

Oklahoma Water Resources Bulletin

Summary of Current Conditions

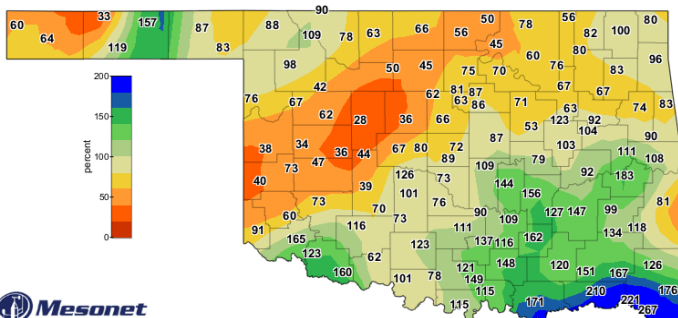
June 13, 2024

Precipitation

Last 30 Days: May 14, 2024 through Jun 12, 2024

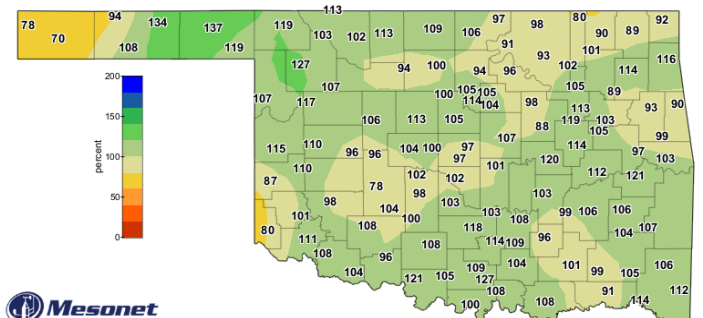
Last 365 Days: Jun 14, 2023 through Jun 12, 2024

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	2.18"	-0.82"	73%	30th driest	PANHANDLE	21.20"	+0.73"	104%	39th wettest
N. CENTRAL	2.77"	-1.80"	61%	25th driest	N. CENTRAL	32.43"	+1.17"	104%	33rd wettest
NORTHEAST	4.12"	-1.55"	73%	30th driest	NORTHEAST	41.45"	-1.04"	98%	46th wettest
W. CENTRAL	1.77"	-2.75"	39%	7th driest	W. CENTRAL	29.51"	+1.26"	104%	30th wettest
CENTRAL	3.93"	-1.23"	76%	40th driest	CENTRAL	37.87"	+0.41"	101%	32nd wettest
E. CENTRAL	6.10"	+0.45"	108%	32nd wettest	E. CENTRAL	48.22"	+2.24"	105%	34th wettest
SOUTHWEST	3.64"	-0.77"	83%	44th driest	SOUTHWEST	29.15"	-0.97"	97%	43rd wettest
S. CENTRAL	6.17"	+0.79"	115%	39th wettest	S. CENTRAL	43.46"	+2.92"	107%	26th wettest
SOUTHEAST	8.26"	+2.62"	147%	15th wettest	SOUTHEAST	53.28"	+2.84"	106%	29th wettest
STATEWIDE	4.29"	-0.60"	88%	50th driest	STATEWIDE	37.32"	+1.01"	103%	36th wettest



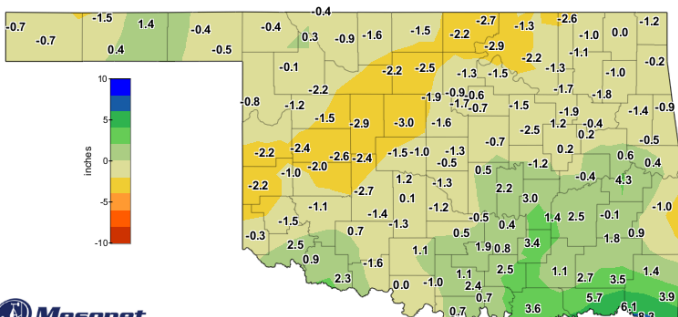
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 30 Days

May 14, 2024 through Jun 12, 2024
Created 3:40:26 AM June 13, 2024 CDT. © Copyright 2024



