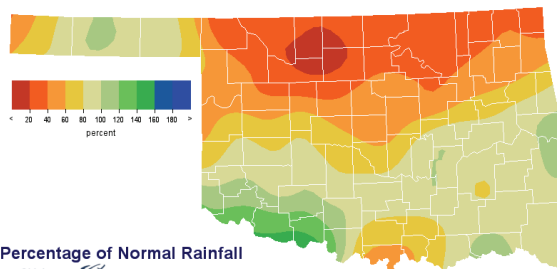


November 22, 2006

## PRECIPITATION

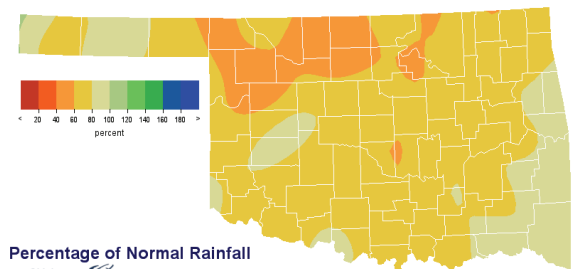
### Preliminary Statewide Precipitation

Climate Division (#)	Cool Growing Season September 1—November 20, 2006				Calendar Year January 1—November 20, 2006			
	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	2.64"	-1.44"	65%	24th driest	14.43"	-5.62"	72%	13th driest
North Central	1.97"	-5.20"	28%	3rd driest	16.80"	-12.85"	57%	4th driest
Northeast	4.26"	-6.56"	39%	7th driest	26.53"	-11.96"	69%	6th driest
West Central	4.45"	-2.29"	66%	28th driest	19.77"	-7.61"	72%	13th driest
Central	5.86"	-3.78"	61%	22nd driest	23.63"	-11.41"	67%	8th driest
East Central	9.92"	-2.18"	82%	41st driest	31.62"	-10.05"	76%	10th driest
Southwest	8.06"	+0.54"	107%	33rd wettest	21.04"	-7.81"	73%	16th driest
South Central	8.82"	-1.84"	83%	43rd wettest	25.80"	-11.59"	69%	7th driest
Southeast	11.99"	-0.92"	93%	39th wettest	38.40"	-6.78"	85%	21st driest
<b>Statewide</b>	<b>6.28"</b>	<b>-2.79"</b>	<b>69%</b>	<b>23rd driest</b>	<b>23.98"</b>	<b>-9.75"</b>	<b>71%</b>	<b>7th driest</b>



Percentage of Normal Rainfall  
Cool Growing Season  
Sep 1, 2006 through Nov 20, 2006

Copyright (c) 2006 Oklahoma Climatological Survey  
All rights reserved. Rainfall data collected by Oklahoma Mesonet  
image created 04:11 CST Nov 21, 2006



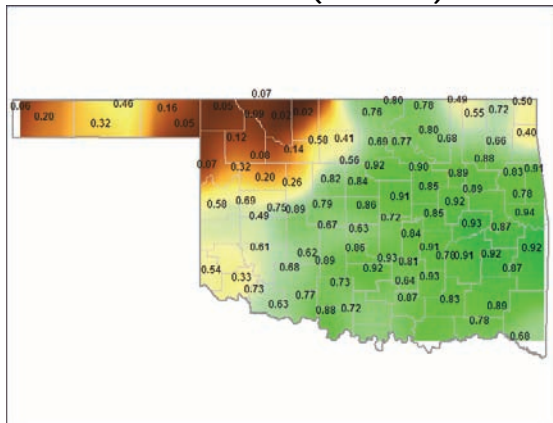
Percentage of Normal Rainfall  
Calendar Year  
Jan 1, 2006 through Nov 20, 2006

Copyright (c) 2006 Oklahoma Climatological Survey  
All rights reserved. Rainfall data collected by Oklahoma Mesonet  
image created 04:00 CST Nov 21, 2006

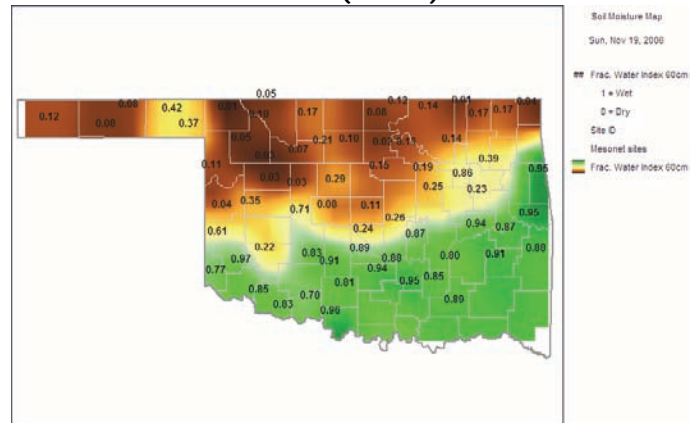
## SOIL MOISTURE

### Fractional Water Index<sup>1</sup> November 19, 2006

5 CM (~2 INCHES)



60 CM (~2 FEET)



<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.

