Oklahoma Water Resources Bulletin
& Summary of Current Conditions

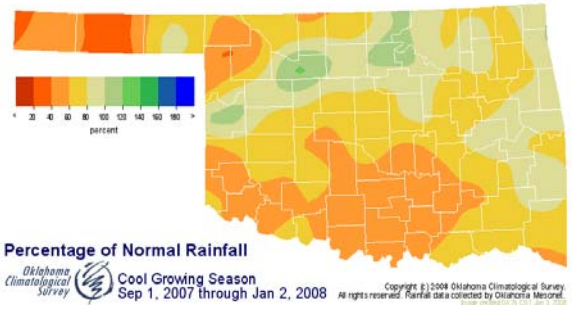
State of Oklahoma OWRB Water Resources Board the water agency

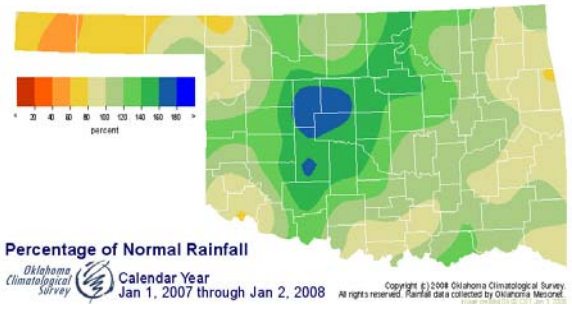
January 3, 2008

PRECIPITATION

Preliminary Statewide Precipitation

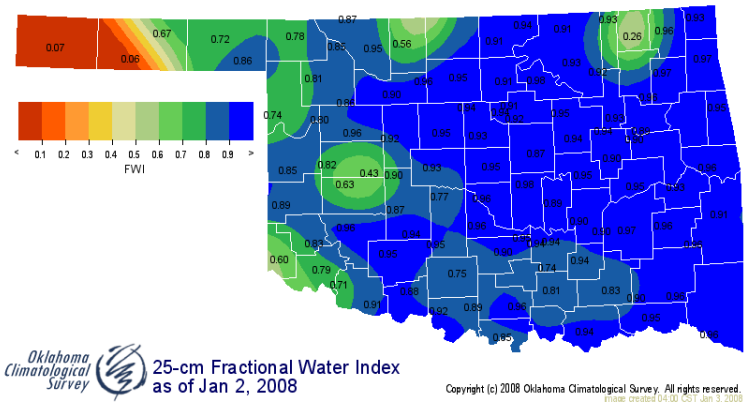
Climate Division (#)	Cool Growing Season September 1, 2007—January 2, 2008				Calendar Year January 1, 2007—January 2, 2008			
	Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921	Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921
Panhandle	2.67"	-2.49"	52%	11th driest	16.48"	-4.65"	78%	20th driest
North Central	7.90"	-1.33"	86%	41st driest	39.44"	+7.73"	124%	4th wettest
Northeast	12.23"	-2.18"	85%	43rd wettest	46.78"	+4.71"	111%	14th wettest
West Central	6.43"	-2.09"	75%	33rd driest	36.68"	+7.54"	126%	5th wettest
Central	8.73"	-3.95"	69%	25th driest	52.27"	+14.20"	137%	1st wettest
East Central	12.57"	-4.08"	75%	37th driest	45.87"	-0.36"	99%	34th wettest
Southwest	5.76"	-3.79"	60%	20th driest	38.44"	+7.57"	125%	6th wettest
South Central	6.89"	-7.45"	48%	13th driest	43.17"	+2.09"	105%	23rd wettest
Southeast	13.75"	-5.10"	73%	29th driest	50.47"	-0.65"	99%	38th wettest
Statewide	8.50"	-3.62"	70%	24th driest	41.36"	+4.58"	112%	10th wettest





SOIL MOISTURE

Fractional Water Index[1]
January 2, 2008
25 CM (~10 INCHES)



[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. Specifically, 1.0 to 0.8 equals Enhanced Growth, 0.8 to 0.5 equals Limited Growth, 0.5 to 0.3 equals Plants Wilting, 0.3 to 0.1 equals Plants Dying, and less than 0.1 equals Barren Soil.

