



DROUGHT CONDITIONS

IN CENTRAL OKLAHOMA

John Harrington

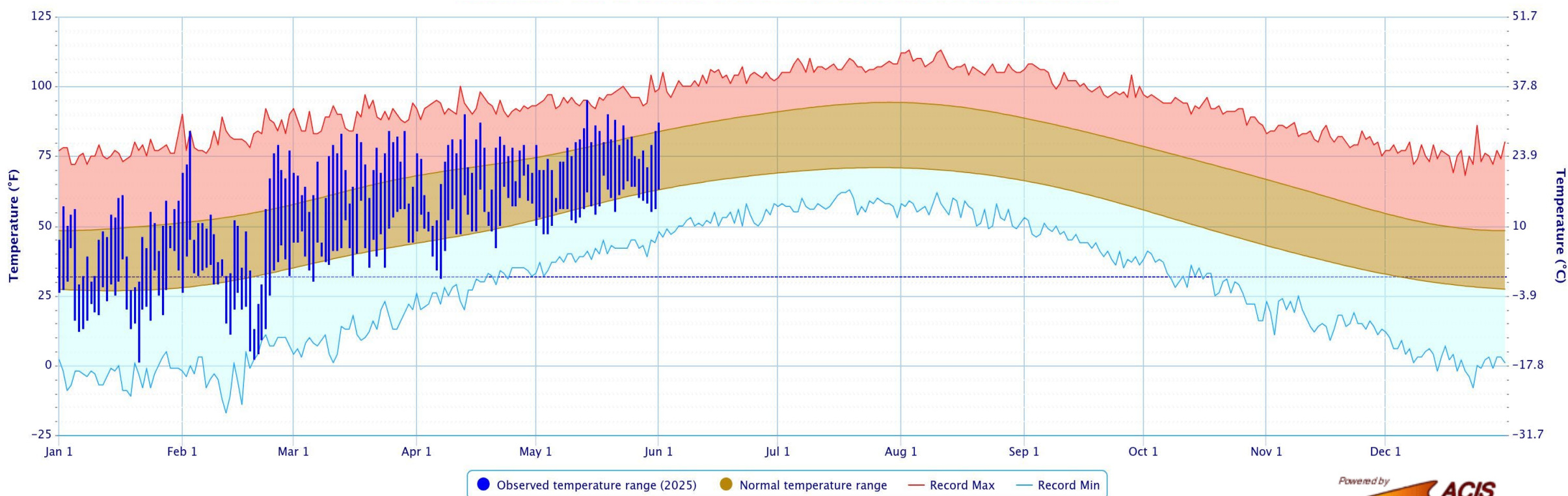
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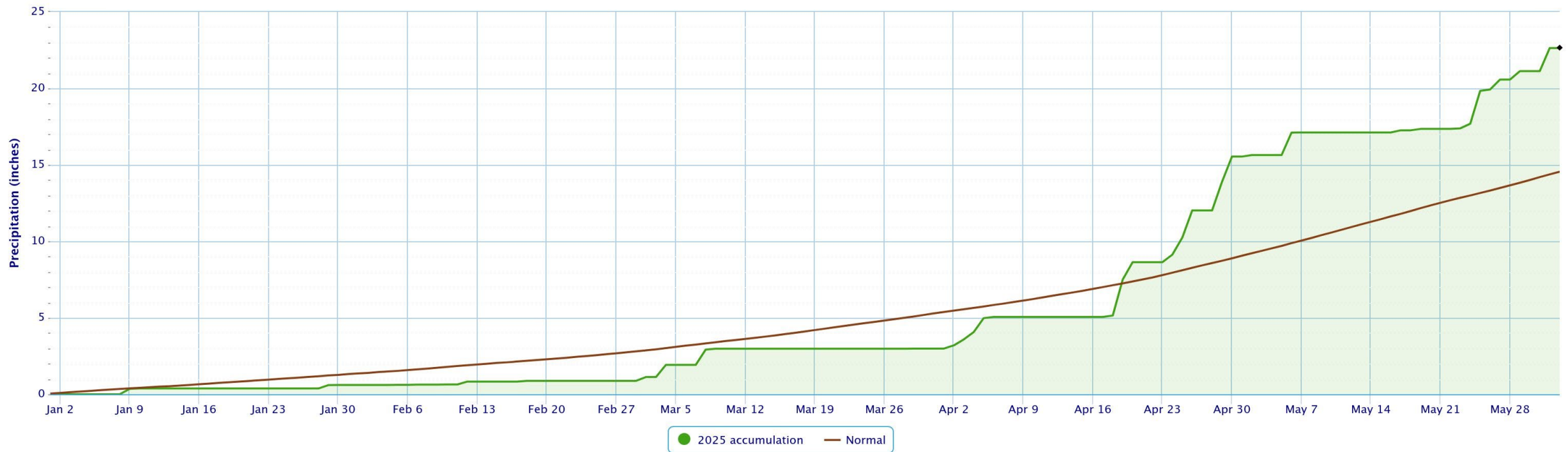
June 2025

TEMPERATURE PLOT FOR OKLAHOMA CITY, OKLAHOMA FOR 2025



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NOAA Regional Climate Centers **ACIS** powered by ACIS

PRECIPITATION PLOT FOR OKLAHOMA CITY, OKLAHOMA FOR 2025



RAINFALL SUMMARIES BY OKLAHOMA CLIMATE DIVISION



Calendar Year 01-Jan-2025 through

01-Jun-2025

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	12.36"	+1.39"	113%	29th wettest	3.91"	21.20"
Central	20.41"	+5.43"	136%	11th wettest	5.45"	27.12"
S. Central	25.24"	+8.18"	148%	4th wettest	8.68"	36.05"
Statewide	18.66"	+4.00"	127%	11th wettest	6.98"	26.11"

Water Year 01-Oct-2024 through

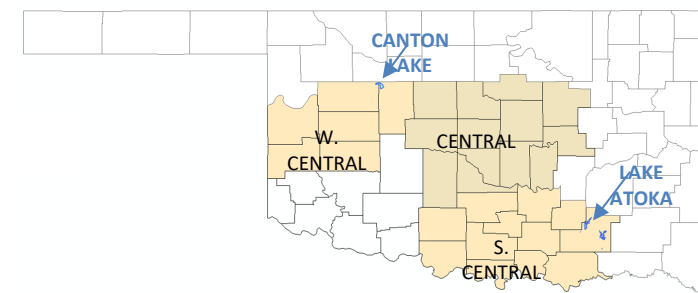
01-Jun-2025

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	20.86"	+4.35"	126%	18th wettest	5.89"	30.51"
Central	30.99"	+7.90"	134%	7th wettest	11.00"	36.04"
S. Central	35.75"	+9.00"	134%	9th wettest	12.33"	42.29"
Statewide	28.87"	+6.13"	127%	10th wettest	12.29"	33.32"

Spring March 01 through

01-Jun-2025

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	11.83"	+2.93"	133%	16th wettest	2.25"	19.31"
Central	19.32"	+7.57"	164%	5th wettest	3.98"	22.74"
S. Central	22.96"	+10.24"	181%	4th wettest	4.90"	29.14"
Statewide	16.80"	+5.53"	149%	5th wettest	5.51"	22.90"



The climate divisions shown include statewide totals, central Oklahoma totals, and totals for the two divisions which have Canton Lake and Lake Atoka—major water sources for central Oklahoma.