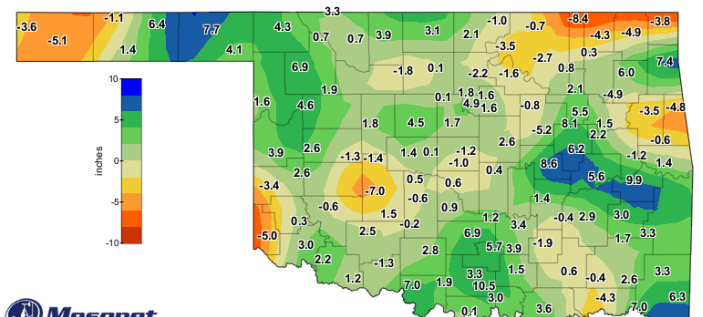
Mesonet
Percent of 1991-2020 Normal Rainfall
Last 365 Days

Jun 14, 2023 through Jun 12, 2024
Created 3:41:14 AM June 13, 2024 CDT. © Copyright 2024



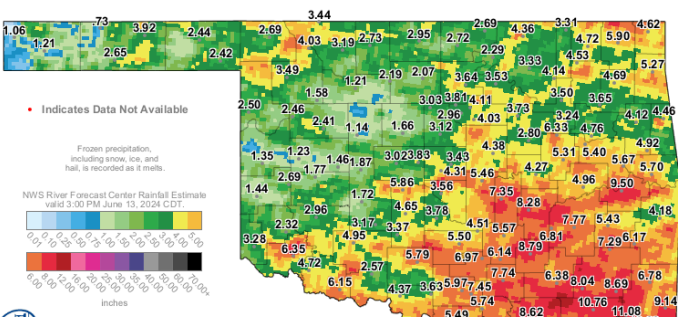
Mesonet
Departure from 1991-2020 Normal Rainfall
Last 30 Days

May 14, 2024 through Jun 12, 2024
Created 3:40:27 AM June 13, 2024 CDT. © Copyright 2024



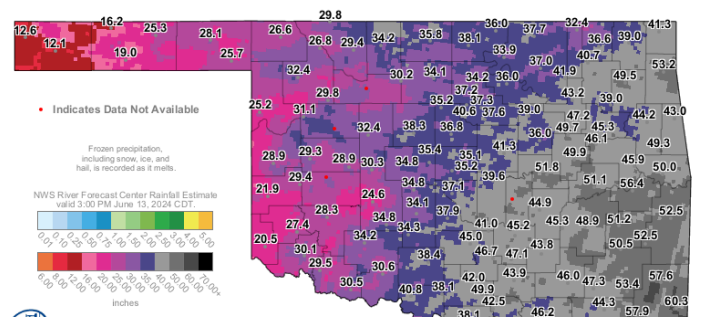
Mesonet
Departure from 1991-2020 Normal Rainfall
Last 365 Days

Jun 14, 2023 through Jun 12, 2024
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Mesonet
30-Day Rainfall Accumulation (inches)