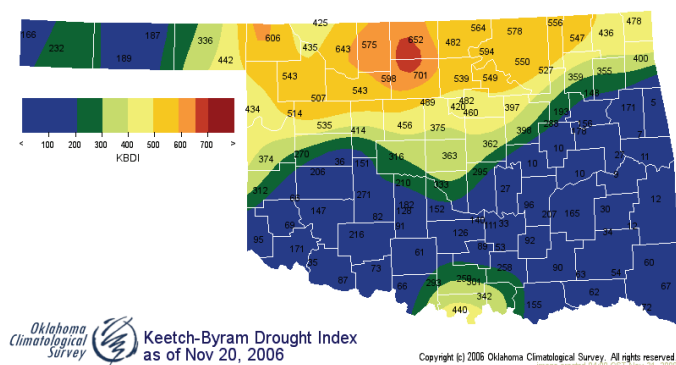
## DROUGHT INDICES

Palmer Drought Severity Index <sup>1</sup>					Standardized Precipitation Index <sup>2</sup> Through October 2006			
CLIMATE DIVISION (#)	CURRENT STATUS 11/18/2006	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		11/18	10/21					
Northwest (1)	MOIST SPELL	1.04	1.39	-0.35	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
North Central (2)	SEVERE DROUGHT	-3.65	-3.83	0.18	MODERATELY DRY	VERY DRY	VERY DRY	VERY DRY
Northeast (3)	SEVERE DROUGHT	-3.66	-4.55	0.89	MODERATELY DRY	VERY DRY	MODERATELY DRY	VERY DRY
West Central (4)	MILD DROUGHT	-1.68	-1.82	0.14	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Central (5)	MODERATE DROUGHT	-2.73	-3.22	0.49	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	VERY DRY
East Central (6)	MILD DROUGHT	-1.59	-2.78	1.19	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	VERY DRY
Southwest (7)	NEAR NORMAL	-0.21	-0.09	-0.12	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
South Central (8)	MILD DROUGHT	-1.99	-2.29	0.30	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	VERY DRY
Southeast (9)	INCIPIENT MOIST SPELL	0.56	-1.22	1.78	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY

- Six climate divisions are currently experiencing drought conditions.
- Only two climate divisions have undergone PDSI moisture decreases since October 21.

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

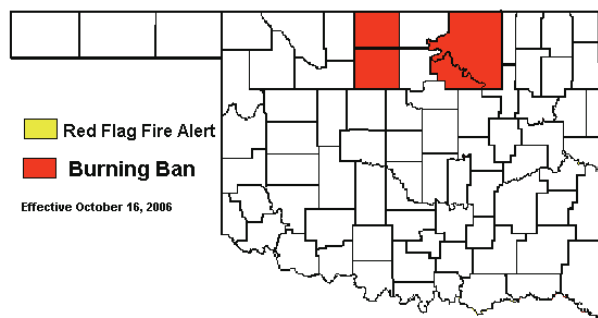
MESONET STATION	COUNTY	CLIMATE DIVISION	CURRENT VALUE 11/20/2006
Breckinridge	Garfield	North Central	701
Medford	Grant	North Central	652
Alva	Woods	North Central	643



- Stations currently above 600 (November 20) = 4
- Stations above 600 on October 24 = 5

### Statewide Wildfire Preparedness

Governor Henry's Ban on Outdoor Burning in Oklahoma remains in effect for four counties (Garfield, Grant, Osage and Pawnee) in northern Oklahoma. State officials urge citizens to avoid burning anything outdoors. Dry, grassy fuels will ignite easily when the humidity is low and the temperature and winds are high.



<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.

