



Drought Information Statement for Eastern OK & Northwestern AR

Valid September 21, 2023

Issued By: WFO Tulsa, OK

Contact Information: sr-tsa.webmaster@noaa.gov

- This product will be updated ~Oct. 27, 2023 or sooner if drought conditions change significantly.
- Please see all currently available products at <https://drought.gov/drought-information-statements>.
- Please visit <https://www.weather.gov/tsa/DroughtInformationStatement> for previous statements.





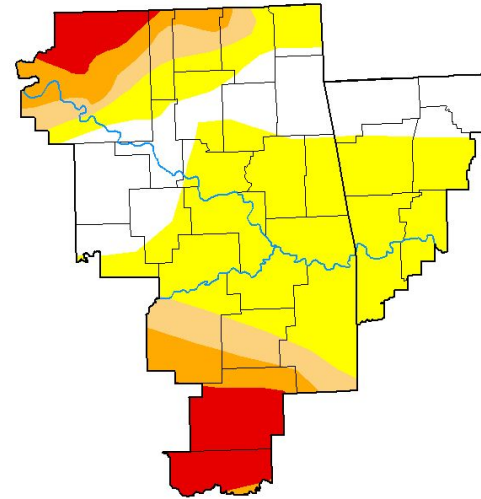
U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for the southern U.S.

- Moderate (D1) to Extreme (D3) Drought conditions continue across northeast OK and expand across southeast OK.
- Drought intensity and Extent
 - D3 (Extreme Drought): Osage, Washington, Pushmataha, and Choctaw Counties in eastern OK.
 - D2 (Severe Drought): Craig, Nowata, Washington, Osage, Pawnee, Pittsburg, Latimer, Pushmataha, and Le Flore Counties in eastern OK.
 - D1 (Moderate Drought): Craig, Nowata, Washington, Osage, Pawnee, Pittsburg, Latimer, and Le Flore Counties in eastern OK.
 - D0: (Abnormally Dry): Ottawa, Craig, Nowata, Washington, Osage, Pawnee, Tulsa, Rogers, Mayes, Wagoner, Cherokee, Adair, Sequoyah, Muskogee, Okmulgee, Okfuskee, McIntosh, Pittsburg, Haskell, Latimer, and Le Flore Counties in eastern OK and Washington, Madison, Crawford, Franklin, and Sebastian Counties in northwest AR.

U.S. Drought Monitor Tulsa, OK WFO

September 19, 2023
(Released Thursday, Sep. 21, 2023)
Valid 8 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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>.

Author:

Richard Heim
NCEI/NOAA



droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 7am CDT September 19, 2023.





Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for eastern Oklahoma and northwestern Arkansas

- Four Week Drought Monitor Class Change:
 - Drought Worsened: Osage, Pawnee, Choctaw, Pushmataha, Pittsburg, Latimer, Le Flore, Haskell, McIntosh, Okfuskee, Okmulgee, Muskogee, Sequoyah, Adair, Cherokee, Wagoner, Rogers, and Mayes Counties in eastern OK and Washington, Madison, Crawford, Franklin, and Sebastian Counties in northwest AR.
 - No Change: Pawnee, Osage, Tulsa, Washington, Rogers, Nowata, Craig, and Ottawa Counties in eastern OK.

