Oklahoma Water Resources Bulletin
& Summary of Current Conditions

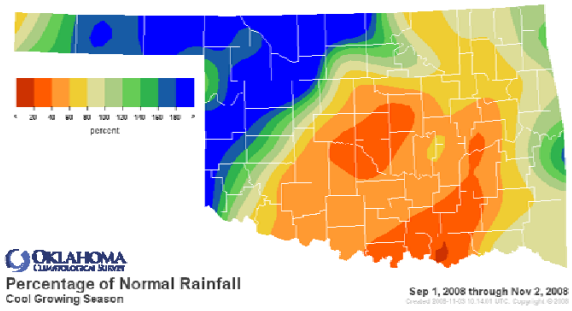
State of Oklahoma OWRB Water Resources Board the water agency

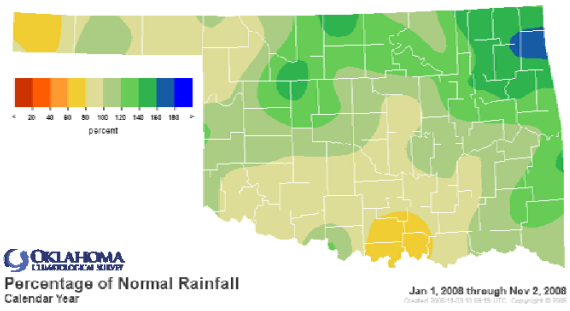
November 4, 2008

PRECIPITATION

Preliminary Statewide Precipitation

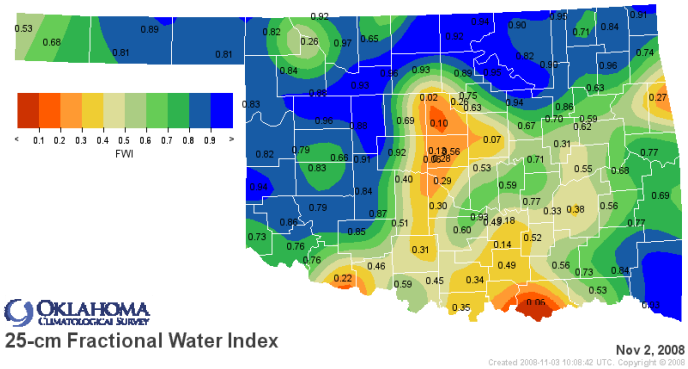
Climate Division (#)	Cool Growing Season September 1—November 2, 2008 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921	Calendar Year January 1—November 2, 2008 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921
Panhandle	5.46"	+2.00"	158%	13th wettest	17.41"	-2.02"	90%	36th driest
North Central	10.68"	+4.75"	180%	6th wettest	34.71"	+6.30"	122%	10th wettest
Northeast	7.51"	-1.14"	87%	39th wettest	51.52"	+15.20"	142%	2nd wettest
West Central	9.91"	+4.21"	174%	6th wettest	30.20"	+3.87"	115%	11th wettest
Central	3.74"	-4.21"	47%	17th driest	33.77"	+0.41"	101%	28th wettest
East Central	6.42"	-3.10"	67%	33rd driest	46.59"	+7.49"	119%	9th wettest
Southwest	5.10"	-1.39"	79%	37th driest	25.82"	-1.98"	93%	40th driest
South Central	3.52"	-5.28"	40%	11th driest	29.86"	-5.67"	84%	25th driest
Southeast	8.22"	-1.65"	83%	43rd wettest	49.70"	+7.56"	118%	12th wettest
Statewide	6.53"	-0.85"	89%	41st wettest	35.36"	+3.32"	110%	15th wettest

