Temperature and Precipitation Plot for Oklahoma City, Oklahoma for 2021

http://xmacis.rcc-acis.org/
Rainfall Summaries by Oklahoma Climate Division

<table>
<thead>
<tr>
<th>Climate Division</th>
<th>Total Rainfall</th>
<th>Departure from Normal</th>
<th>Pct of Normal</th>
<th>Rank since 1921 (88 periods)</th>
<th>Driest on Record</th>
<th>Wettest on Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Central</td>
<td>23.24&quot;</td>
<td>+0.47&quot;</td>
<td>102%</td>
<td>37th wettest</td>
<td>8.26&quot; (2011)</td>
<td>35.74&quot; (1997)</td>
</tr>
<tr>
<td>Central</td>
<td>26.85&quot;</td>
<td>-2.55&quot;</td>
<td>91%</td>
<td>45th driest</td>
<td>14.36&quot; (1956)</td>
<td>47.39&quot; (2007)</td>
</tr>
<tr>
<td>S. Central</td>
<td>28.64&quot;</td>
<td>-2.27&quot;</td>
<td>93%</td>
<td>42nd driest</td>
<td>13.23&quot; (2011)</td>
<td>51.03&quot; (1945)</td>
</tr>
<tr>
<td>Statewide</td>
<td>26.66&quot;</td>
<td>-1.62&quot;</td>
<td>94%</td>
<td>44th driest</td>
<td>14.87&quot; (1956)</td>
<td>41.25&quot; (1957)</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>W. Central</td>
<td>28.06&quot;</td>
<td>-0.25&quot;</td>
<td>99%</td>
<td>39th wettest</td>
<td>12.80&quot; (2010-11)</td>
<td>43.13&quot; (1994-95)</td>
</tr>
<tr>
<td>Central</td>
<td>34.95&quot;</td>
<td>-2.56&quot;</td>
<td>93%</td>
<td>46th wettest</td>
<td>19.58&quot; (1955-56)</td>
<td>54.39&quot; (2006-07)</td>
</tr>
<tr>
<td>S. Central</td>
<td>34.79&quot;</td>
<td>-5.81&quot;</td>
<td>86%</td>
<td>37th driest</td>
<td>16.05&quot; (1955-56)</td>
<td>61.82&quot; (1944-45)</td>
</tr>
<tr>
<td>Statewide</td>
<td>33.99&quot;</td>
<td>-2.37&quot;</td>
<td>93%</td>
<td>50th wettest</td>
<td>18.18&quot; (1955-56)</td>
<td>48.69&quot; (1972-73)</td>
</tr>
</tbody>
</table>

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.

http://climate.ok.gov/index.php/drought/last_30_days/
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.
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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.
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 (meteorological) 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.

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/palmer_drought/wpdsouth.txt
Abnormal dryness or drought are currently affecting approximately 3,265,835 people in Oklahoma.

U.S. Drought Monitor Nationwide Map

Map released: September 30, 2021
Data valid: September 28, 2021

United States and Puerto Rico Author(s):
Brian Fuchs, National Drought Mitigation Center

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

http://droughtmonitor.unl.edu
U.S. Drought Monitor
Monthly Drought Outlook Map

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

Valid for September 2021
Released August 31, 2021

Author:
Adam Aghoode
NOAA/NWS/NCEP/Climate Prediction Center


http://go.usa.gov/3eZGd
USGS Streamflow Data

Thursday, September 30, 2021 10:30ET

Wednesday, September 29, 2021

Below normal 28-day average streamflow

https://waterdata.usgs.gov/ok/nwis/rt

https://waterwatch.usgs.gov/index.php?id=pa28d_dry&sid=w_map&m_pa28d_dwc&r=ok
SOIL MOISTURE MAP

1-day Average 24-inch Fractional Water Index

http://www.mesonet.org/index.php/weather/map/24-inch_fractional_water_index/soil_moisture
CONSECUTIVE DAYS WITHOUT RAINFALL MAP

http://www.mesonet.org/index.php/weather/map/consecutive_days_with_less_than_0.25_inches_Rainfall/rainfall
Percent of Surface Water Conservation Storage
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.

<table>
<thead>
<tr>
<th>LAKE</th>
<th>% CAPACITY</th>
<th>% CHANGE FROM 9/1/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canton</td>
<td>93.0</td>
<td>-7.0</td>
</tr>
<tr>
<td>Arcadia</td>
<td>92.0</td>
<td>-8.0</td>
</tr>
<tr>
<td>Lake Thunderbird</td>
<td>95.0</td>
<td>-4.0</td>
</tr>
<tr>
<td>McGee Creek</td>
<td>88.0</td>
<td>-7.0</td>
</tr>
<tr>
<td>Lake Atoka</td>
<td>86.4</td>
<td>-3.0</td>
</tr>
<tr>
<td>TOTAL % CAPACITY</td>
<td>91.4</td>
<td>-5.3</td>
</tr>
</tbody>
</table>

https://www.owrb.ok.gov/supply/drought/reservoirstorage.php

The graph is the amount of water stored in five major lakes that supply water to central Oklahoma as a percent of capacity over the past year.
Oklahoma Surface Water Resources
Reservoir Levels and Storage as of 9/27/2021

Reservoir Storage
(Percent of Normal Pool Storage as of 9/27/2021)
- > 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 gages monitored by the
U.S. Army Corps of Engineers (http://www.waterdata.usgs.gov/csc/xdaily/Daily_Morning_Reservoir_Report.pdf), and the
U.S. Geological Survey (http://waterdata.usgs.gov/ok/wl/current?Type=lake&group_key=Elevation)
For more information please visit the OWRB's website at:
(https://www.owrb.ok.gov)

https://www.owrb.ok.gov/supply/drought/reservoirstorage.php
Groundwater Levels
Spencer Mesonet Station

DROUGHT PERIOD

http://www.mesonet.org/index.php/weather/groundwater
Recharge Charts
Central Oklahoma Aquifer System

ACCUMULATED RECHARGE 2021

MONTHLY AQUIFER RECHARGE

acog
ENSO Alert System Status: La Niña Watch

- ENSO-neutral conditions are present.
- Equatorial sea surface temperatures (SSTs) are near-to-below average across most of the Pacific Ocean.
- A transition from ENSO-neutral to La Niña is favored in the next couple of months, with a 70-80% chance of La Niña during the Northern Hemisphere winter 2021-22.

https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt