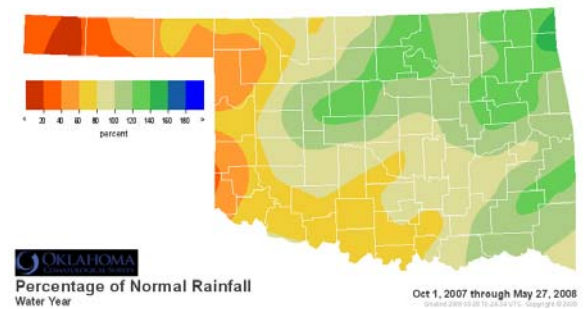
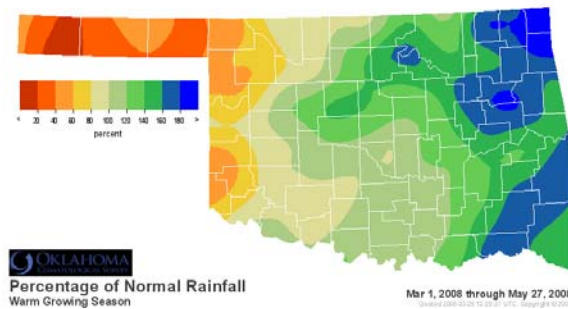


May 29, 2008

## PRECIPITATION

### Preliminary Statewide Precipitation

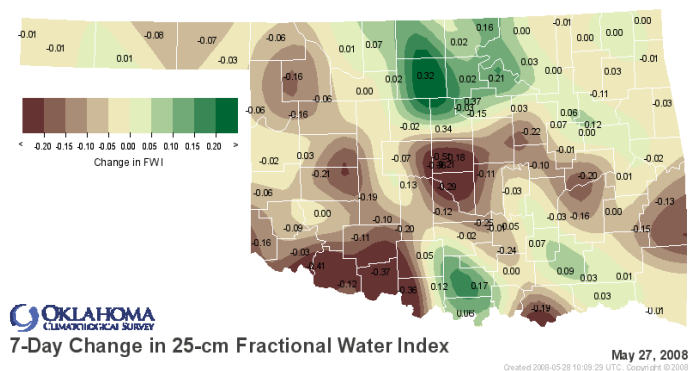
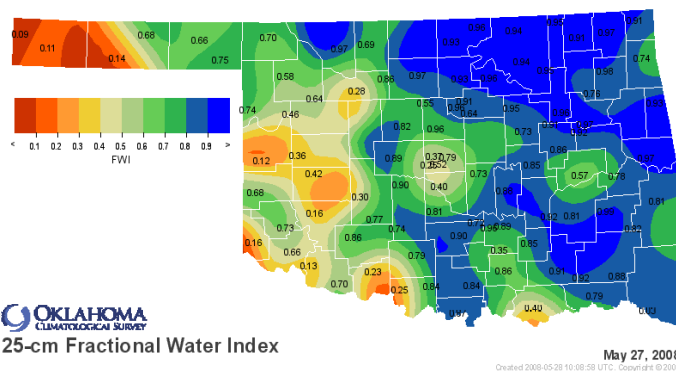
Climate Division (#)	Warm Growing Season March 1—May 27, 2008				Water Year October 1, 2007—May 27, 2008			
	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921
Panhandle	2.52"	-3.90"	39%	6th driest	5.01"	-5.82"	46%	6th driest
North Central	10.09"	+0.34"	103%	26th wettest	17.24"	-0.70"	96%	34th wettest
Northeast	20.46"	+8.02"	164%	3rd wettest	32.36"	+6.83"	127%	10th wettest
West Central	8.04"	-1.23"	87%	38th wettest	13.60"	-3.12"	81%	39th driest
Central	14.05"	+2.38"	120%	12th wettest	23.00"	-0.38"	98%	26th wettest
East Central	20.37"	+6.82"	150%	6th wettest	32.00"	+2.34"	108%	24th wettest
Southwest	8.35"	-0.91"	90%	41st wettest	13.85"	-3.88"	78%	28th driest
South Central	13.52"	+1.33"	111%	22nd wettest	21.21"	-4.97"	81%	28th driest
Southeast	23.29"	+8.78"	161%	6th wettest	38.12"	+3.56"	110%	24th wettest
<b>Statewide</b>	<b>13.39"</b>	<b>+2.38"</b>	<b>122%</b>	<b>11th wettest</b>	<b>21.78"</b>	<b>-0.66"</b>	<b>97%</b>	<b>33rd wettest</b>