DROUGHT INDICES

Palmer Drought Severity Index[1] / Standardized Precipitation Index[2] Through November 2007

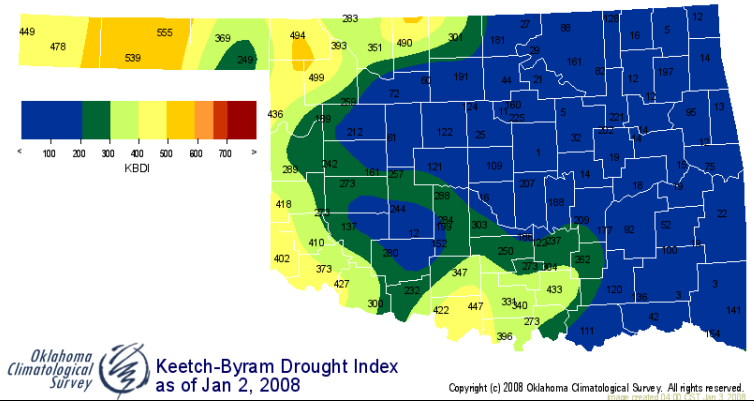
Climate Division (#)	Current Status 12/29/2007	Value 12/29	Value 12/1	Change In Value	3-Month	6-Month	9-Month	12-Month
Northwest (1)	NEAR NORMAL	0.42	-0.62	**1.04**	VERY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
North Central (2)	VERY MOIST SPELL	3.70	2.78	**0.92**	NEAR NORMAL	MODERATELY WET	VERY WET	VERY WET
Northeast (3)	MOIST SPELL	1.96	0.94	**1.02**	NEAR NORMAL	MODERATELY WET	VERY WET	VERY WET
West Central (4)	EXTREME MOIST SPELL	4.21	3.97	**0.24**	NEAR NORMAL	VERY WET	EXTREMELY WET	EXTREMELY WET
Central (5)	EXTREME MOIST SPELL	4.58	3.63	**0.95**	NEAR NORMAL	EXTREMELY WET	EXTREMELY WET	EXTREMELY WET
East Central (6)	MOIST SPELL	1.46	1.00	**0.46**	NEAR NORMAL	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
Southwest (7)	VERY MOIST SPELL	3.60	3.29	**0.31**	MODERATELY DRY	VERY WET	VERY WET	VERY WET
South Central (8)	MOIST SPELL	1.25	1.01	**0.24**	MODERATELY DRY	MODERATELY WET	MODERATELY WET	VERY WET
Southeast (9)	UNUSUAL MOIST SPELL	2.29	1.21	**1.08**	NEAR NORMAL	MODERATELY WET	NEAR NORMAL	MODERATELY WET

- No climate divisions are currently experiencing drought conditions, according to the PDSI.
- No climate divisions have undergone PDSI moisture decreases since December 1.
- Three climate divisions are experiencing dry conditions, according to the SPI.

Keetch-Byram Drought Fire Index[3]

Mesonet Station	County	Climate Division	Current Value 1/3/2008
Hooker	Texas	Northwest	613
Goodwell	Texas	Northwest	604
Boise City	Cimarron	Northwest	563

- Stations currently above 600 (January 3) = 2
- Stations above 600 on December 3 = 3



[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.

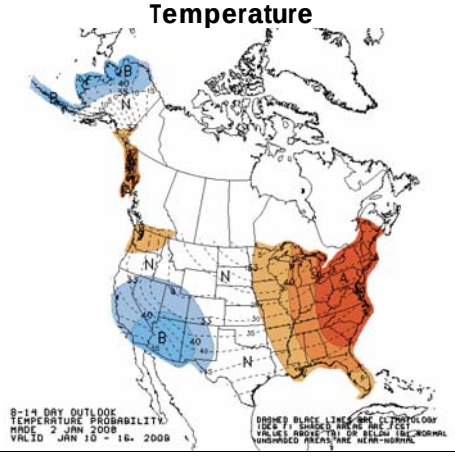
[3] The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.

