Oklahoma Water Resources Bulletin
& Summary of Current Conditions

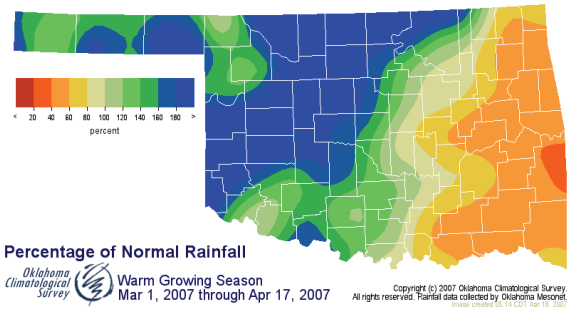
State of Oklahoma OWRB Water Resources Board the water agency

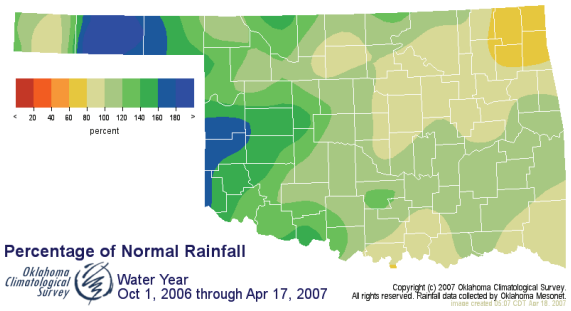
April 18, 2007

PRECIPITATION

Preliminary Statewide Precipitation

Climate Division (#)	Warm Growing Season March 1—April 17, 2007 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921	Water Year October 1, 2006—April 17, 2007 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921
Panhandle	4.02"	+1.35"	150%	7th wettest	9.33"	+2.24"	132%	12th wettest
North Central	8.24"	+3.88"	189%	2nd wettest	13.86"	+1.31"	110%	21st wettest
Northeast	6.03"	+0.09"	102%	25th wettest	16.67"	-2.35"	88%	40th wettest
West Central	8.51"	+4.63"	220%	2nd wettest	16.31"	+4.99"	144%	4th wettest
Central	6.99"	+1.75"	133%	8th wettest	16.87"	-0.08"	100%	23rd wettest
East Central	3.75"	-2.80"	57%	22nd driest	22.63"	-0.02"	100%	27th wettest
Southwest	6.23"	+2.46"	165%	5th wettest	16.21"	+3.96"	132%	14th wettest
South Central	5.54"	-0.14"	98%	23rd wettest	20.67"	+1.00"	105%	21st wettest
Southeast	3.46"	-3.56"	49%	12th driest	26.80"	-0.27"	99%	31st wettest
Statewide	5.90"	+0.89"	118%	12th wettest	17.47"	+1.03"	106%	22nd wettest