## SOIL MOISTURE

### Fractional Water Index<sup>1</sup> May 27, 2008

25 CM (~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. 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.

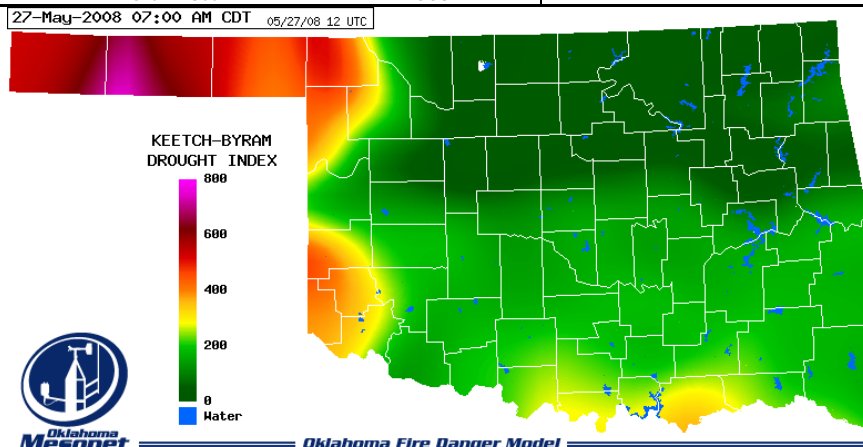
## DROUGHT INDICES

Palmer Drought Severity Index <sup>1</sup>					Standardized Precipitation Index <sup>2</sup> Through April 2008			
CLIMATE DIVISION (#)	CURRENT STATUS 5/24/2008	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		5/24	4/26					
Northwest (1)	MILD DROUGHT	-1.28	-1.02	<b>-0.26</b>	MODERATELY DRY	NEAR NORMAL	VERY DRY	MODERATELY DRY
North Central (2)	EXTREME MOIST SPELL	4.11	3.72	<b>0.39</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	VERY WET
Northeast (3)	EXTREME MOIST SPELL	4.00	4.50	<b>-0.50</b>	VERY WET	VERY WET	MODERATELY WET	EXTREMELY WET
West Central (4)	VERY MOIST SPELL	3.32	3.78	<b>-0.46</b>	MODERATELY WET	NEAR NORMAL	MODERATELY WET	EXTREMELY WET
Central (5)	EXTREME MOIST SPELL	4.41	4.82	<b>-0.41</b>	VERY WET	MODERATELY WET	MODERATELY WET	EXCEPTIONALLY WET
East Central (6)	UNUSUAL MOIST SPELL	2.99	4.09	<b>-1.10</b>	EXTREMELY WET	MODERATELY WET	MODERATELY WET	VERY WET
Southwest (7)	UNUSUAL MOIST SPELL	2.70	3.43	<b>-0.73</b>	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	VERY WET
South Central (8)	INCIPIENT MOIST SPELL	0.79	2.26	<b>-1.47</b>	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	VERY WET
Southeast (9)	VERY MOIST SPELL	3.52	4.76	<b>-1.24</b>	EXTREMELY WET	MODERATELY WET	MODERATELY WET	VERY WET

- One climate division (the Northwest) is currently experiencing drought conditions, according to the PDSI.
- Eight climate divisions have undergone PDSI moisture decreases since April 26.
- One climate division (the Northwest) is experiencing dry conditions, according to the SPI.

