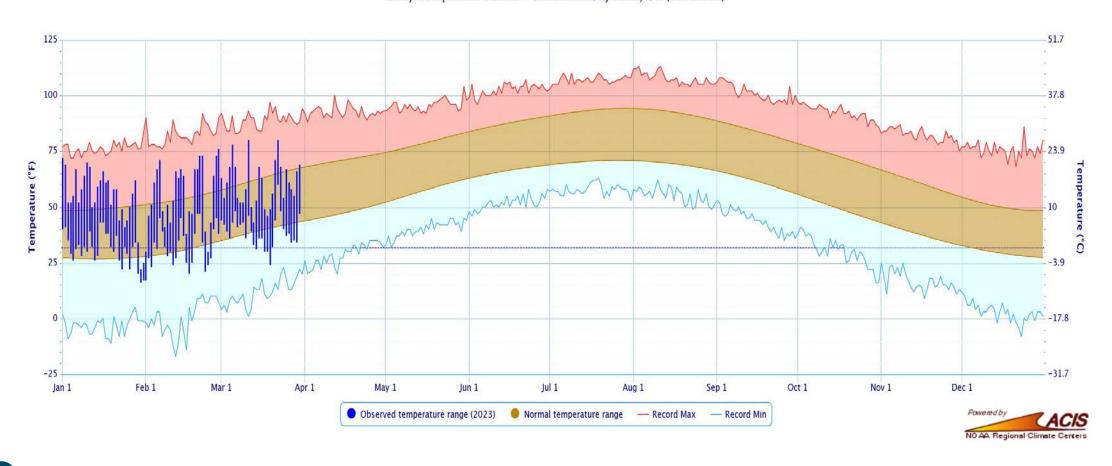


# TEMPERATURE PLOT FOR OKLAHOMA CITY, OKLAHOMA FOR 2023



#### Daily Temperature Data - Oklahoma City Area, OK (ThreadEx)



# PRECIPITATION PLOT FOR OKLAHOMA CITY, OKLAHOMA FOR 2023



Accumulated Precipitation - Oklahoma City Area, OK (ThreadEx)



## RAINFALL SUMMARIES BY OKLAHOMA CLIMATE DIVISION



Calendar Year	01-Jan-2022 though	30-Mar-2023

Winter Dec 01 through

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	1.64"	-2.64"	38%	18th driest	0.40" (1972)	8.99" (1973)
Central	5.53"	-0.74"	88%	44th wettest	0.93" (1936)	13.97" (1990)
S. Central	9.80"	+2.14"	128%	19th wettest	1.68" (1972)	16.50" (1990)
Statewide	6.76"	+0.45"	107%	26th wettest	1.36" (1936)	12.61" (1990)
Water Y	ear: 01-Oct-2021	through	30-Mar-2023		•	

vvaler real. 01-Oct-2021 tillough				JU-IVIAI-2023			
	Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
	W. Central	6.77"	-3.05"	69%	37th driest	2.25" (1966-67)	18.54" (1986-87)
	Central	12.48"	-1.90"	87%	46th wettest	4.42" (1966-67)	28.04" (1984-85)
	S. Central	19.58"	+2.23"	113%	21st wettest	5.19" (1966-67)	28.92" (1984-85)
	Statewide	14.21"	-0.18"	99%	35th wettest	4.77" (1966-67)	23.73" (1984-85)

30-Mar-2023

Times Dec crameagn							
	Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
	W. Central	0.31"	-1.90"	14%	13th driest	0.00" (1971)	6.28" (1973)
	Central	2.34"	-0.70"	77%	51st wettest	0.10" (1971)	7.75" (1990)
	S. Central	5.18"	+1.86"	156%	12th wettest	0.22" (1950)	8.10" (1945)
	Statewide	3.02"	+0.10"	103%	31st wettest	0.40" (1971)	6.85" (1973)



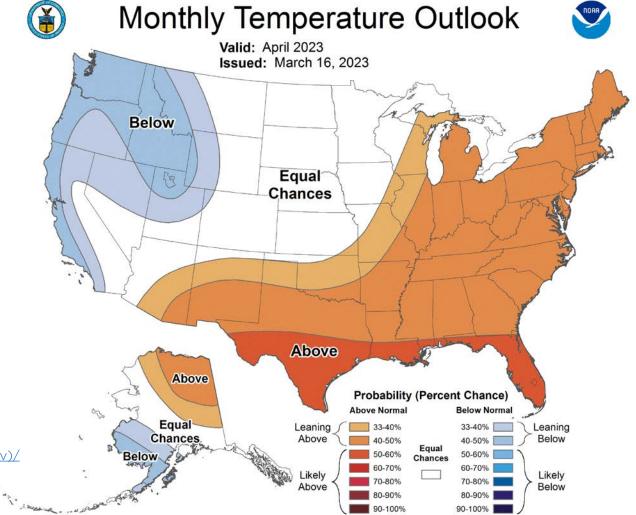
The climate divisions shown include statewide totals, central Oklahoma totals, and totals for the two divisions which have Canton Lake and Lake Atoka—major water sources for central Oklahoma.