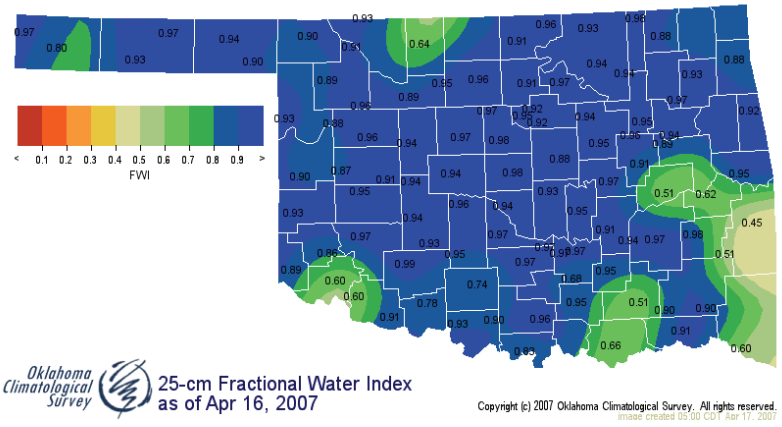




SOIL MOISTURE

Fractional Water Index[1]
April 16, 2007

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 March 2007

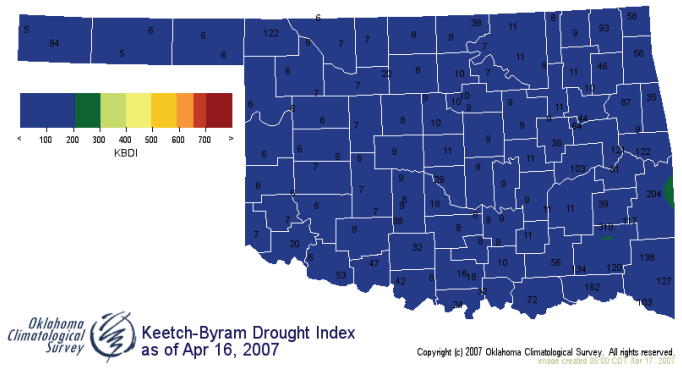
Climate Division (#)	Current Status 4/14/2007	Value 4/14	Value 3/17	Change In Value	3-Month	6-Month	9-Month	12-Month
Northwest (1)	VERY MOIST SPELL	3.96	1.58	**2.38**	MODERATELY WET	VERY WET	VERY WET	NEAR NORMAL
North Central (2)	UNUSUAL MOIST SPELL	2.76	-1.27	**4.03**	VERY WET	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
Northeast (3)	MOIST SPELL	1.56	-0.35	**1.91**	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
West Central (4)	EXTREME MOIST SPELL	4.07	1.98	**2.09**	VERY WET	VERY WET	MODERATELY WET	MODERATELY WET
Central (5)	UNUSUAL MOIST SPELL	2.28	1.03	**1.25**	VERY WET	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
East Central (6)	NEAR NORMAL	0.38	1.25	**-0.87**	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Southwest (7)	VERY MOIST SPELL	3.32	2.50	**0.82**	MODERATELY WET	VERY WET	MODERATELY WET	NEAR NORMAL
South Central (8)	MOIST SPELL	1.87	1.21	**0.66**	NEAR NORMAL	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
Southeast (9)	INCIPIENT DROUGHT	-0.61	0.71	**-1.32**	MODERATELY DRY	MODERATELY WET	NEAR NORMAL	NEAR NORMAL

- No climate divisions are currently experiencing drought conditions, according to the PDSI.
- Two climate divisions have undergone PDSI moisture decreases since March 17.

Keetch-Byram Drought Fire Index[3]

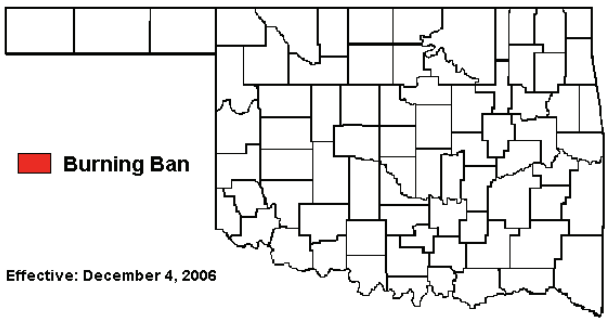
Mesonet Station	County	Climate Division	Current Value 4/16/2007
Clayton	Pushmataha	Southeast	313
Wister	LeFlore	Southeast	197
Hugo	Choctaw	Southeast	177

- Stations currently above 600 (April 16) = 0
- Stations above 600 on March 19 = 0



Statewide Wildfire Preparedness

On December 4, 2006 Governor Brad Henry cancelled the Ban on Outdoor Burning for all counties in Oklahoma. However, citizens are encouraged to use caution. Dry, grassy fuels will ignite easily when the humidity is low and the temperature and winds are high.



[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.