### Keetch-Byram Drought Fire Index<sup>3</sup>

MESONET STATION	COUNTY	CLIMATE DIVISION	CURRENT VALUE 5/27/2008	
Goodwell	Texas	Northwest	651	<ul style="list-style-type: none"> <li>• Stations currently above 600 (May 27) = 2</li> <li>• Stations above 600 on April 29 = 3</li> </ul>
Boise City	Cimarron	Northwest	648	
Hooker	Texas	Northwest	563	



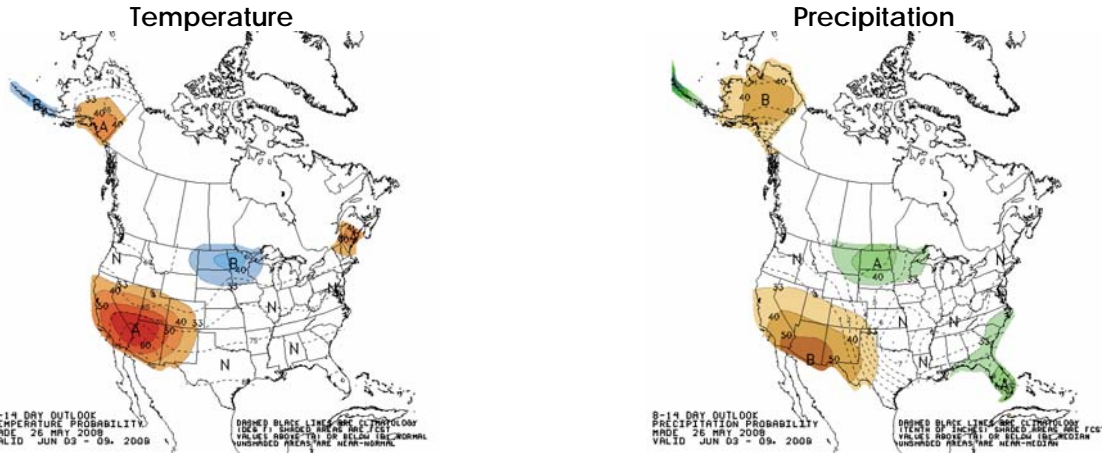
<sup>1</sup> The Palmer Drought Severity Index, the first comprehensive drought index developed in the United States, is calculated based on precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate the severity of ongoing dry periods.

<sup>2</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>3</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

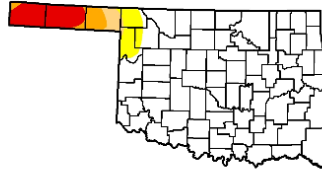
## 8- to 14-Day Outlook June 3-9, 2008



### U.S. Drought Monitor Oklahoma

May 27, 2008  
Valid 7 a.m. EST

Drought Conditions (Percent Area)	None					
	D0-D4	D1-D4	D2-D4	D3-D4	D4	D4
Current	88.7	11.3	8.2	6.9	5.1	0.0
Last Week (05/20/2008 map)	85.4	14.6	8.0	6.1	3.5	0.0
3 Months Ago (03/04/2008 map)	75.3	24.7	10.6	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 (10/01/2007 map)	95.6	4.4	0.0	0.0	0.0	0.0
One Year Ago (05/29/2007 map)	96.9	3.1	0.0	0.0	0.0	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>

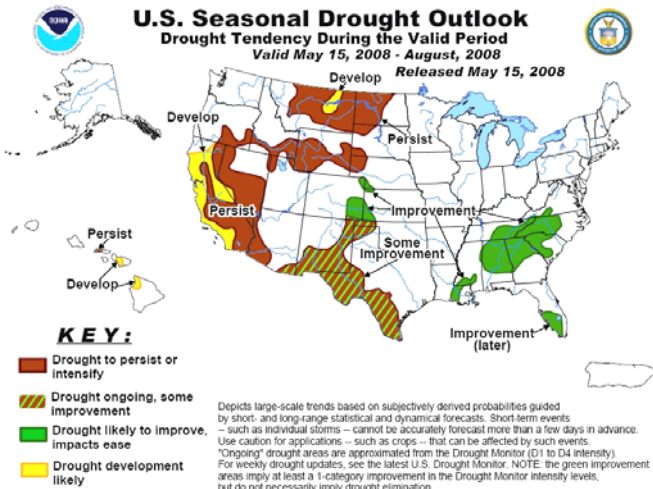
USDA  
 National Drought Mitigation Center  
 Released Thursday, May 29, 2008  
 Author: David Miskus, JAWF/CPC/NOAA