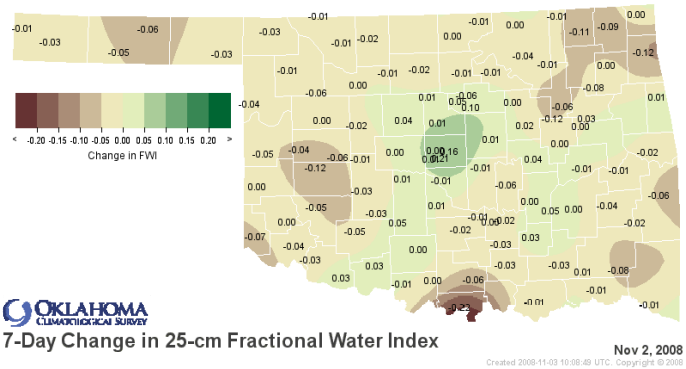




SOIL MOISTURE

Fractional Water Index[1]
November 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 September 2008

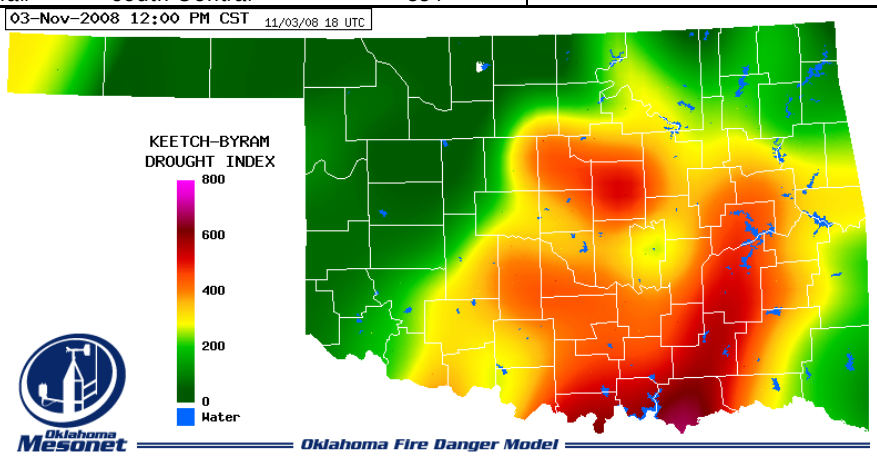
Climate Division (#)	Current Status 11/1/2008	Value 11/1	Value 9/20	Change In Value	3-Month	6-Month	9-Month	12-Month
Northwest (1)	VERY MOIST SPELL	3.11	1.41	**1.70**	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
North Central (2)	EXTREME MOIST SPELL	5.52	5.17	**0.35**	MODERATELY WET	VERY WET	VERY WET	VERY WET
Northeast (3)	EXTREME MOIST SPELL	4.23	5.55	**-1.32**	MODERATELY WET	EXTREMELY WET	EXTREMELY WET	EXTREMELY WET
West Central (4)	EXTREME MOIST SPELL	4.23	3.88	**0.35**	VERY WET	VERY WET	VERY WET	VERY WET
Central (5)	UNUSUAL MOIST SPELL	2.46	3.92	**-1.46**	NEAR NORMAL	MODERATELY WET	MODERATELY WET	MODERATELY WET
East Central (6)	UNUSUAL MOIST SPELL	2.27	3.95	**-1.68**	MODERATELY WET	MODERATELY WET	VERY WET	MODERATELY WET
Southwest (7)	MOIST SPELL	1.70	1.67	**0.03**	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
South Central (8)	NEAR NORMAL	-0.36	1.20	**-1.56**	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Southeast (9)	VERY MOIST SPELL	3.32	4.06	**-0.74**	NEAR NORMAL	MODERATELY WET	MODERATELY WET	MODERATELY WET

- No climate divisions are currently experiencing drought conditions, according to the PDSI.
- Four climate divisions have undergone a PDSI moisture decrease since September 20.
- No climate divisions are experiencing near long-term dry conditions, according to the SPI.

