Oklahoma Water Resources Bulletin
& Summary of Current Conditions

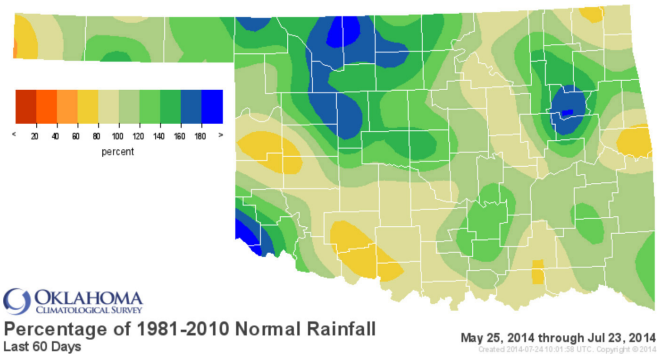
State of Oklahoma OWRB WATER RESOURCES BOARD the water agency

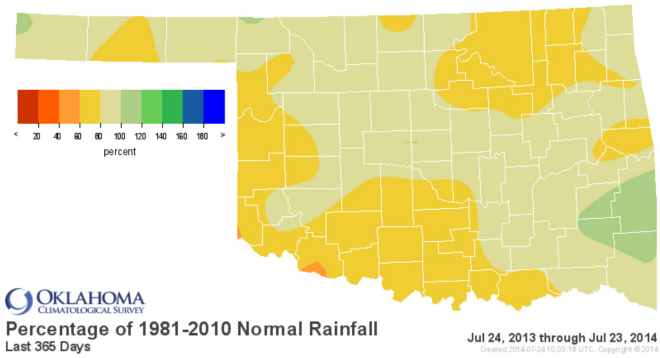
July 24, 2014

PRECIPITATION

Statewide Precipitation

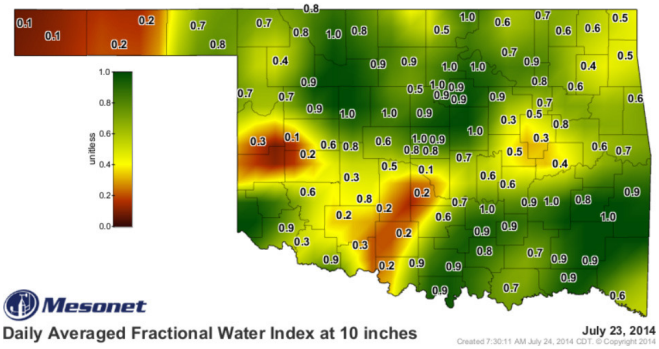
Climate Division	Last 60 Days May 25 – July 23, 2014 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Last 365 Days July 24, 2013 – July 23, 2014 Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921
Panhandle	6.96"	+1.19"	121%	25th wettest	18.62"	-1.96"	90%	44th driest
North Central	11.53"	+3.70"	147%	9th wettest	27.51"	-3.91"	88%	40th driest
Northeast	10.57"	+1.45"	116%	24th wettest	33.32"	-9.35"	78%	19th driest
West Central	7.85"	+1.07"	116%	26th wettest	22.52"	-5.88"	79%	23rd driest
Central	10.56"	+2.26"	127%	20th wettest	31.28"	-6.35"	83%	31st driest
East Central	9.16"	+0.61"	107%	34th wettest	37.79"	-8.35"	82%	26th driest
Southwest	8.14"	+1.09"	115%	26th wettest	23.81"	-6.46"	79%	20th driest
South Central	9.29"	+1.06"	113%	21st wettest	30.99"	-9.72"	76%	19th driest
Southeast	10.17"	+1.40"	116%	23rd wettest	47.53"	-3.06"	94%	43rd driest
Statewide	9.46"	+1.60"	120%	18th wettest	30.27"	-6.20"	83%	29th driest

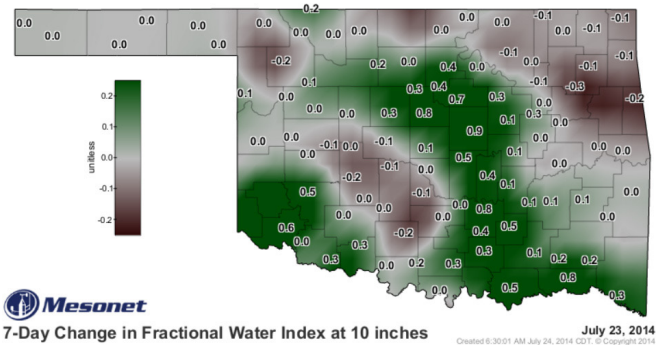




SOIL MOISTURE

Fractional Water Index[1]
July 23, 2014





[1]*The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1. [1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]*

