

Oklahoma Water Resources Bulletin & Summary of Current Conditions

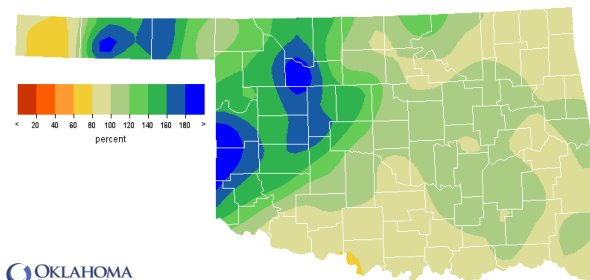


March 7, 2013

PRECIPITATION

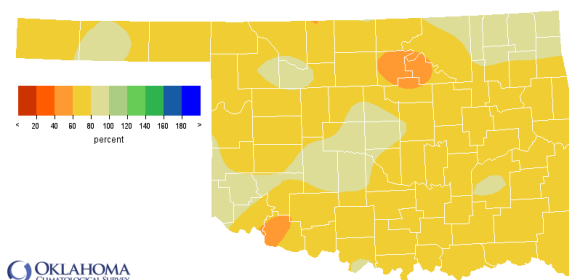
Statewide Precipitation

CLIMATE DIVISION	Last 90 Days December 4, 2012 – March 3, 2013				Last 365 Days March 4, 2012 – March 3, 2013			
	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	2.35"	+0.40"	121%	25th wettest	14.43"	-6.67"	68%	9th driest
North Central	4.60"	+1.01"	128%	19th wettest	21.89"	-9.76"	69%	9th driest
Northeast	5.96"	-0.00"	100%	36th wettest	32.78"	-9.19"	78%	17th driest
West Central	5.20"	+1.92"	158%	8th wettest	20.25"	-8.84"	70%	8th driest
Central	5.66"	+0.30"	106%	24th wettest	28.30"	-9.69"	75%	16th driest
East Central	7.69"	+0.04"	101%	41st wettest	31.61"	-14.48"	69%	10th driest
Southwest	4.54"	+0.69"	118%	28th wettest	23.29"	-7.51"	76%	18th driest
South Central	6.11"	-0.62"	91%	44th wettest	28.72"	-12.24"	70%	10th driest
Southeast	9.89"	-0.17"	98%	43rd driest	36.82"	-14.12"	72%	7th driest
Statewide	5.69"	+0.36"	107%	30th wettest	26.48"	-10.21"	72%	11th driest



OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Last 90 Days

Dec 4, 2012 through Mar 3, 2013
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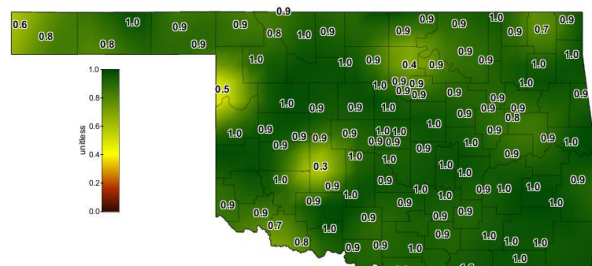
OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Last 365 Days

Mar 4, 2012 through Mar 3, 2013
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SOIL MOISTURE

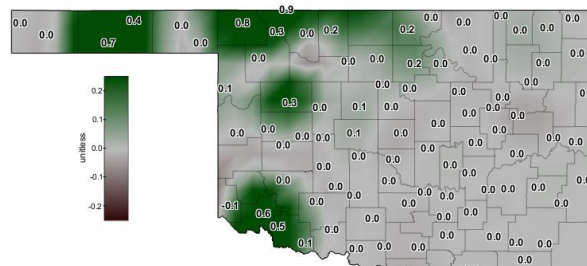
Fractional Water Index¹

March 4, 2013



Mesonet
Daily Averaged Fractional Water Index at 10 inches

March 4, 2013
Created 6:30:12 AM March 5, 2013 CST. © Copyright 2013



Mesonet
7-Day Change in Fractional Water Index at 10 inches

March 4, 2013
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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

