

Oklahoma Water Resources Bulletin & Summary of Current Conditions

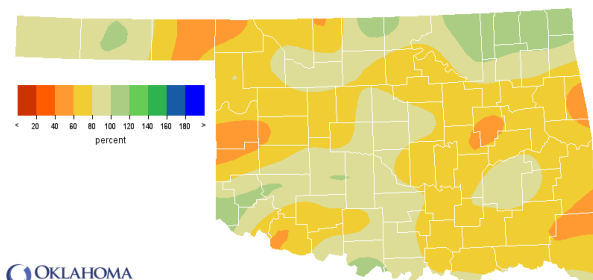


July 12, 2012

PRECIPITATION

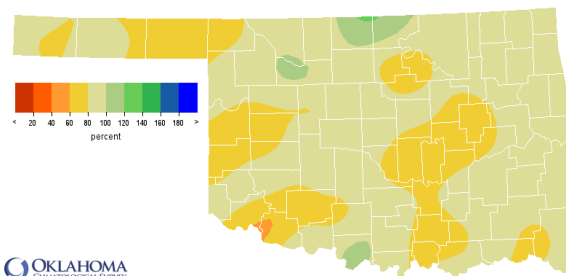
Statewide Precipitation

CLIMATE DIVISION	Warm Growing Season March 1, 2012 – July 8, 2012				Last 365 Days July 10, 2011 – July 8, 2012			
	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921
Panhandle	7.50"	-2.93"	72%	29th driest	15.74"	-5.27"	75%	16th driest
North Central	12.12"	-2.95"	80%	28th driest	29.17"	-2.39"	92%	41st wettest
Northeast	17.48"	-1.10"	94%	44th wettest	37.24"	-4.63"	89%	38th driest
West Central	9.18"	-5.13"	64%	10th driest	22.12"	-6.90"	76%	20th driest
Central	13.94"	-3.70"	79%	28th driest	31.23"	-6.67"	82%	27th driest
East Central	13.68"	-6.25"	69%	14th driest	37.57"	-8.42"	82%	26th driest
Southwest	12.62"	-2.00"	86%	41st driest	24.82"	-5.91"	81%	25th driest
South Central	14.38"	-3.83"	79%	26th driest	33.17"	-7.71"	81%	27th driest
Southeast	15.09"	-5.87"	72%	17th driest	42.60"	-8.22"	84%	23rd driest
Statewide	13.01"	-3.64"	78%	21st driest	30.45"	-6.15"	83%	28th driest



OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Warm Growing Season

Mar 1, 2012 through Jul 8, 2012
Created 2012-07-09 10:23:37 UTC. Copyright © 2012

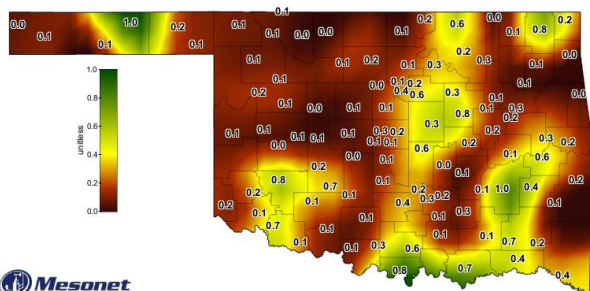


OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Last 365 Days

Jul 10, 2011 through Jul 8, 2012
Created 2012-07-09 10:23:37 UTC. Copyright © 2012

