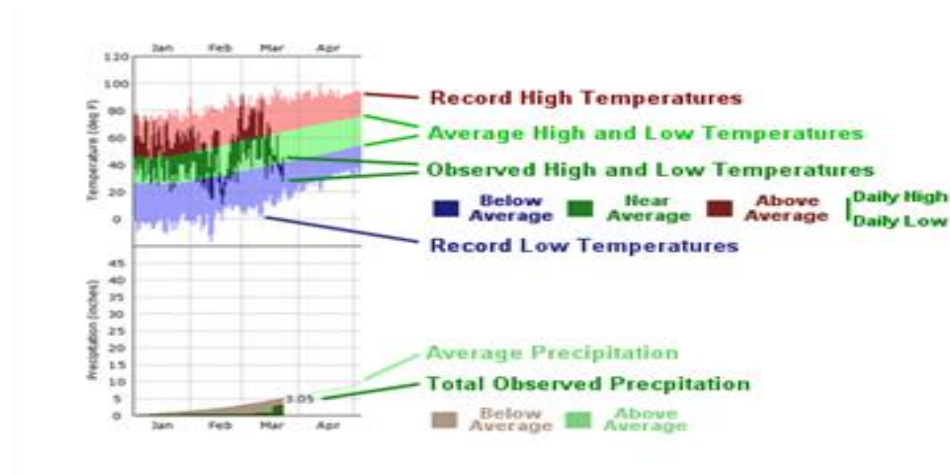
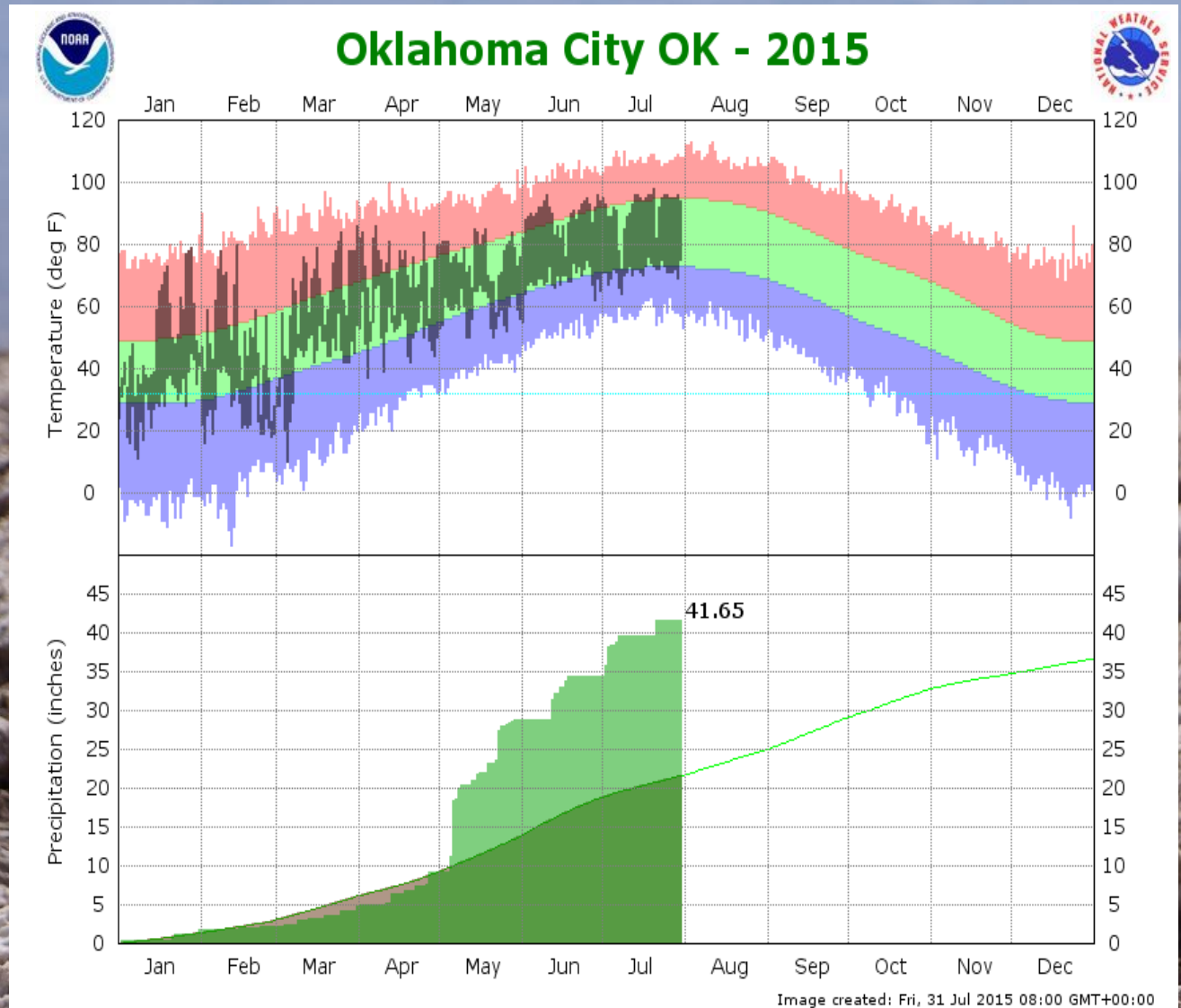


Drought Conditions in Central Oklahoma



**Water Resources Division
Association of Central Oklahoma Governments
July 31, 2015**

Temperature and Precipitation Plot for Oklahoma City, Oklahoma for 2015



<http://www.srh.noaa.gov/oun/climate/graphdisplay.php?city=okc&year=2015>

Rainfall Summaries by Oklahoma Climate Division

Calendar Year 01-Jan-2015 through

30-Jul-2015

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	29.39"	+12.41"	173%	1st wettest	5.13" (2011)	27.33" (2007)
Central	35.43"	+12.94"	158%	2nd wettest	8.49" (1936)	39.18" (2007)
S. Central	48.87"	+24.51"	201%	1st wettest	10.84" (2011)	41.59" (1990)
Statewide	34.90"	+13.10"	160%	1st wettest	9.66" (1936)	33.96" (1957)