4:30 PM June 13, 2024 CDT
Created 4:36:03 PM June 13, 2024 CDT. © Copyright 2024

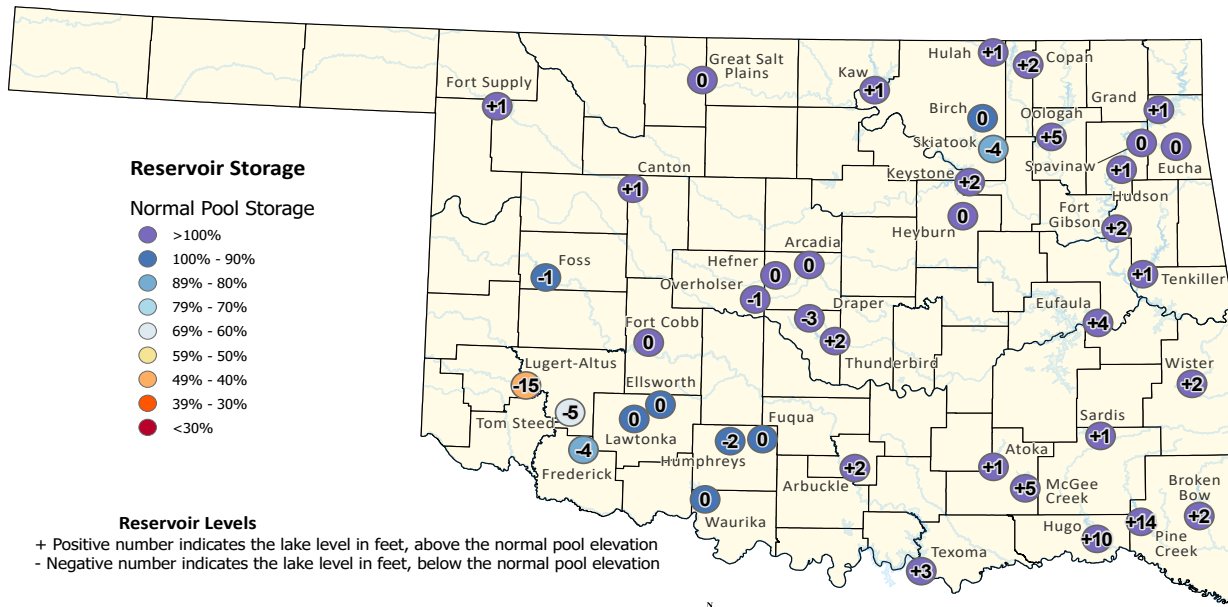


Mesonet
365-Day Rainfall Accumulation (inches)

4:30 PM June 13, 2024 CDT
Created 4:36:04 PM June 13, 2024 CDT. © Copyright 2024

Reservoir Levels

Oklahoma Reservoir Levels and Storage as of 6/10/24



Reservoir Storage

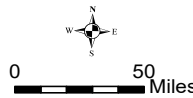
Normal Pool Storage

- >100%
- 100% - 90%
- 89% - 80%
- 79% - 70%
- 69% - 60%
- 59% - 50%
- 49% - 40%
- 39% - 30%
- <30%

Reservoir Levels

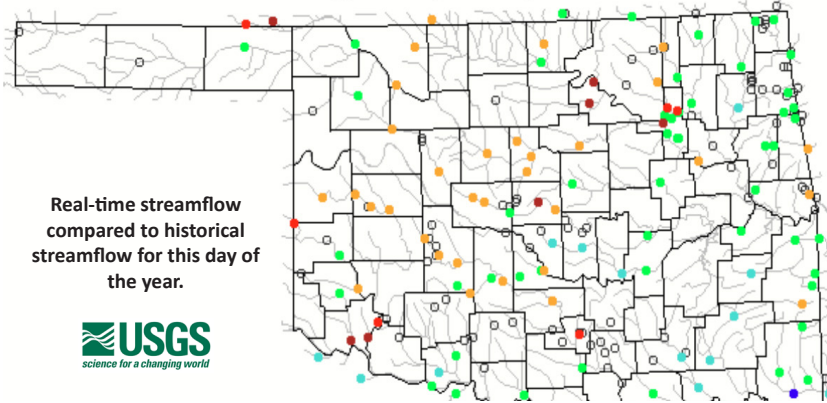
- + Positive number indicates the lake level in feet, above the normal pool elevation
- Negative number indicates the lake level in feet, below the normal pool elevation

This map shows reservoir storage as a percentage of normal pool storage capacity. The source information was collected from real-time lake gauges monitored by the U.S. Army Corps of Engineers (https://www.sfw-uc.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

Thursday, June 13, 2024 17:30ET



Real-time streamflow compared to historical streamflow for this day of the year.

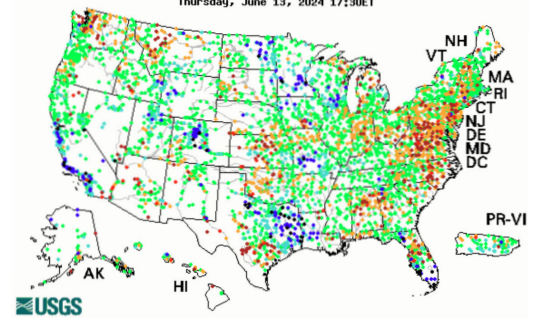


Explanation - Percentile classes							
●	●	●	●	●	●	●	●
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

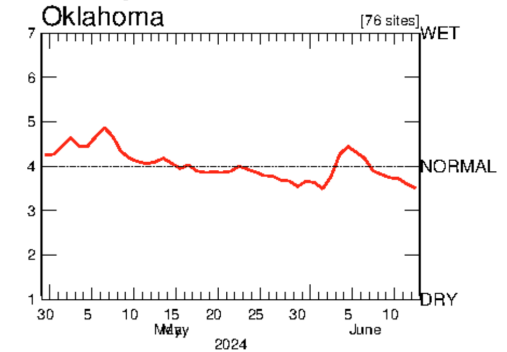
Visit waterwatch.usgs.gov for additional real-time streamflow information.

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.