Keetch-Byram Drought Fire Index[3]

Mesonet Station	County	Climate Division	Current Value 11/3/2008
Durant	Bryan	South Central	639
Burneyville	Love	South Central	584
Madill	Marshall	South Central	554

- Stations currently above 600 (November 3) = 1
- Stations above 600 on September 22 = 0

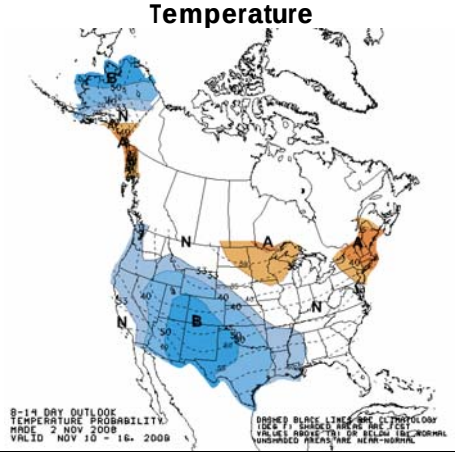


[1] The Palmer Drought Severity Index, the first comprehensive drought index developed in the United States, is calculated based on precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate 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.

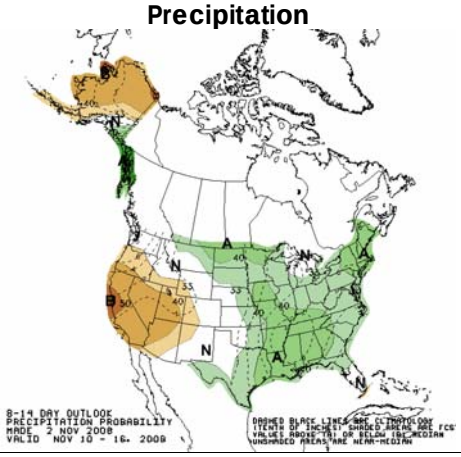
WEATHER/DROUGHT FORECAST

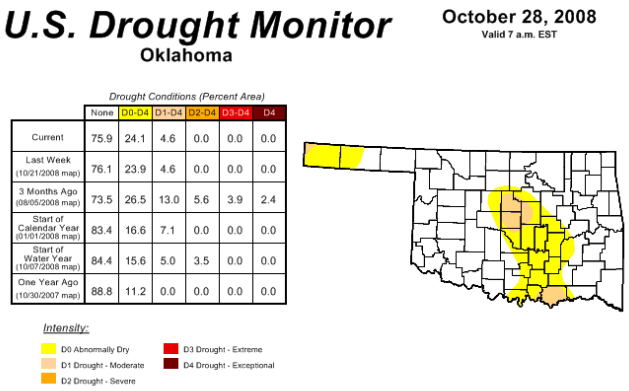
8- to 14-Day Outlook
November 10-16, 2008

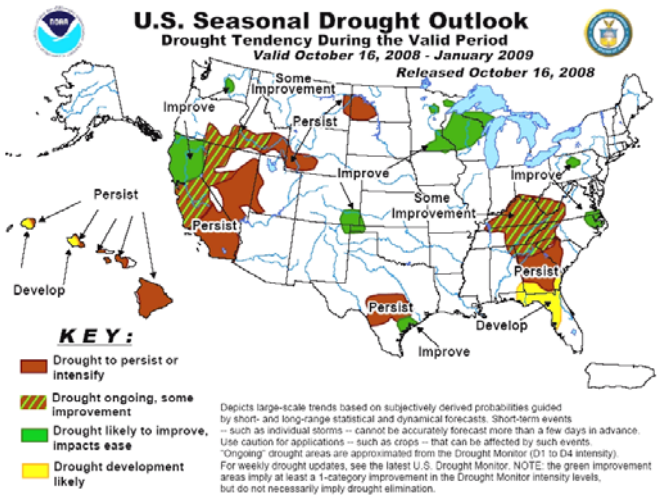
Temperature



Precipitation







Regional Drought Summary & Outlook:
October 28—Recent precipitation, including that which fell early last week in northern Oklahoma, missed most of the Plains drought areas. Another week of dry and windy, albeit cool, weather further deteriorated moisture conditions in the southern Great Plains, especially in south central Oklahoma, northern and south central Texas. Around Sweetwater, Texas, county extension agents reported adverse growing conditions to emerged small grains or delayed planting of small grains due to dryness caused by light, spotty September and October rains. Accordingly, D3 was extended northward into Burnet and Williamson counties, and D2 reached southeastward to the Gulf Coast and increased to the west of San Antonio. D1 now covered most of Texas climate division (cd) 6 and pushed into southern cd 3, while D0 developed in the Dallas-Ft. Worth and slightly expanded outward in south-central Texas drought area.