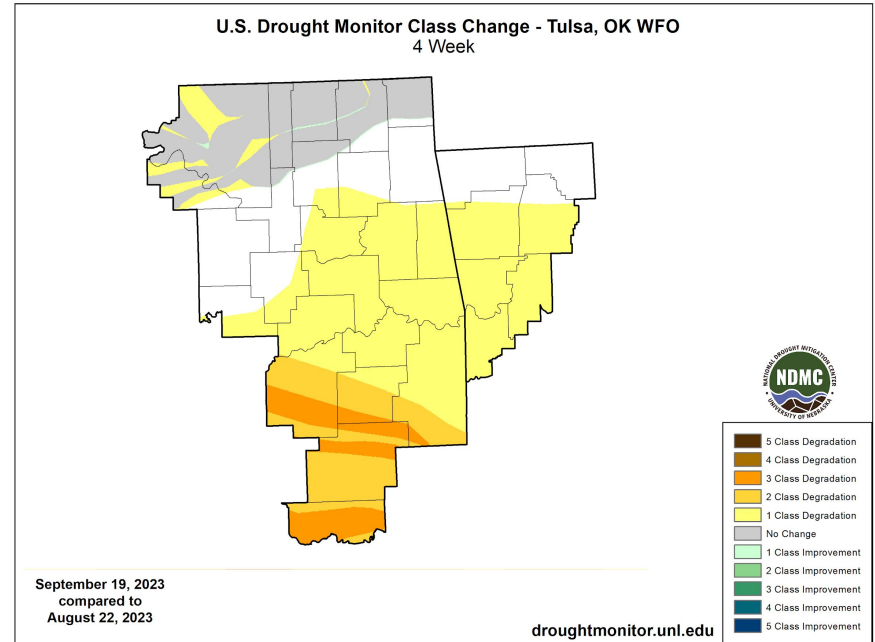


Image Caption: U.S. Drought Monitor 4-week change map valid 7am CDT September 19, 2023.

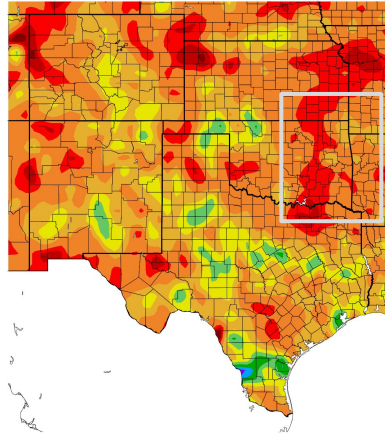




Precipitation

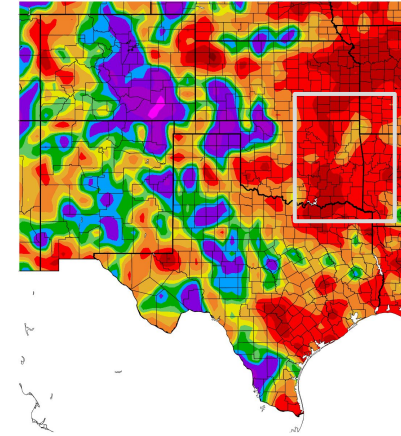
- For the 7-day period ending the morning of Sep 21, 2023, 0.10" to around 5" inches of rain has fallen across eastern OK and northwest AR.
- For the last 30 days ending the morning of Sep 21, 2023, rainfall totals across the area ranged from 0.50" to near 8", with much of the area receiving 1"-3". This is only 10%-75% of the normal rainfall for most of the area.

Precipitation (in)
8/22/2023 – 9/20/2023



Generated 9/21/2023 at HPRCC using provisional data.

Percent of Normal Precipitation (%)
8/22/2023 – 9/20/2023



NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate

Image Captions:
 Left - Precipitation Amount for the Southern Plains
 Right - Percent of Normal Precipitation for the Southern Plains]
 Data Courtesy High Plains Regional Climate Center.
 Data over the past 30 days ending September 20, 2023





Summary of Impacts

Links: See/submit [Condition Monitoring Observer Reports \(CMOR\)](#) and view the [Drought Impacts Reporter](#)

Hydrologic Impacts

- Below normal streamflow and lake levels were present across portions of northeast OK, southeast OK, and northwest AR.

Agricultural Impacts

- Below normal soil moisture was occurring across most of eastern OK and northwest AR.
- OK Crop Progress Report: 22% good to excellent this week and 49% poor to very poor

Fire Hazard Impacts

- Burn bans were in effect for southeast OK.