NOAA ONE-MONTH TEMPERATURE OUTLOOK



Monthly Temperature Outlook

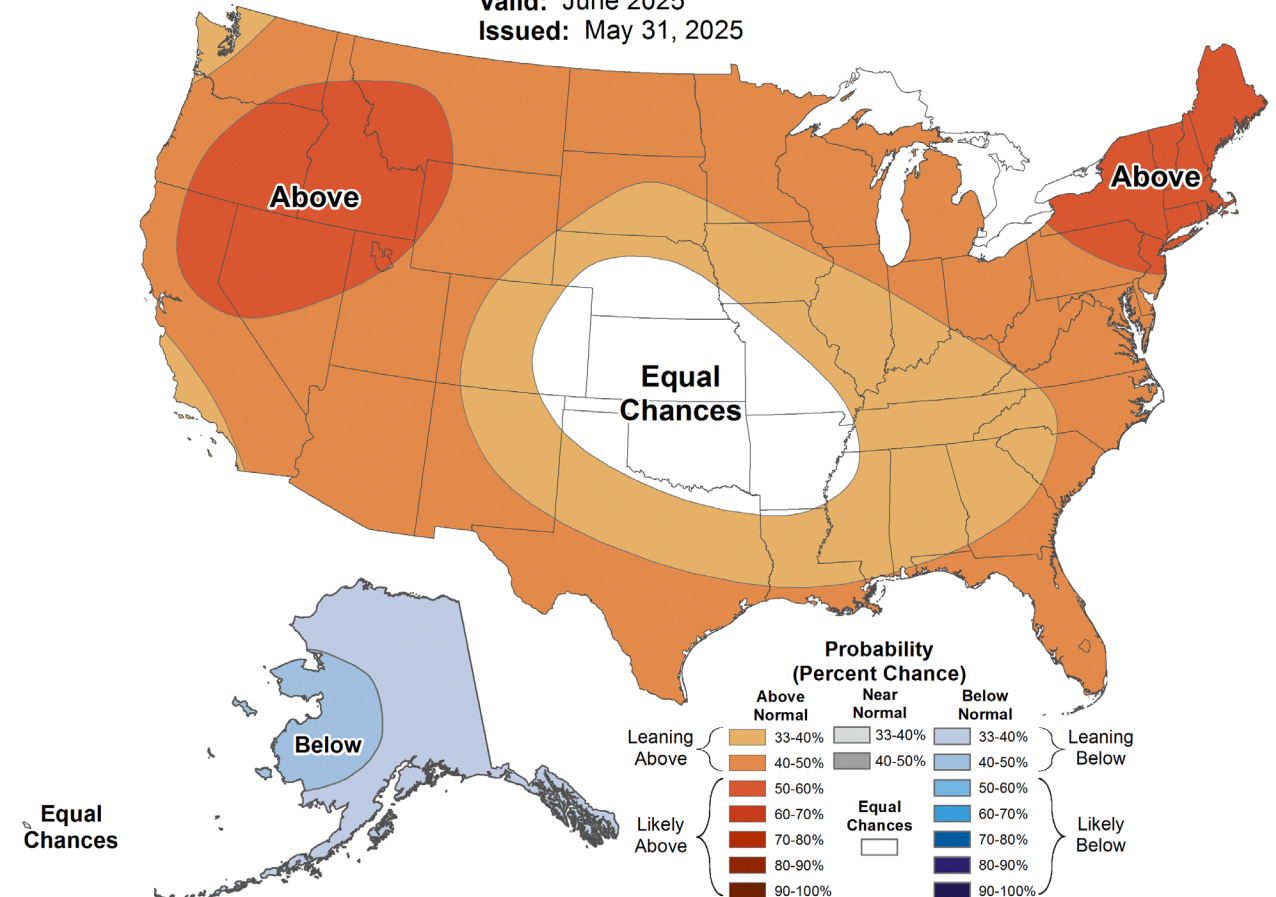


Valid: June 2025
Issued: May 31, 2025

White areas are shown as EC (Equal Chance) on these maps represent areas where there are no strong climate signals from the climate tools to have skill in preferring one category over another.

That doesn't mean that there are equal chances of each of the categories occurring – it means that currently there is no skill in identifying the most likely category. In these areas, it is best to be prepared for all possibilities.

[Climate Prediction Center - Updated OFFICIAL 30-Day Forecasts \(noaa.gov\)/](https://www.noaa.gov/climate-prediction-center)



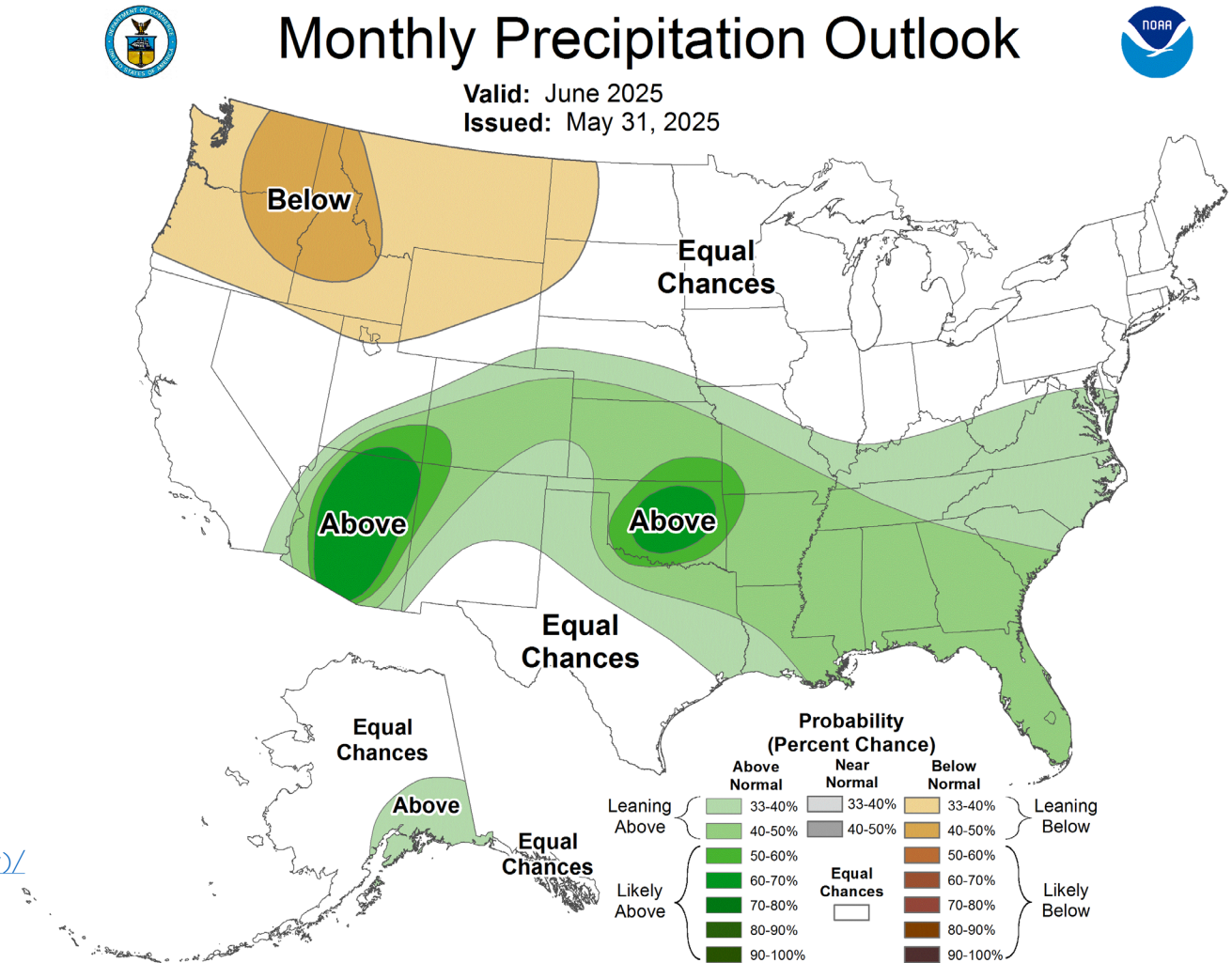
NOAA ONE-MONTH PRECIPITATION OUTLOOK



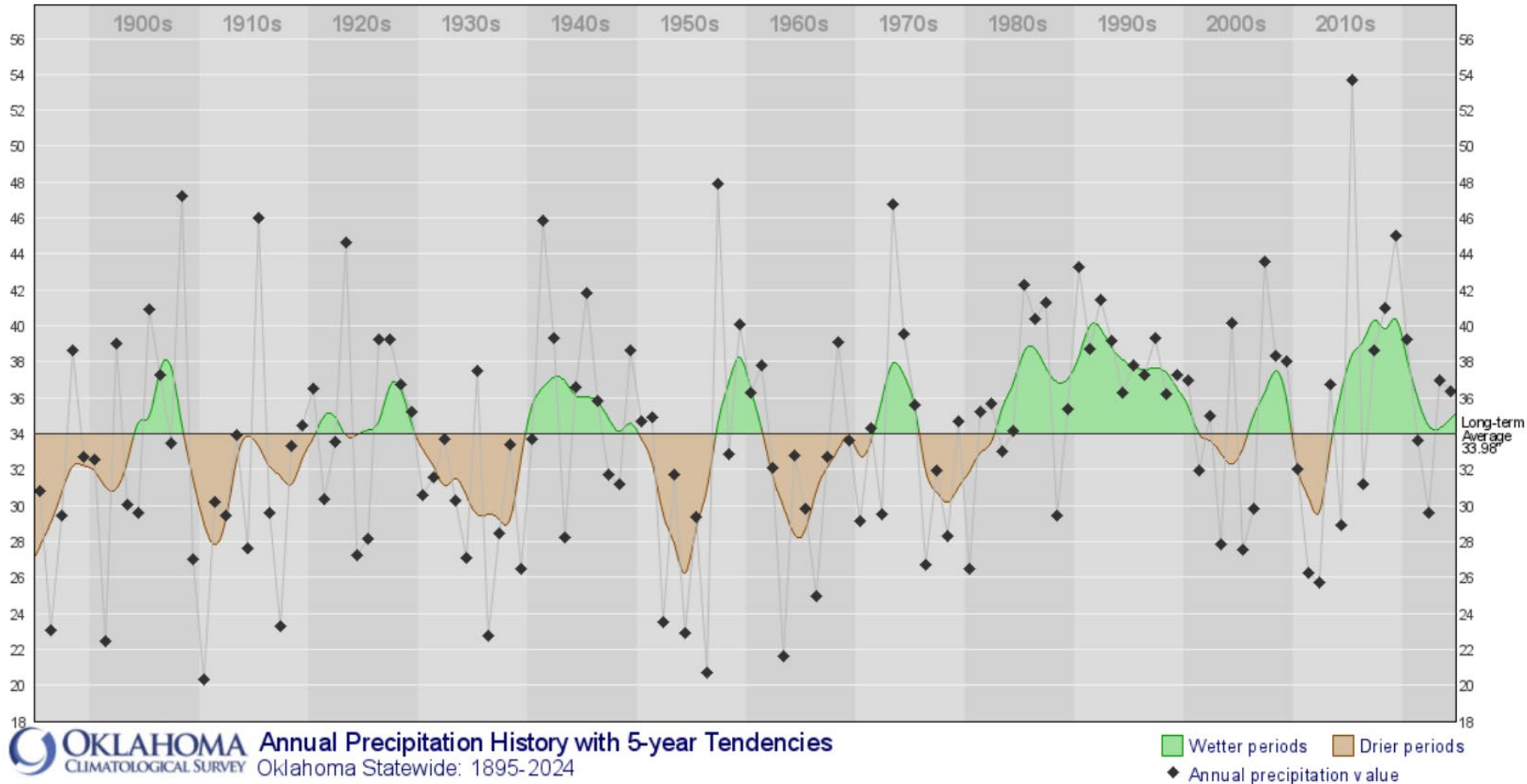
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Annual Precipitation History with 5-Year Tendencies



This graph shows the cyclical nature of wet and drought periods in Oklahoma. The black dots represent the annual precipitation for that particular year. The line represents the annual precipitation data smoothed over five years.

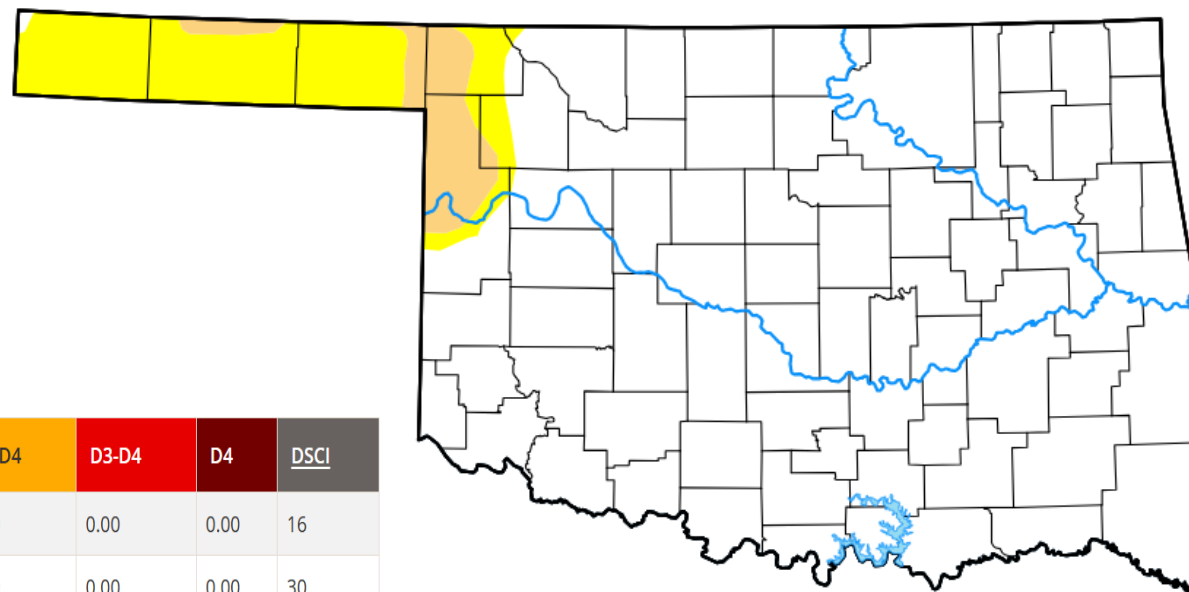
This smoothed line shows well the wet periods (shaded green) and the drought periods (shaded brown). The drought cycles appear to average about five to eight years in length.

U.S. DROUGHT MONITOR - OKLAHOMA

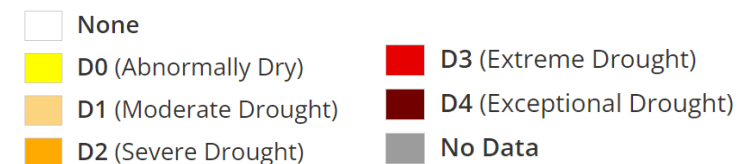


May 29, 2025

Abnormal dryness or drought is currently affecting approximately 10,230 people in Oklahoma.



Intensity



Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2025-05-27	87.75	12.25	3.32	0.00	0.00	0.00	16
Last Week to Current	2025-05-20	84.48	15.52	11.94	2.99	0.00	0.00	30
3 Months Ago to Current	2025-02-25	19.11	80.89	18.43	0.33	0.00	0.00	100
Start of Calendar Year to Current	2024-12-31	70.28	29.72	5.52	0.33	0.00	0.00	36
Start of Water Year to Current	2024-10-01	22.82	77.18	61.31	37.39	11.50	0.00	187
One Year Ago to Current	2024-05-28	70.40	29.60	14.68	6.72	0.00	0.00	51



U.S. DROUGHT MONITOR NATIONWIDE MAP



Map released: May 29, 2025

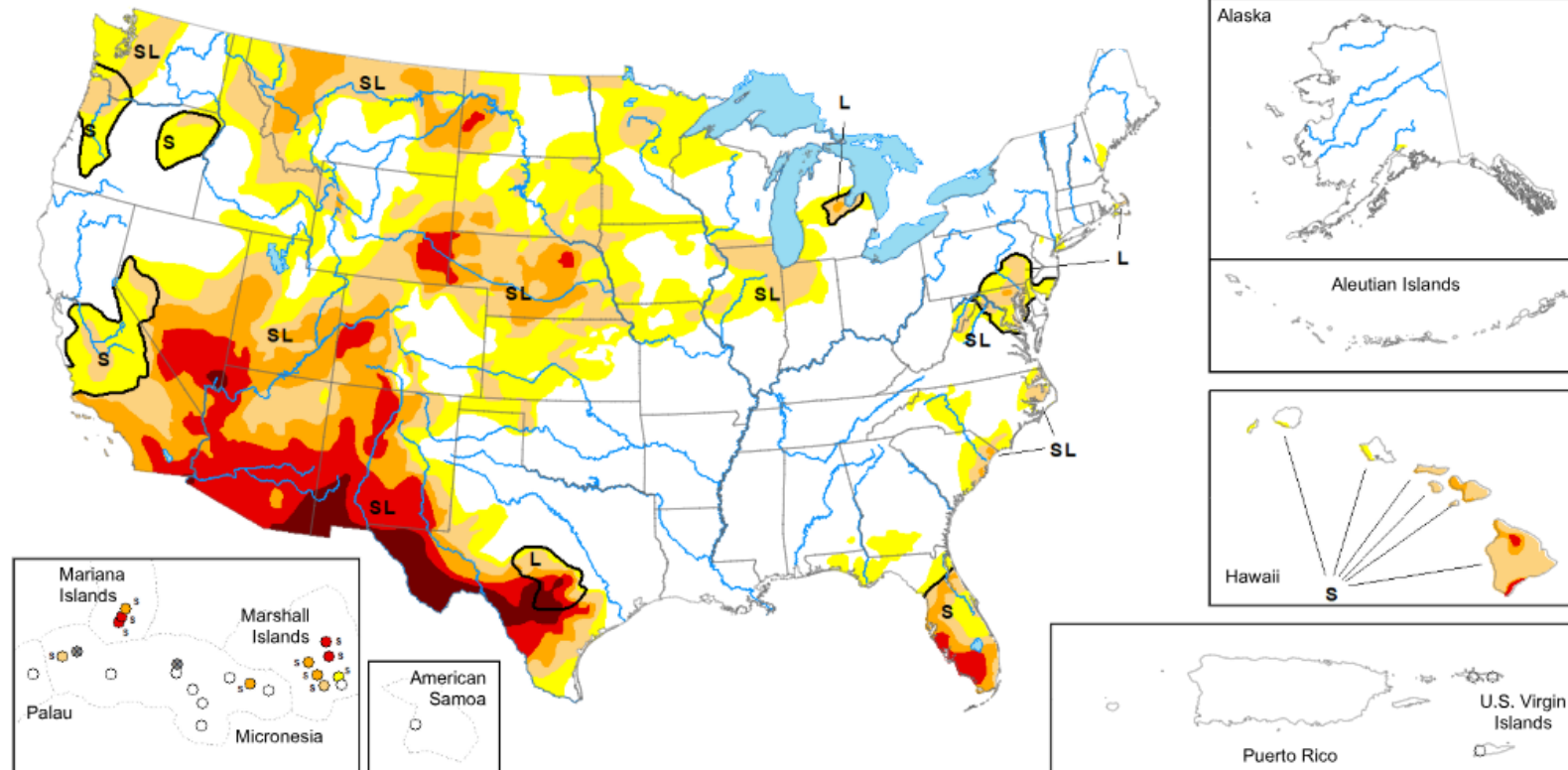
Data valid: May 27, 2025

Intensity and Impacts



United States and Puerto Rico Author(s):
Deborah Bathke, National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
Ahira Sanchez-Lugo, NOAA/NCEI