WEATHER/DROUGHT FORECAST

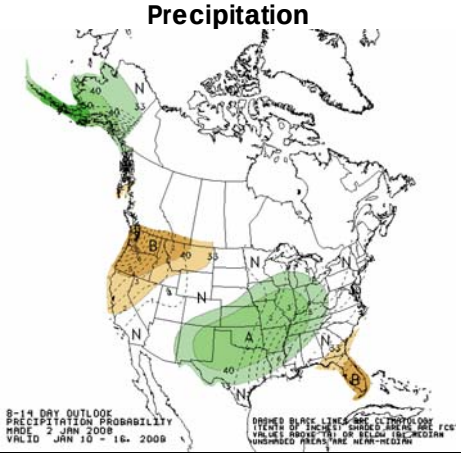
8- to 14-Day Outlook

January 10-16, 2008

Temperature



Precipitation



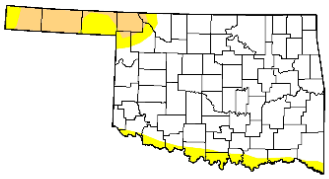
U.S. Drought Monitor

Oklahoma

January 1, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	83.4	16.6	7.1	0.0	0.0	0.0
Last Week (12/25/2007 map)	83.4	16.6	7.1	0.0	0.0	0.0
3 Months Ago (10/09/2007 map)	95.6	4.4	0.0	0.0	0.0	0.0
Start of Calendar Year (01/01/2008 map)	83.4	16.6	7.1	0.0	0.0	0.0
Start of Water Year (10/02/2007 map)	95.6	4.4	0.0	0.0	0.0	0.0
One Year Ago (01/02/2007 map)	31.3	68.7	39.8	24.5	18.2	0.0



Intensity:

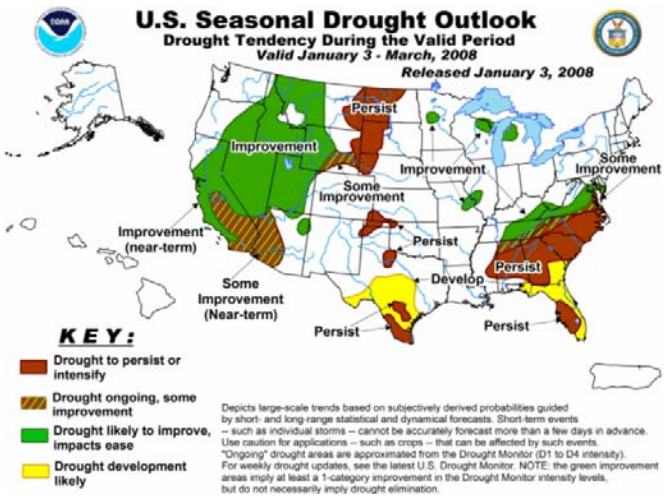
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

http://drought.unl.edu/dm

USDA · National Drought Mitigation Center

Released Thursday, January 3, 2008
Author: Richard Heim, NOAA/NESDIS/NCDC



Regional Drought Summary & Outlook:

January 1—One-half inch or more of precipitation fell over a few areas of the central Plains. The snowfall over eastern Colorado was welcomed, but it was not enough to erase longer-term deficits. D1 was expanded slightly in north central South Dakota to reflect growing deficits. Two areas of D1 were added to southern Texas where precipitation for the last 4 months hovered around the 25 percent-of-normal mark or less, and D0 expanded westward in southern Texas. The south Texas dryness, aided by windy conditions and above-normal temperatures, threatens the emergence of recently planted wheat and has increased the risk of wildfires.

According to the latest Drought Outlook, some degree of improvement is expected from Tennessee and Kentucky northeastward through the middle Atlantic states, including some areas of exceptional drought in the central and western stretches of this region. Small areas of moderate drought in the Midwest should be eliminated, but drought relief is not expected in drought areas covering parts of the western Plains from the Dakotas to northern Texas. Further south, recently-developed drought is expected to persist in southern Texas, eventually expanding to cover a large portion of central and southern Texas by early spring.

CROP REPORT

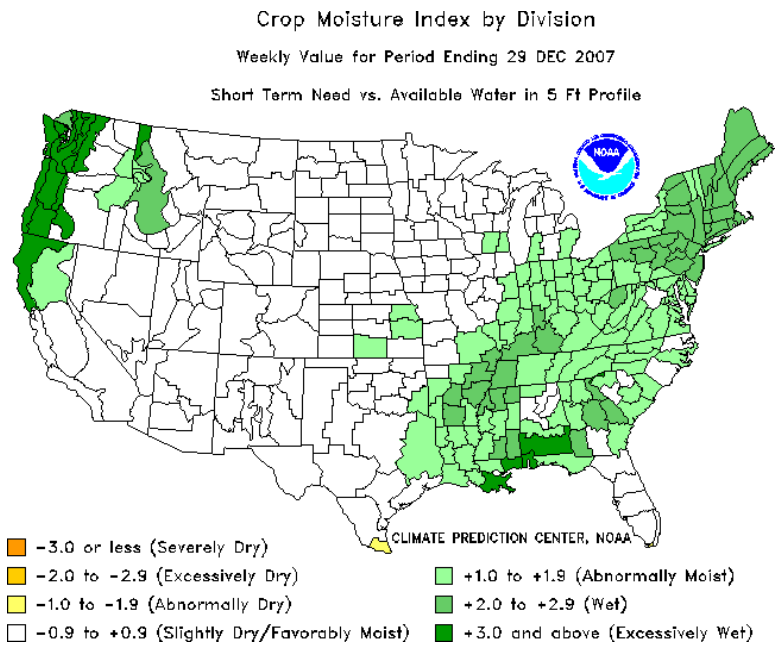
November 26—Oklahoma experienced unseasonably warm weather the first part of last week with temperatures exceeding 80 degrees on Tuesday in some areas. However, a cold front moved through the state late Tuesday night dropping temperatures into the 30s. Temperatures remained cold the remainder of the week with highs only reaching the 40s in most areas. There were 6.0 days suitable for fieldwork.