Other Impacts

- There are no known impacts at this time

Mitigation Actions

- The Town of Copan, OK issued an Emergency Proclamation Sep. 13, 2023 due to a water shortage as the water supply at Copan Lake has reached a critically low level, threatening the town's ability to take in water for treatment and distribution. This proclamation impacts water customers in the Town of Copan, Washington County Rural Water District #7, and Hulah Water District #20.

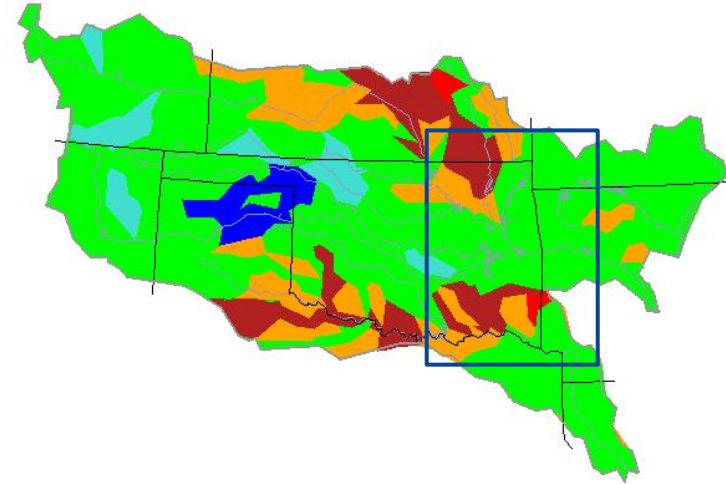




Hydrologic Conditions and Impacts

- According to the USGS, the [7-day average streamflow](#) was below to much below normal across northeast OK and far southeast OK (image on the right).
- According to the USACE, the following reservoirs were more than 3% below the top of their conservation pools as of September 21, 2023:
 - Copan Lake 40%
 - Skiatook Lake 74%
 - Birch Lake 80%
 - Wister Lake 82%
 - Beaver Lake 82%
 - Hugo Lake 84%
 - Heyburn Lake 87%
 - Eufaula Lake 91%
 - Tenkiller Lake 92%
 - Sardis Lake 95%

Wednesday, September 20, 2023



USGS

Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Image Caption: USGS 7-day average streamflow HUC map valid September 20, 2023





Agricultural Impacts

Links to the [OK Mesonet Soil Moisture](#) and Arkansas-Red Basin River Forecast Center [modeled zonal soil moisture](#).

- According to the CPC, soil moisture was below normal for much of eastern OK and northwest AR as of September 20, 2023 (left image).
- The CPC weekly Crop Moisture Index was abnormally dry to excessively dry for east central and southeast OK and west central AR as of September 16, 2023 (right image).
- The OK Emergency Drought Commission voted to release all remaining funding allocated to the current Emergency Drought Cost-Share Program. The state Legislature appropriated \$17 million to the Emergency Drought Relief Fund in May.
- According to the OK Farm Report, OK saw another big drop in the good to excellent ratings in the Crop Progress report released on Sep. 18, dropping from 34% a week ago to 22% good to excellent this week, with 49% poor to very poor.