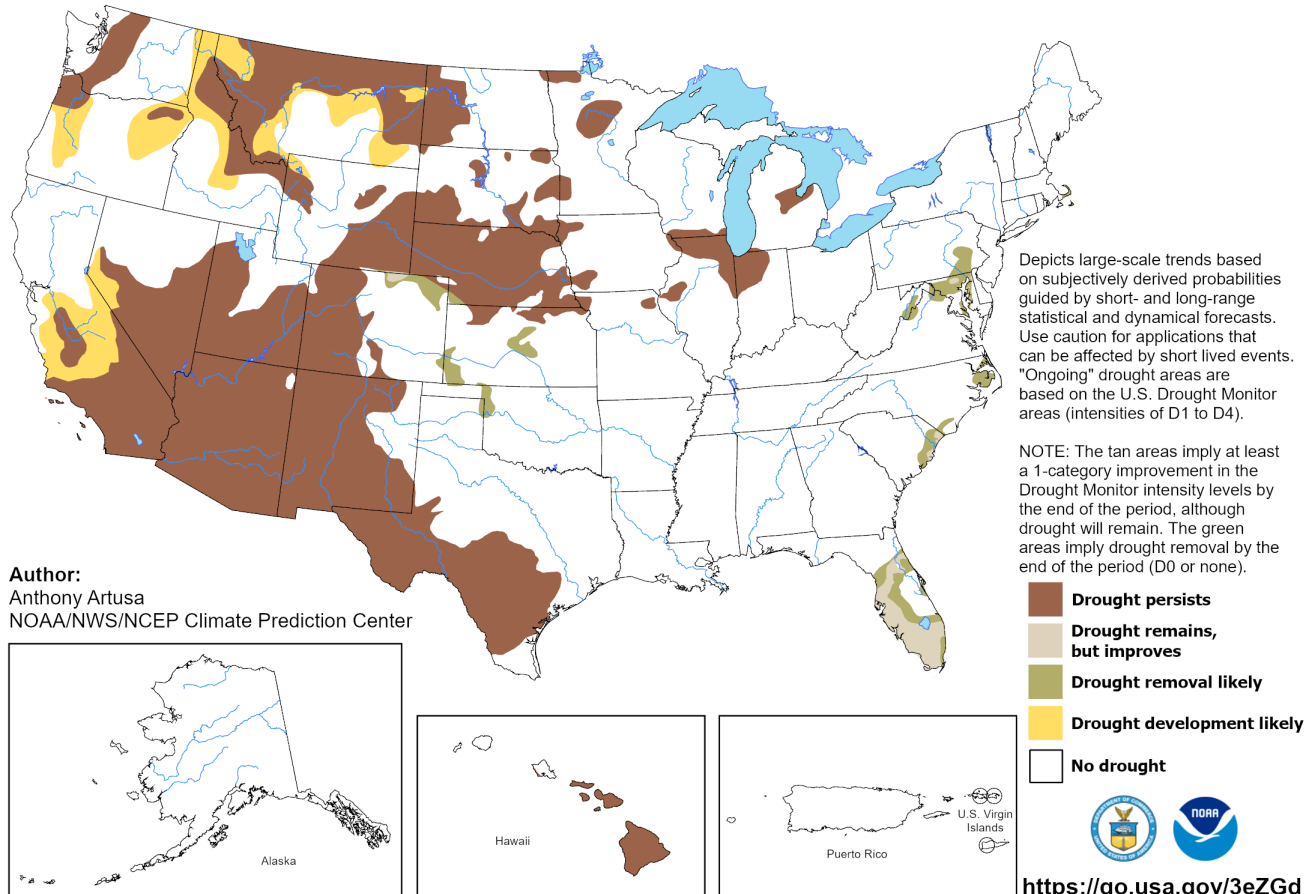


U.S. DROUGHT MONITOR MONTHLY DROUGHT OUTLOOK MAP



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

Valid for June 2025
Released May 31, 2025



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).

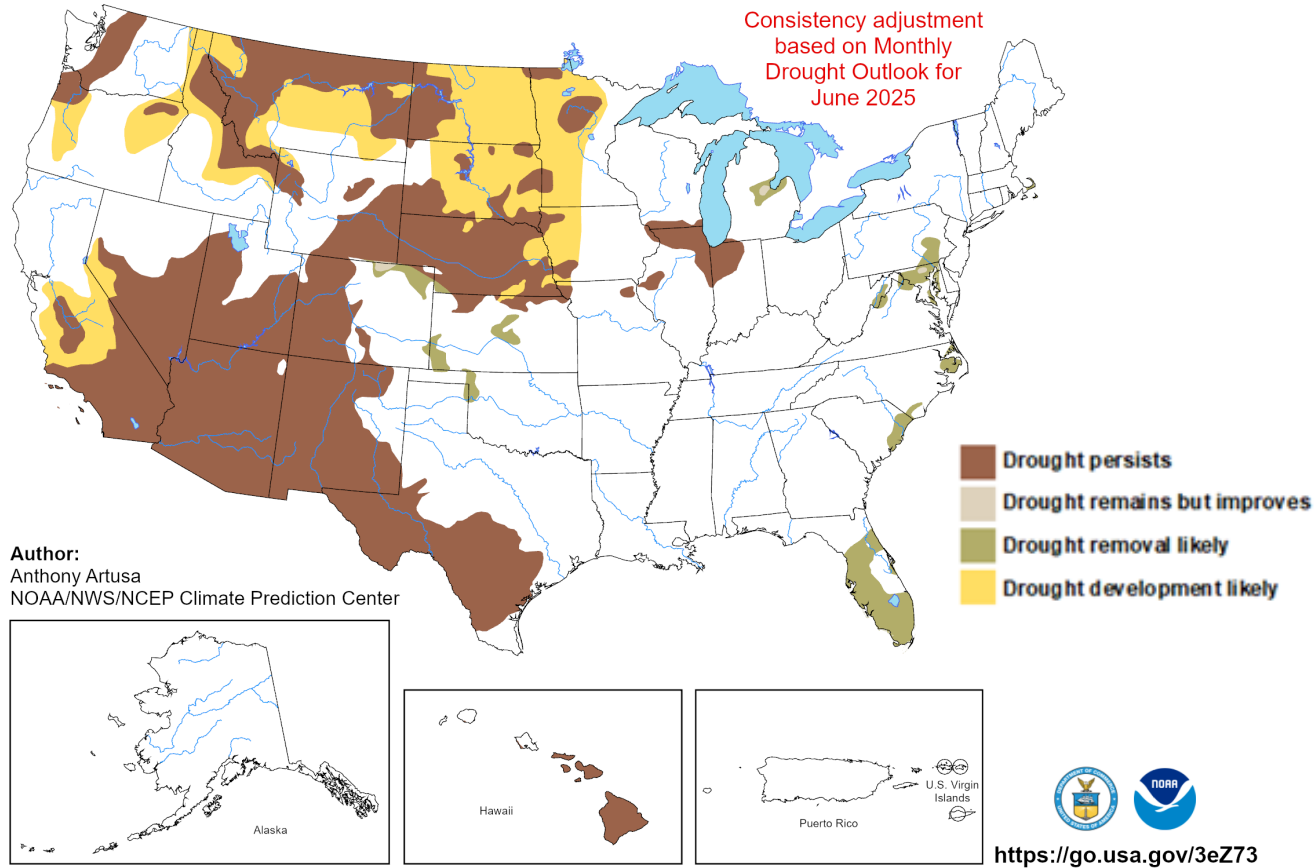
<https://go.usa.gov/3eZGd>

U.S. DROUGHT MONITOR SEASONAL DROUGHT OUTLOOK MAP



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

Valid for June 1 - August 31, 2025
Released May 31, 2025



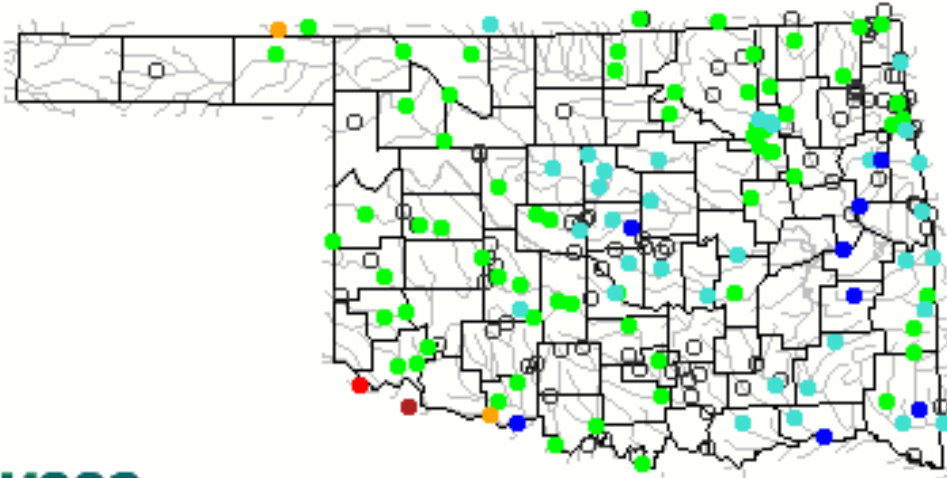
Depicts large-scale trends based on subjectively derived probabilities guided by short and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. “Ongoing” drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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).