#### NOAA ONE-MONTH TEMPERATURE OUTLOOK



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.



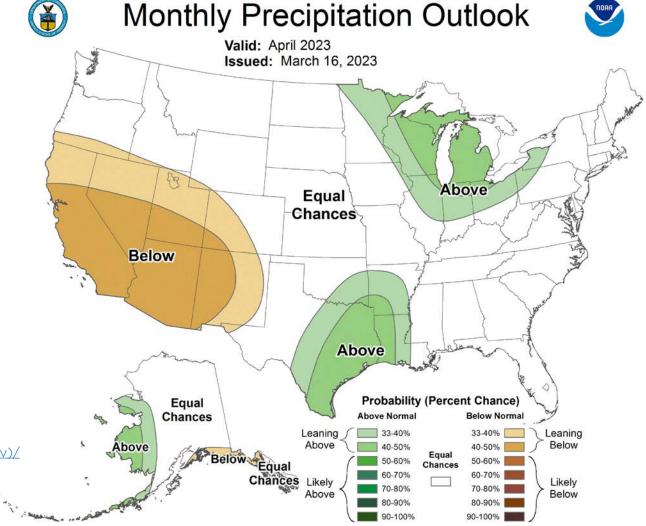
<u>Climate Prediction Center - Updated OFFICIAL 30-Day Forecasts (noaa.gov)/</u>

#### NOAA ONE-MONTH PRECIPITATION OUTLOOK



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.

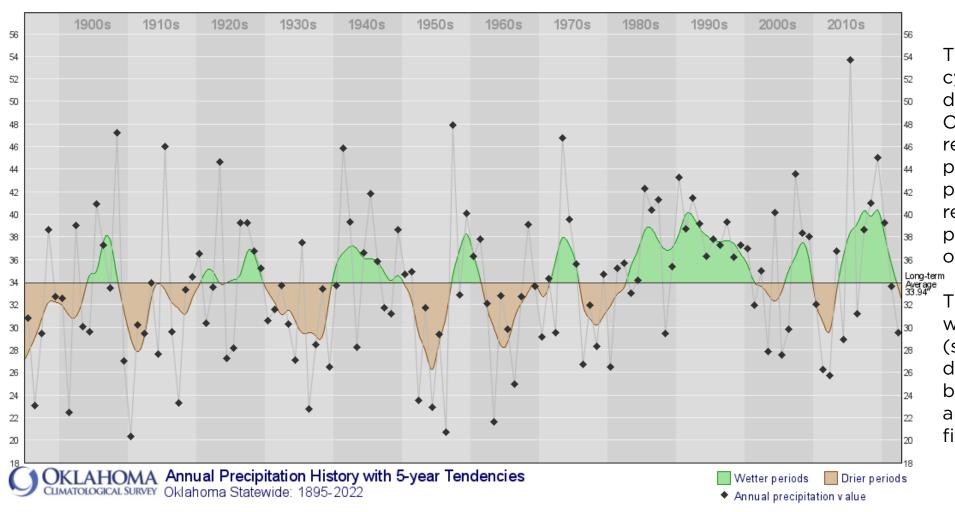
That doesn't mean that there are equal chances of each of the categories occurring – it means that currently there is no skill in identifying the most likely category. In these areas, it is best to be prepared for all possibilities.



<u>Climate Prediction Center - Updated OFFICIAL 30-Day Forecasts (noaa.gov)/</u>

## 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.

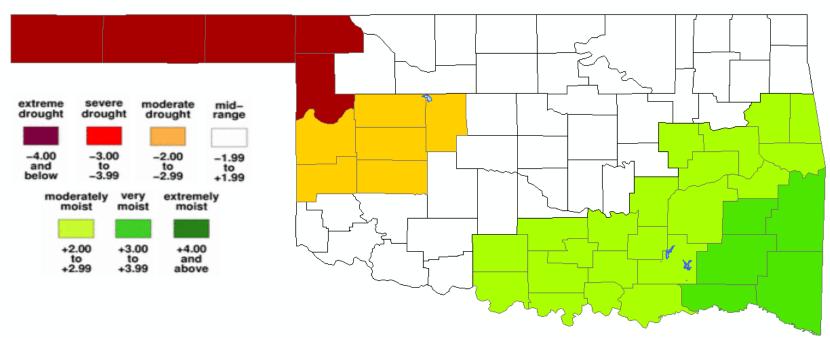
7

http://climate.ok.gov/index.php/climate/climate\_trends/precipitation\_history\_annual\_statewide/CD00/prcp/Annual/oklahoma\_south-central\_u.s

