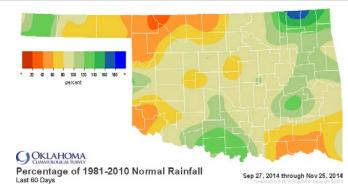
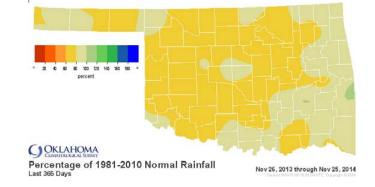
# Oklahoma Water Resources Bulletin & Summary of Current Conditions

### November 26, 2014

### PRECIPITATION **Statewide Precipitation** Last 60 Days Last 365 Days September 27 – November 25, 2014 November 26, 2013 - November 25, 2014 TOTAL DEPARTURE TOTAL DEPARTURE CLIMATE PERCENT PERCENT FROM NORMAL RANK SINCE 1921 FROM NORMAL **RANK SINCE 1921** RAINFALL RAINFALL DIVISION OF NORMAL OF NORMAL (INCHES) (INCHES) (INCHES) (INCHES) 44th driest Panhandle 1.91" -0.76" 71% 16.22" -4.36" 79% 18th driest North Central 3.40" -1.43" 70% 37th driest 23.61" -7.81" 75% 18th driest Northeast 8.20" 118% 26th wettest 33.55" -9.12" 79% 20th driest +1.26" West Central 4.08" -0.40" 91% 40th wettest 20.20" -8.20" 71% 12th driest 17th driest 5.72" 91% 39th wettest -9.38" 75% Central -0.57" 28.25" East Central 8.34" +0.06" 101% 32nd wettest 37.83" -8.31" 82% 22nd driest Southwest -0.91" 82% 43rd wettest 17th driest 4.11" 22.89" -7.38" 76% South Central 7.05" -0.12" 98% 32nd wettest 32.48" -8.23" 80% 24th driest 77% 42nd driest -5.22" 90% 35th driest Southeast 7.30" -2.15" 45.37" Statewide 5.59" -0.51" 92% 39th wettest 28.81" -7.66" 79% 16th driest





### SOIL MOISTURE Fractional Water Index<sup>1</sup> November 25, 2014 0.0 0.5 0.5 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.1 0.1 ()) Mesonet ()) Mesonet November 25, 2014 November 25, 2014 Daily Averaged Fractional Water Index at 10 inches 7-Day Change in Fractional Water Index at 10 inches

<sup>1</sup>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.]

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# **DROUGHT INDICES**

### Palmer Drought Severity Index<sup>2</sup>

### Standardized Precipitation Index<sup>3</sup> Through October 2014

CLIMATE DIVISION	CURRENT STATUS 11/22/2014	VAL 10/18		CHANGE IN VALUE	3-Month	12-MONTH	24-MONTH
Northwest	MODERATE DROUGHT	-1.44	-2.07	0.63	NEAR NORMAL	ABNORMALLY DRY	ABORMALLY DRY
North Central	NEAR NORMAL	1.29	0.57	0.72	ABNORMALLY DRY	ABNORMALLY DRY	NEAR NORMAL
Northeast	NEAR NORMAL	1.14	0.7	0.44	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL
West Central	NEAR NORMAL	-1.96	-1.4	-0.56	MODERATELY DRY	ABNORMALLY DRY	ABNORMALLY DRY
Central	NEAR NORMAL	-0.73	-0.1	-0.63	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL
East Central	NEAR NORMAL	1.07	0.94	0.13	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Southwest	MODERATE DROUGHT	-3.60	-2.15	-1.45	SEVERELY DRY	MODERATELY DRY	MODERATELY DRY
South Central	NEAR NORMAL	-0.51	0.56	-1.07	MODERATELY DRY	MODERATELY DRY	MODERATLEY DRY
Southeast	NEAR NORMAL	1.27	0.8	0.47	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL

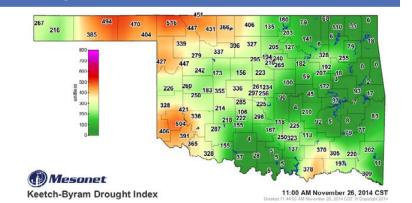
• According to the PDSI, the Northwest and Southwest climate divisions are experiencing moderate drought conditions while the rest of the state is classified as near normal. The Northwest, North Central, Northeast, East Central, and Southeast regions have undergone a PDSI moisture decrease since October 18.

• According to the latest SPI, the Southeast and East Central regions are *not* experiencing longer-term dry conditions (through the last two years); all other regions are shown to have abnormally to moderately dry conditions during the two-year period. The Northwest, Northeast, East Central, and Southeast regions are shown to have near normal conditions for the 3-month time period.

### Keetch-Byram Drought Fire Index<sup>4</sup>

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 11/26/2014		
Buffalo	Northwest	516		
Mangum	Southwest	504		
Hooker	Northwest	494		

- Stations currently at or above 600 (November 26) = 0
- Stations above 600 on October 27 = 1



# STREAMFLOW CONDITIONS

### November 25, 2014



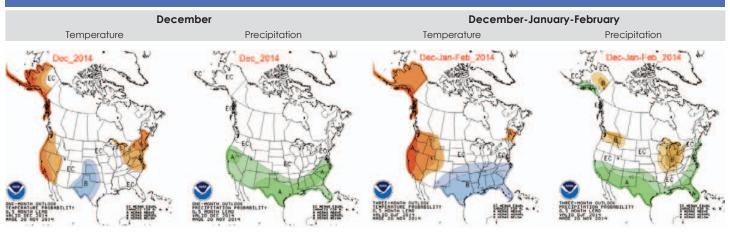
<sup>&</sup>lt;sup>2</sup>The Palmer Drought Severity Index is based upon precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate the severity of ongoing dry periods.