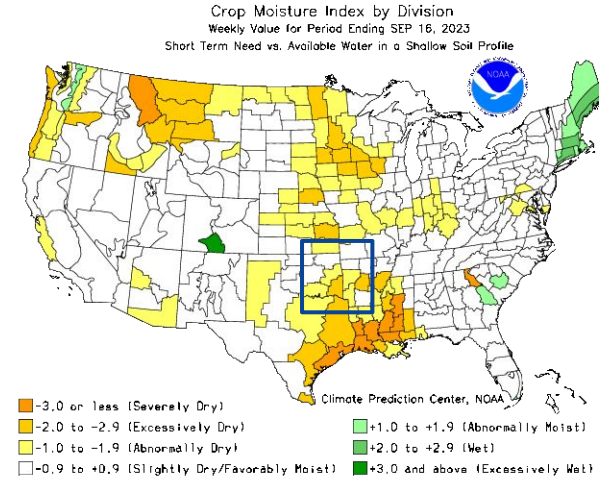
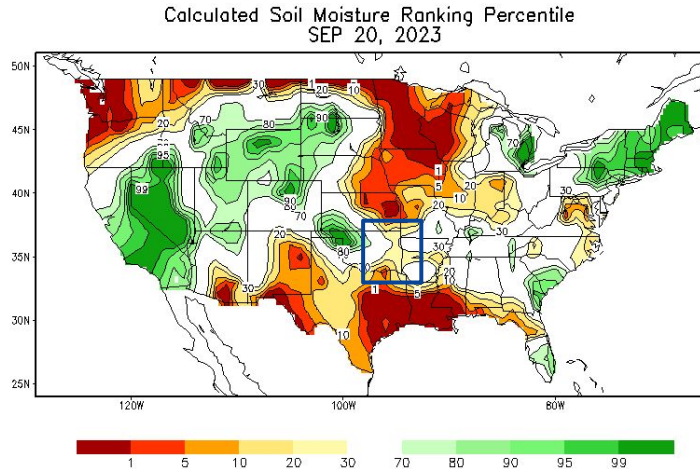


Image Captions:
 Left: CPC Calculated [Soil Moisture Ranking Percentile](#) valid September 20, 2023
 Right: [Crop Moisture Index by Division](#). Weekly value for period ending September 16, 2023





Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center](#).

- Burn Bans were in effect for Pushmataha and Choctaw Counties in southeast OK as of September 19, 2023.
- Enhanced fire spread potential will be based on daily weather conditions.

Latest OK Burn Ban map available [here](#).

Latest AR Burn Ban map available [here](#).

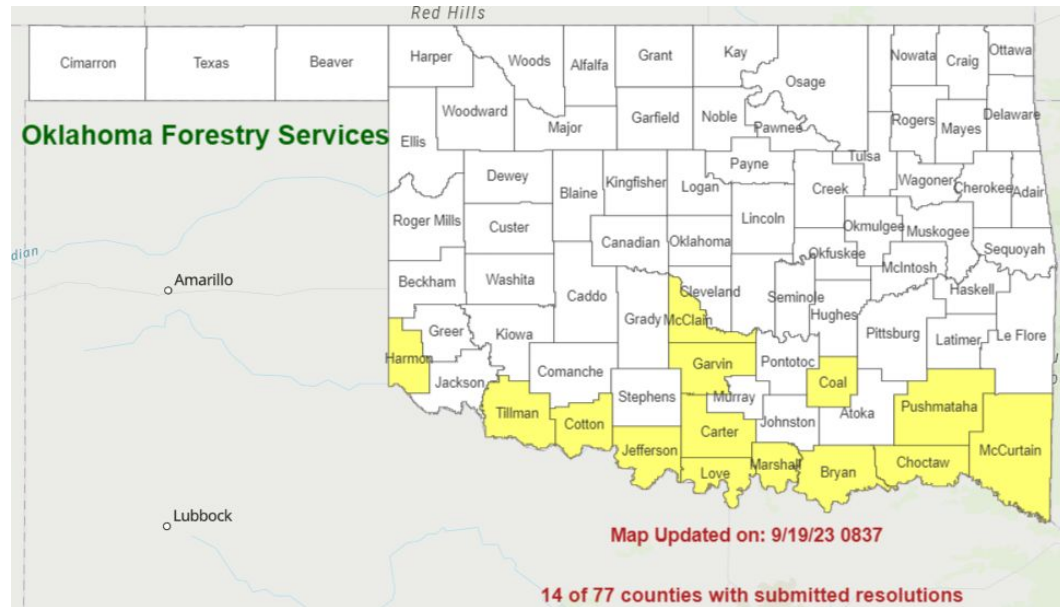


Image Caption: Burn Ban map for Oklahoma as of September 19, 2023





Seven-Day Precipitation Forecast

Link to the latest [7-day Forecast for Eastern OK and northwest AR](#)

- An active weather pattern will bring several rounds of showers and thunderstorms to eastern OK and northwest AR through September 24, 2023.
- Widespread 2”-4” of rain is expected.
- Some locations could receive 4”-6” of rain through September 24.