#### DROUGHT SEVERITY INDEX BY CLIMATE DIVISION







PALMER VALUE

25 MAR 2023

The Palmer Drought Index (PDI) maps show long-term (cumulative) meteorological drought and wet conditions.

The maps show how the geographical pattern of the long-term moisture conditions has changed over the last 12 months.

On these maps, the red shading denotes drought conditions while the green shading indicates wet conditions.

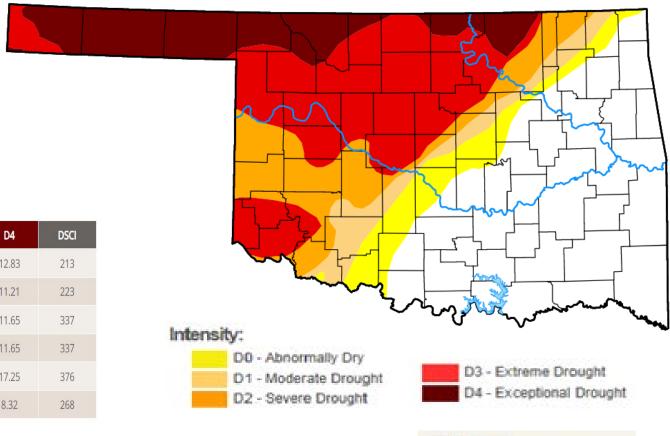
#### U.S. DROUGHT MONITOR - OKLAHOMA



March 30, 2023

Abnormal dryness or drought are currently affecting approximately 1,538,746 people in Oklahoma.

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2023-03-28	39.69	60.31	53.68	48.59	37.30	12.83	213
Last Week	2023-03-21	34.39	65.61	59.07	50.12	36.64	11.21	223
3 Months Ago	2022-12-27	1.82	98.18	89.73	80.92	56.13	11.65	337
Start of Calendar Year	2022-12-27	1.82	98.18	89.73	80.92	56.13	11.65	337
Start of Water Year	2022-09-27	0.00	100.00	99.88	94.44	64.44	17.25	376
One Year Ago	2022-03-29	13.76	86.24	76.49	63.34	33.90	8.32	268





#### U.S. DROUGHT MONITOR NATIONWIDE MAP



Map released: March 30, 2023

Data valid: March 28, 2023

#### **Intensity and Impacts**

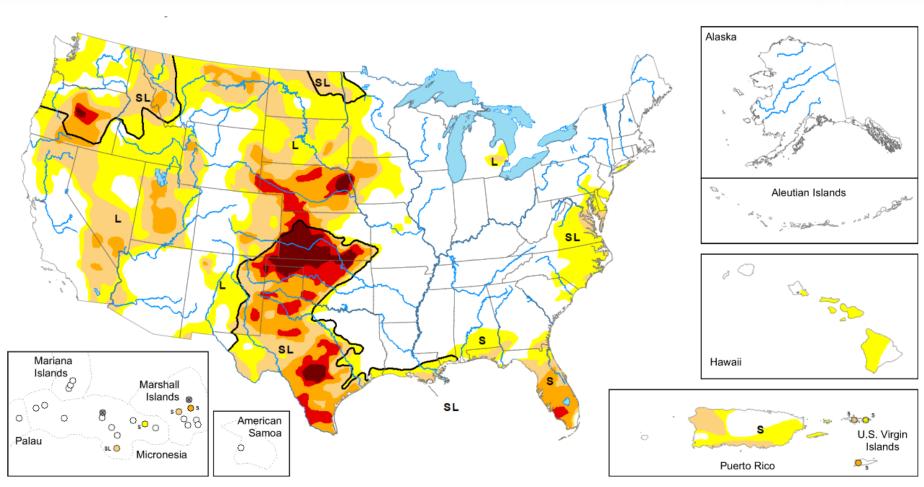
D0 (Abnormally Dry)
D1 (Moderate Drought)
D2 (Severe Drought)

