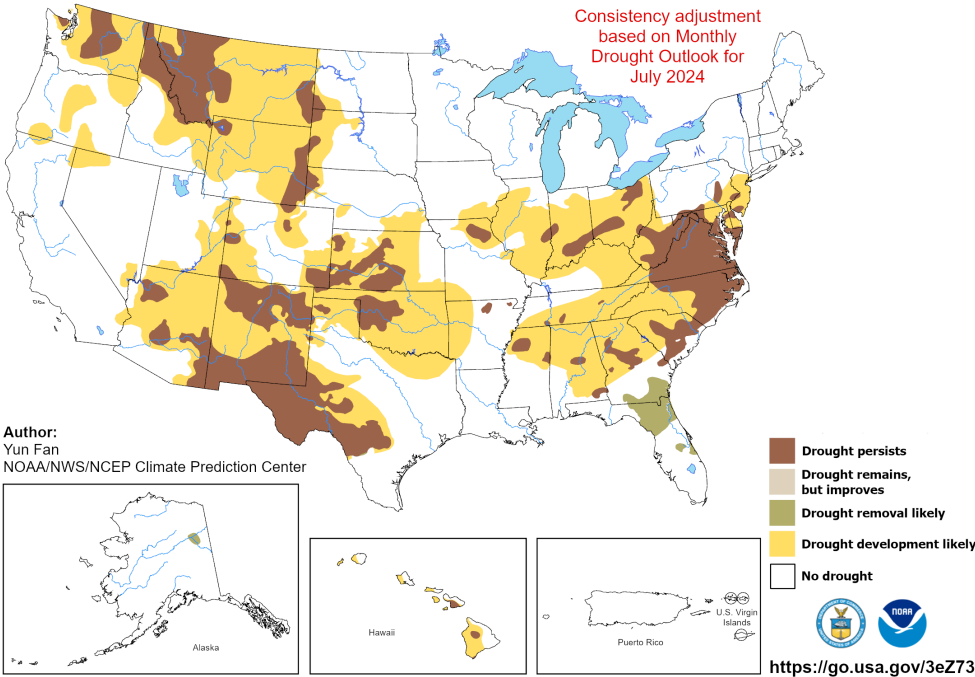
Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2024-07-09	40.10	59.90	17.79	3.78	0.00	0.00	81
Last Week to Current	2024-07-02	32.45	67.55	22.30	3.78	0.00	0.00	94
3 Months Ago to Current	2024-04-09	49.79	50.21	15.41	0.00	0.00	0.00	66
Start of Calendar Year to Current	2023-12-26	53.62	46.38	21.64	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	2023-07-11	43.04	56.96	23.63	9.12	4.20	0.42	94

Drought Probability

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for July 1 - September 30, 2024
Released June 30, 2024



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.