Water Year: 01-Oct-2014 through

30-Jul-2015

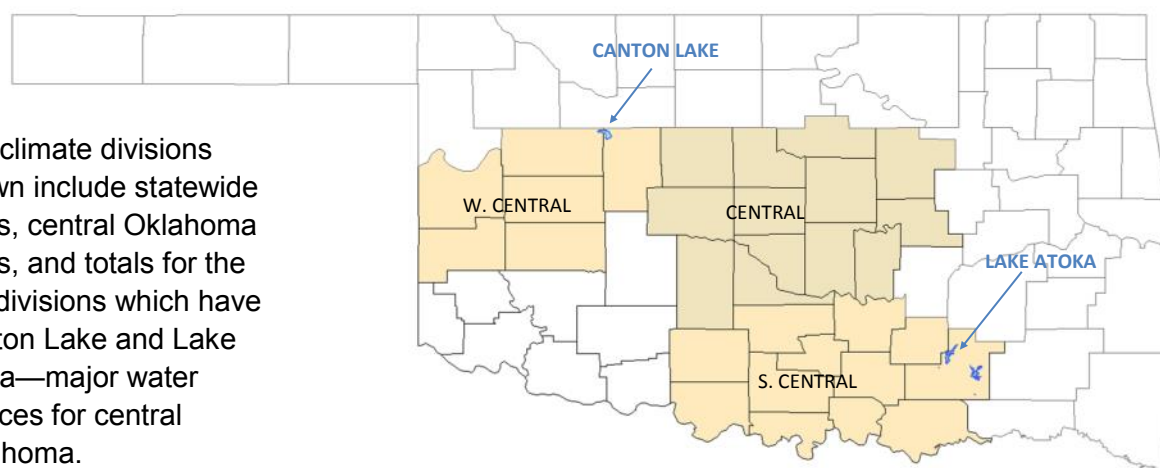
Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	33.92"	+11.40"	151%	1st wettest	9.67" (2010-11)	33.52" (2006-07)
Central	42.08"	+11.48"	138%	4th wettest	15.82" (1935-36)	46.19" (2006-07)
S. Central	57.75"	+23.70"	170%	1st wettest	14.69" (1955-56)	50.43" (1944-45)
Statewide	41.85"	+11.97"	140%	1st wettest	16.68" (1955-56)	40.90" (2006-07)

Summer 01-Jun-2015 through

30-Jul-2015

Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Rank since 1921 (88 periods)	Driest on Record	Wettest on Record
W. Central	8.39"	+2.22"	136%	16th wettest	1.48" (2011)	11.36" (1962)
Central	10.87"	+3.19"	141%	14th wettest	1.88" (1954)	18.81" (2007)
S. Central	16.86"	+9.37"	225%	1st wettest	0.59" (2011)	15.31" (1945)
Statewide	10.75"	+3.44"	147%	7th wettest	1.93" (2011)	14.13" (2007)

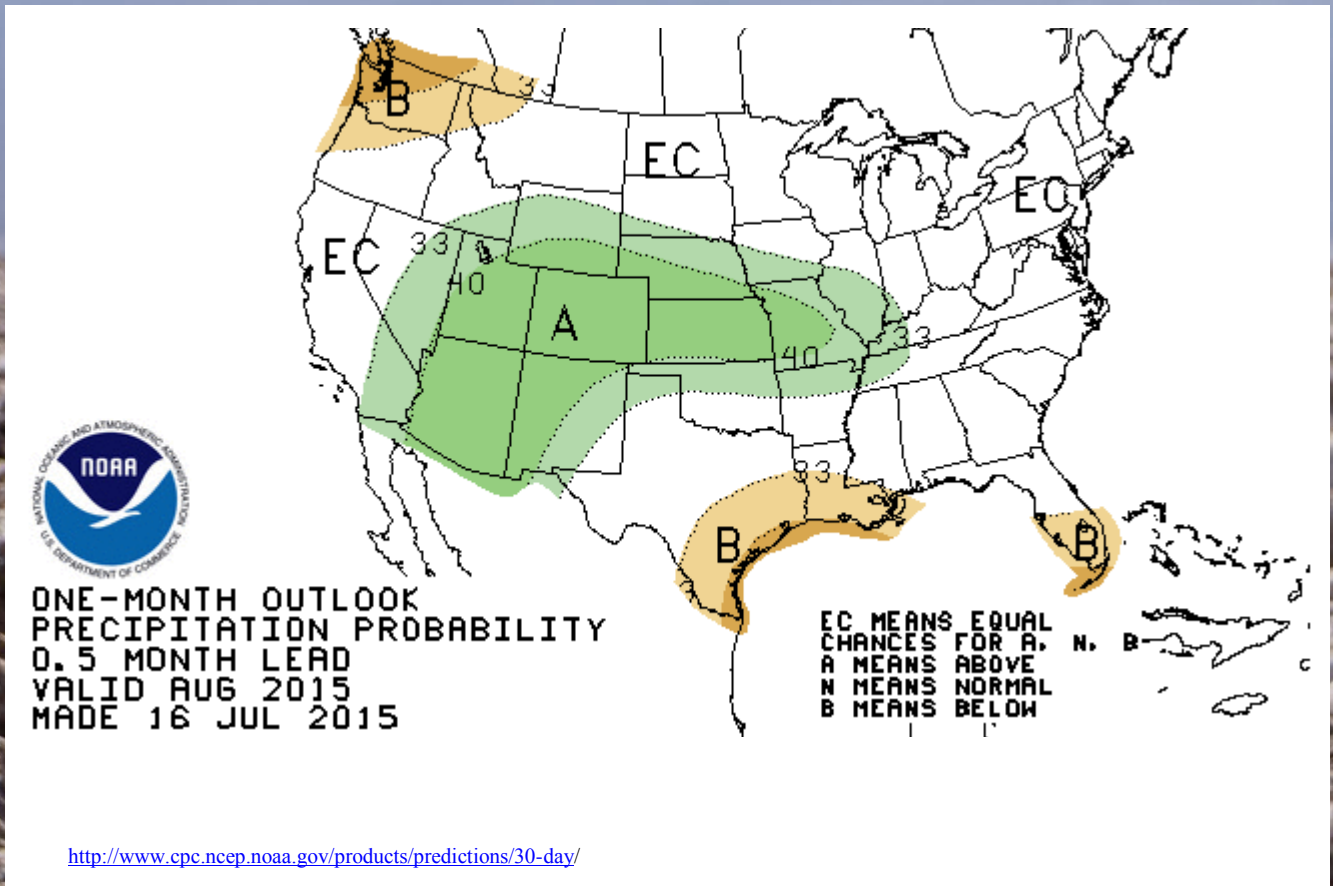
The climate divisions shown include statewide totals, central Oklahoma totals, and totals for the two divisions which have Canton Lake and Lake Atoka—major water sources for central Oklahoma.