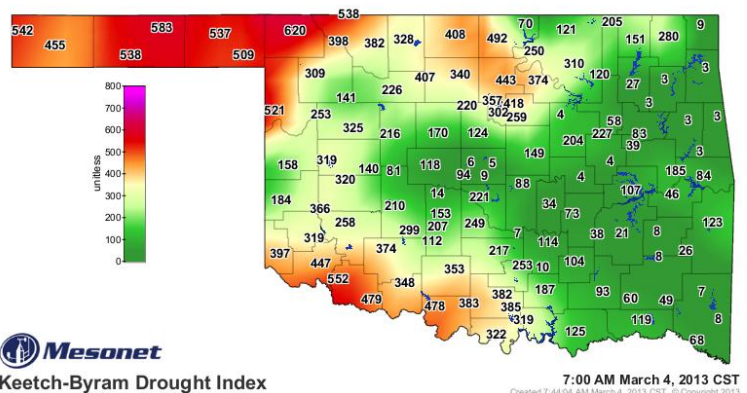
Palmer Drought Severity Index ¹					Standardized Precipitation Index ² Through January 2013			
CLIMATE DIVISION	CURRENT STATUS 3/2/2013	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		3/2	2/2					
Northwest	MILD DROUGHT	-1.88	-3.18	1.30	ABNORMALLY DRY	MODERATELY DRY	EXTREMELY DRY	ABNORMALLY DRY
North Central	INCIPIENT DROUGHT	-0.86	-3.39	2.53	MODERATELY DRY	EXTREMELY DRY	EXCEPTIONALLY DRY	MODERATELY DRY
Northeast	MILD DROUGHT	-1.34	-2.68	1.34	ABNORMALLY DRY	MODERATELY DRY	EXTREMELY DRY	MODERATELY DRY
West Central	NEAR NORMAL	-0.11	-3.02	2.91	NEAR NORMAL	ABNORMALLY DRY	EXTREMELY DRY	MODERATELY DRY
Central	MILD DROUGHT	-1.36	-3.40	2.04	ABNORMALLY DRY	MODERATELY DRY	EXTREMELY DRY	MODERATELY DRY
East Central	MILD DROUGHT	-1.17	-2.98	1.81	MODERATELY DRY	MODERATELY DRY	SEVERELY DRY	MODERATELY DRY
Southwest	MILD DROUGHT	-1.26	-3.45	2.19	ABNORMALLY DRY	MODERATELY DRY	EXTREMELY DRY	MODERATELY DRY
South Central	MODERATE DROUGHT	-2.23	-3.52	1.29	MODERATELY DRY	MODERATELY DRY	SEVERELY DRY	MODERATELY DRY
Southeast	MODERATE DROUGHT	-2.21	-3.23	1.02	ABNORMALLY DRY	MODERATELY DRY	SEVERELY DRY	SEVERELY DRY

- Recent moisture has resulted in considerable drought improvement. However, seven climate divisions continue to experience mild to moderate drought conditions, according to the PDSI. All regions have undergone a PDSI moisture increase since February 2. According to the SPI, all climate divisions continue to experience near long-term dry conditions for at least a two-year period.

Keetch-Byram Drought Fire Index³

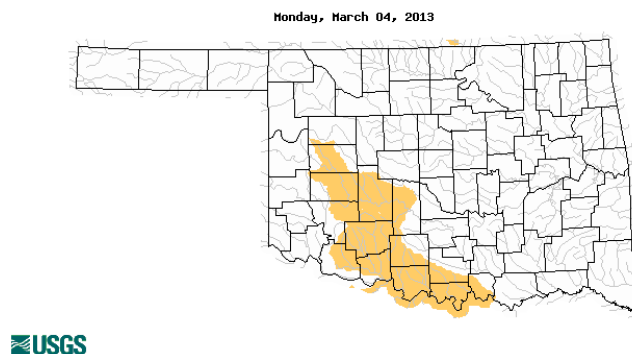
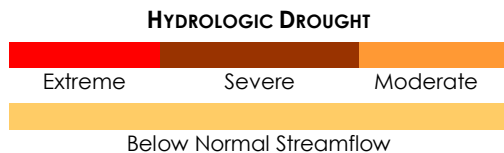
MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 3/4/2013
Buffalo	Northwest	620
Hooker	Northwest	583
Tipton	Southwest	552

- Stations currently at or above 600 (March 4) = 1
- Stations above 600 on February 4 = 19



STREAMFLOW CONDITIONS

March 4, 2013



¹ 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.