While the precipitation received this past week was greatly appreciated, more is needed before small grain crops in drier locations can resume normal development. Eighty-three percent of the state's wheat acreage had emerged, 12 percentage points behind the five-year average. Ninety-six percent of the state's rye had emerged. Oat seedbed preparation was 94 percent complete with over 80 percent of the crop planted by week's end. Sixty-two percent of oats had emerged.

Producers continued harvesting row crops on a limited basis. Farmers had the majority of soybeans harvested by week's end. Growers had 92 percent of grain sorghum harvested by Sunday, significantly ahead of normal. Sixty-nine percent of cotton was harvested, an increase of 6 points from the week before.

Growers had 95 percent of other hay second cuttings complete, 2 points behind normal. Eighty-nine percent of the fifth cutting of alfalfa and just over half of the sixth cutting were completed, both ahead of normal pace. Alfalfa and other hay conditions remained mostly in the good to fair range.

Livestock conditions were rated mostly good to fair. Pasture and range conditions also remained mostly in the good to fair range.



RESERVOIR STORAGE

- 10 reservoirs are currently operating at less than full capacity (compared to 14 four weeks ago).
- 10 reservoirs have experienced lake level decreases.

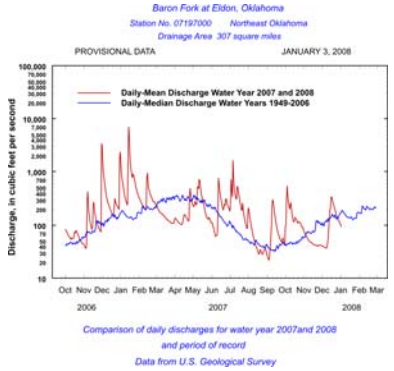
Storage in Selected Oklahoma Lakes & Reservoirs
January 2, 2008

Lake or Reservoir	Normal Pool Elevation (feet)	Previous Elevation 12/03/2007 (feet)	Current Elevation 01/02/2008 (feet)	Change in Elevation (feet)	Current Flood Control Storage (acre-feet)
North Central					
Fort Supply	2004.00	2004.22	2004.18	(0.04)	338
Great Salt Plains	1125.00	1125.29	1125.39	0.10	3,273
Kaw*	1012.30	1010.74	1012.71	1.97	7,679
Northeast					
Birch	750.50	750.07	750.55	0.48	57
Copan	710.00	710.29	710.63	0.34	3,575
Fort Gibson	554.00	552.85	555.68	2.83	32,900
Grand	745.00	742.10	742.01	(0.09)	(134,560)
Hudson	619.00	619.31	619.93	0.62	10,276
Hulah	733.00	733.34	735.26	1.92	13,536
Keystone	723.00	722.69	724.85	2.16	43,555
Oologah	638.00	638.61	640.92	2.31	95,586
Skiatook	714.00	712.92	713.31	0.39	(6,961)
West Central					
Canton	1615.40	1615.67	1615.63	(0.04)	1,826
Foss	1642.00	1641.59	1641.48	(0.11)	(3,474)
Central					
Arcadia	1006.00	1006.19	1006.44	0.25	818
Heyburn	761.50	761.55	761.78	0.23	284
Thunderbird	1039.00	1039.19	1039.74	0.55	4,514
East Central					
Eufaula*	585.00	583.54	584.48	0.94	(48,219)
Tenkiller	632.00	632.76	632.65	(0.11)	8,515
Southwest					
Fort Cobb	1342.00	1342.86	1342.76	(0.10)	2,959
Lugert-Altus	1559.00	1550.86	1552.15	1.29	(38,611)
Tom Steed	1411.00	1410.36	1410.24	(0.12)	(4,766)
South Central					
Arbuckle	872.00	871.69	871.59	(0.10)	(951)
McGee Creek**	175.90	175.61	175.79	0.18	(1,334)
Texoma*	617.00	615.97	615.80	(0.17)	(89,722)
Waurika*	951.40	951.54	951.80	0.26	4,055
Southeast					
Broken Bow*	599.50	599.13	597.70	(1.43)	(25,316)
Hugo*	404.50	404.70	407.34	2.64	66,254
Pine Creek*	438.00	438.08	441.22	3.14	13,214
Sardis	599.00	598.79	599.44	0.65	6,103
Wister	478.00	477.87	480.43	2.56	19,657