D3 (Extreme Drought)
D4 (Exceptional Drought)
No Data

United States and Puerto Rico Author(s):

Deborah Bathke, National Drought Mitigation Center

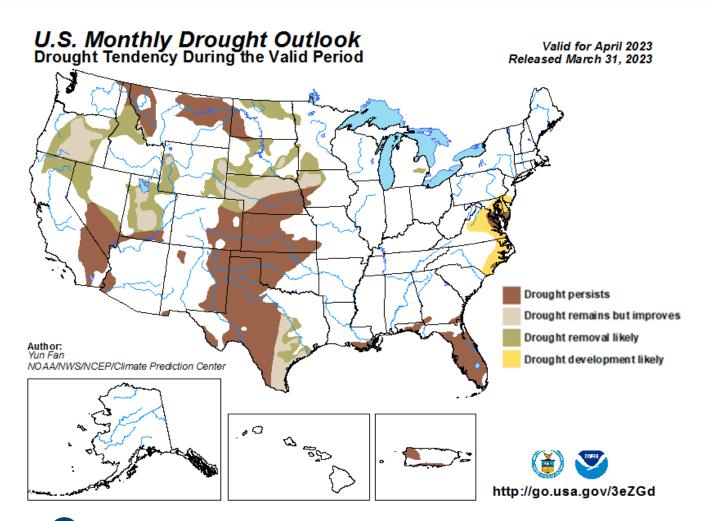
Pacific Islands and Virgin Islands Author(s): Ahira Sanchez-Lugo, NOAA/NCEI





## U.S. DROUGHT MONITOR MONTHLY DROUGHT OUTLOOK MAP



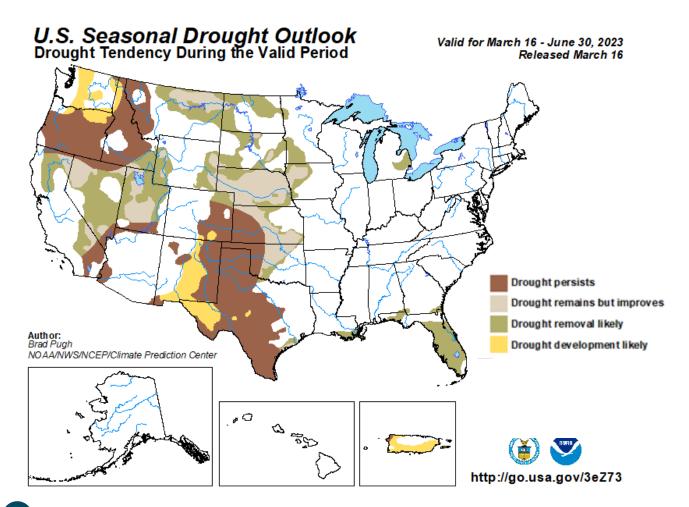


Depicts large-scale trends based on subjectively derived probabilities guided by short and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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 (DO or none).

## U.S. DROUGHT MONITOR SEASONAL DROUGHT OUTLOOK MAP



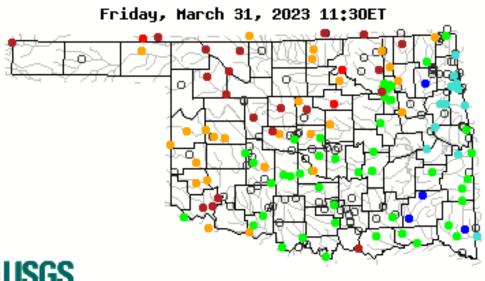


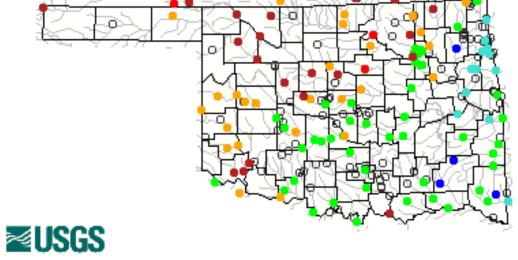
Depicts large-scale trends based on subjectively derived probabilities guided by short and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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 (DO or none).