### Regional Drought Summary & Outlook:

May 27—Widespread heavy showers and thunderstorms, including numerous episodes of severe weather, inundated the central Great Plains, north-central and northern High Plains, and the middle Mississippi Valley with over 2 inches of rain, and caused localized flooding. The quasi-stationary storm system over the central Rockies produced several days of rainfall, allowing much of the moisture to soak into the ground instead of running off like a quick heavy thunderstorm normally does. A general 1-category improvement was made in much of Montana, Wyoming, western South Dakota, western Nebraska, and the eastern-most edge of the D0-D1 area of western Kansas. Precipitation, however, rapidly decreased from 2 inches to zero in western Kansas as one headed toward the Colorado and Oklahoma borders. In the Texas Panhandle, a line of storms dropped 1 to 2 inches of rain near and south of the Canadian River, bringing some short-term relief there.

According to the latest Drought Outlook, improvement is anticipated across the drought areas in Colorado and the adjacent High Plains (including the Oklahoma Panhandle), where June-August is typically one of the wetter 3-month periods during the year. To the south, more limited improvement is anticipated across the southern High Plains and adjacent areas of the southern Rockies and southern Texas. In these areas, precipitation indicators for all time scales are either indeterminate or contradictory, but given that this is one of the wetter times of the year for most areas outside deep south Texas (with the monsoon typically bringing increased rainfall to the southeastern Rockies and southern High Plains late in the period), there should be more opportunities for at least short-term relief than would generally be the case.

### U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid May 15, 2008 - August, 2008



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events — such as individual storms — cannot be accurately forecast more than a few days in advance. Use caution for applications — such as crops — that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

## CROP REPORT

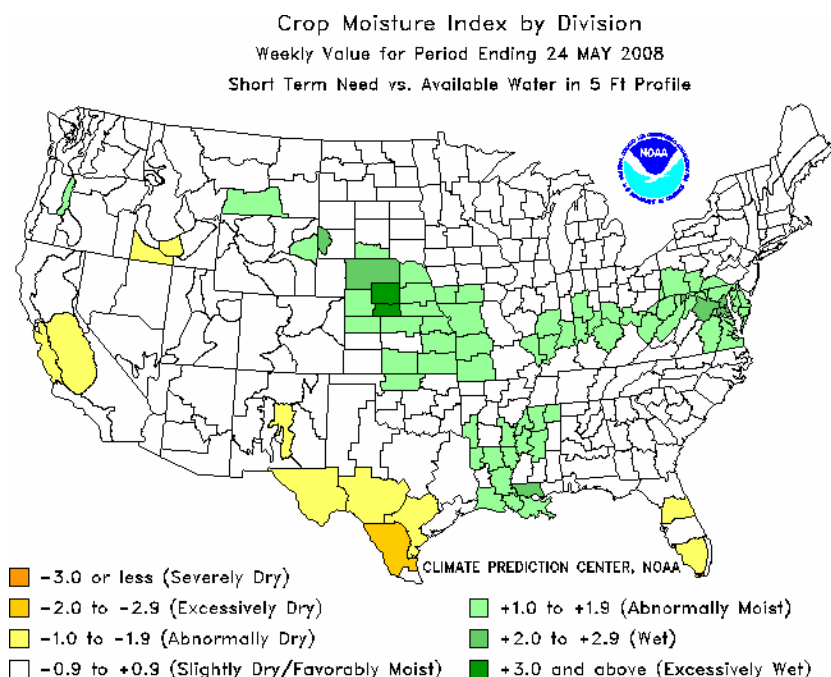
May 27, 2008—Last week brought severe thunderstorms with large hail and at least eight tornadoes to the state. Strong storms began Thursday night and lasted through Friday morning. Large hail, the size of baseballs, fell around the Strong City area on Thursday. Tornadoes touched down in Kingfisher, Garfield, and Noble counties on Saturday afternoon and evening. Damage to several sheds and small buildings was reported, and several structures located near Lacey were completely destroyed. Light to heavy hail damage to crops was reported in various locations. There were 5.6 days suitable for fieldwork.