USGS STREAMFLOW DATA



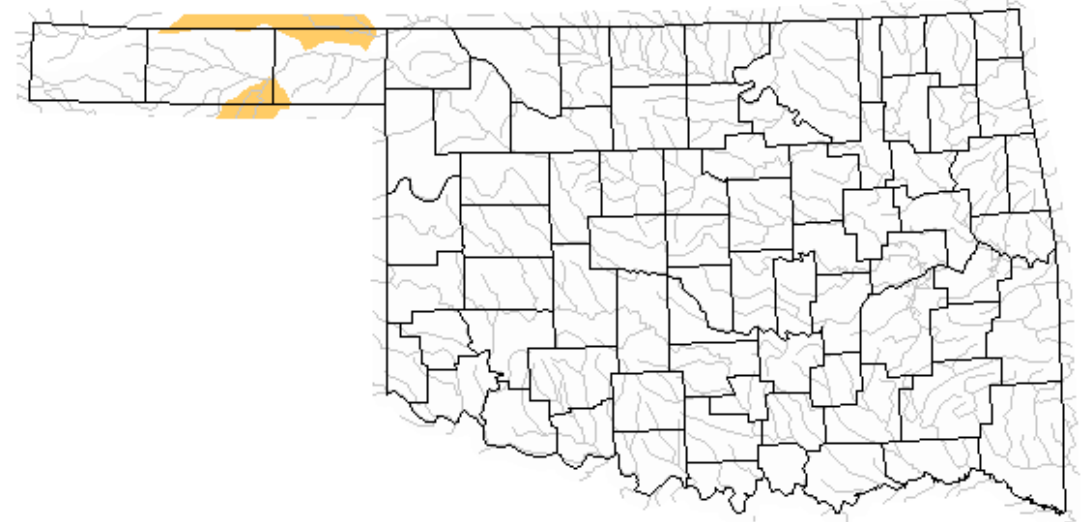
Monday, June 02, 2025 09:30ET



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

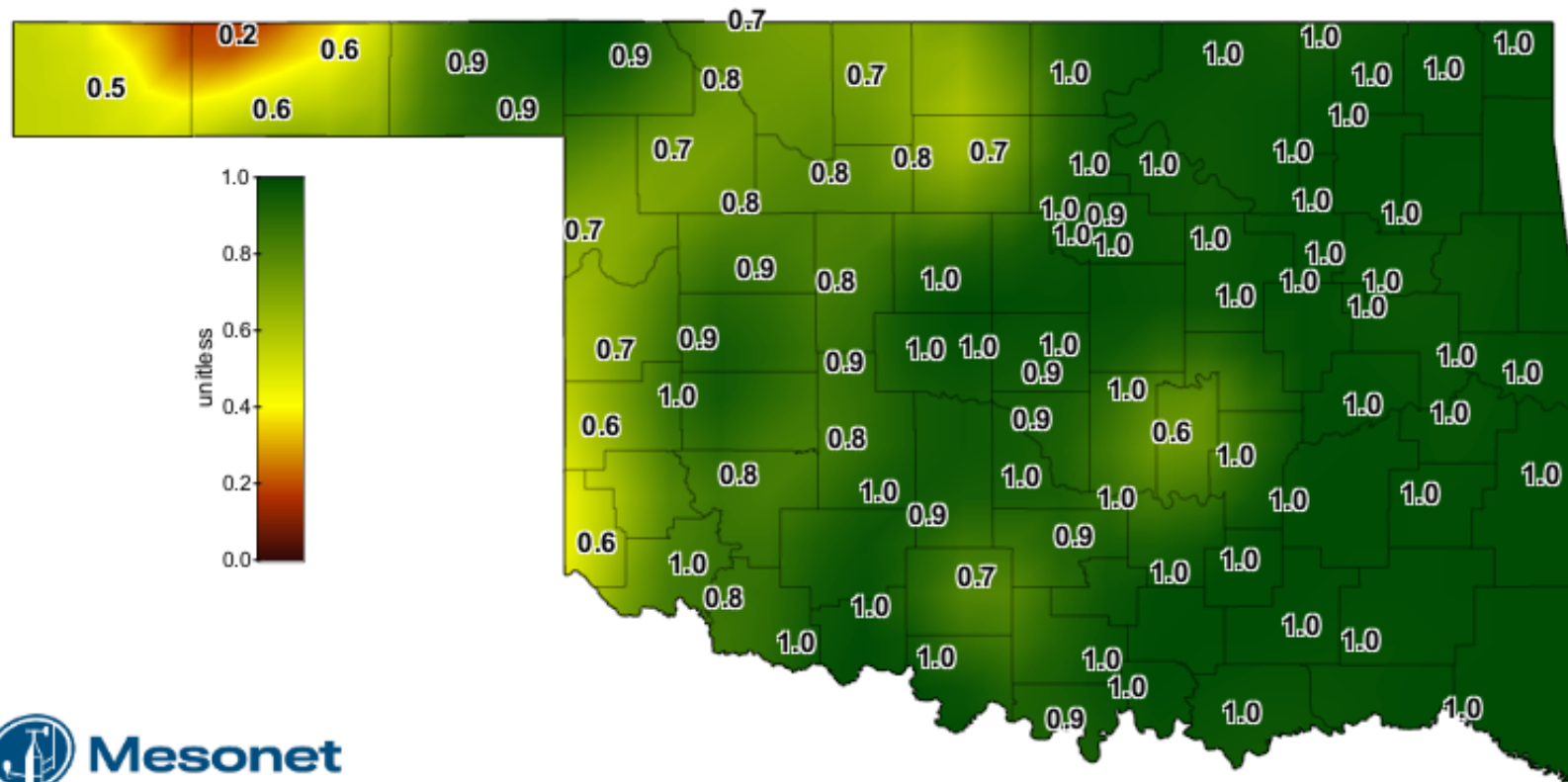
Below normal 28-day average streamflow

Sunday, June 01, 2025



Explanation - Percentile classes				
 	 	 	 	
Low	<=5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

SOIL MOISTURE MAP



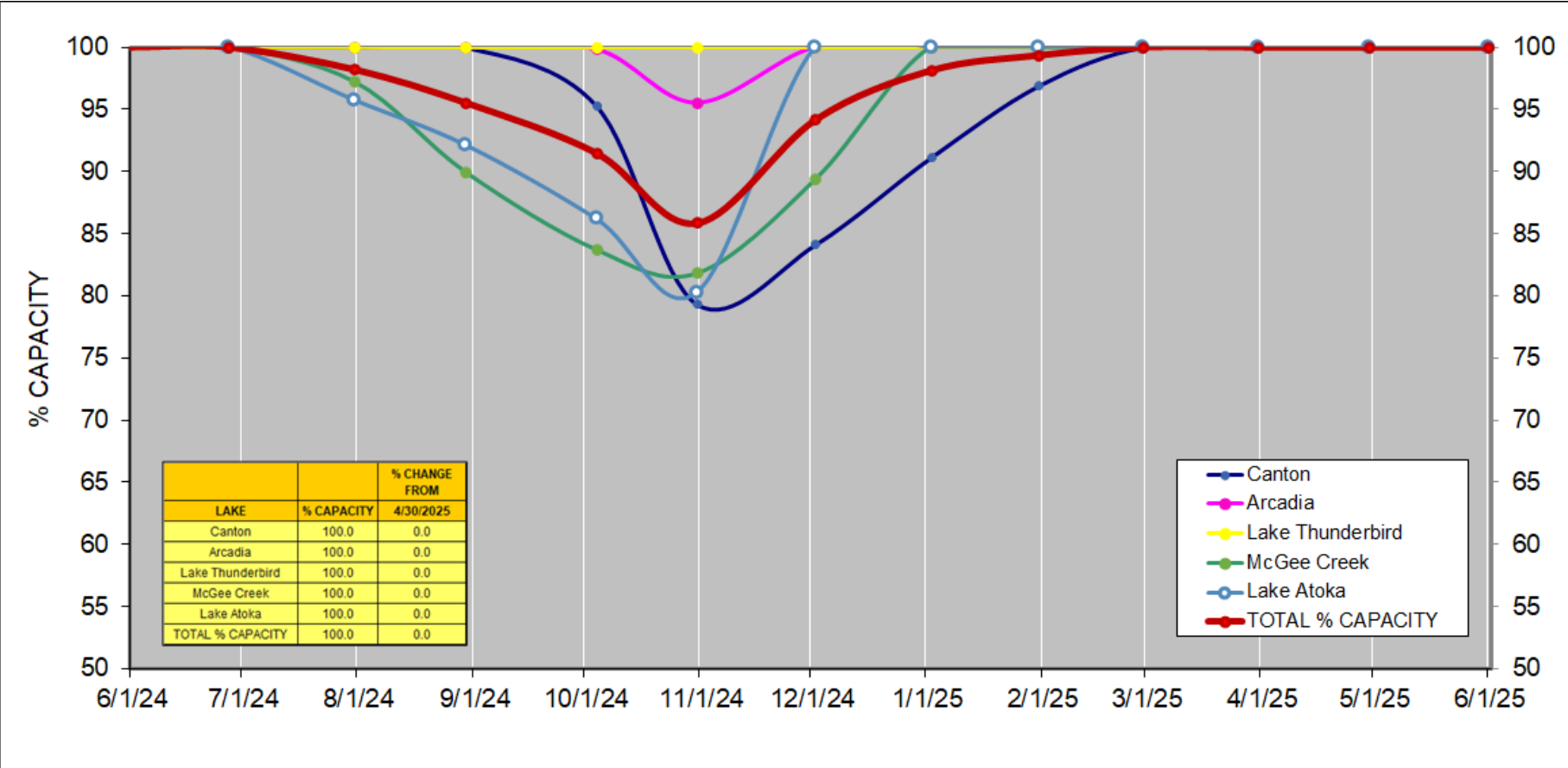
1-day Average 24-inch Fractional Water Index