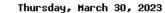
#### **USGS STREAMFLOW DATA**

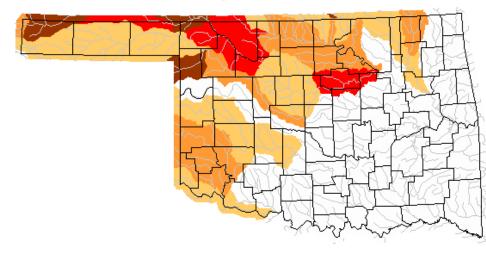






#### Below normal 28-day average streamflow





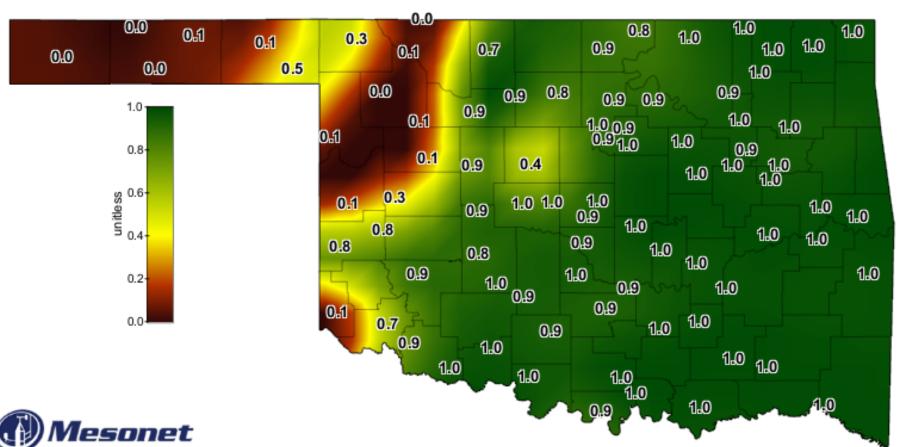


	Explanation - Percentile classes								
•	•	•	•		•	•	0		
Low	<10	10-24	25-75	76-90	>90	Liinh	Not-ranked		
2011	Much below normal	Below normal	Normal	Above normal	Much above normal	High	TVOCTATIKEG		

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

#### **SOIL MOISTURE MAP**





1-DAY AVERAGE **24-INCH FRACTIONAL** WATER INDEX





1-day Average 24-inch Fractional Water Index

March 30, 2023

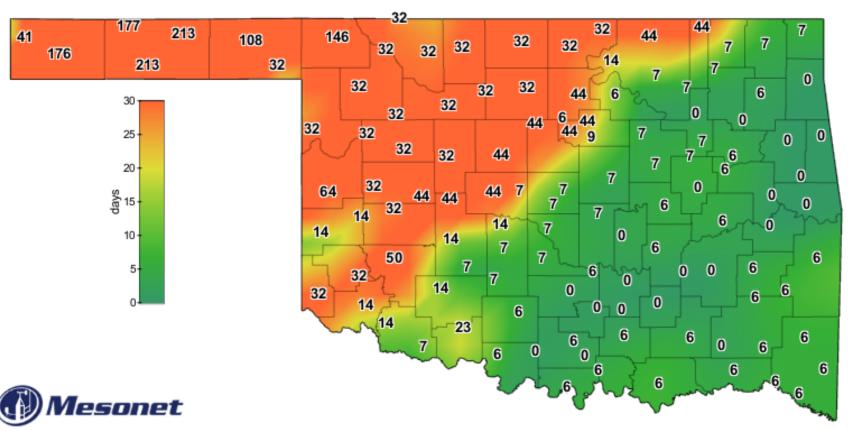
Created 7:30:14 AM March 31, 2023 CDT. © Copyright 2023