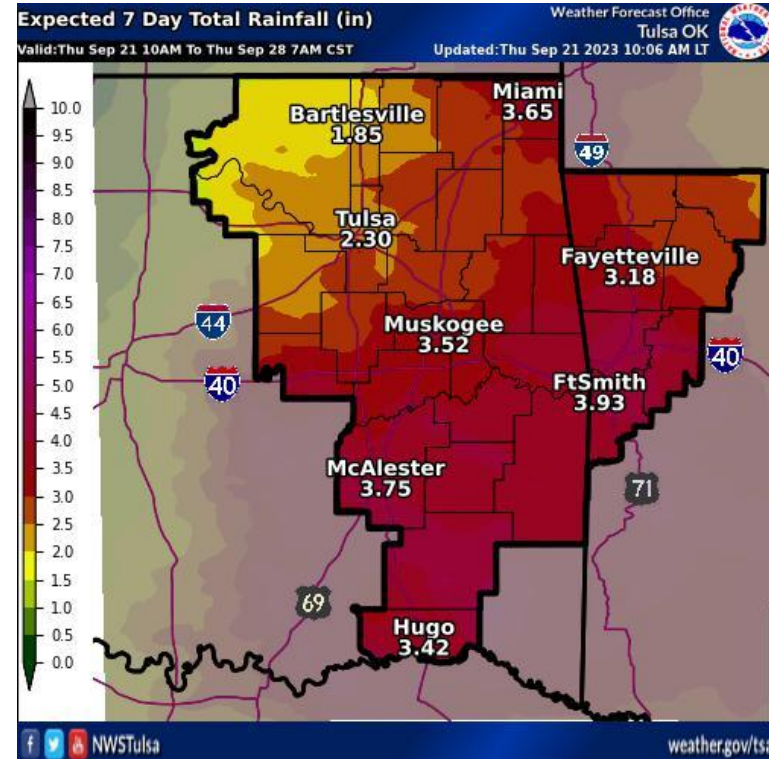


Image Caption: NWS Tulsa 7-day precipitation forecast valid September 21 thru 7 am September 28, 2023





Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the [Climate Prediction Center \(CPC\) homepage](#)

- According to the Climate Prediction Center (CPC), there is an enhanced chance for above normal temperatures and above median rainfall for all of eastern OK and northwest AR for October 2023.
- In the longer term, the outlook for the 3-month period of Oct-Nov-Dec 2023 calls for an equal chance for above, near, and below normal temperatures, and an enhanced chance for above median precipitation for eastern OK and northwest AR.