<sup>&</sup>lt;sup>3</sup>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.

<sup>&</sup>lt;sup>4</sup>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**

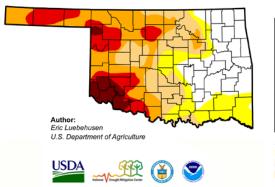


### **Regional Drought Summary & Outlook**

November 25, 2014

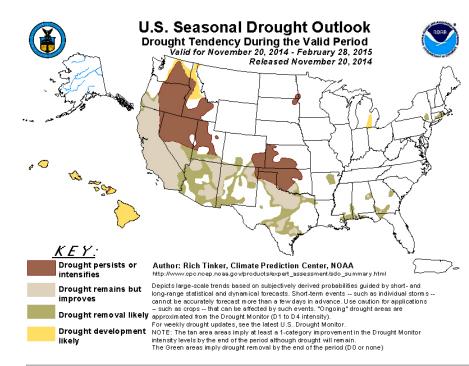
(Released Wednesday, Nov. 26, 2014)

### U.S. Drought Monitor Oklahoma



http://droughtmonitor.unl.edu/

Valid 7 a.m. EST									
	Drought Conditions (Percent Area)								
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4			
Current	24.48	75.52	59.85	40.85	18.33	5.04			
Last Week 11/18/2014	17.88	82.12	64.42	47.18	21.57	6.56			
3 Months Ago 8/26/2014	19.52	80.48	71.14	48.51	15.75	2.25			
Start of Calendar Year 12/31/2013	50.84	49.16	38.17	18.99	4.84	2.40			
Start of Water Year 9/30/2014	8.55	91.45	73.31	58.13	20.92	4.64			
One Year Ago 11/26/2013	52.66	47.34	30.90	15.93	4.92	2.40			
Intensity:									
D0 Abnormally Dry D3 Extreme Drought									
D1 Modera	ght 📕	D4 Exceptional Drought							
D2 Severe Drought									
The Drought Mor Local conditions for forecast state	may var					nary			



November 25—According to the U.S. Drought Monitor, 1,444,556 Oklahomans are being affected by drought (category D1-D4).

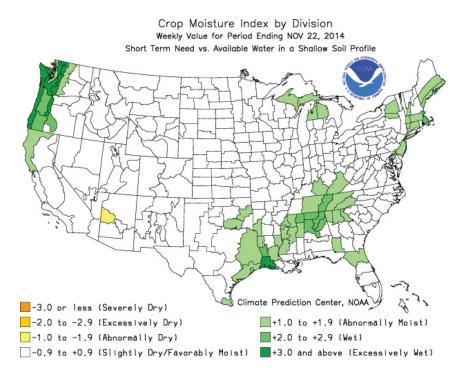
Dry weather in western portions of the Southern Plains region contrasted with locally heavy downpours in the east. The drought depiction over the southern High Plains remained unchanged, with widespread Severe (D2) to Extreme (D3) drought noted from western Kansas into northern Texas. Farther east, moderate to heavy rain was noted in south-central Oklahoma, with numerous reports of 3 to more than 5 inches west of Lake Texoma. Consequently, there were widespread reductions to drought intensity and coverage in the areas where rain was heaviest.

In the past month, the percentage of Oklahoma classified as being in Exceptional Drought (D4) has increased slightly (from 4.84% to 5.04%). Most of the areas experiencing Exceptional Drought are in the Southwest corner of the state with a small area in northern Ellis County. All areas experiencing Extreme Drought or worse are in the western half of the state. Most of the Southeast region of the state is now classified as abnormally dry.

According to the seasonal drought outlook, during the period between mid-November and the end of February, drought conditions will likely persist in all of western and North Central Oklahoma. Drought conditions will remain or improve in South Central Oklahoma, while the rest of the state is expected not to experience drought conditions during this time period.

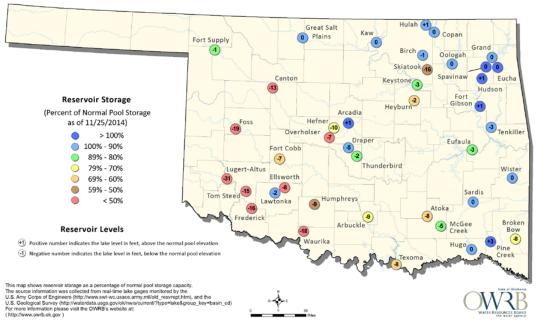
## **CROP REPORT**

November 23 -According to the NOAA Crop Moisture Index by Division, the South Central and East Central regions are experiencing abnormally moist conditions while the rest of the state is classified as near normal. According to the USDA Crop Report, overall crop conditions continued to be rated mostly good to fair. Much of the state received measurable rainfall last week, with the highest recorded at 2.35 inches in the South Central district. Topsoil and subsoil moisture conditions were rated mostly adequate to short.



**RESERVOIR STORAGE** 

### **Oklahoma Surface Water Resources**



Reservoir Levels and Storage as of 11/25/2014