#### CONSECUTIVE DAYS WITHOUT RAINFALL MAP





CONSECUTIVE DAYS WITH LESS **THAN 0.25**" **RAINFALL** 



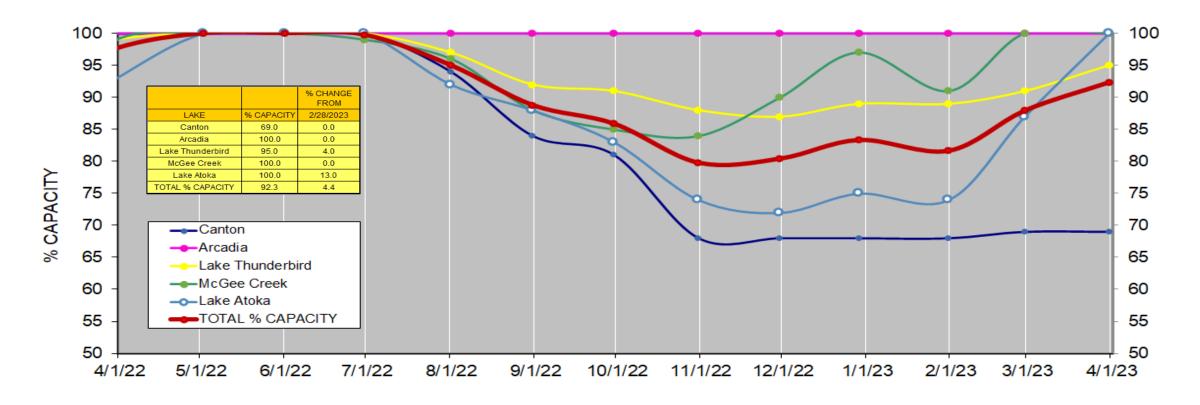
March 30, 2023

Created 8:15:04 AM March 31, 2023 CDT. © Copyright 2023



## PERCENTAGE OF SURFACE WATER CONSERVATION CAPACITY IN CENTRAL OK RESERVOIRS

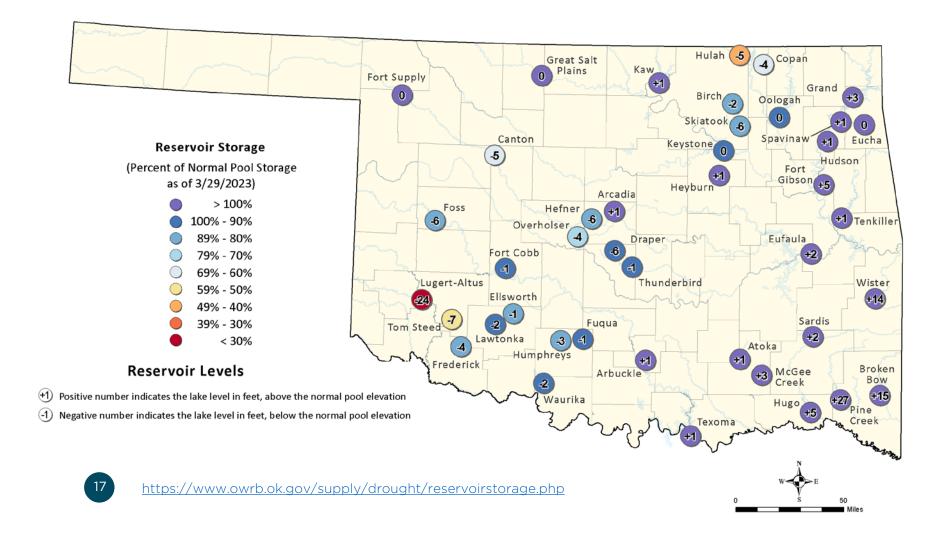




Lake Hefner and Lake Overholser are terminal storage for Canton Lake. Lake Draper is terminal storage for McGee Creek and Atoka Lakes.

#### OKLAHOMA RESERVOIR LEVELS AND STORAGE





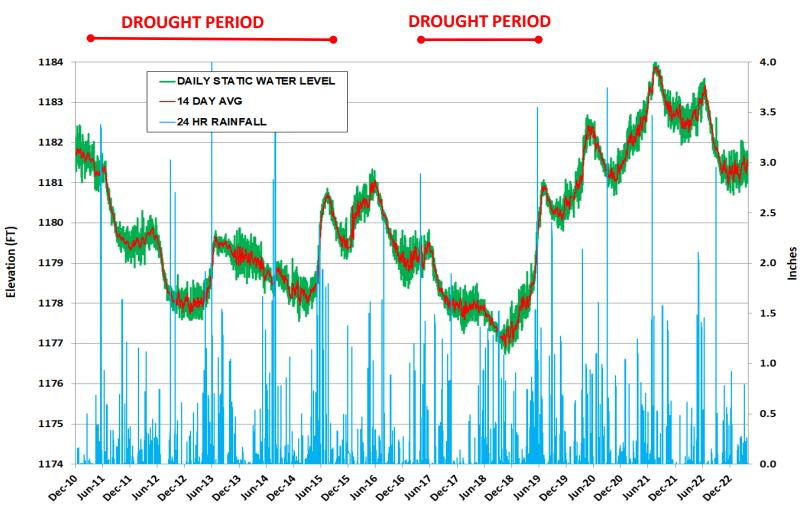
# OKLAHOMA RESERVOIR LEVELS AND STORAGE AS OF 3/29/2023

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 (<a href="https://www.swt-wc.usace.army.mil/Daily\_Morning\_Reservoir\_Report.pdf">https://www.swt-wc.usace.army.mil/Daily\_Morning\_Reservoir\_Report.pdf</a>), and the U.S. Geological Survey (<a href="https://www.waterdata.usgs.gov/ok/nwis/current/?type=lake&group\_key=basin\_cd">https://www.waterdata.usgs.gov/ok/nwis/current/?type=lake&group\_key=basin\_cd</a>). For more information, please visit the OWRB's website: (<a href="https://www.owrb.ok.gov">https://www.owrb.ok.gov</a>).