Drought Indices

Palmer Drought Severity Index[2] / Standardized Precipitation Index[3] Through June 2014

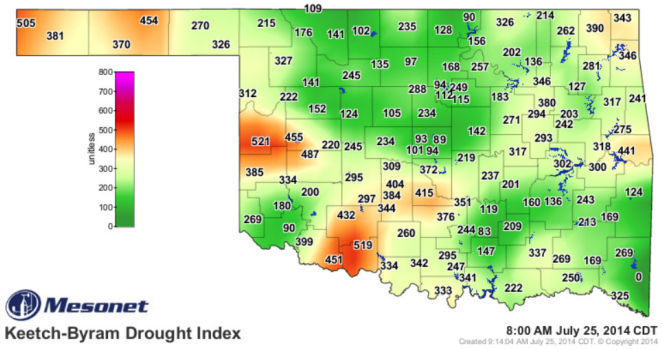
Climate Division	Current Status 7/19/2014	Value 7/19	Value 6/21	Change in Value	3-Month	12-Month	24-Month
Northwest	MODERATE DROUGHT	-2.58	-2.05	-0.53	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
North Central	NEAR NORMAL	1.08	0.28	0.8	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
Northeast	NEAR NORMAL	-1.26	0.49	-1.75	MODERATELY DRY	ABNORMALLY DRY	MODERATELY DRY
West Central	MODERATE DROUGHT	-2.62	0.04	-2.66	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
Central	NEAR NORMAL	-1	0.3	-1.3	ABNORMALLY DRY	NEAR NORMAL	NEAR NORMAL
East Central	NEAR NORMAL	-1.09	0.1	-1.19	NEAR NORMAL	ABNORMALLY DRY	ABNORMALLY DRY
Southwest	SEVERE DROUGHT	-3.39	-0.22	-3.17	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
South Central	NEAR NORMAL	-0.85	0.39	-1.24	ABNORMALLY DRY	MODERATELY DRY	SEVERELY DRY
Southeast	NEAR NORMAL	-0.22	0.29	-0.51	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL

- According to the PDSI, all of western Oklahoma is experiencing drought conditions with severe drought conditions in the Southwest. The rest of the state is classified as near normal; all divisions except North Central have experienced a moisture decrease since June 21.
- According to the latest SPI, all climate divisions except Central and Southeast are experiencing longer-term dry conditions (through the last two years). The Northeast and South Central regions show continuous drought conditions through the three time periods shown.

Keetch-Byram Drought Fire Index[4]

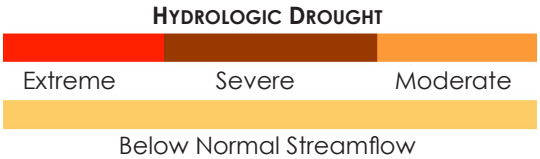
Mesonet Station	Climate Division	Current Value 7/25/2014
Cheyenne	West Central	521
Walters	Southwest	519
Kenton	Northwest	505

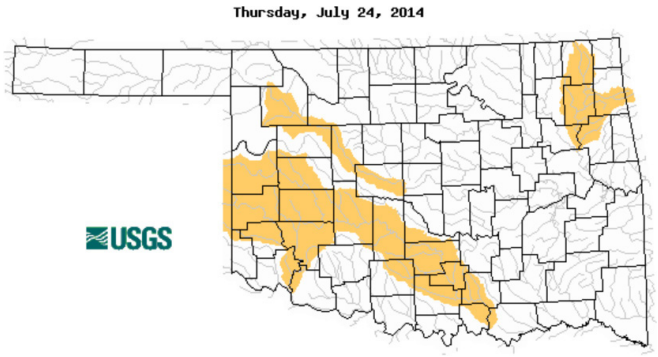
- Stations currently at or above 600 (July 25) = 0
- Stations above 600 on June 26 = 0



Streamflow Conditions

July 24, 2014





[2] The Palmer Drought Severity Index is based upon precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate the severity of ongoing dry periods.

[3] The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while the 6-month SPI can be very effective in showing precipitation over distinct seasons.