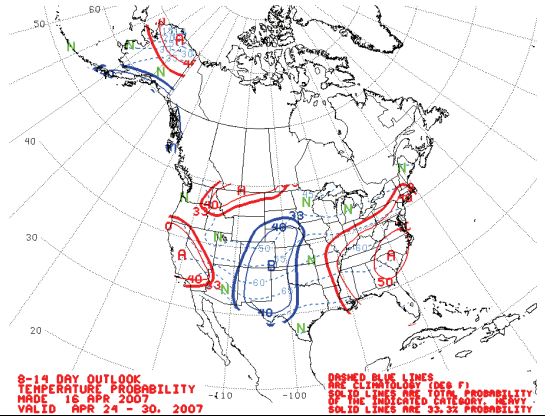
[2] The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while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

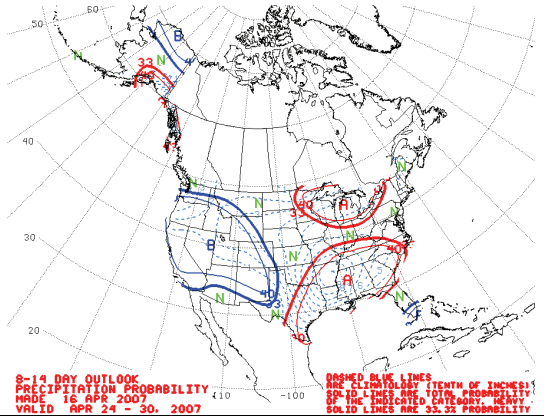
WEATHER/DROUGHT FORECAST

8- to 14-Day Forecast
April 24-30, 2007

Temperature



Precipitation

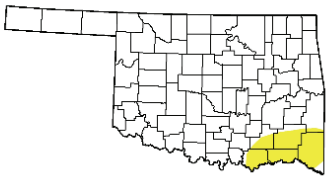


U.S. Drought Monitor
Oklahoma

April 17, 2007
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.6	7.4	0.0	0.0	0.0	0.0
Last Week (04/10/2007 map)	78.3	21.7	0.0	0.0	0.0	0.0
3 Months Ago (01/23/2007 map)	56.5	43.5	27.9	16.8	0.0	0.0
Start of Calendar Year (01/02/2007 map)	31.3	68.7	39.8	24.5	18.2	0.0
Start of Water Year (10/03/2006 map)	2.7	97.3	92.7	46.2	16.6	0.0
One Year Ago (04/18/2006 map)	0.0	100.0	100.0	98.7	13.9	0.0

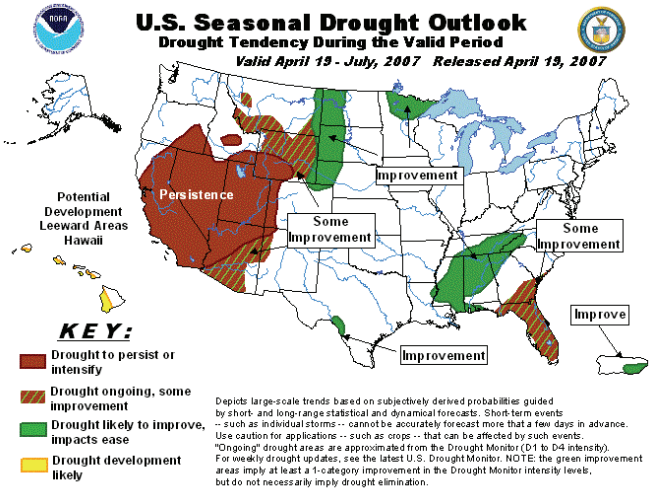


Intensity:
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

http://drought.unl.edu/dm

Released Thursday, April 19, 2007
Author: David Miskus, JAWF/CPC/NOAA



Drought Summary & Outlook—The Plains:
April 17—Weekly temperature departures exceeded -8°F in the south-central Plains, Midwest, and Northeast. Storms brought beneficial rains to the Delta and Southeast. In the southern Plains, little or no rain fell on south-central Texas where long-term drought (at 12 to 24 months) still lingered. Farther north, moderate to heavy precipitation was measured across much of Oklahoma and Kansas, alleviating abnormal dryness in eastern Oklahoma except in the far southeast where less than 0.5 inches fell, and D0(A) remained. In the Dakotas and Nebraska, light precipitation and subnormal temperatures did little to dent long-term (H) drought.