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.

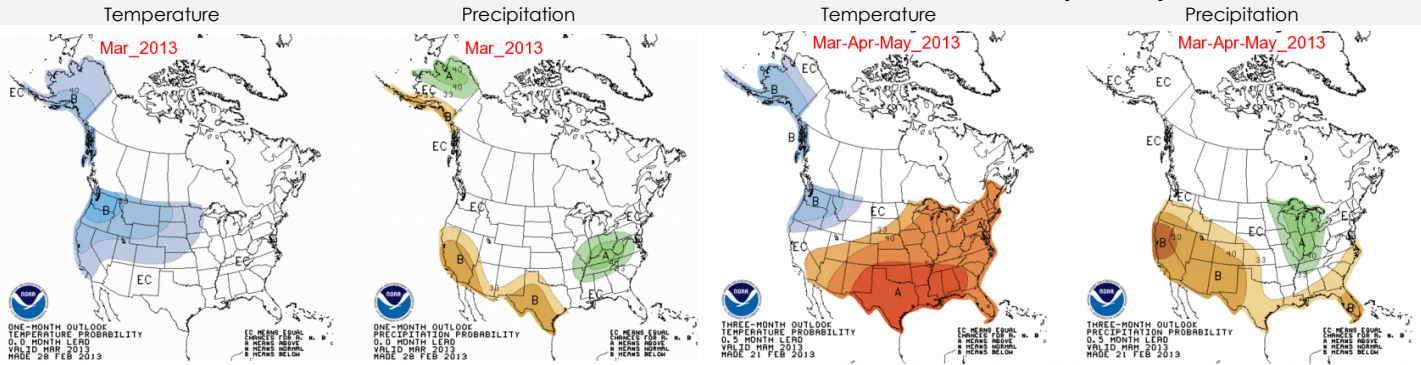
³ The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.

WEATHER/DROUGHT FORECAST

Seasonal Outlook

March

March-April-May

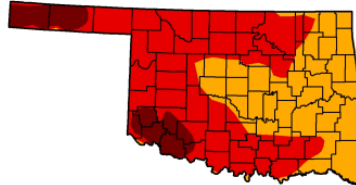


Regional Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

March 5, 2013
Valid 7 a.m. EST

	Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	0.00	100.00	100.00	100.00	61.65	9.54	
Last Week (02/26/2013 map)	0.00	100.00	100.00	100.00	61.65	11.80	
3 Months Ago (12/04/2012 map)	0.00	100.00	100.00	99.64	90.56	34.56	
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06	
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	99.98	95.33	42.09	
One Year Ago (02/28/2012 map)	24.91	75.09	66.46	41.79	19.03	3.78	



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.



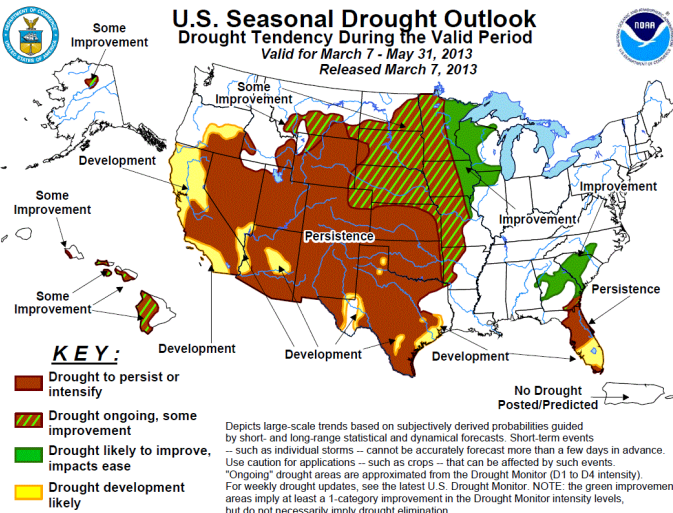
Released Thursday, March 7, 2013
Matthew Rosencrans, NOAA/NWS/NCEP/Climate Prediction Center