June 1, 2025

Created 7:30:14 AM June 2, 2025 CDT. © Copyright 2025

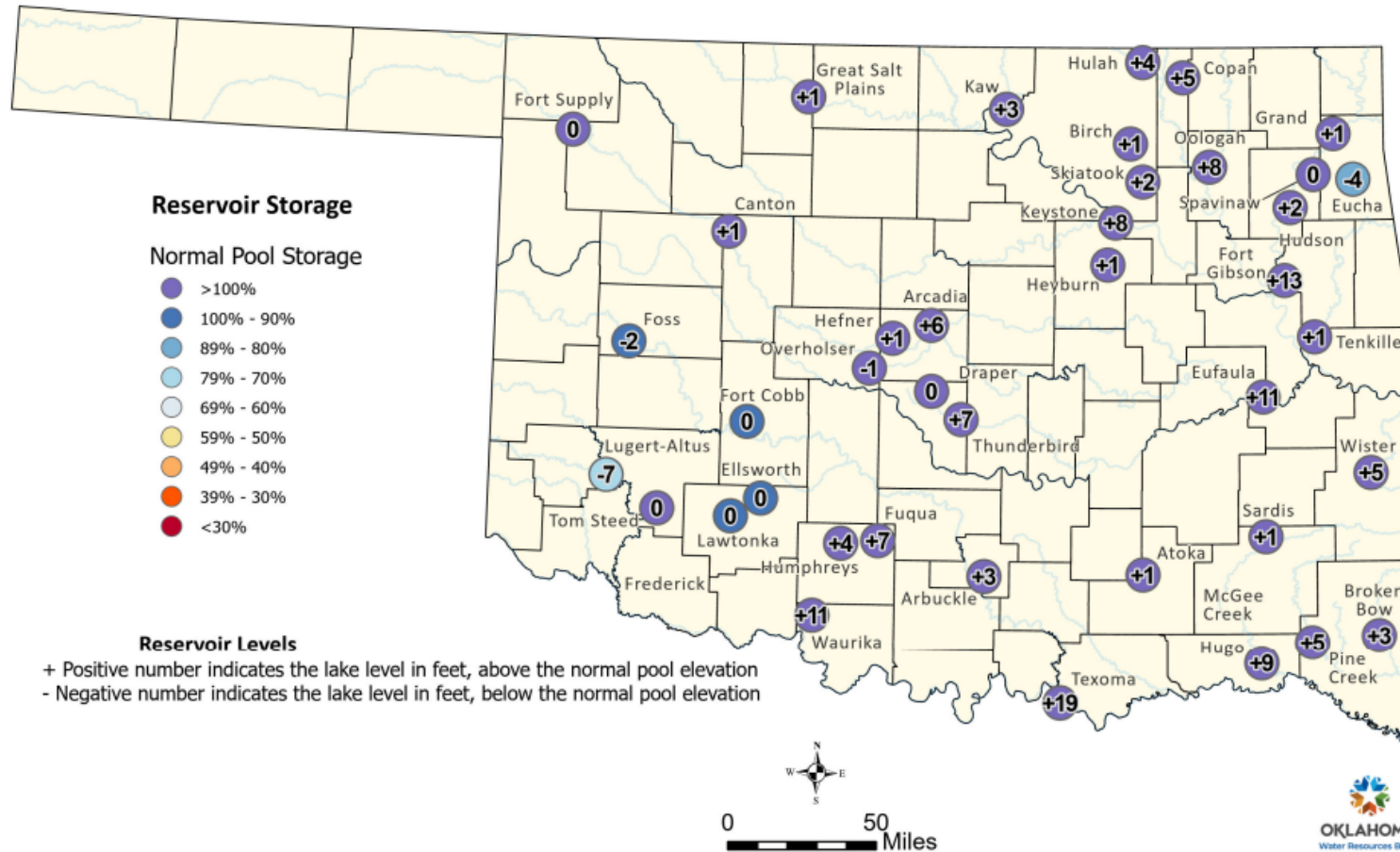


PERCENTAGE OF SURFACE WATER CONSERVATION CAPACITY IN CENTRAL OK RESERVOIRS



Lake Hefner and Lake Overholser are terminal storage for Canton Lake. Lake Draper is terminal storage for McGee Creek and Atoka Lakes.

OKLAHOMA RESERVOIR LEVELS AND STORAGE



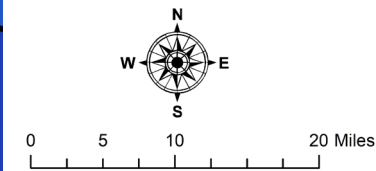
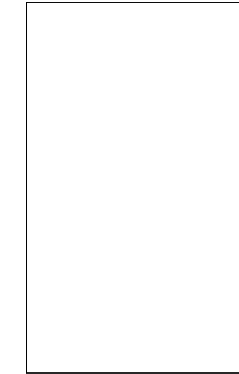
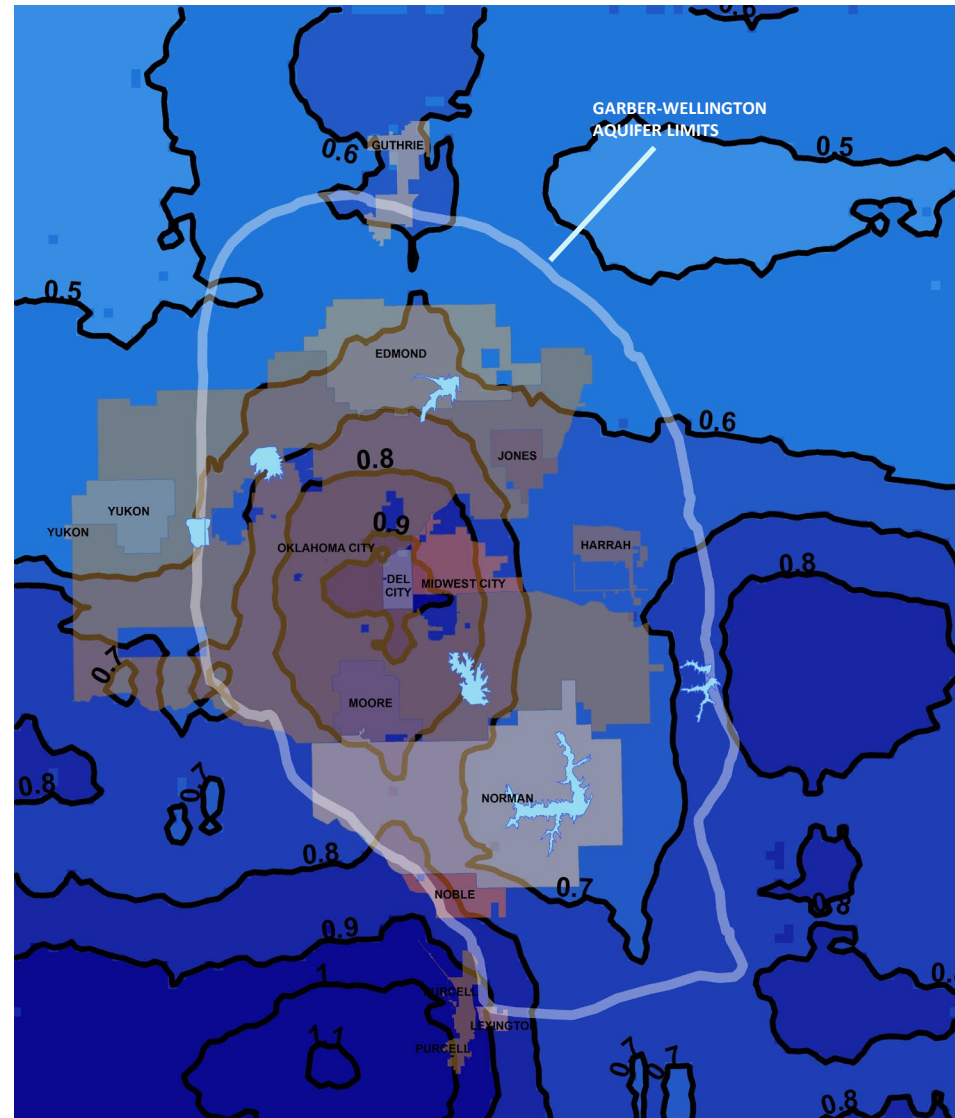
OKLAHOMA RESERVOIR LEVELS AND STORAGE AS OF 6/01/2024