** indicates seasonal pool operation* *** elevation in meters* *negative numbers in red, parentheses*

STREAMFLOW CONDITIONS

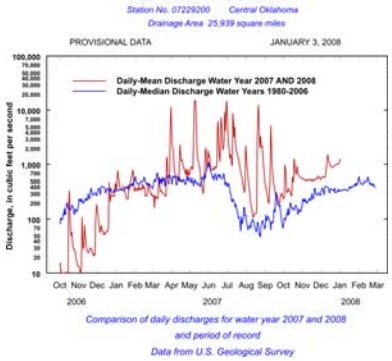
Baron Fork at Eldon



Comparison of daily discharges for water year 2007and 2008 and period of record

Data from U.S. Geological Survey

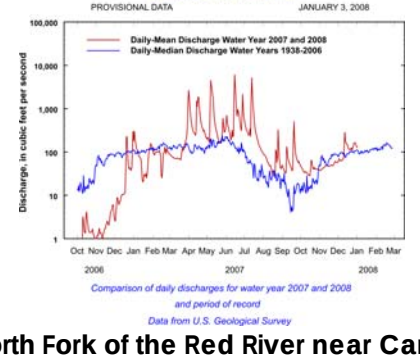
Canadian River at Purcell



Comparison of daily discharges for water year 2007 and 2008 and period of record

Data from U.S. Geological Survey

Cimarron River near Waynoka



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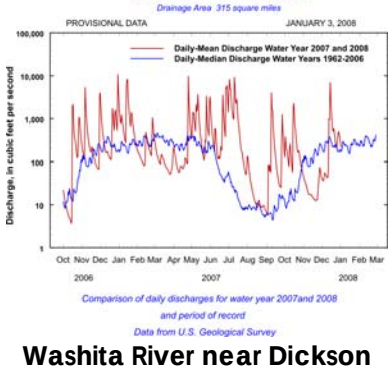
Data from U.S. Geological Survey

Glover River near Glover



Comparison of daily discharges for water year 2007and 2008 and period of record

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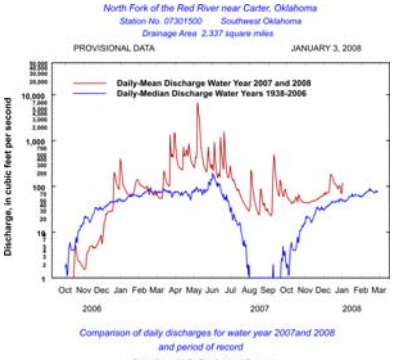
North Fork of the Red River near Carter



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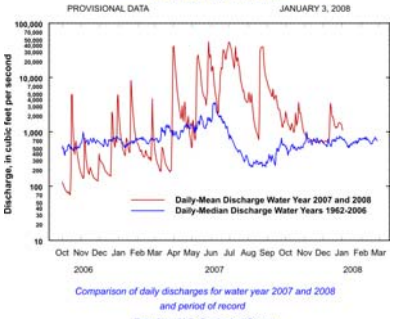
Washita River near Dickson



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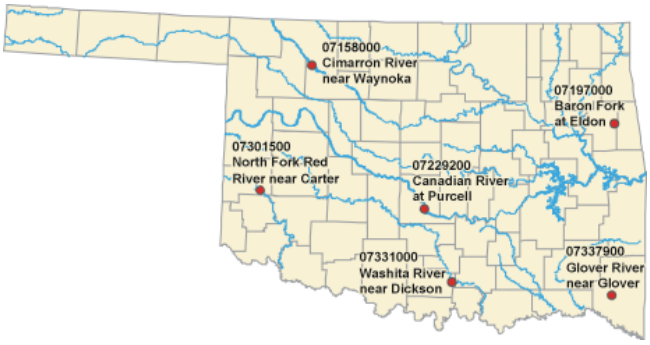

Water Bulletin information/data courtesy of National Weather Service, Climate Prediction Center, Oklahoma Climatological Survey, State Department of Agriculture, Food, and Forestry, Agricultural Statistics Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture/Forest Service, U.S. Geological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