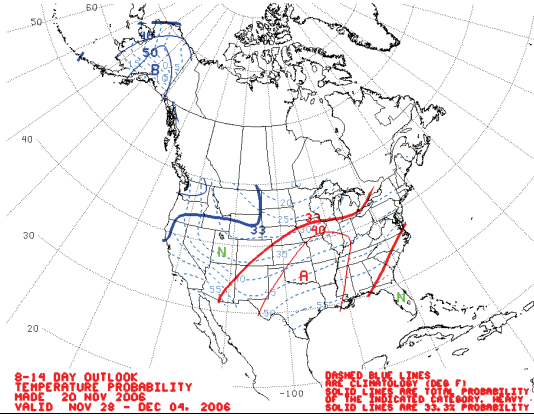
<sup>2</sup> The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation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

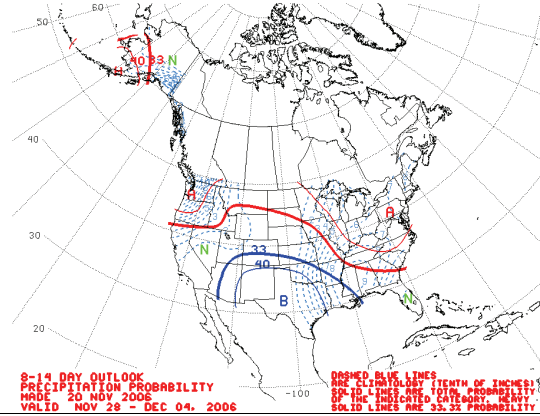
# WEATHER/DROUGHT FORECAST

8- to 14-Day Forecast  
November 28—December 4, 2006

Temperature

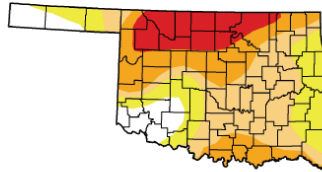


Precipitation



## U.S. Drought Monitor November 14, 2006 Oklahoma Valid 8 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	10.5	89.5	68.6	38.1	14.4	0.0
Last Week (11/17/2006 map)	10.5	89.5	68.6	38.1	8.8	0.0
3 Months Ago (8/22/2006 map)	0.0	100.0	97.7	92.7	49.2	14.8
Start of Calendar Year (1/1/2006 map)	1.3	98.7	79.9	40.8	10.1	5.7
Start of Water Year (10/1/2005 map)	2.7	97.3	92.7	46.2	16.6	0.0
One Year Ago (11/15/2005 map)	36.8	63.2	23.1	10.6	2.2	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.



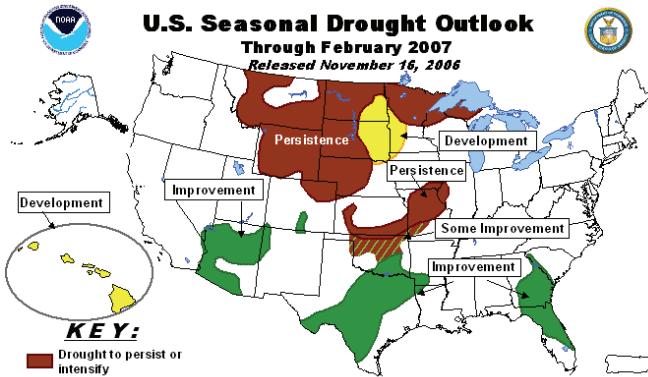
Released Thursday, November 16, 2006  
 Author: Ned Guttman/Liz Love-Brotak, NOAA/NESDIS/NCDC

<http://drought.unl.edu/dm>

**Drought Summary & Outlook—The Plains:**  
 November 14—In Oklahoma, continued dryness resulted in a southward and slightly westward expansion of the northern D3 area. Since the crop seasons are ending in many parts of the country, the impacts of drought are now mostly hydrological.

According to the Drought Outlook, across the southern tier of states, the ongoing El Niño should contribute to improving drought conditions in the Southwest, the southern Plains, and the Southeast, although many locations will see persisting or worsening drought conditions before relief arrives later in the outlook period. Prospects for relief gradually diminish going from south to north in the Plains, with more limited improvement expected in Oklahoma, and persisting drought in much of Missouri and in southern Kansas and adjacent parts of Oklahoma.

## U.S. Seasonal Drought Outlook Through February 2007 Released November 16, 2006



Depicts general, large-scale trends based on subjectively derived probabilities guided by numerous indicators, including 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, so use caution if using this outlook for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4). For weekly drought updates, see the latest Drought Monitor map and text. 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.