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.swt-wc.usace.army.mil/Daily_Morning_Reservoir_Report.pdf), and the U.S. Geological Survey ([USGS Current Conditions for USGS 07333010 Atoka Reservoir near Stringtown, OK](https://www.usgs.gov/monitoring/products-reports/real-time/USGS-07333010-Atoka-Reservoir-near-Stringtown-OK)). For more information, please visit the OWRB's website: [Monthly Reservoir Storage.pdf](#)

MONTHLY AQUIFER RECHARGE



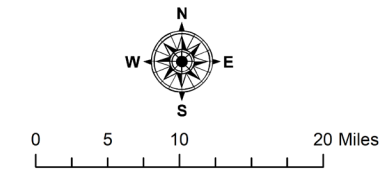
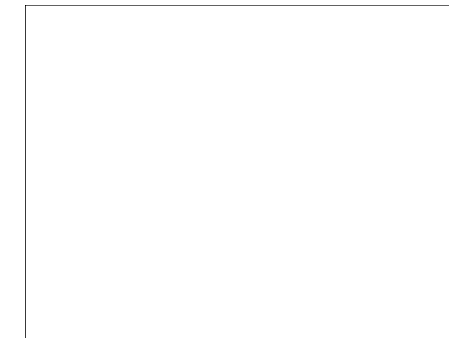
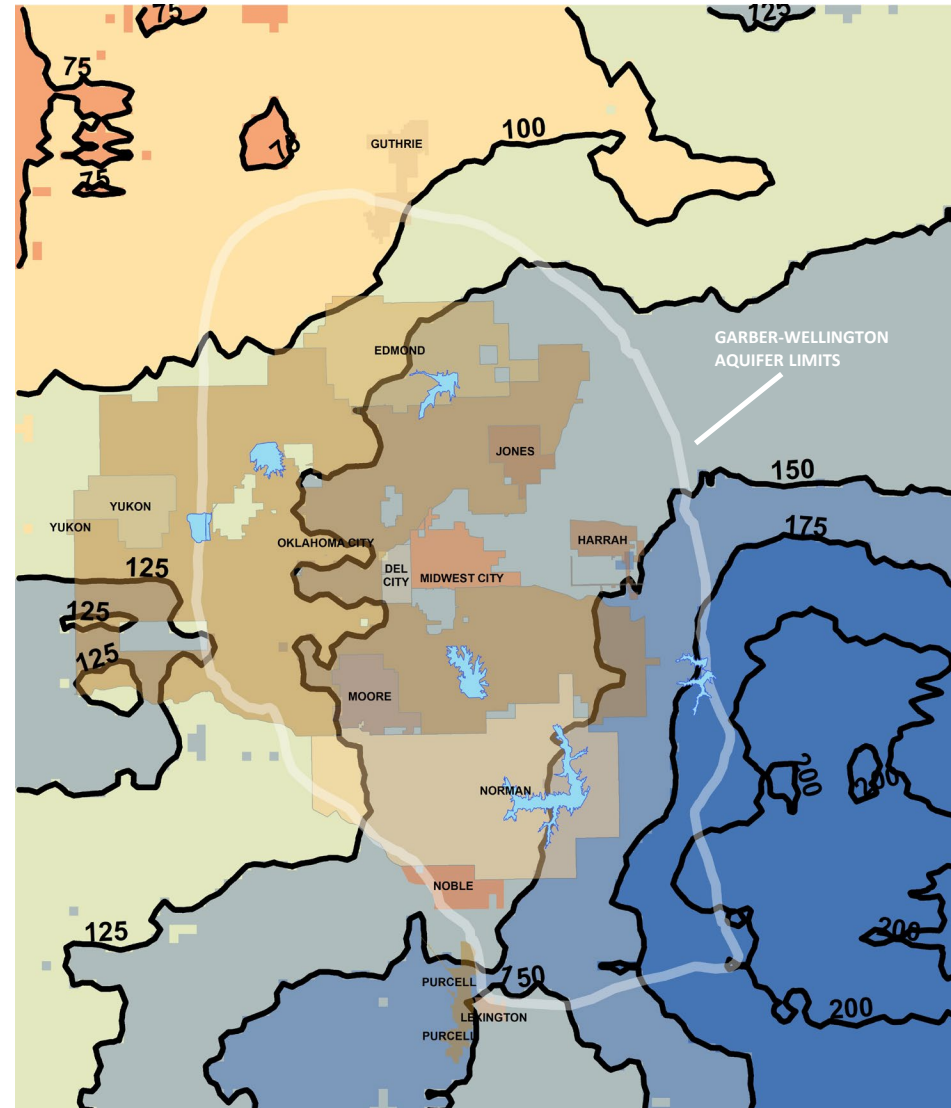
- Mean aquifer recharge in May 2025 was 0.68 inches.
- Normal mean recharge for May is 0.46 inches.
- We are 0.93 inches above normal for 2025.



PERCENT TOTAL CUMULATIVE AQUIFER RECHARGE – Last 12 Months



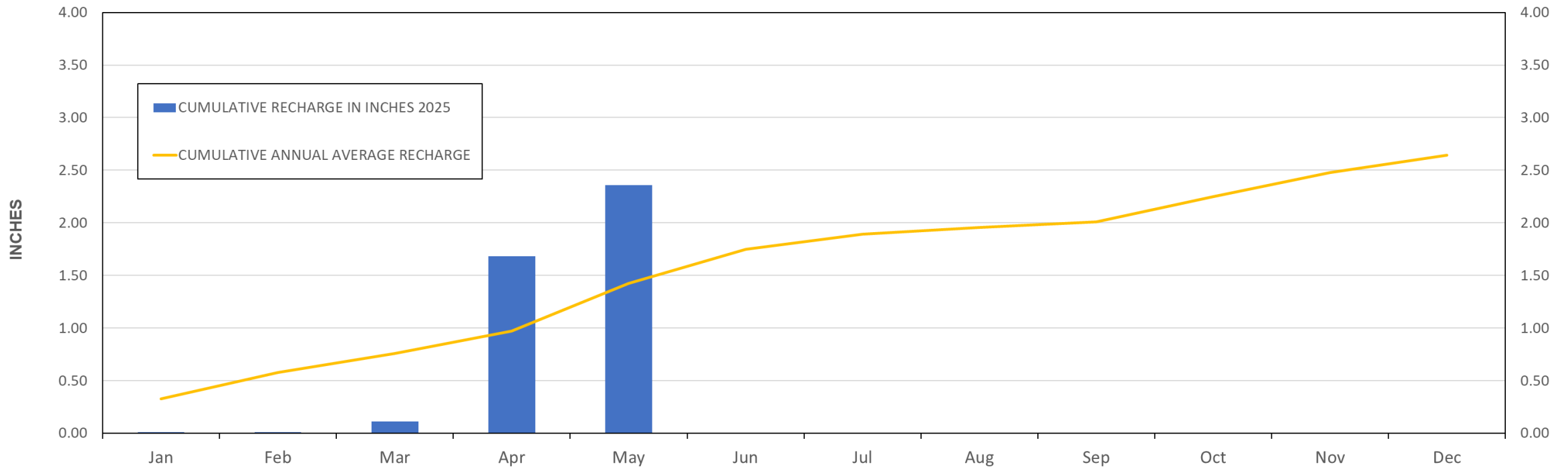
- Most of the recharge in the past 12 months was south and east of the metropolitan area.
- May 2025 had 0.68 inches of recharge. Normal mean recharge for May is 0.46 inches.
- Over the past 12 months the metropolitan area has received about 125% of annual recharge.