http://climate.ok.gov/index.php/drought/last_30_days/

OKLAHOMA
CLIMATOLOGICAL SURVEY

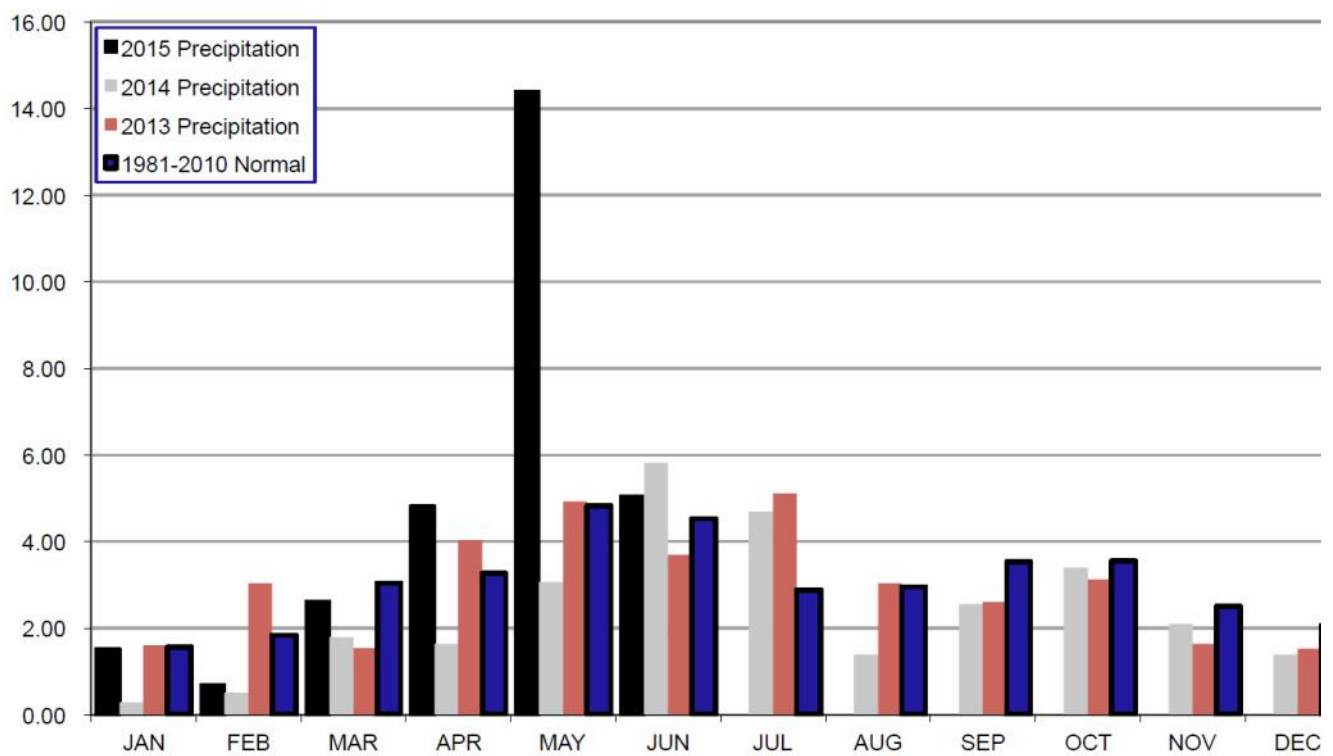
NOAA One-Month Outlook



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.

Statewide Precipitation Monthly Totals vs. Normal

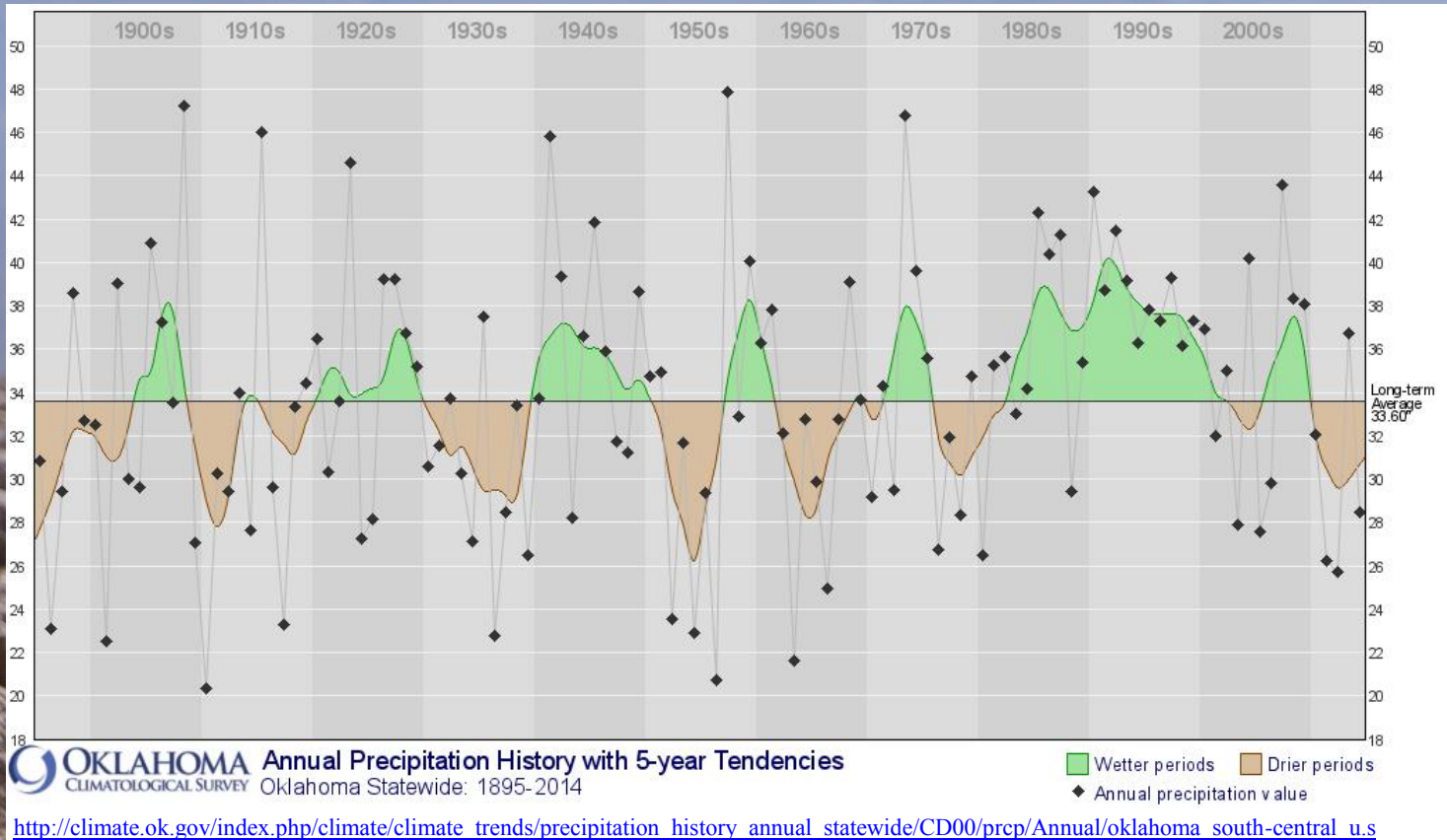
2013, 2014 AND 2015 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