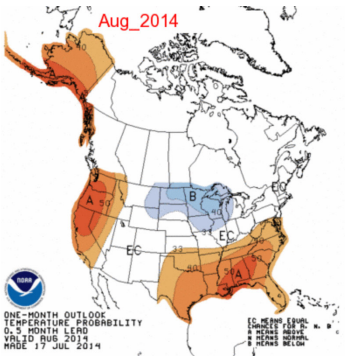
[4] The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.

WEATHER/DROUGHT FORECAST

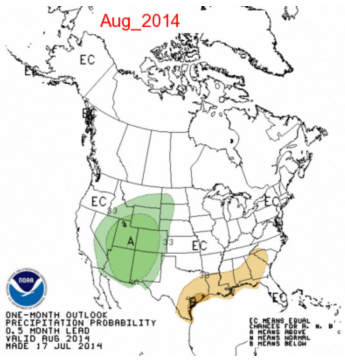
Seasonal Outlook

August

Temperature

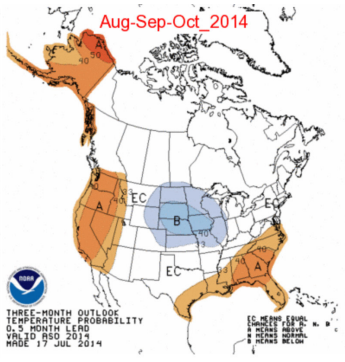


Precipitation

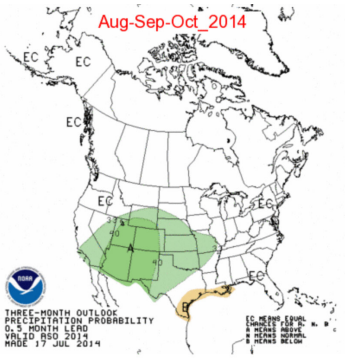


August-September-October

Temperature



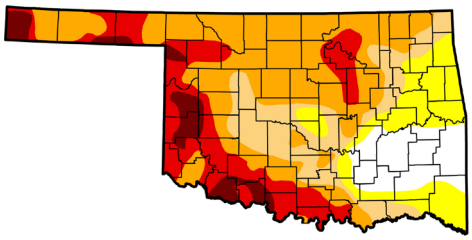
Precipitation



Regional Drought Summary & Outlook

U.S. Drought Monitor

Oklahoma



July 22, 2014
(Released Thursday, July 24, 2014)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	10.52	89.48	75.48	60.09	23.55	5.57
Last Week 7/15/2014	9.86	90.14	79.57	62.93	29.37	6.43
3 Months Ago 4/22/2014	6.73	93.27	78.95	54.81	37.86	14.54
Start of Calendar Year 12/31/2013	50.84	49.16	38.17	18.99	4.84	2.40
Start of Water Year 10/1/2013	21.74	78.26	43.00	17.62	4.42	1.45
One Year Ago 7/23/2013	24.92	75.08	51.42	36.11	30.26	4.32

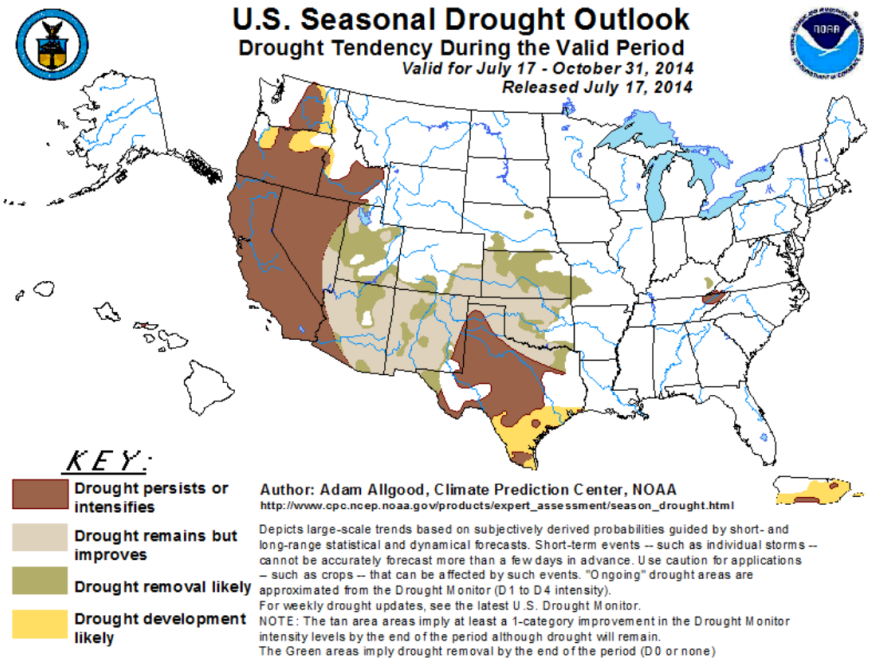
Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

http://droughtmonitor.unl.edu/

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary.