Where wheat harvest has begun, some kernels were reported shrunken due to lack of moisture and extreme heat. County offices received mixed reports regarding the severity of recent storms to area fields. Some wheat producers were concerned with disease infestation. Seventy-two percent of the state's winter wheat crop was in the soft dough stage. Seventy-six percent of rye was in the soft dough stage. Oats jointing was at 94 percent, three percentage points behind the five-year average. Oats headed increased 14 points from the previous week to 70 percent, 15 points behind normal, while 32 percent of oats were in the soft dough stage, 22 points behind normal.

Corn planted was at 97 percent, one percentage point behind the five-year average. Corn emerged increased five points from the previous week to 88 percent, one point ahead of normal. Sorghum seedbed prepared was at 85 percent, 11 points ahead of the five-year average. Sorghum planted was at 26 percent, 10 points behind normal, while sorghum emerged was at 17 percent, four points behind normal. Soybean seedbed preparations were at 78 percent, one point behind normal. Soybeans planted was at 40 percent, eight points behind normal, and soybeans emerged was at 17 percent, 14 points behind normal. Peanuts planted increased 28 points to reach 80 percent, six points ahead of normal, and peanuts emerged increased 22 points to reach 48 percent, five points behind normal. Cotton planted reached 65 percent, four points ahead of the five-year average, while cotton emerged increased to 35 percent, four points behind the five-year average.

In isolated areas, operators were trying to bale hay between rain showers. Alfalfa hay first cutting was at 82 percent, eight points behind the five-year average, while other hay first cutting was at 30 percent, 15 points behind the five-year average. Peaches were rated mostly in good to fair condition and had an average fruit set. Pecans were also rated mostly in the good to fair range and were reported having an average nut set. Watermelons planted were at 76 percent, 16 points behind normal, and watermelons running were at 13 percent, 24 points behind normal.

Grasses were beginning to thicken and pastures were continuing to green in areas that received adequate moisture and sunny weather. Pasture and range conditions were rated mostly in the good to fair range. Livestock conditions were rated mostly in the good to fair range. Mostly light to moderate insect activity was reported. The hazardous weather has been stressful for cattle in areas where tornadoes and thunderstorms have occurred.



## RESERVOIR STORAGE

- 3 reservoirs are currently operating at less than full capacity (compared to 2 last month).
- 21 reservoirs have experienced lake level decreases.