http://climate.ok.gov/index.php/climate/summary/reports_summaries

OKLAHOMA
CLIMATOLOGICAL SURVEY

Annual Precipitation History with 5-Year Tendencies



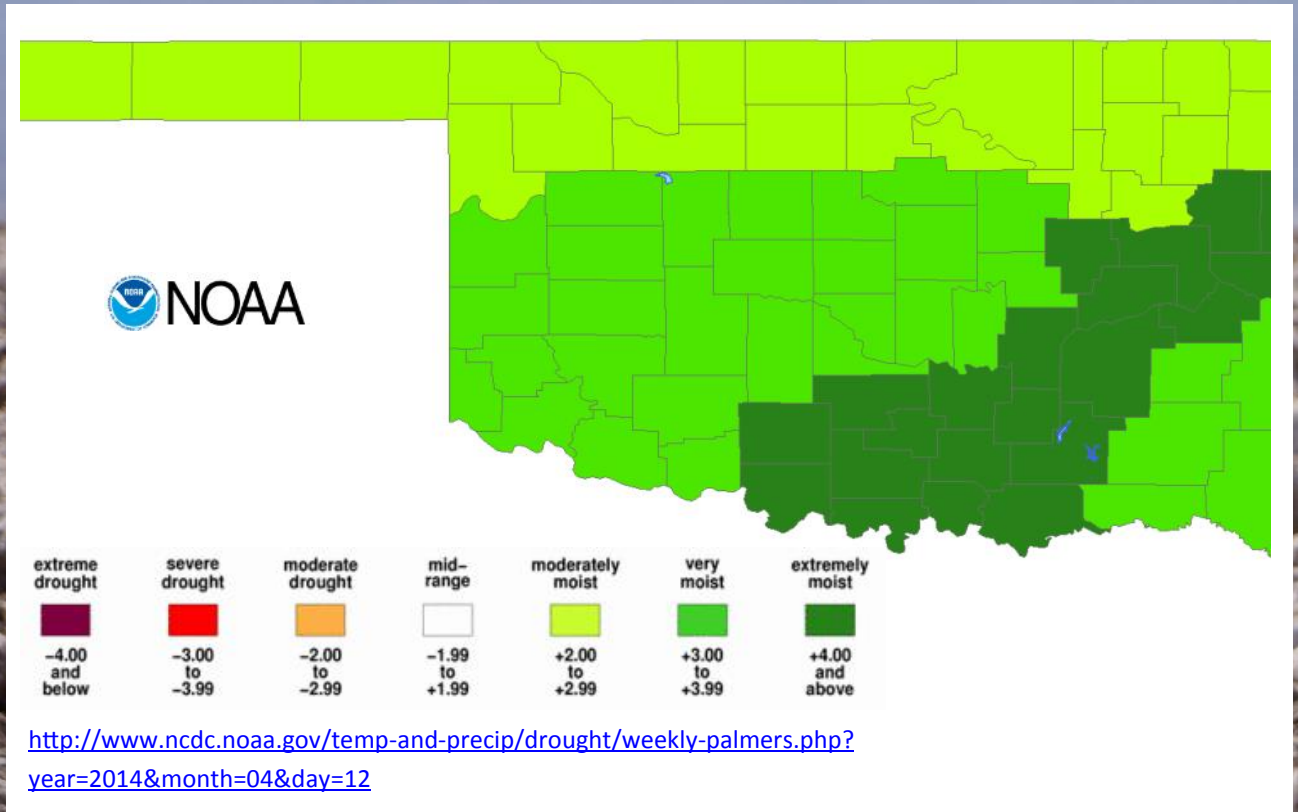
http://climate.ok.gov/index.php/climate/climate_trends/precipitation_history_annual_statewide/CD00/prcp/Annual/oklahoma_south-central_u.s

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.

We are currently in Year 5 of a eight to ten year drought cycle.

Drought Severity Index by Climate Division

Palmer Weekly Value for Period JUL 25 2015



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.

For an animated gif of the long term PDI see <http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/pdiimage.html>.

U.S. Drought Monitor

Regional Map Week of 28 JUL 2015

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2015-07-28	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 2015-07-21	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 2015-04-28	30.08	69.92	59.29	47.51	24.34	4.13
Start of Calendar Year 2014-12-30	25.63	74.37	62.03	40.84	21.74	5.70
Start of Water Year 2014-09-30	8.55	91.45	73.31	58.13	20.92	4.64
One Year Ago 2014-07-29	12.06	87.94	76.16	60.09	23.36	4.48

U.S. Drought Monitor Oklahoma

Population Affected by Drought: **0**



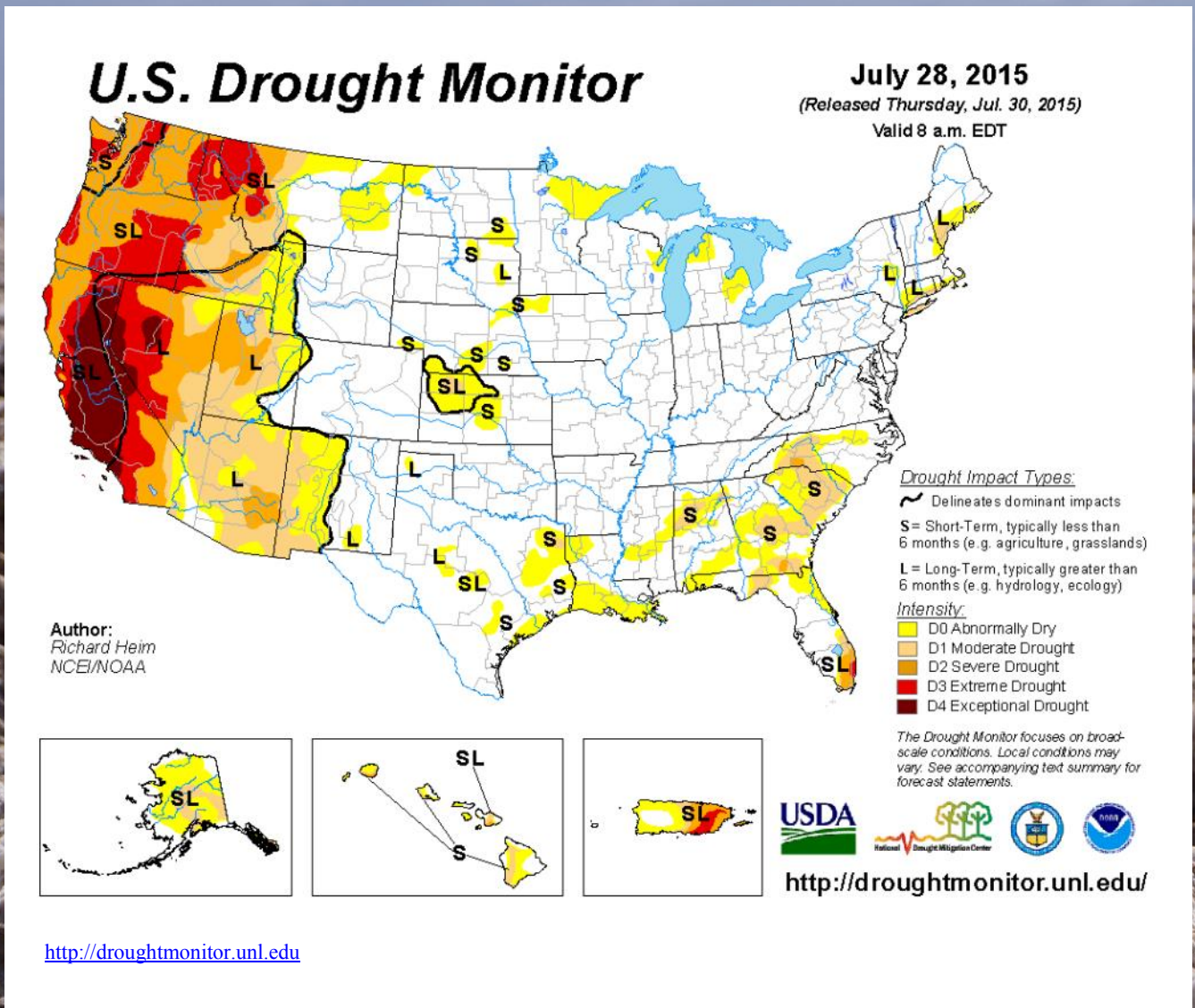
Intensity:

■ D0 - Abnormally Dry
■ D1 - Moderate Drought
■ D2 - Severe Drought

■ D3 - Extreme Drought
■ D4 - Exceptional Drought

<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?OK>

U.S. Drought Monitor Nationwide Map

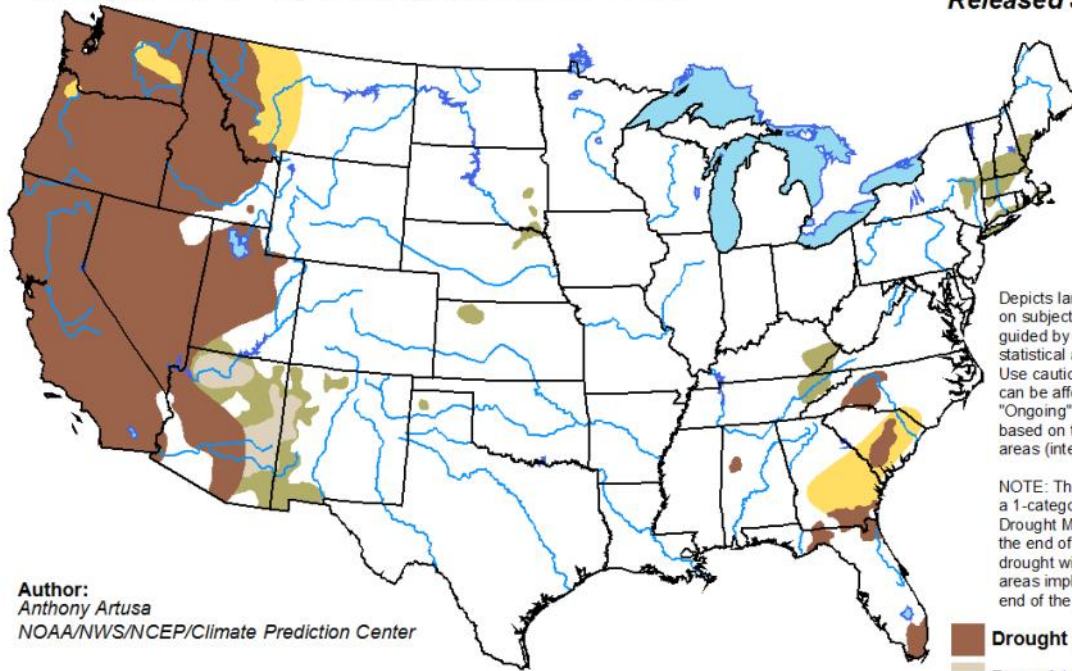


U.S. Drought Monitor

Monthly Drought Outlook Map

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




Valid for July 2015
Released June 30, 2015



Author:
Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center

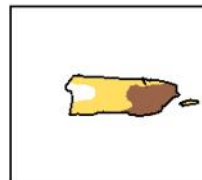
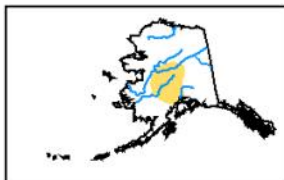
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

-  Drought persists/intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/h6jh>



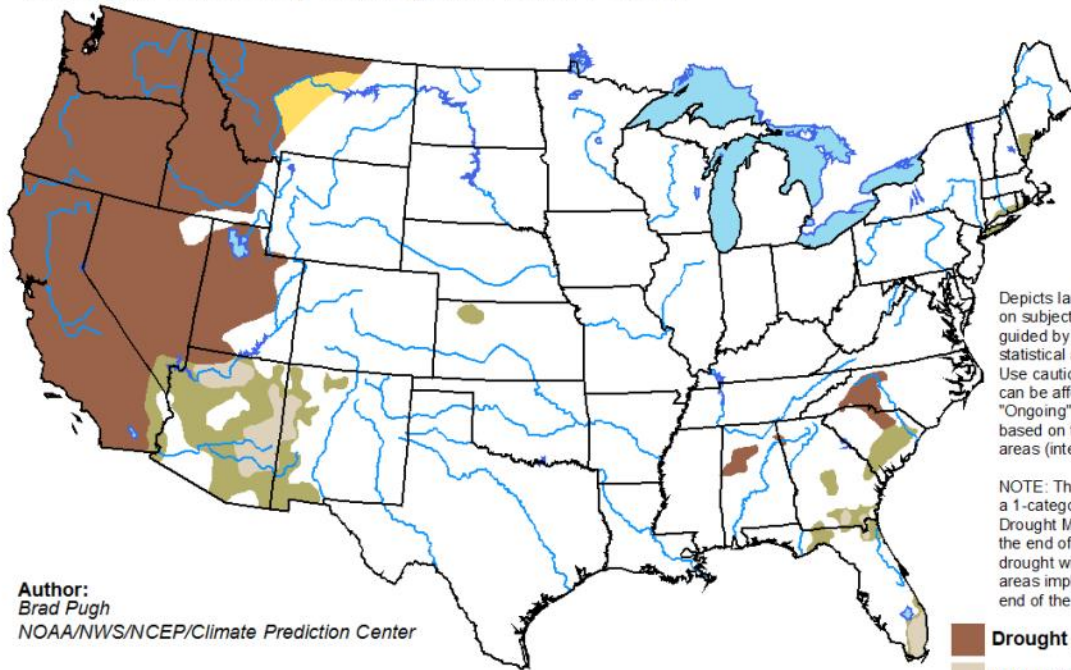
http://www.cpc.ncep.noaa.gov/products/expert_assessment/mdo_summary.html

U.S. Drought Monitor

Seasonal Drought Outlook Map

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





Valid for July 16 - October 31, 2015
Released July 16, 2015

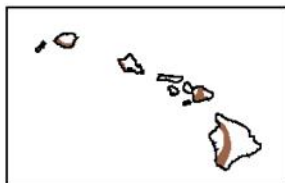
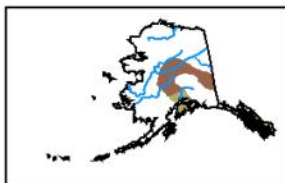


Author:
Brad Pugh
NOAA/NWS/NCEP/Climate Prediction Center

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).