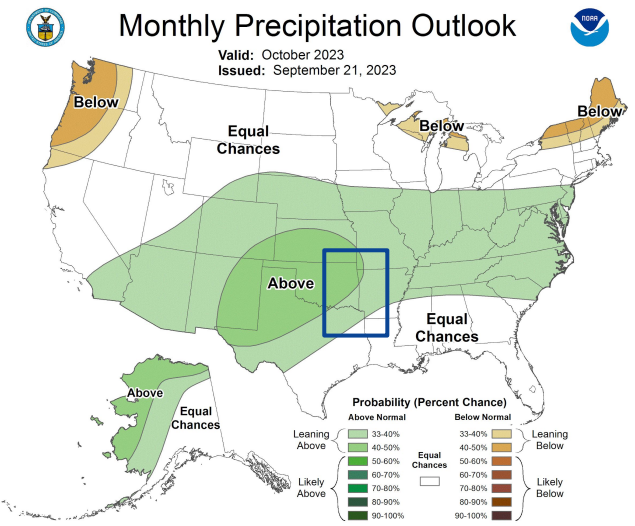
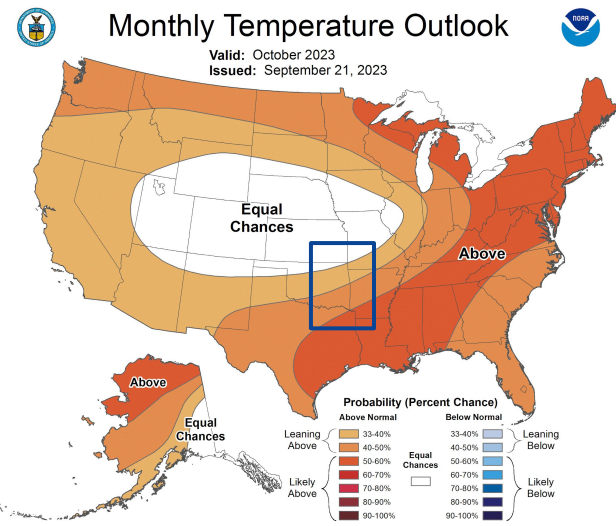


Image Captions:
 Left - [Climate Prediction Center Monthly Temperature Outlook](#),
 Right - [Climate Prediction Center Monthly Precipitation Outlook](#),
 Valid October 2023



Drought Outlook

The latest monthly and seasonal outlooks can be found on the [Climate Prediction Center \(CPC\) homepage](#)

- The CPC Seasonal Drought Outlook for September 21-December 31, 2023 indicates that while drought conditions are expected to remain in northeast OK and southeast OK, these drought conditions are expected to improve.

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

Valid for September 21 - December 31, 2023
Released September 21, 2023

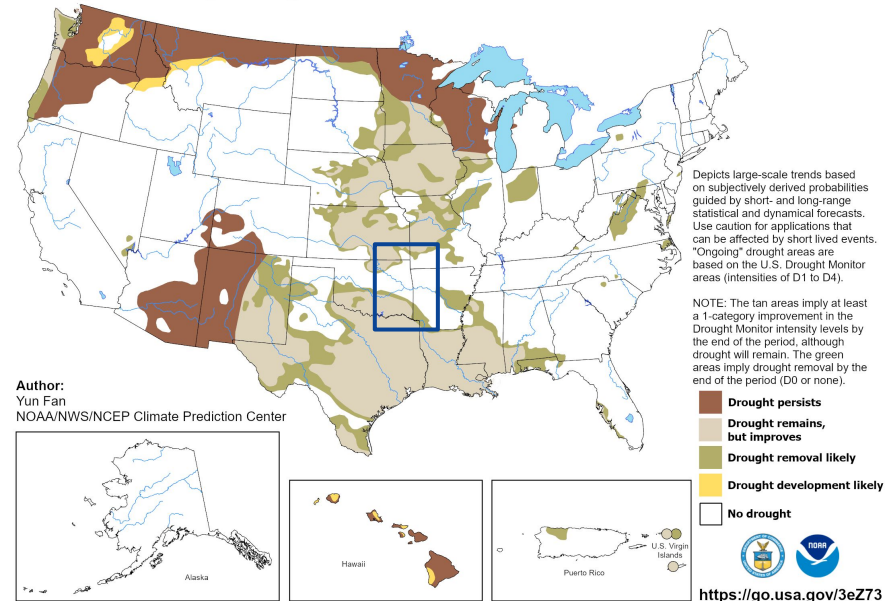


Image Caption:

Climate Prediction Center Seasonal Drought Outlook Released September 21, 2023 valid for September 21-December 31, 2023

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)

[Climate Prediction Center Seasonal Drought Outlook](#)



National Oceanic and Atmospheric Administration

U.S. Department of Commerce

National Weather Service
Tulsa, OK