Author: David Miskus, NOAA/NWS/NCEP/CPC



July 24—According to the U.S. Drought Monitor, recent widespread rainfall plus unseasonably cool air over the Plains continued to improve drought conditions across Oklahoma. The issue is to balance the short-term wetness with the long-term (multi-year) drought that has impacted hydrological interests.

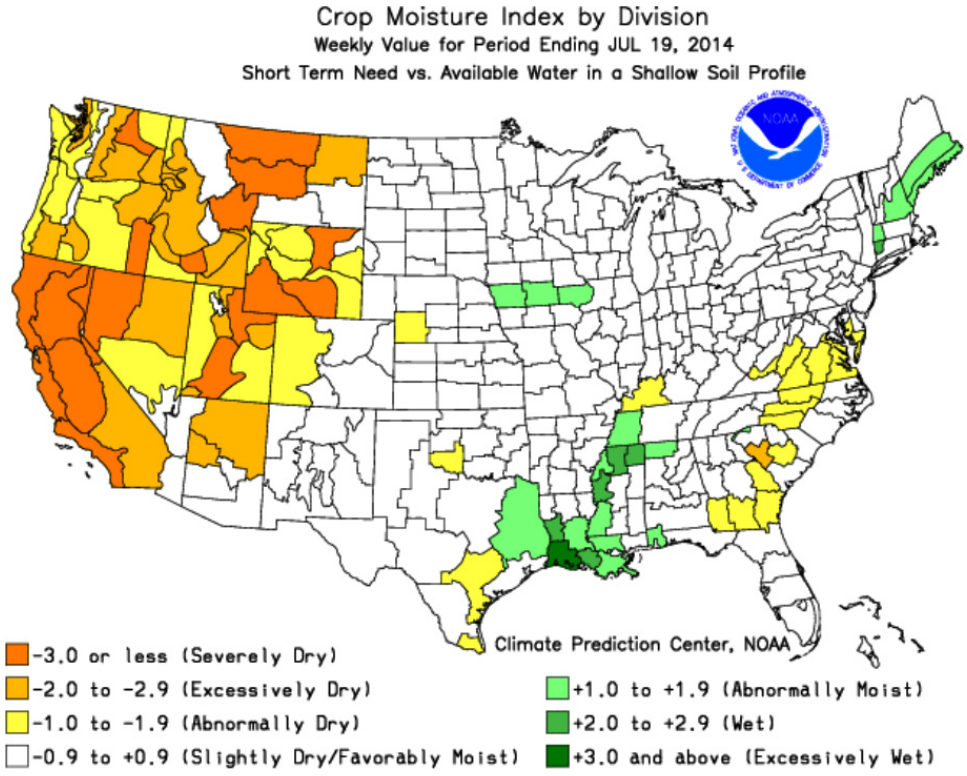
In the past month, Oklahoma has experienced significant improvement in the Extreme to Exceptional Drought (D3-D4) categories, especially in the northwestern part of the state. However, more than 75% of the state still remains in at least Moderate Drought. More than 5% of the state (all in the west) remains classified in Exceptional Drought, the worst category, with more than 60% of the state in Severe Drought or worse.

According to the seasonal drought outlook, during the period between mid-July and the end of October, drought conditions will likely remain but improve in most central and western parts of the state. Much of the eastern part of the state is expected not to experience drought conditions. No areas of the state are expected to experience persistent or intensifying drought conditions or likely drought development.

Crop Report

July 24 -Heavy rain totals received last week benefitted most row crops, but progress continued to lag behind the five-year average for the various stages of development. To date, Oklahoma has received 84 percent of its normal precipitation since March 1st. Precipitation ranged from 0.69 of an inch in the Northeast District to 2.05 inches in the Southeast District.

Topsoil and subsoil moisture conditions continued to be rated mostly adequate to short. All row crop conditions continued to be rated mostly good to fair. Conditions of alfalfa hay and other hay continued to be rated mostly good to fair. Conditions of pasture and range were rated mostly good to fair. Ponds in some areas of Northeast Oklahoma were full while others still needed more runoff. Hay harvest was delayed slightly in Central Oklahoma due to the added moisture. Grasshoppers continued to be an issue in the Panhandle and Southeast Oklahoma.



Reservoir Storage