<http://droughtmonitor.unl.edu>

March 5—The latest U.S. Drought Monitor reports that since last week, the lone area of improvement in the Plains region (i.e., where the intensity of drought has been reduced) was made to the Oklahoma Panhandle. With a significant rain event last week, precipitation has been above normal for the past 30 and 60 days. Minimal improvement was measured in local soil moisture, so D3 (Extreme Drought) was retained for Cimarron County.

Almost 62 percent of Oklahoma is classified in Extreme Drought, down from 90 percent one month ago. Less than 10 percent of the state—including portions of the western Panhandle and southwest Oklahoma—is considered Exceptional, the most intense drought category. Overall, recent precipitation has had a significant positive impact on Oklahoma's drought situation. More rain is needed, however, especially in the west.

According to the latest Drought Outlook (March 7), the broad area of extreme to exceptional drought is expected to persist and expand across much of the southern Plains region, including Oklahoma. Forecasts on most time scales favor below-median precipitation for the area.

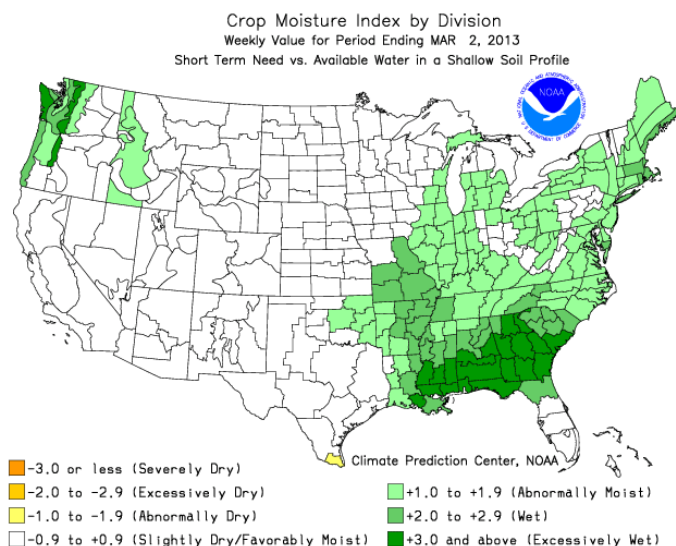


CROP REPORT SUMMARY

February 25, 2013 – Multiple rain and snow events throughout February provided improvements to soil moisture conditions. Some improvements to crop conditions were reported, with wheat, canola and rye moving from mostly poor to very poor in January to mostly fair to poor in February. This allowed for a small increase in the amount of the crop being grazed, though grazing was reported to be significantly less than normal. Pasture condition ratings have not yet shown significant improvements, though some areas have reported new growth in winter forage from the last few snow and rain events. Overall some recharge of ponds and lakes has occurred, but water levels are still very low. Topsoil moisture conditions improved greatly from January, with 43 percent rated adequate and even two percent rated surplus. Subsoil moisture conditions were still rated mostly very short, with nine percent rated adequate.

Conditions of small grains and canola improved over the past month due to the available moisture. Wheat, canola and rye conditions were rated mostly fair to poor while oats were still rated mostly poor to very poor. Only 26 percent of the wheat crop was being grazed, 19 points below 2012 and 10 points below the five-year average. Thirty-seven percent of rye was reported as grazed, 27 points less than normal. Fourteen percent of oats were being grazed, compared to 42 percent of oats grazed last year, and a five-year average of 19 percent.

Pasture and range conditions continued to be rated poor to very poor for the month of February. The impacts of recent precipitation remain to be seen.



RESERVOIR STORAGE

March 1, 2013