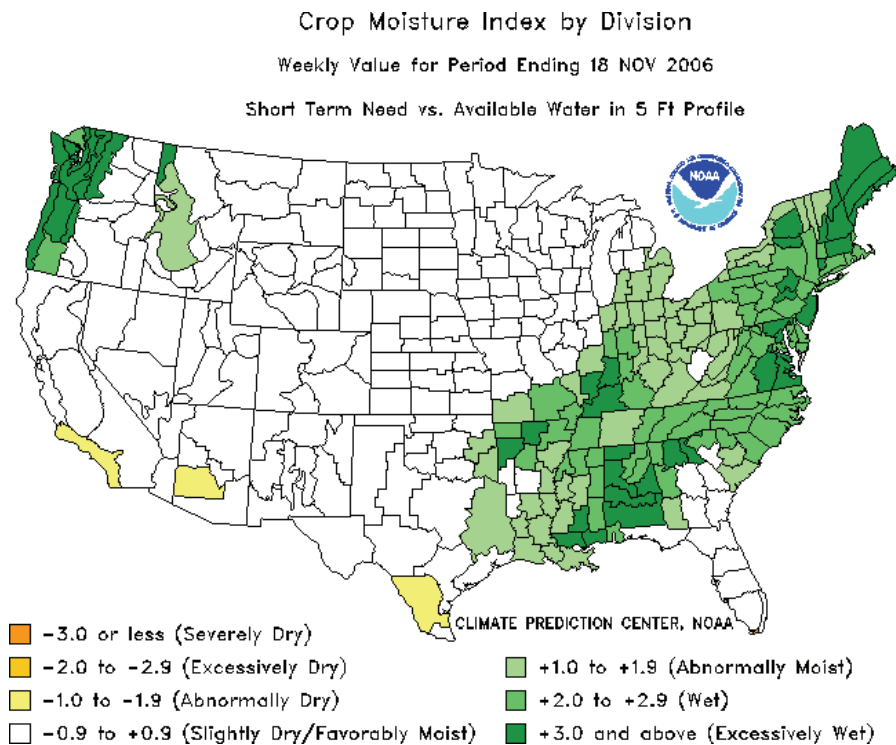
## CROP REPORT

November 20—Adversely warm and windy temperatures continued to hamper the state, greatly diminishing what little moisture is left in the soil. More rainfall is greatly needed to help replenish soil moisture supplies. Both topsoil and subsoil moisture conditions remained mostly in the short to very short range last week. Areas that have previously received good rains were beginning to see emergence among small grains and cool season pastures were greening up. There were 6.0 days suitable for fieldwork.

Wheat and oat conditions improved slightly but remained mostly in the good to fair range. Wheat emergence was winding down at 90 percent, 3 points behind normal. Oat seeding was over three-fourths complete with emergence progressing at 72 percent. Some producers were beginning to turn cattle out on wheat pasture. Wheat fields in areas that have had limited rainfall continued to have problems making a good stand. Wheat producers were seeing an increase in greenbugs, aphids and leafhoppers in the fields.

Row crop harvest made excellent progress during the week. Sorghum maturity was near complete at 96 percent with three-fourths of the crop already harvested, a 24 percent increase from last week. Soybean harvest jumped 17 points from last week to reach 94 percent complete, 6 points ahead of normal. Ninety-three percent of the state's peanuts had been combined, 7 points ahead of normal. Cotton harvest was 18 points ahead of normal at 80 percent, a 16 point increase from last week. Some cotton producers were making preparations for second pickings.

Alfalfa and other hay harvest slowly progressed from last week with cuttings remaining behind normal. Hay supplies remained short for many areas as producers continued to supplement livestock. Pasture and range conditions declined slightly from last week with 69 percent of the pastures in fair to poor condition. Ponds and creeks remained at critically low levels. Cool season and wheat pastures were in a critical state last week in areas with very limited moisture. Producers were hoping for more rainfall to help replenish ponds and enable pasture growth. Livestock remained in mostly good to fair condition. Livestock marketings were average with moderate to light insect activity.



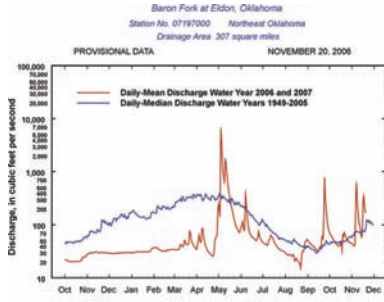
## RESERVOIR STORAGE

- 0.1 percent decrease in total storage (87.0%) from that recorded on October 24 (87.1%)
- 21 reservoirs have experienced lake level decreases
- 27 reservoirs are currently operating at less than full capacity (compared to 27 four weeks ago)
- 10 reservoirs are now below 80 percent of their total conservation storage