Thursday, June 13, 2024 17:30ET



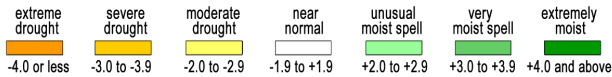
Average Streamflow Index Last 45 Days



Drought Conditions

Palmer Drought Severity Index (PDSI)

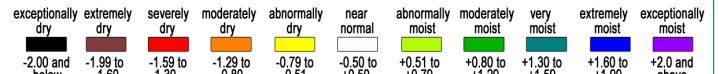
Climate Division	Status 06/08/24	Value 05/11	Value 06/08	Change in Value
PANHANDLE	Moderate Drought	-1.03	-2.13	-1.1
NORTH CENTRAL	Near Normal	1.89	1.47	-0.42
NORTHEAST	Near Normal	0.94	1.65	0.71
WEST CENTRAL	Near Normal	2	0.62	-1.38
CENTRAL	Unusually Moist	2.14	2.35	0.21
EAST CENTRAL	Unusually Moist	1.77	2.17	0.4
SOUTHWEST	Near Normal	2.21	0.34	-1.87
SOUTH CENTRAL	Near Normal	2.3	0.23	-2.07
SOUTHEAST	Near Normal	1.83	0.47	-1.36



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 June 8, 2024, all climate regions are Near Normal or wetter except the Panhandle region, which is in Moderate Drought.

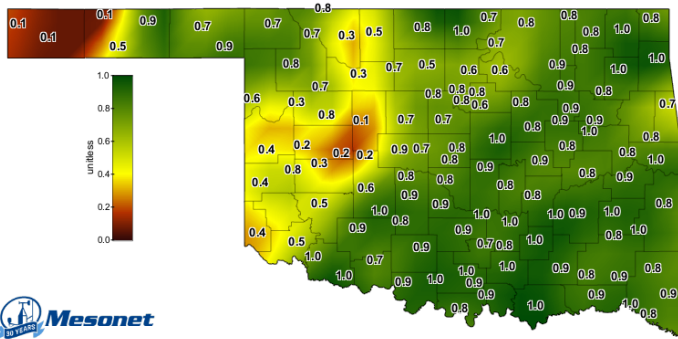
Standardized Precipitation Index (SPI) Through May 2024

Climate Division	3-month	12-month	24-month
PANHANDLE	Moderately Dry	Moderately Moist	Near Normal
NORTH CENTRAL	Near Normal	Moderately Moist	Near Normal
NORTHEAST	Abnormally Moist	Near Normal	Abnormally Dry
WEST CENTRAL	Near Normal	Moderately Moist	Near Normal
CENTRAL	Near Normal	Abnormally Moist	Near Normal
EAST CENTRAL	Abnormally Moist	Near Normal	Near Normal
SOUTHWEST	Near Normal	Abnormally Moist	Near Normal
SOUTH CENTRAL	Moderately Moist	Moderately Moist	Near Normal
SOUTHEAST	Abnormally Moist	Near Normal	Near Normal



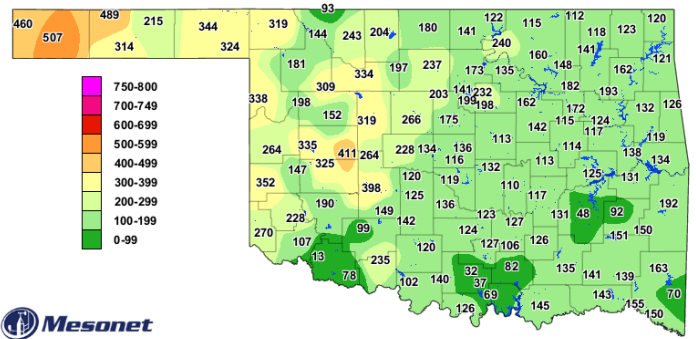
The **SPI** provides a comparison of precipitation over several specified time periods with totals for the periods for all years in the historical record. Through May 2024, the Panhandle region was Moderately Dry for the 3-month period and the Northeast region was Abnormally Dry for the 24-month period.