-  Drought persists/intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

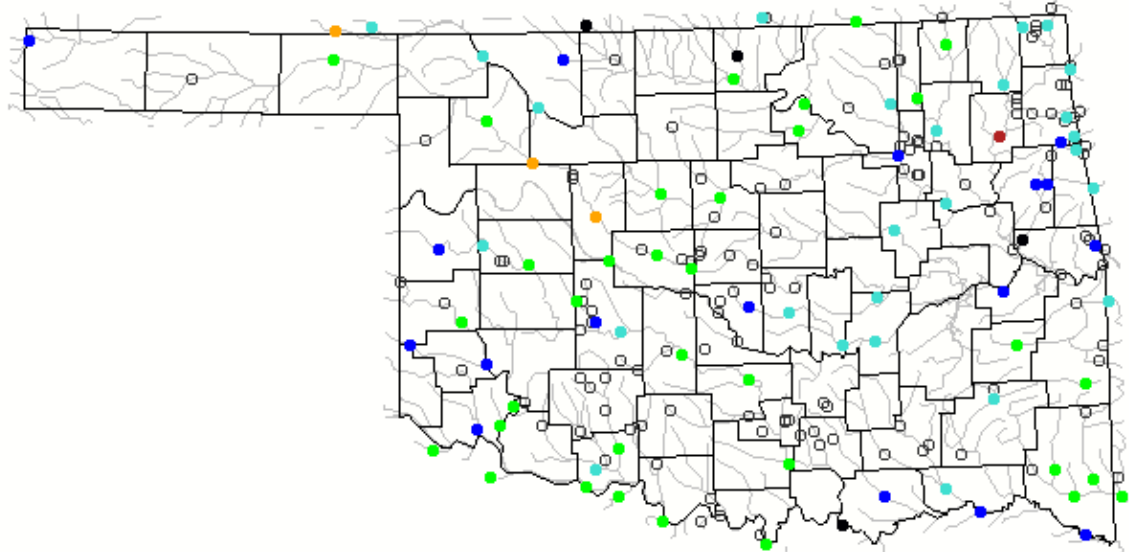


<http://go.usa.gov/hHTe>

http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.html

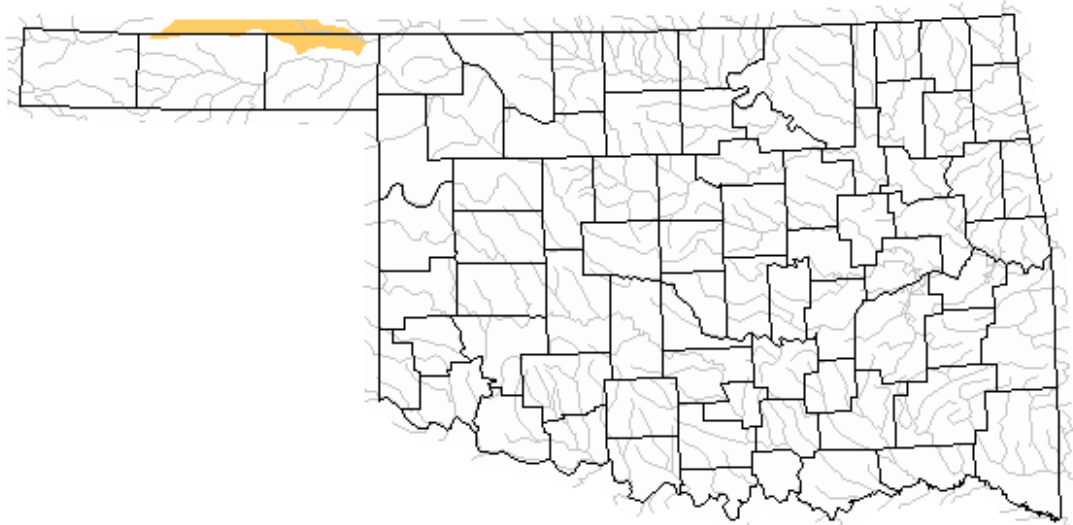
USGS Streamflow Data

Friday, July 31, 2015 11:30ET



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

Thursday, July 30, 2015



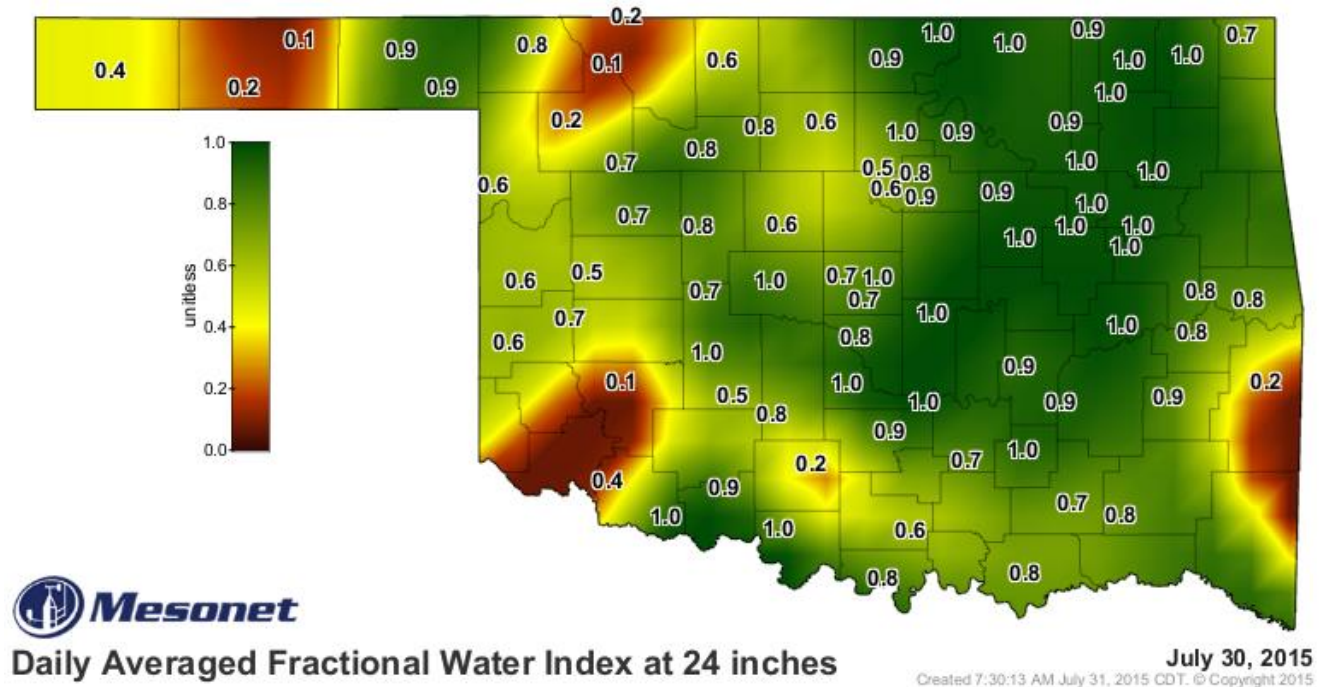
Explanation - Percentile classes				
Low	≤5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