According to the latest Seasonal Drought Outlook, little change is expected to occur in Oklahoma. Prospects for significant drought relief across California, the Southwest, and the Great Basin are dim as the snow season comes to a close and snow pack remains well below normal. As of mid-April, California statewide snow water content stood at just 32 percent of normal. Although some precipitation is expected near the start of the forecast period, overall drought conditions will not improve significantly across most of the region. Over Arizona, however, the onset of the thunderstorm season in July should bring some short-term relief. Varying degrees of improvement are on tap for the western Dakotas, western Nebraska, and parts of Wyoming, although complete eradication of the long-running drought is unlikely.

CROP REPORT

April 16— Oklahoma was hit with another powerful storm this past Friday which brought heavy rains to much of the state and snow to the Panhandle. Frost warnings were again in effect for certain parts of Oklahoma as a cold front moved through this past weekend. Temperatures were sporadic last week and ranged from 22 to 85 degrees. Topsoil moisture was rated 91 percent surplus to adequate. There were 3.9 days suitable for fieldwork.

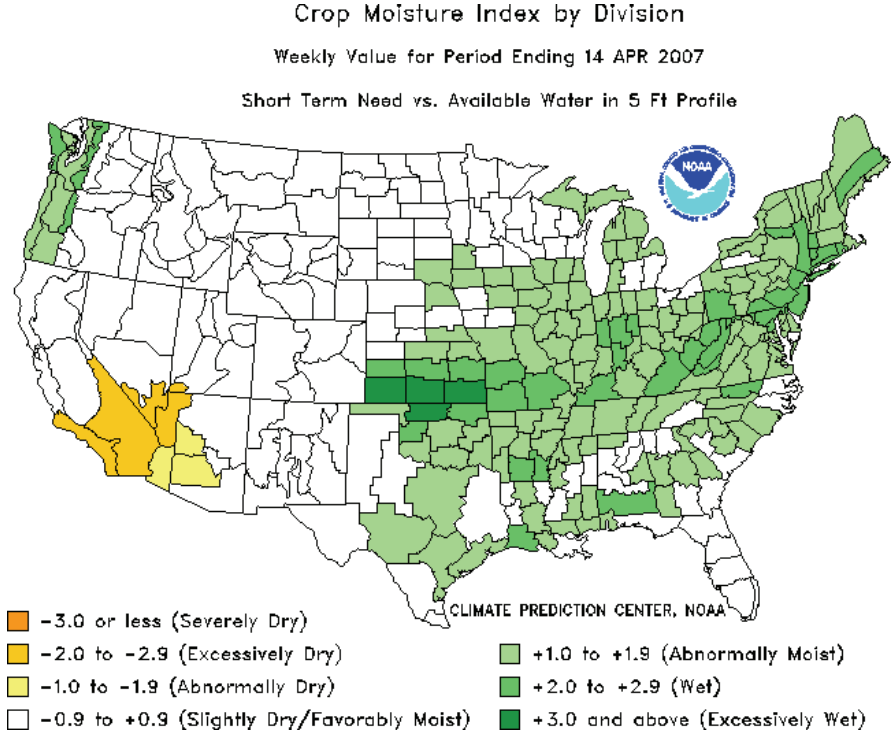
Winter wheat was showing signs of frost damage in parts of Oklahoma this past week. Additional time will be needed before the full extent of any impact will be known. Light hail damage was reported in the southwestern parts of Oklahoma. Winter Wheat is 98 percent jointed and 24 percent headed both ahead of the five-year average. Fifty percent of rye was headed by week's end, 42 percentage points ahead of normal.

Corn that had reached the four and five leaf stage was showing signs of frost damage in certain areas. Farmers had 48 percent of corn planted by the end of last week, 15 percentage points ahead of the five-year average. Thirty-one percent of corn had emerged, an increase of 12 points from the previous week. Farmers had 5 percent of sorghum acreage planted by the end of the week.

The cold temperatures had slowed pasture growth across parts of the state and warmer temperatures will be needed for pastures to resume normal development. Seventy-one percent of pastures were rated in the good to fair range.