Soil Moisture



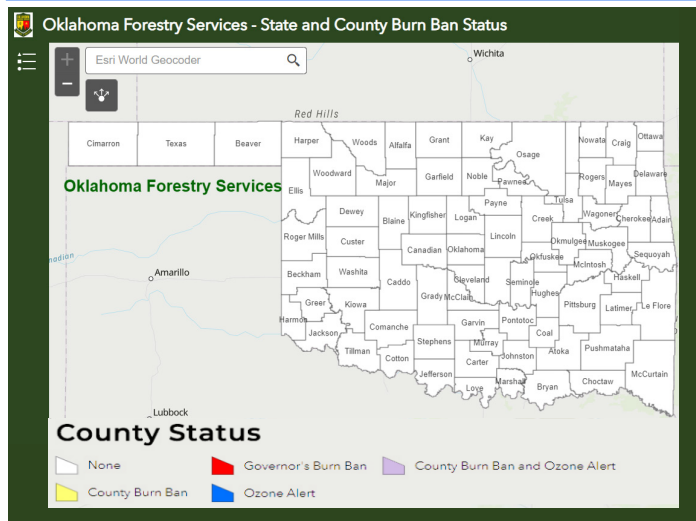
1-day Average 4-inch Fractional Water Index
The 1-day Average 4-inch Bare Soil Fractional Water Index map displays the 24-hour-averaged soil moisture at 4 inches under bare soil for the previous day. Fractional water index ranges from 0 (as dry as the sensor can read) to 1.0 (as wet as the sensor can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

Keetch-Byram Drought Index

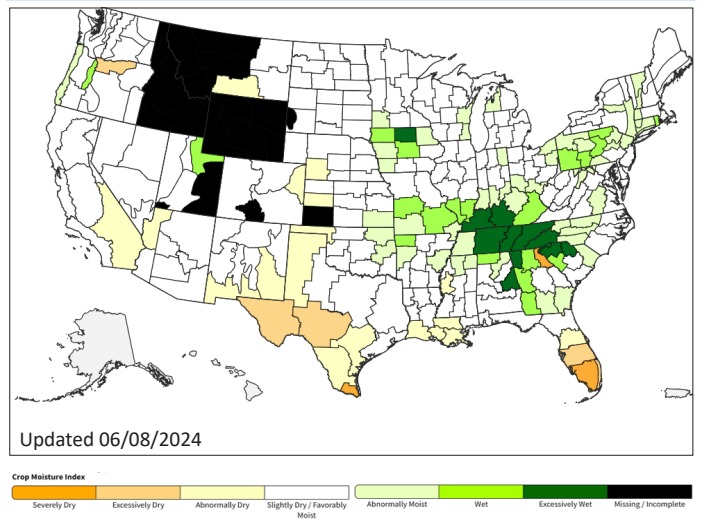


Keetch-Byram Drought Index
The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values > 600 are often associated with severe drought and increased wildfire occurrence.

State & County Burn Ban Status



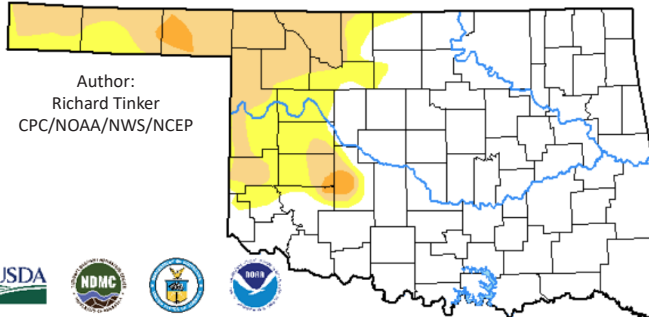
Crop Moisture Index



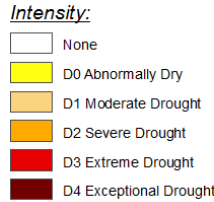
Oklahoma Drought Monitor

<p>74 counties with USDA Drought Disaster Designations (primary)</p> <p>— 0 counties since last week</p>	<p>~90,700 Oklahoma residents in areas of drought, according to the Drought Monitor</p> <p>↑ 21.4% since last week</p>	<p>43rd wettest May on record (since 1895)</p> <p>5.46 in. total precipitation ↑ 0.62 in. from normal</p>	<p>42nd wettest January—May on record (since 1895)</p> <p>15.17 in. total precipitation ↑ 1.39 in. from normal</p>
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Statistics valid as of 6/11/24