### GROUNDWATER LEVELS SPENCER MESONET STATION



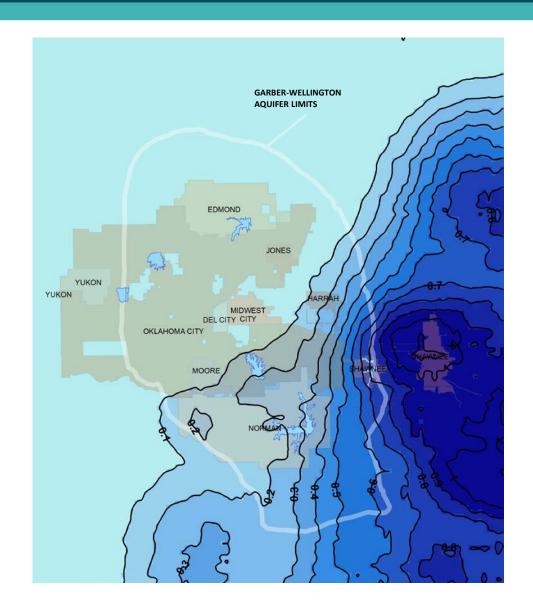


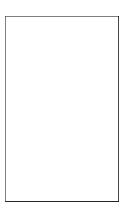


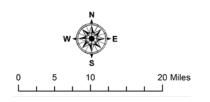
## AQUIFER RECHARGE - February 2023



- Aquifer recharge in February 2023 was 0.19 inches.
- Normal recharge for February is 0.24 inches.
- This is 0.38 inches below the cumulative yearly average at this time.