Storage in Selected Oklahoma Lakes & Reservoirs					
May 28, 2008					
Lake or Reservoir	Normal Pool Elevation (feet)	Previous Elevation 04/01/2008 (feet)	Current Elevation 04/29/2008 (feet)	Change in Elevation (feet)	Current Flood Control Storage (acre-feet)
<b>North Central</b>					
Fort Supply	2004.00	2004.27	2004.09	(0.18)	169
Great Salt Plains	1125.00	1125.26	1126.12	0.86	9,532
Kaw*	1010.00	1021.42	1020.30	(1.12)	202,372
<b>Northeast</b>					
Birch	750.50	752.55	752.33	(0.22)	2,154
Copan	710.00	712.58	715.51	2.93	31,304
Fort Gibson	554.00	570.73	555.78	(14.95)	34,901
Grand	745.00	749.57	746.28	(3.29)	60,441
Hudson	619.00	627.35	622.58	(4.77)	41,220
Hulah	733.00	743.38	739.62	(3.76)	34,176
Keystone	723.00	738.79	732.03	(6.76)	244,686
Oologah	638.00	650.98	645.71	(5.27)	271,738
Skiatook	714.00	717.51	716.52	(0.99)	27,568
<b>West Central</b>					
Canton	1615.40	1615.72	1615.83	0.11	3,413
Foss	1642.00	1641.47	1642.21	0.74	1,449
<b>Central</b>					
Arcadia	1006.00	1006.07	1006.43	0.36	800
Heyburn	761.50	762.51	765.00	2.49	3,467
Thunderbird	1039.00	1041.74	1040.68	(1.06)	10,520
<b>East Central</b>					
Eufaula*	585.00	590.84	587.17	(3.67)	215,046
Tenkiller	632.00	650.34	635.63	(14.71)	47,805
<b>Southwest</b>					
Fort Cobb	1342.00	1342.27	1343.10	0.83	4,300
Lugert-Altus	1559.00	1556.69	1556.94	0.25	(12,506)
Tom Steed	1411.00	1411.46	1410.95	(0.51)	(314)
<b>South Central</b>					
Arbuckle	872.00	872.28	872.66	0.38	1,571
McGee Creek**	175.90	176.63	176.46	(0.17)	7,217
Texoma*	618.50	618.70	617.97	(0.73)	(39,475)
Waurika*	951.40	951.42	952.12	0.70	7,342
<b>Southeast</b>					
Broken Bow*	602.30	612.16	603.64	(8.52)	19,639
Hugo*	406.00	410.43	406.72	(3.71)	10,185
Pine Creek*	442.50	459.93	443.76	(16.17)	6,162
Sardis	599.00	600.40	599.36	(1.04)	4,993
Wister	478.00	497.20	479.65	(17.55)	13,027

\* indicates seasonal pool operation

\*\* elevation in meters

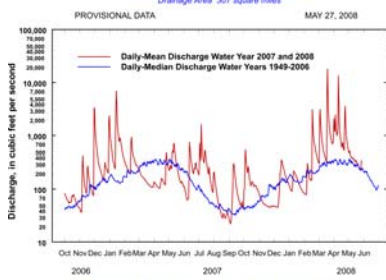
negative numbers in red, parentheses



# STREAMFLOW CONDITIONS

## Baron Fork at Eldon

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

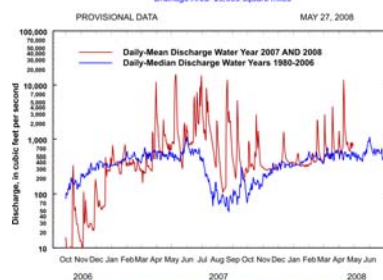


PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

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

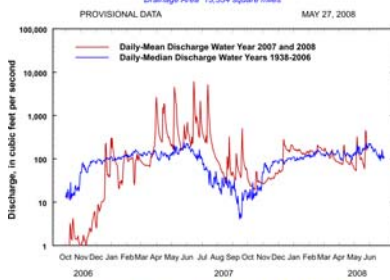


PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

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

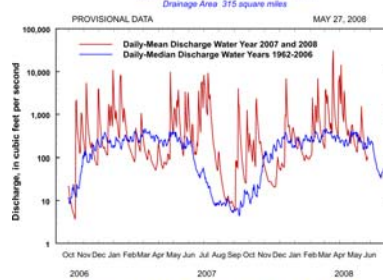


PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

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

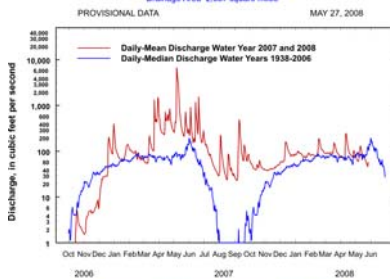


PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

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

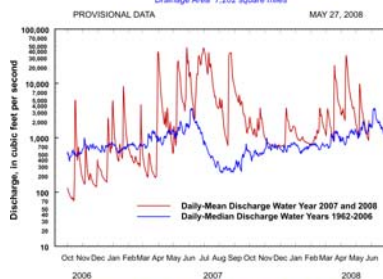


PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

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



PROVISIONAL DATA MAY 27, 2008  
Comparison of daily discharges for water year 2007 and 2008 and period of record

Data from U.S. Geological Survey



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](http://www.owrb.state.ok.us) and <http://www.mesonet.ou.edu/public>.