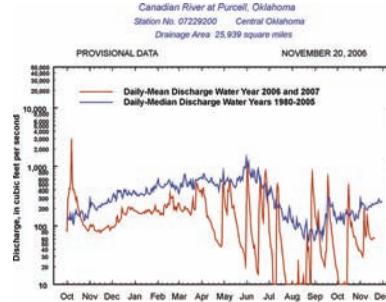
<b>Storage in Selected Oklahoma Lakes &amp; Reservoirs</b>			
<i>November 21, 2006</i>			
<b>Climate Division Lake or Reservoir</b>	<b>Conservation Storage (acre-feet)</b>	<b>Present Storage (acre-feet)</b>	<b>Percent of Conservation Storage</b>
<b>North Central</b>			
Fort Supply	13,900	10,111	72.7
Great Salt Plains	31,420	27,847	88.6
Kaw*	406,540	400,004	98.4
<b>Regional Totals/Averages</b>	<b>451,860</b>	<b>437,962</b>	<b>96.9</b>
<b>Northeast</b>			
Birch	19,225	15,790	82.1
Copan	34,634	25,991	75.0
Fort Gibson	365,200	365,200	100.0
Grand	1,672,000	1,482,659	88.7
Hudson	200,300	191,839	95.8
Hulah	22,565	17,246	76.4
Keystone	510,059	432,193	84.7
Oologah	552,219	486,006	88.0
Skiatook	322,700	216,000	66.9
<b>Regional Totals/Averages</b>	<b>3,698,902</b>	<b>3,232,924</b>	<b>87.4</b>
<b>West Central</b>			
Canton	111,310	70,050	62.9
Foss	165,480	133,950	80.9
<b>Regional Totals/Averages</b>	<b>276,790</b>	<b>204,000</b>	<b>73.7</b>
<b>Central</b>			
Arcadia	27,520	27,467	99.8
Heyburn	7,105	5,293	74.5
Thunderbird	119,600	75,374	63.0
<b>Regional Totals/Averages</b>	<b>154,225</b>	<b>108,134</b>	<b>70.1</b>
<b>East Central</b>			
Eufaula*	2,314,583	1,992,932	86.1
Tenkiller	654,100	590,856	90.3
<b>Regional Totals/Averages</b>	<b>2,968,683</b>	<b>2,583,788</b>	<b>87.0</b>
<b>Southwest</b>			
Fort Cobb	80,010	71,450	89.3
Lugert-Altus	132,830	11,755	8.8
Tom Steed	88,970	40,552	45.6
<b>Regional Totals/Averages</b>	<b>301,810</b>	<b>123,757</b>	<b>41.0</b>
<b>South Central</b>			
Arbuckle	72,400	63,186	87.3
McGee Creek	113,930	100,211	88.0
Texoma*	2,701,706	2,410,676	89.2
Waurika*	190,200	144,268	75.9
<b>Regional Totals/Averages</b>	<b>3,078,236</b>	<b>2,718,341</b>	<b>88.3</b>
<b>Southeast</b>			
Broken Bow*	918,070	836,565	91.1
Hugo*	158,617	158,617	100.0
Pine Creek*	53,750	53,750	100.0
Sardis	274,330	265,091	96.6
Wister	60,162	60,162	100.0
<b>Regional Totals/Averages</b>	<b>1,464,929</b>	<b>1,374,185</b>	<b>93.8</b>
<b>State Totals</b>	<b>12,395,435</b>	<b>10,783,091</b>	<b>87.0</b>

# STREAMFLOW CONDITIONS

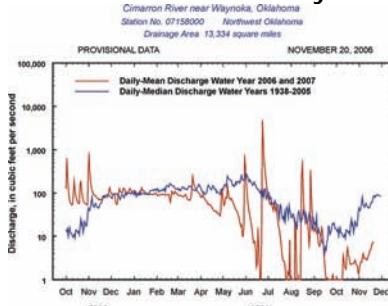
## Baron Fork at Eldon



## Canadian River at Purcell



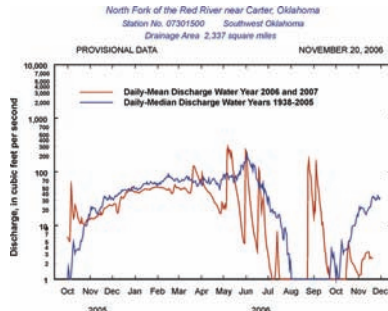
## Cimarron River near Waynoka



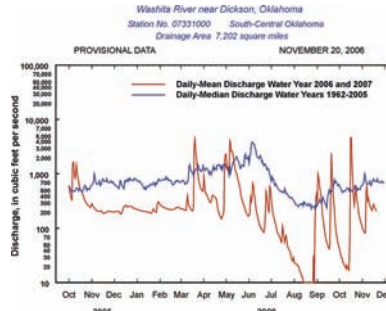
## Glover River near Glover



## North Fork of the Red River near Carter



## Washita River near Dickson



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>.