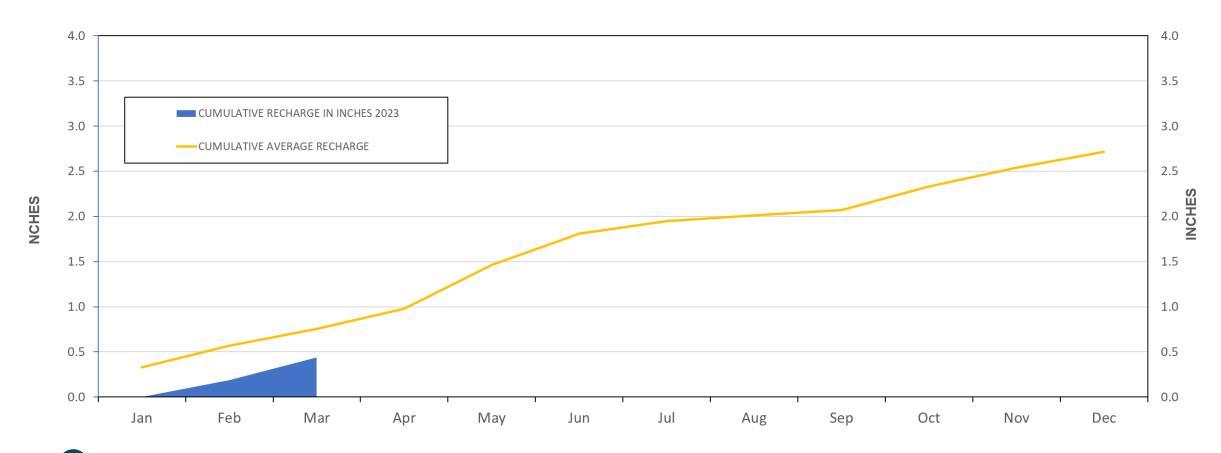




## RECHARGE CHARTS CENTRAL OKLAHOMA AQUIFER SYSTEM



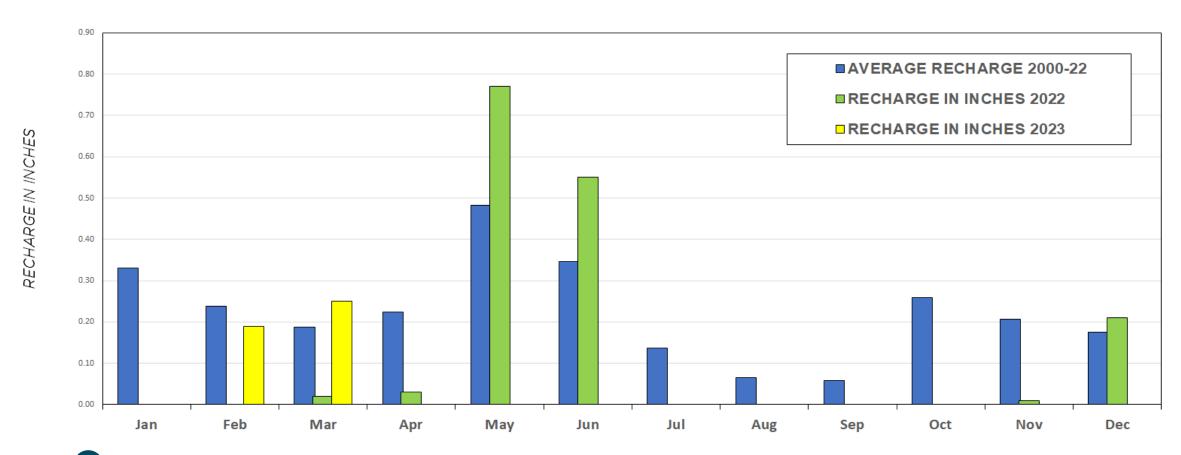
#### ACCUMULATED CENTRAL OKLAHOMA AQUIFER SYSTEM RECHARGE 2022



# RECHARGE CHARTS CENTRAL OKLAHOMA AQUIFER SYSTEM continued

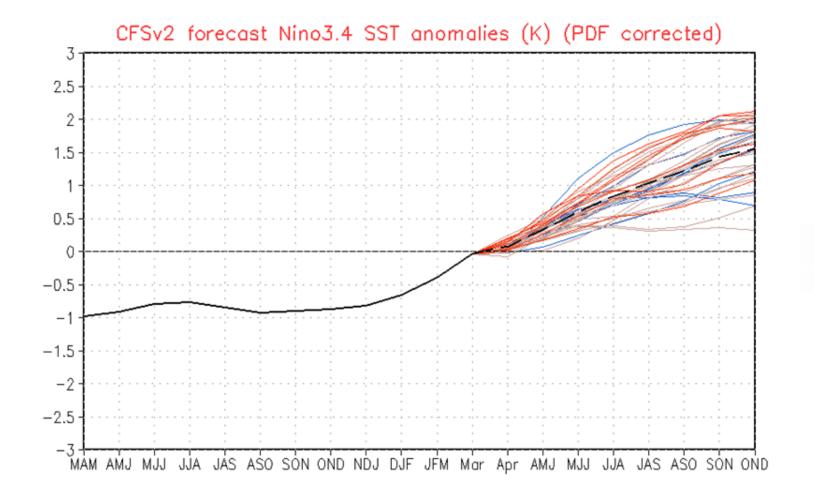


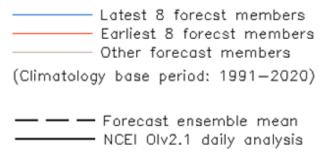
#### MONTHLY AQUIFER RECHARGE



# ENSO CYCLE - RECENT EVOLUTION, CURRENT STATUS AND PREDICTIONS



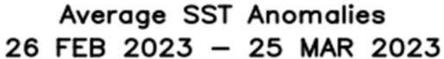


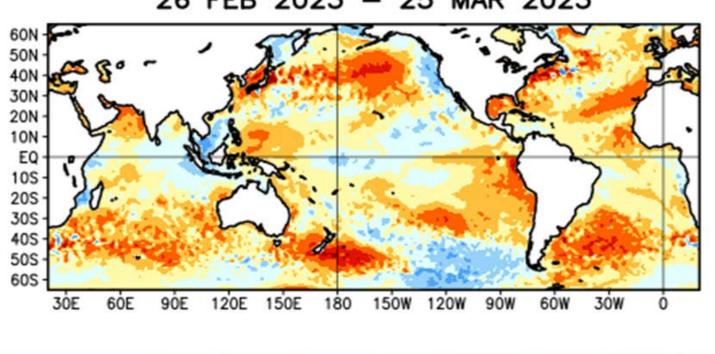




# ENSO CYCLE - RECENT EVOLUTION, CURRENT STATUS AND PREDICTIONS







0.5



3

#### **SUMMARY**



#### ENSO ALERT SYSTEM STATUS: Final La Niña Advisory

- ENSO-neutral conditions are observed.
- Equatorial sea surface temperatures (SSTs) are near average across most of the Pacific Ocean.
- The tropical Pacific atmosphere is still consistent with a weak La Niña signal.
- ENSO-neutral conditions are expected to continue through the Northern Hemisphere spring and early summer 2023.