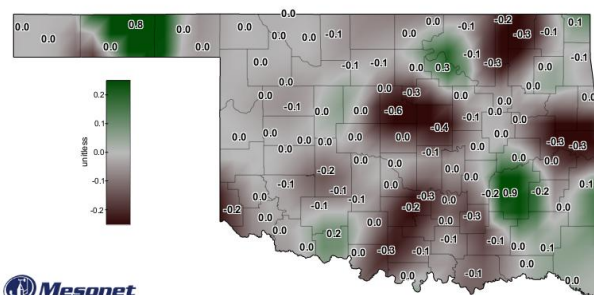
SOIL MOISTURE

Fractional Water Index¹ July 9, 2012



Mesonet
Daily Averaged Fractional Water Index at 10 inches
July 9, 2012

Created 7:30:12 AM July 10, 2012 CDT. © Copyright 2012



Mesonet
7-Day Change in Fractional Water Index at 10 inches
July 9, 2012

Created 8:30:02 AM July 10, 2012 CDT. © Copyright 2012

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

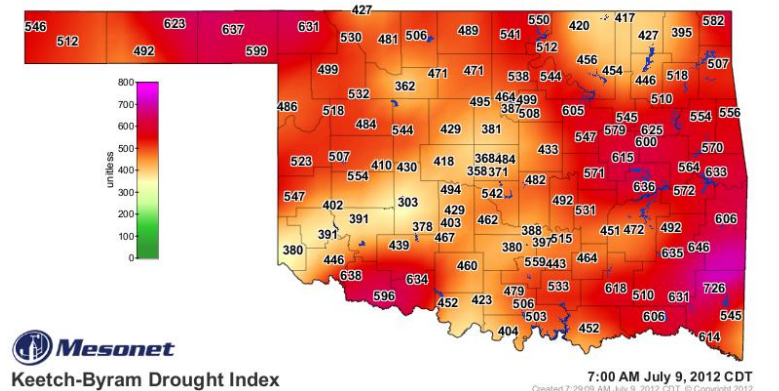
Palmer Drought Severity Index ¹					Standardized Precipitation Index ² Through June 2012			
CLIMATE DIVISION	CURRENT STATUS 7/7/2012	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		7/7	6/2					
Northwest	EXTREME DROUGHT	-4.09	-2.60	-1.49	MODERATELY DRY	NEAR NORMAL	MODERATELY WET	NEAR NORMAL
North Central	MODERATE DROUGHT	-2.03	1.29	-3.32	NEAR NORMAL	NEAR NORMAL	MODERATELY WET	NEAR NORMAL
Northeast	MODERATE DROUGHT	-2.40	-1.14	-1.26	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
West Central	MODERATE DROUGHT	-2.91	0.02	-2.93	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Central	MODERATE DROUGHT	-2.92	-0.28	-2.64	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
East Central	SEVERE DROUGHT	-3.35	-2.11	-1.24	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Southwest	SEVERE DROUGHT	-3.04	-0.64	-2.40	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
South Central	SEVERE DROUGHT	-3.19	-0.99	-2.20	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Southeast	SEVERE DROUGHT	-3.53	-2.40	-1.13	EXTREMELY DRY	MODERATELY DRY	NEAR NORMAL	MODERATELY DRY

- All nine climate divisions are experiencing drought conditions, according to the PDSI. All climate divisions have undergone a PDSI moisture decrease since June 2. Five climate divisions are experiencing near long-term dry conditions, according to the SPI.

Keetch-Byram Drought Fire Index³

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 7/9/2012
Mt. Herman	Southeast	726
Talihina	Southeast	646
Tipton	Southwest	638

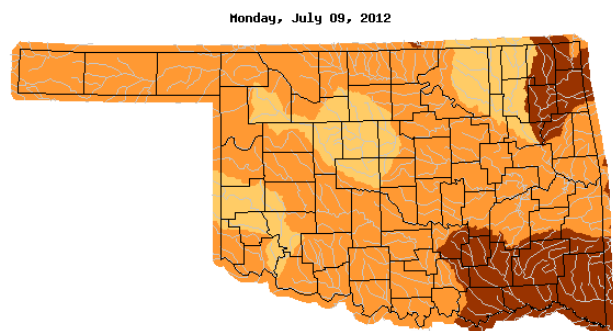
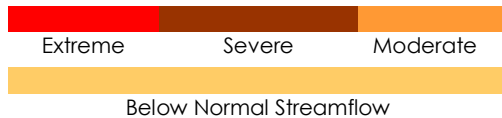
- Stations currently at or above 600 (July 9) = 19
- Stations above 600 on June 4 = 0



STREAMFLOW CONDITIONS

July 9, 2012

HYDROLOGIC DROUGHT



¹ The Palmer Drought Severity Index, the first comprehensive drought index developed in the United States, is calculated based on 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.