According to the latest Drought Outlook (October 16), improvement is on tap for northeast North Carolina, northern Pennsylvania, Wisconsin and Minnesota, and southeast Colorado into western Oklahoma. In Texas, the odds favor below-normal rainfall during November-January over south-central areas, resulting in continued drought. Coastal rains during the first few days of the forecast period in October support improvement over southeastern parts of the drought area.

CROP REPORT

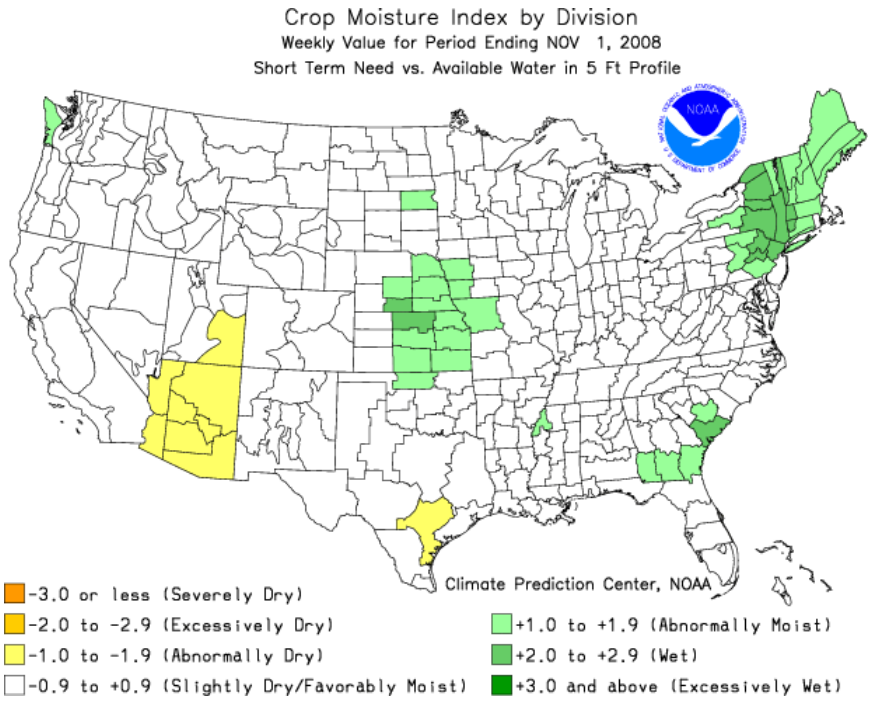
November 3, 2008—Last week began with below freezing temperatures and ended with unseasonably warm weather. If warm, dry conditions continue through next week, the risk for grass fires and wildfires will increase significantly. Strong winds will also increase the fire danger, mainly in areas where a series of frosts and freezes have dried grasses and other vegetation. Last week, there were 6.4 days suitable for fieldwork.

Wheat conditions were mostly in the good to fair range. In some areas, wheat had a yellow appearance due to nitrogen issues or from the recent cool, cloudy conditions. Additional moisture is needed in many parts of the state to boost small grain development. Winter wheat planted increased five points from the previous week to reach 91 percent complete, two points behind the five-year average. Seventy-nine percent of the state's wheat had emerged by week's end, up five points from the previous week but one point behind normal. Seedbed preparation for oats increased two points from the previous week to reach 76 percent complete, 14 points behind normal. Oats planted reached 45 percent complete by week's end, 14 points behind the five-year average. Thirty-four percent of oats had emerged by week's end, up three points from the previous week but 14 points behind normal.