Peaches, apples, apricots, and pears with fruit sets suffered substantial freeze damage in a few areas. Ornamental crops that were exposed to the weather the last two weeks had lost much of their growth. Watermelon growers had 27 percent of the crop planted by week's end.

Like most of the other crops, alfalfa was showing signs of freeze damage in some areas. Producers had 10 percent of alfalfa hay and 5 percent of other hay harvested. Alfalfa hay and other hay conditions were mostly in the good to fair range. Livestock conditions remained in the mostly good to fair range. Livestock were enjoying the cooler temperatures as it limited insect activity. Livestock marketings were average last week..



RESERVOIR STORAGE

- 3.7 percent increase in total storage (97.9%) from that recorded on March 21 (94.2%)
- 2 reservoirs have experienced lake level decreases
- 9 reservoirs are currently operating at less than full capacity (compared to 15 four weeks ago)
- 5 reservoirs are now below 80 percent of their total conservation storage

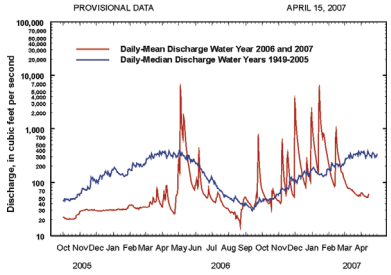
Storage in Selected Oklahoma Lakes & Reservoirs
April 17, 2007

Climate Division Lake or Reservoir	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage
North Central			
Fort Supply	13,900	13,900	100.0
Great Salt Plains	31,420	31,420	100.0
Kaw*	404,971	404,971	100.0
Regional Totals/Averages	**450,291**	**450,291**	**100.0**
Northeast			
Birch	19,225	19,225	100.0
Copan	34,634	34,634	100.0
Fort Gibson	365,200	365,200	100.0
Grand	1,672,000	1,672,000	100.0
Hudson	200,300	200,300	100.0
Hulah	22,565	22,565	100.0
Keystone	510,059	510,059	100.0
Oologah	552,219	552,219	100.0
Skiatook	322,700	249,401	77.3
Regional Totals/Averages	**3,698,902**	**3,625,603**	**98.0**
West Central			
Canton	111,310	85,802	77.1
Foss	165,480	150,238	90.8
Regional Totals/Averages	**276,790**	**236,040**	**85.3**
Central			
Arcadia	27,520	27,520	100.0
Heyburn	7,105	7,105	100.0
Thunderbird	119,600	88,750	74.2
Regional Totals/Averages	**154,225**	**123,375**	**80.0**
East Central			
Eufaula*	2,314,583	2,314,583	100.0
Tenkiller	654,100	654,100	100.0
Regional Totals/Averages	**2,968,683**	**2,968,683**	**100.0**
Southwest			
Fort Cobb	80,010	80,010	100.0
Lugert-Altus	132,830	67,192	50.6
Tom Steed	88,970	55,535	62.4
Regional Totals/Averages	**301,810**	**202,737**	**67.2**
South Central			
Arbuckle	72,400	72,400	100.0
McGee Creek	113,930	113,930	100.0
Texoma*	2,418,626	2,418,626	100.0
Waurika*	190,200	190,200	100.0
Regional Totals/Averages	**2,795,156**	**2,795,156**	**100.0**
Southeast			
Broken Bow*	928,810	927,280	99.8
Hugo*	198,067	194,735	98.3
Pine Creek*	71,120	67,258	94.6
Sardis	274,330	274,330	100.0
Wister	60,162	60,162	100.0
Regional Totals/Averages	**1,532,489**	**1,523,765**	**99.4**
State Totals	**12,178,346**	**11,925,650**	**97.9**

STREAMFLOW CONDITIONS

Baron Fork at Eldon

Baron Fork at Eldon, Oklahoma
Station No. 07197000 Northeast Oklahoma
Drainage Area 307 square miles