<http://waterwatch.usgs.gov/new/?m=real&r=ok&w=map>

<http://waterwatch.usgs.gov/new/index.php?m=dryw&r=ok>

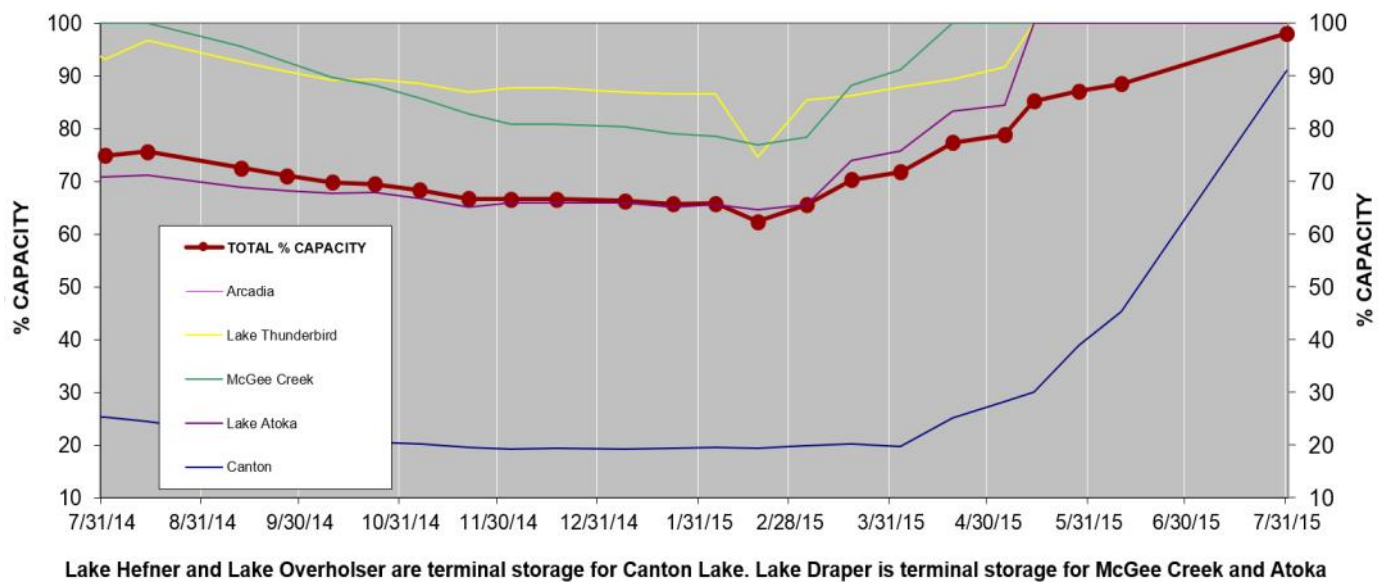


SOIL MOISTURE MAP



http://www.mesonet.org/index.php/weather/map/24-inch_fractional_water_index/soil_moisture

Percent of Surface Water Conservation Storage Central OK Reservoirs



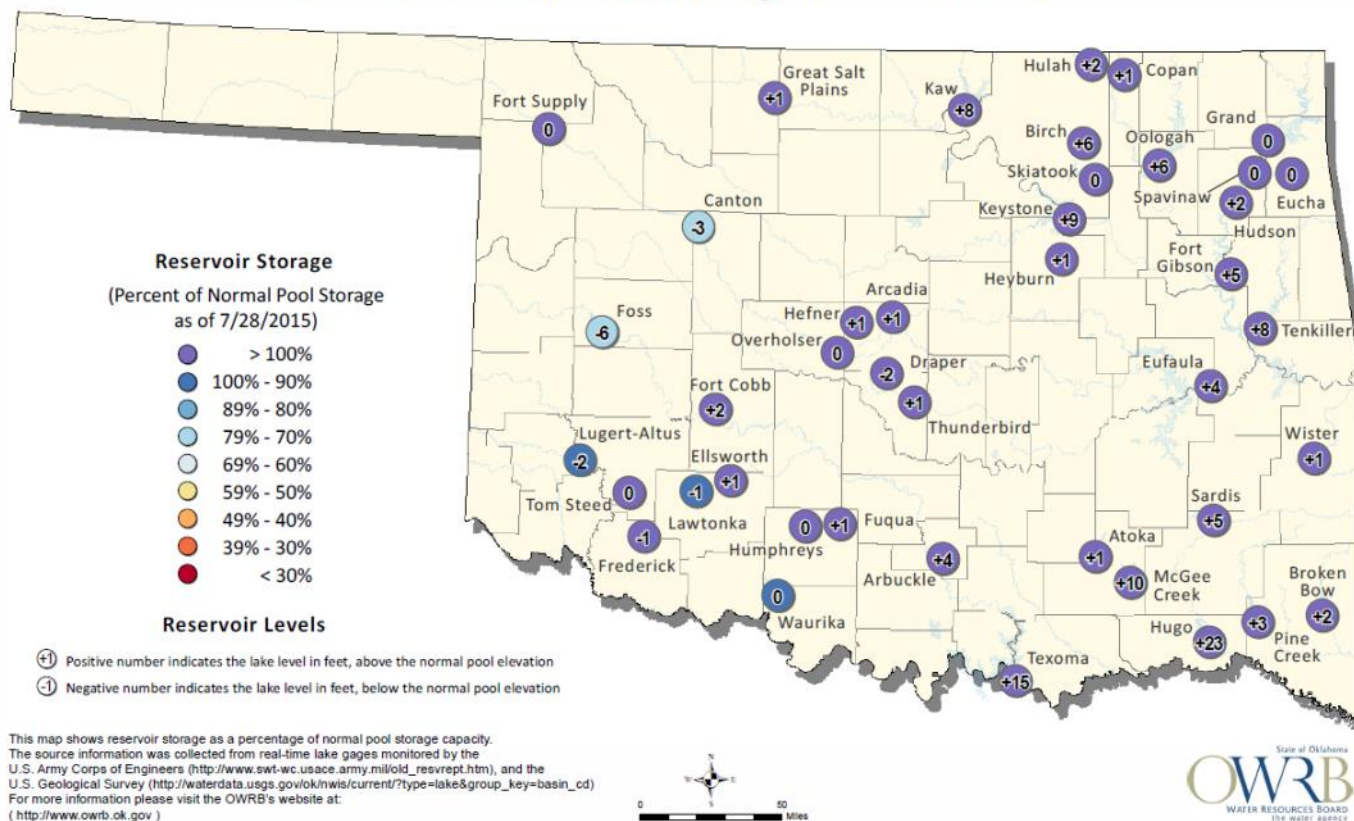
LAKE	% CAPACITY	% CHANGE FROM 6/11/2015
Canton	91.0	52.2
Arcadia	100.0	0.0
Lake Thunderbird	100.0	0.0
McGee Creek	100.0	0.0
Lake Atoka	100.0	0.0
TOTAL % CAPACITY	98.1	9.6

http://www.swt-wc.usace.army.mil/old_resvrep.htm http://waterdata.usgs.gov/ok/nwis/dv/?site_no=07333010&agency_cd=USGS&referred_module=sw

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.