In some areas, producers were waiting for corn and sorghum fields to dry out before harvesting. Ninety-four percent of the corn had been harvested by week's end, up four points from the previous week but five points behind the five-year average. Sorghum coloring reached 97 percent, up five points from the previous week but three points behind normal. Sorghum mature increased four points from the previous week to reach 75 percent, 12 points behind the five-year average. Thirty-two percent of the state's sorghum had been harvested, 27 points behind normal. Soybeans mature increased 22 points from the previous week to reach 87 percent, equal to the five-year average. Soybeans harvested were up 17 points from the previous week to reach 52 percent complete, 10 points behind normal. Nearly all of the state's peanuts were mature by week's end, up five points from the previous week. Eighty-two percent of peanuts had been dug, up 12 points from the previous week's revised number but three points behind the five-year average. Peanuts combined reached 57 percent, up 15 points from the previous week but 11 points behind normal. Cotton harvested reached 30 percent by week's end, up nine points from the previous week but 13 points behind the five-year average. Cotton harvest continued in full swing throughout southwest counties.

Alfalfa and other hay conditions were rated mostly in the good to fair range. Alfalfa fifth cutting was 86 percent complete three points ahead of normal, while alfalfa sixth cutting was 35 percent complete by week's end, up 10 points from the previous week. Other hay second cutting was 87 percent complete, up one point from the previous week but five points behind normal.

Pasture and range conditions remained mostly in the good to fair range. Last week, temperatures reached below freezing in many parts of the state, slowing growth for warm-season grasses. Livestock conditions were rated mostly in the good to fair range with mostly light to moderate insect activity reported.



RESERVOIR STORAGE

- 13 reservoirs are currently operating at less than full capacity (compared to 7 six weeks ago).
- 29 reservoirs have experienced lake level decreases.

Storage in Selected Oklahoma Lakes & Reservoirs
November 3, 2008

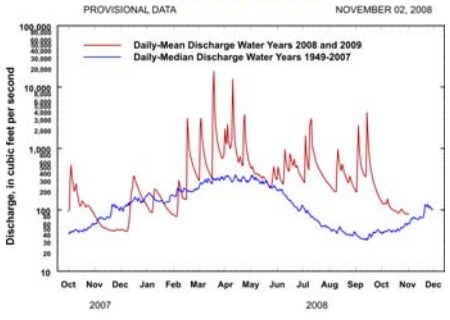
Lake or Reservoir	*Normal Pool Elevation* (feet)	*Previous Elevation 09/24/2008* (feet)	*Current Elevation 11/03/2008* (feet)	*Change in Elevation* (feet)	*Current Flood Control Storage* (acre-feet)
North Central					
Fort Supply	2004.00	2004.70	2004.01	(0.69)	19
Great Salt Plains	1125.00	1127.54	1125.81	(1.73)	6,798
Kaw*	1009.00	1018.74	1010.29	(8.45)	20,988
Northeast					
Birch	750.50	750.77	750.54	(0.23)	46
Copan	710.00	710.43	710.20	(0.23)	1,135
Fort Gibson	554.00	561.35	555.53	(5.82)	29,901
Grand*	742.00	745.75	742.03	(3.72)	1,321
Hudson	619.00	620.36	619.51	(0.85)	5,636
Hulah	733.00	733.65	733.59	(0.06)	3,638
Keystone	723.00	731.00	724.77	(6.23)	41,626
Oologah*	638.00	643.59	638.08	(5.51)	2,532
Skiatook	714.00	713.03	712.15	(0.88)	(18,663)
West Central					
Canton	1615.40	1616.30	1615.62	(0.68)	1,746
Foss	1642.00	1641.77	1641.47	(0.30)	(3,541)
Central					
Arcadia	1006.00	1006.12	1005.87	(0.25)	(231)
Heyburn	761.50	760.92	760.62	(0.30)	(732)
Thunderbird	1039.00	1039.21	1038.60	(0.61)	(2,400)
East Central					
Eufaula*	585.00	585.12	584.00	(1.12)	(92,725)
Tenkiller	632.00	635.73	631.83	(3.90)	(2,227)
Southwest					
Fort Cobb	1342.00	1342.18	1342.20	0.02	778
Lugert-Altus	1559.00	1542.34	1546.16	3.82	(65,557)
Tom Steed	1411.00	1408.55	1408.36	(0.19)	(15,819)
South Central					
Arbuckle	872.00	870.12	869.31	(0.81)	(6,132)
McGee Creek**	175.90	176.20	175.95	(0.25)	606
Texoma*	618.50	616.48	616.42	(0.06)	(156,649)
Waurika*	951.40	951.61	951.29	(0.32)	(1,116)
Southeast					
Broken Bow*	599.50	602.91	600.39	(2.52)	12,675
Hugo*	406.00	408.57	405.99	(2.58)	(134)
Pine Creek*	438.00	440.33	438.13	(2.20)	502
Sardis	599.00	599.65	599.19	(0.46)	2,636
Wister	478.00	483.50	478.61	(4.89)	4,681