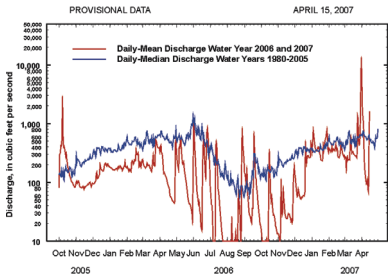


Comparison of daily discharges for water year 2006 and 2007 and period of record

Data from U.S. Geological Survey

Canadian River at Purcell

Canadian River at Purcell, Oklahoma
Station No. 07229200 Central Oklahoma
Drainage Area 25,939 square miles

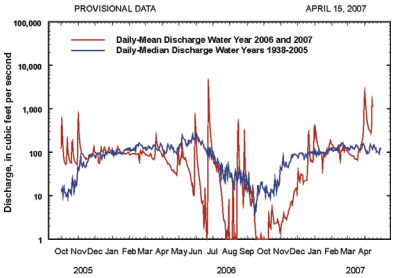


Comparison of daily discharges for water year 2006 and 2007 and period of record

Data from U.S. Geological Survey

Cimarron River near Waynoka

Cimarron River near Waynoka, Oklahoma
Station No. 07158000 Northwest Oklahoma
Drainage Area 13,334 square miles

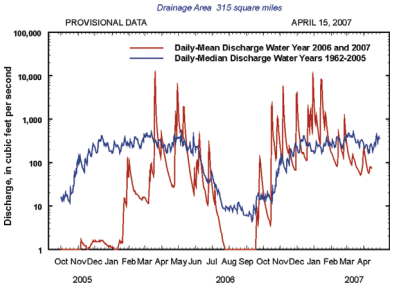


Comparison of daily discharges for water year 2006 and 2007 and period of record

Data from U.S. Geological Survey

Glover River near Glover

Glover River near Glover, Oklahoma
Station No. 07337900 Southeast Oklahoma
Drainage Area 315 square miles

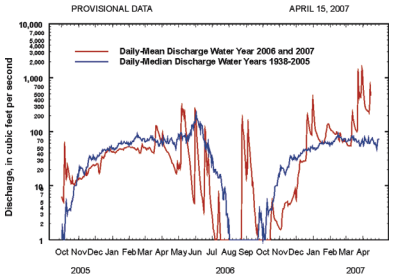


Comparison of daily discharges for water year 2006 and 2007 and period of record

Data from U.S. Geological Survey

North Fork of the Red River near Carter

North Fork of the Red River near Carter, Oklahoma
Station No. 07301500 Southwest Oklahoma
Drainage Area 2,337 square miles

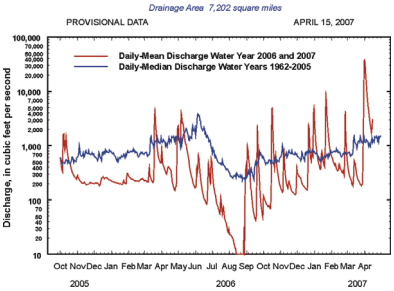


Comparison of daily discharges for water year 2006 and 2007 and period of record

Data from U.S. Geological Survey

Washita River near Dickson

Washita River near Dickson, Oklahoma
Station No. 07331000 South-Central Oklahoma
Drainage Area 7,202 square miles



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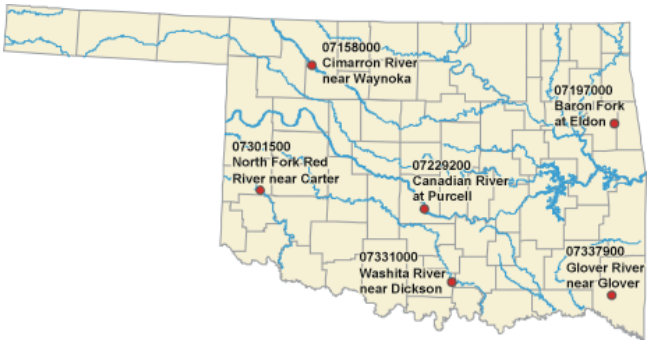

Water Bulletin information/data courtesy of National Weather Service, Climate Prediction Center, Oklahoma Climatological Survey, State Department of Agriculture, Food, and Forestry, Agricultural Statistics Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture/Forest Service, U.S. Geological 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**.