RECHARGE CHARTS CENTRAL OKLAHOMA AQUIFER SYSTEM



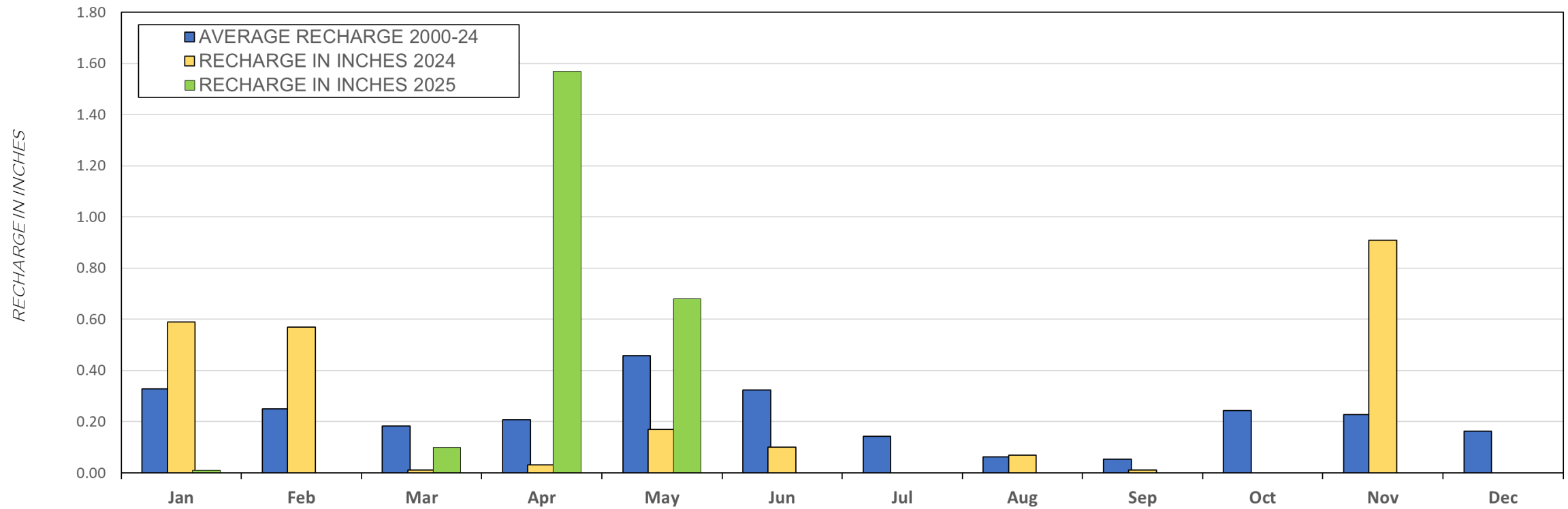
ACCUMULATED CENTRAL OKLAHOMA AQUIFER SYSTEM RECHARGE 2025



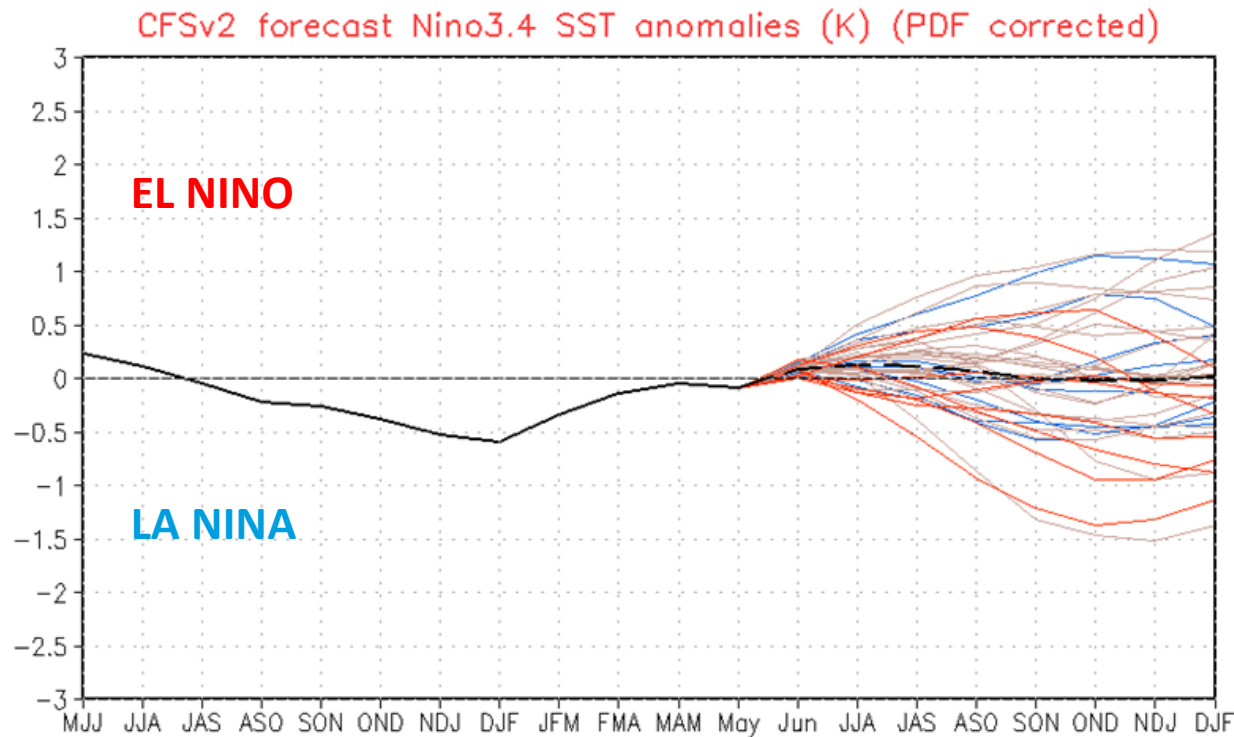
RECHARGE CHARTS CENTRAL OKLAHOMA AQUIFER SYSTEM CONTINUED



MONTHLY AQUIFER RECHARGE 2025



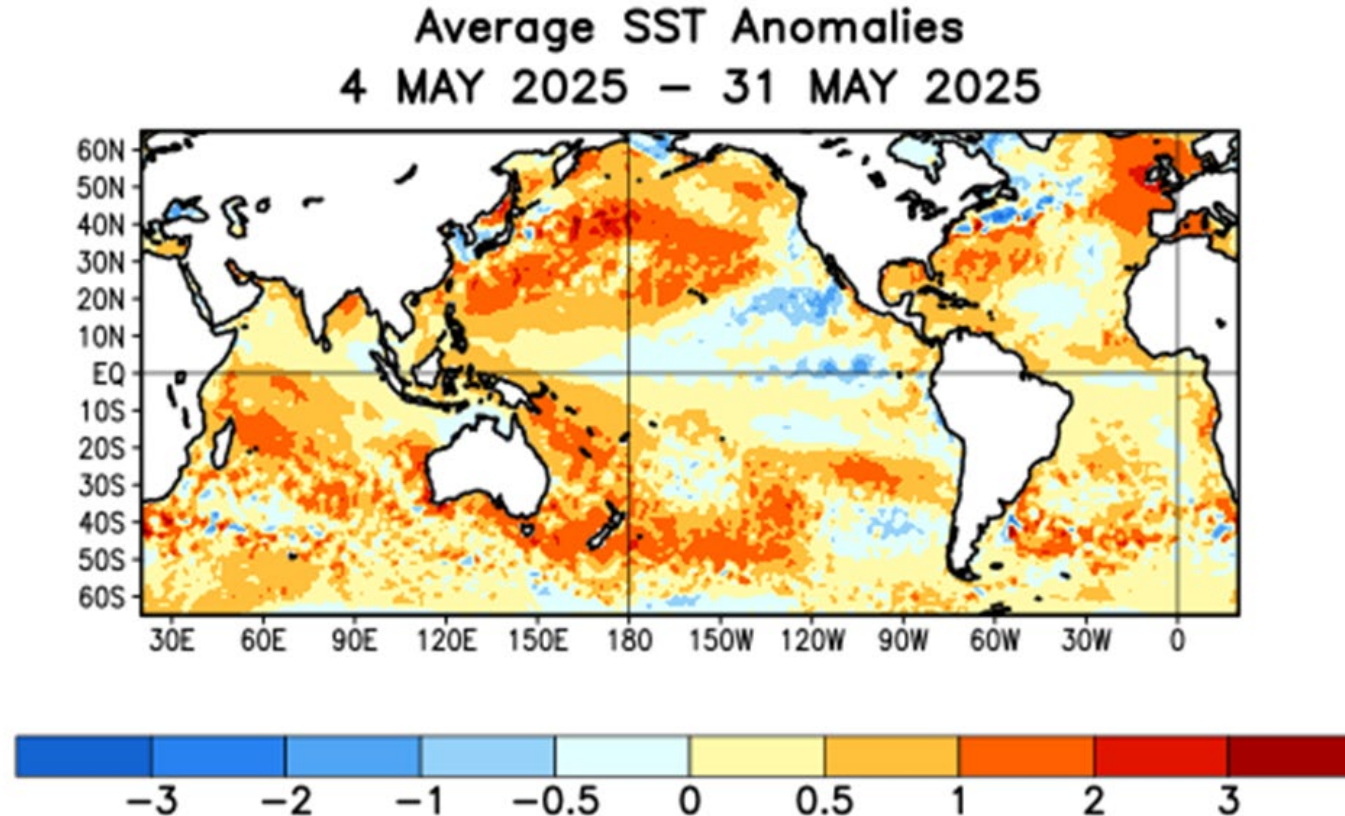
ENSO CYCLE - RECENT EVOLUTION, CURRENT STATUS AND PREDICTIONS



- Latest 8 forecast members
- Earliest 8 forecast members
- Other forecast members
- (Climatology base period: 1991–2020)
- Forecast ensemble mean
- NCEP OIv2.1 daily analysis



ENSO CYCLE - RECENT EVOLUTION, CURRENT STATUS AND PREDICTIONS





ENSO Alert System Status: Not Active

- ENSO-neutral conditions are present.
- Equatorial sea surface temperatures (SSTs) are near-average across most of the Pacific Ocean.
- ENSO-neutral is favored through the Northern Hemisphere summer 2025 (74% chance during June-August), with chances exceeding 50% through August-October 2025.



QUESTIONS?

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ASSOCIATION OF
CENTRAL OKLAHOMA
GOVERNMENTS