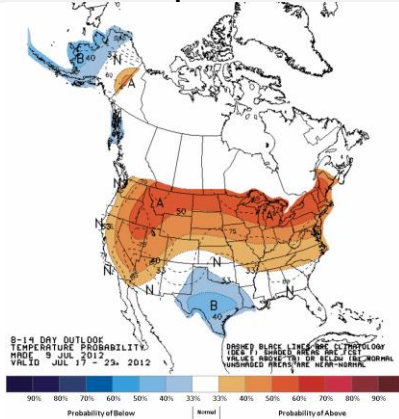
² The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while the 6-month SPI can be very effective in showing precipitation over distinct seasons.

³ 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.

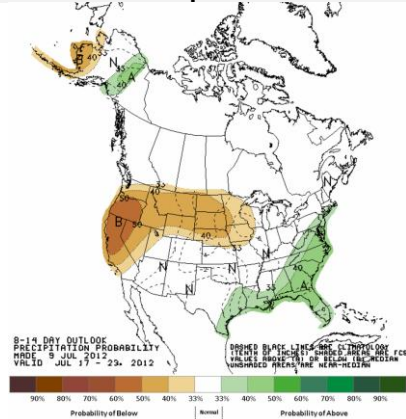
WEATHER/DROUGHT FORECAST

8- to 14-Day Outlook
July 17-23, 2012

Temperature



Precipitation



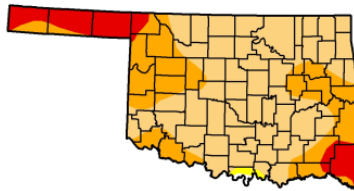
Regional Drought Summary & Outlook

U.S. Drought Monitor

July 10, 2012
Valid 7 a.m. EST

Oklahoma

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.28	99.72	99.15	38.61	10.83	0.00
Last Week (07/03/2012 map)	0.35	99.65	61.12	18.25	7.58	0.00
3 Months Ago (04/19/2012 map)	66.53	33.47	18.37	9.72	3.35	0.01
Start of Calendar Year (12/27/2011 map)	14.83	85.17	78.76	50.55	27.48	3.33
Start of Water Year (09/27/2011 map)	0.00	100.00	100.00	100.00	78.97	66.42
One Year Ago (07/05/2011 map)	0.00	100.00	93.77	60.75	44.18	32.78

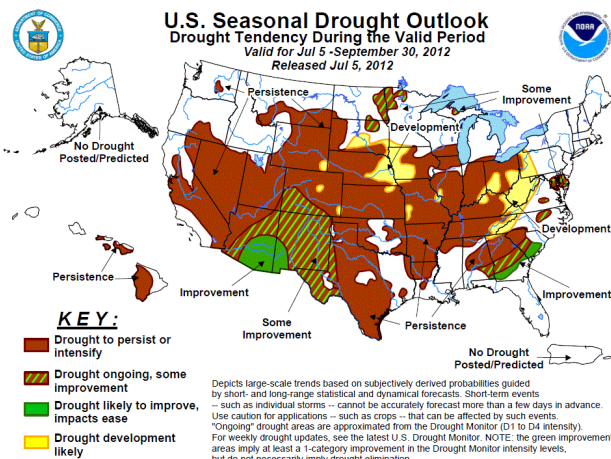


Intensity:

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

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



July 10—The latest U.S. Drought Monitor reports that a broken pattern of moderate to locally heavy rains covered the central and southern Plains, but abnormally warm temperatures prevailed and only a few scattered areas of dryness and drought experienced significant improvement. In the hottest areas last week, which were generally dry, crop conditions deteriorated quickly. In the 18 primary corn-growing states, 30 percent of the crop is now in poor or very poor condition, up from 22 percent the previous week. In addition, fully half of the nation's pastures and ranges are in poor or very poor condition, up from 28 percent in mid-June. The hot, dry conditions have also allowed for a dramatic increase in wildfire activity since mid-June. During the past 3 weeks, the year-to-date acreage burned by wildfires increased from 1.1 million to 3.1 million.