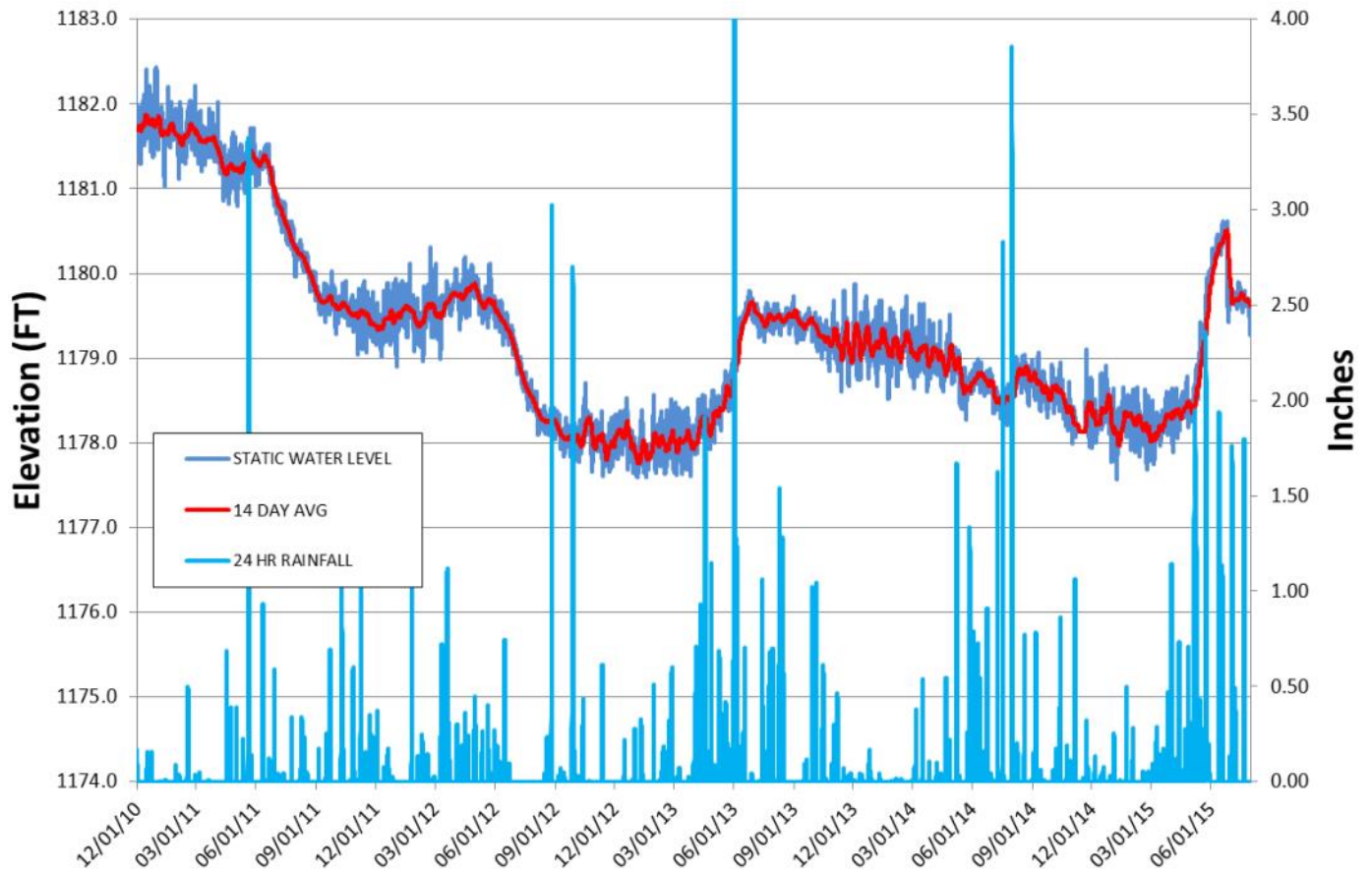
Oklahoma Surface Water Resources

Reservoir Levels and Storage as of 7/28/2015



http://www.owrb.ok.gov/maps/pdf_map/Monthly%20Reservoir%20Storage.pdf

Groundwater Levels Spencer Mesonet Station

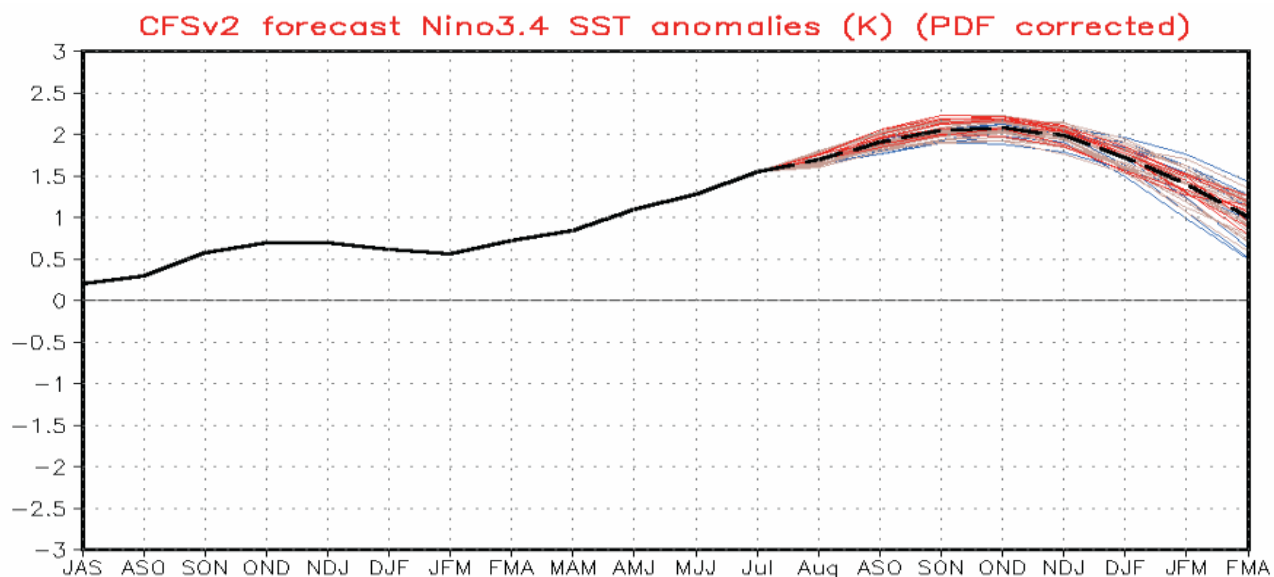


<http://www.mesonet.org/index.php/weather/groundwater>

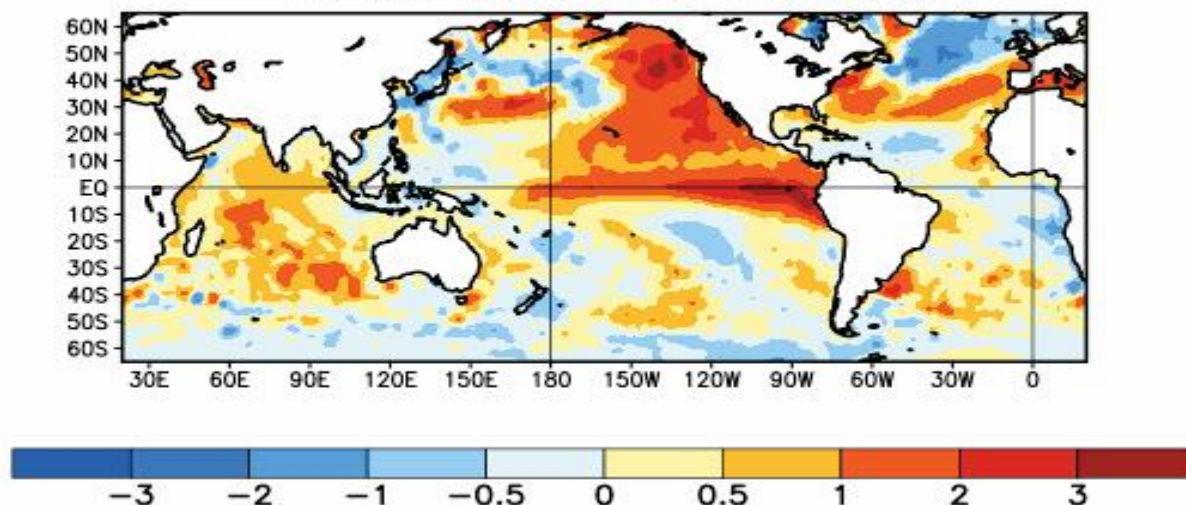


ENSO Cycle

Recent Evolution, Current Status and Predictions



Average SST Anomalies
28 JUN 2015 – 25 JUL 2015



Summary



ENSO Alert System Status: El Niño Advisory

- El Niño conditions are present.
- Positive equatorial sea surface temperature (SST) anomalies continue across most of the Pacific Ocean.
- There is a greater than 90% chance that El Niño will continue through Northern Hemisphere winter 2015-16, and around an 80% chance it will last through early spring 2016.