June 11, 2024
(Released June 13, 2024)
Valid 7 a.m. EDT



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



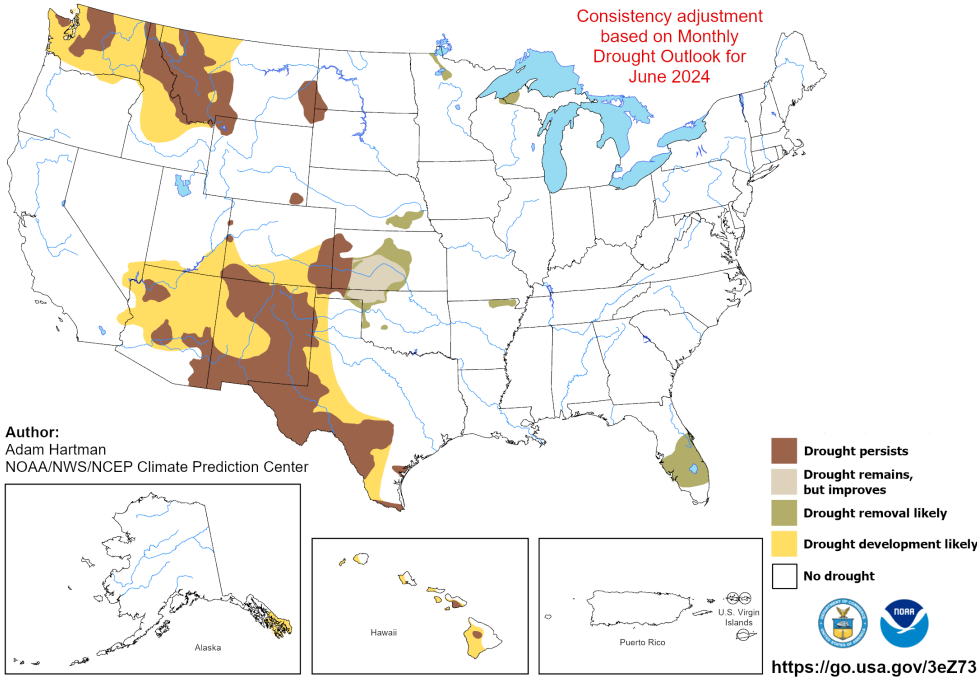
Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2024-06-11	72.78	27.22	15.79	1.20	0.00	0.00	44
Last Week to Current	2024-06-04	72.77	27.23	14.51	1.41	0.00	0.00	43
3 Months Ago to Current	2024-03-12	54.84	45.16	3.82	0.19	0.00	0.00	49
Start of Calendar Year to Current	2023-12-26	53.62	46.38	21.64	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	2023-06-13	34.99	65.01	49.25	25.38	5.85	1.45	147

Drought Probability

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

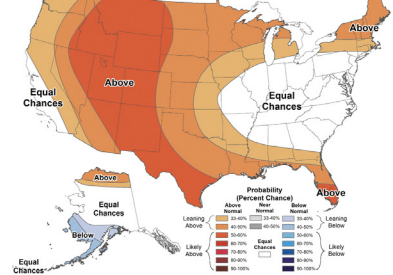
Valid for June 1 - August 31, 2024
Released May 31, 2024



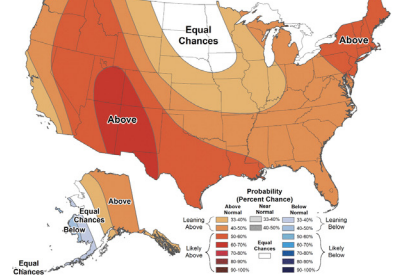
The map depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4). Tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. Green areas imply drought removal by the end of the period.

Monthly/Seasonal Outlook

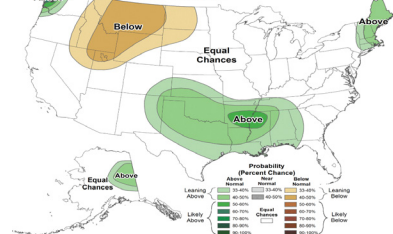
Monthly Temperature Outlook
Valid: June 2024
Issued: May 31, 2024



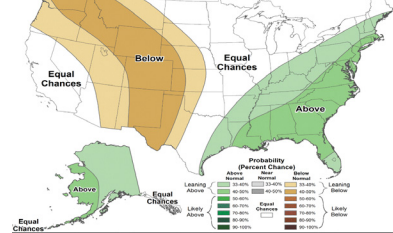
Seasonal Temperature Outlook
Valid: Jun-Jul-Aug 2024
Issued: May 16, 2024



Monthly Precipitation Outlook
Valid: June 2024
Issued: May 31, 2024



Seasonal Precipitation Outlook
Valid: Jun-Jul-Aug 2024
Issued: May 16, 2024



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