Regionally, beneficial rains brought at least temporary improvement to the southern halves of the High Plains and Rockies and across Louisiana and eastern Texas. Significant drought improvement was assessed in a good portion of New Mexico (D2 to D1) and along the Texas and western Louisiana Gulf Coasts (dryness eliminated or improved to D0). Farther north and east, conditions deteriorated significantly in most of Oklahoma, Arkansas, and Missouri, where broad expansions of D1 to D4 were assessed. An area of D4 was introduced in central Arkansas. In the last 6 months, precipitation deficits of 7 to locally over 17 inches have accumulated in the lower Ohio Valley, most of Arkansas, and eastern Oklahoma.

According to the latest Drought Outlook (July 5), dryness and drought have been increasing both in extent and intensity across most of the nation, including the Great Plains region. Drought is anticipated to persist or intensify throughout western and eastern Oklahoma.

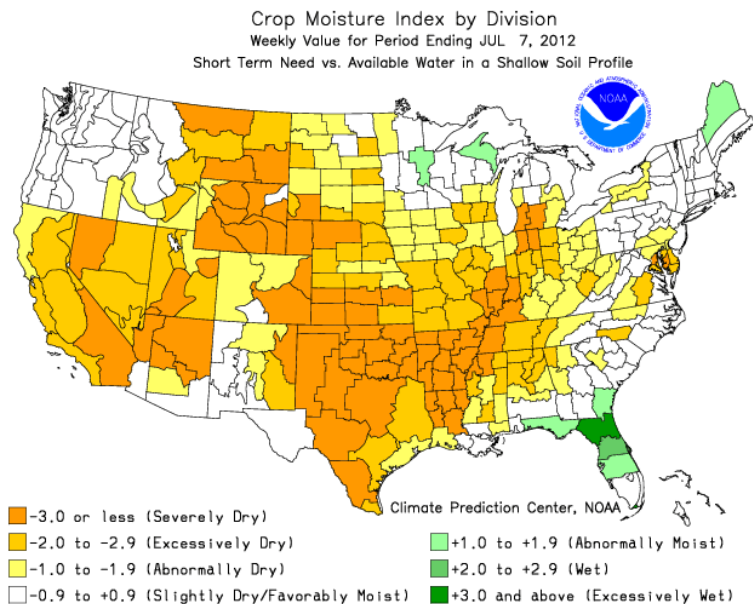
CROP REPORT

July 9, 2012 –Drought continued to develop across the state under hot and dry conditions the past week. Over 61 percent of the state was in a moderate to extreme drought per the July 3rd Drought Monitor. Little to no rain fell in western and central Oklahoma with a few isolated areas of heavier rainfall in eastern Oklahoma and the Panhandle. Average temperatures were in the mid 80s and highs continued to top 100 degrees. All crops suffered from the developing drought, although dryland crops fared worse with the lack of precipitation the past few weeks. Livestock conditions declined somewhat as the heat took its toll on the animals as well as the available pasture and stock ponds. Grasses were burning up and hay production was limited. Topsoil moisture conditions were rated mostly short to very short with only six percent rated adequate. Subsoil moisture conditions were rated short to very short with 14 percent rated adequate. There were 6.7 days suitable for field work.

Plowing of wheat ground was 75 percent complete, 27 points ahead of normal and rye plowing was 74 percent complete. Plowing of oat ground was 77 percent complete by Sunday. Peanuts were rated mostly good while soybeans and cotton were rated mostly fair. Corn silking was 64 percent complete by the end of the week and 32 percent had reached the dough stage, 18 points ahead of normal. Sorghum emergence was 95 percent complete by Sunday, 21 points ahead of normal. Sorghum heading was 21 percent complete by Sunday. Virtually all soybeans had emerged by week's end, well ahead of normal. Seventeen percent of soybeans were blooming by the end of the week. Peanut pegging was 39 percent complete by Sunday. Forty percent of the cotton crop was squaring by Sunday and six percent was setting bolls. Virtually the entire watermelon crop was setting fruit, 15 points ahead of normal. Harvest had begun and was 18 percent complete by the end of the week.