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

STREAMFLOW CONDITIONS

Baron Fork at Eldon

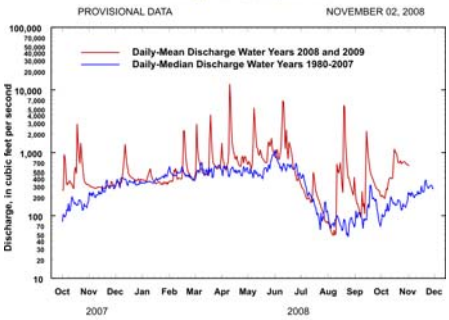
Baron Fork at Eldon, Oklahoma
Station No. 07197000 Northeast Oklahoma
Drainage Area 307 square miles



Comparison of daily discharges for waters year 2008 and 2009 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 years 2008 and 2009 and period of record
Data from U.S. Geological Survey

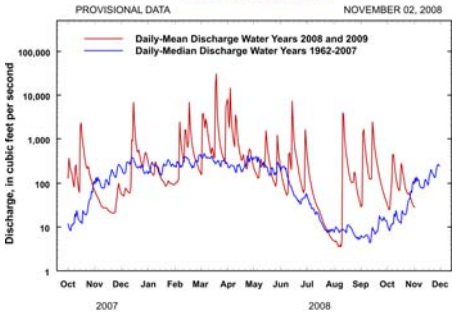
Cimarron River near Waynoka

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

Comparison of daily discharges for water years 2008 and 2009 and period of record
Data from U.S. Geological Survey

Glover River near Glover

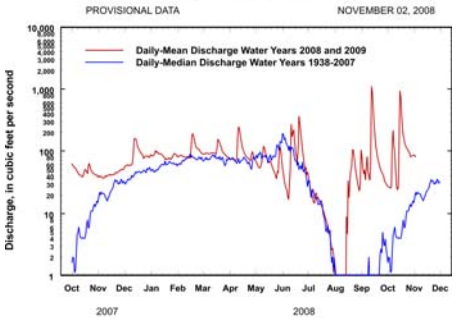
Glover River near Glover, Oklahoma
Station No. 07337900 Southeast Oklahoma
Drainage Area 315 square miles



Comparison of daily discharges for water years 2008 and 2009 and period of record
Data from U.S. Geological Survey

North Fork of the Red River near Carter

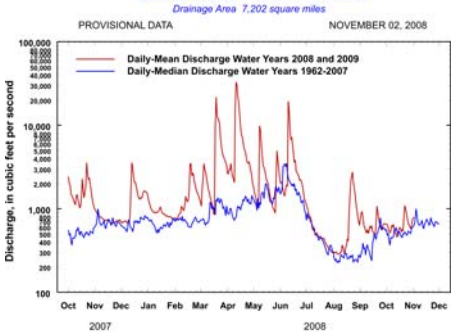
North Fork of the Red River near Carter, Oklahoma
Station No. 07301500 Southwest Oklahoma
Drainage Area 2,337 square miles



Comparison of daily discharges for water years 2008 and 2009 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



Comparison of daily discharges for water years 2008 and 2009 and period of record
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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.ok.gov and www.mesonet.org**.