Hay condition ratings continued to decline, rated mostly good to fair. Hay production suffered with the expanding drought. A second cutting of alfalfa was 95 percent complete by the end of the week and a third cutting was 51 percent complete, 24 points ahead of the five-year average. A first cutting of other hay was 92 percent complete; a second cutting was 18 percent complete by Sunday, 13 points ahead of normal.

Pasture and range condition ratings continued to decline and were rated mostly fair to poor, with 10 percent rated very poor. Both the heat and heavy grasshopper populations continued to limit available pasture for livestock. Livestock condition ratings fell but continued to be rated mostly good.



RESERVOIR STORAGE

- 30 major reservoirs are currently operating at less than full capacity (compared to 18 five weeks ago).
- 29 reservoirs have experienced lake level decreases.

Storage in Selected Oklahoma Lakes & Reservoirs					
July 9, 2012					
Lake or Reservoir	Normal Pool Elevation (feet)	Previous Elevation 6/5/2012 (feet)	Current Elevation 7/9/2012 (feet)	Change in Elevation (feet)	Current Flood Control Storage (acre-feet)
North Central					
Fort Supply	2004.00	2003.87	2003.22	(0.65)	(1,288)
Great Salt Plains	1125.00	1125.11	1124.62	(0.49)	(2,942)
Kaw*	1013.00	1011.15	1011.64	0.49	(22,931)
Northeast					
Birch	750.50	752.91	749.33	(3.58)	(1,140)
Copan	710.00	710.54	709.87	(0.67)	(507)
Fort Gibson	554.00	554.38	553.02	(1.36)	(18,326)
Grand*	744.00	743.94	743.93	(0.01)	(2,863)
Hudson	619.00	619.46	619.30	(0.16)	3,336
Hulah	733.00	735.26	732.93	(2.33)	(212)
Keystone	723.00	724.37	721.81	(2.56)	(19,668)
Oologah	638.00	638.29	637.77	(0.52)	(6,501)
Skiatook	714.00	710.00	708.73	(1.27)	(50,484)
West Central					
Canton	1615.40	1609.08	1608.38	(0.70)	(46,731)
Foss	1642.00	1634.82	1633.98	(0.84)	(48,747)
Central					
Arcadia	1006.00	1007.27	1005.88	(1.39)	(199)
Heyburn	761.50	761.11	760.18	(0.93)	(816)
Thunderbird	1039.00	1036.62	1035.71	(0.91)	(18,895)
East Central					
Eufaula	585.00	584.44	583.22	(1.22)	(162,830)
Tenkiller	632.00	631.37	629.16	(2.21)	(35,870)
Southwest					
Fort Cobb	1342.00	1339.80	1339.30	(0.50)	(9,649)
Lugert-Altus	1559.00	1535.09	1535.04	(0.05)	(100,094)
Tom Steed	1411.00	1404.03	1403.37	(0.66)	(41,363)
South Central					
Arbuckle	872.00	872.33	871.49	(0.84)	(1,183)
McGee Creek**	175.90	176.03	175.88	(0.15)	(242)
Texoma*	619.00	616.70	616.77	0.07	(193,265)
Waurika	951.40	945.14	944.49	(0.65)	(63,049)
Southeast					
Broken Bow*	602.50	598.00	595.99	(2.01)	(87,714)
Hugo*	406.00	404.06	402.43	(1.63)	(43,902)
Pine Creek	433.00	431.52	429.46	(2.06)	(8,770)
Sardis	599.00	598.96	598.44	(0.52)	(7,458)
Wister	478.00	478.23	477.76	(0.47)	(1,273)

* indicates seasonal pool operation

** elevation in meters

negative numbers in red, parentheses

Water Bulletin information/data courtesy of National Weather Service, Climate Prediction Center, Oklahoma Climatological Survey, State Department of Agriculture, Food, and Forestry, Agricultural Statistics Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture/Forest Service, U.S. Geological Survey, Western Drought Coordination Council, and National Drought Mitigation Center.
For more information, visit www.owrb.ok.gov and www.mesonet.org.