Oklahoma Water Resources Bulletin
& Summary of Current Conditions

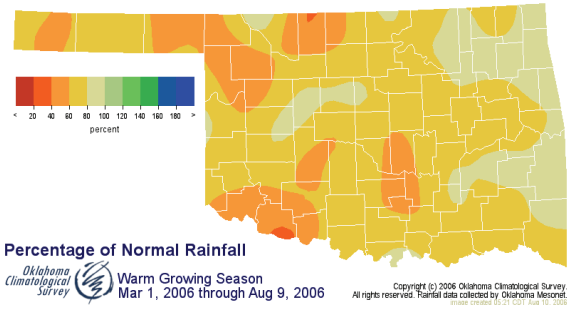
State of Oklahoma OWRB Water Resources Board the water agency

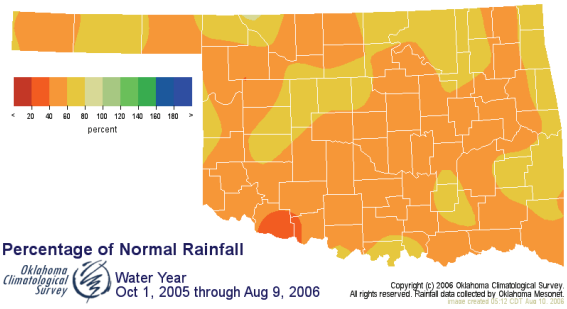
August 9, 2006

PRECIPITATION

Preliminary Statewide Precipitation

Climate Division (#)	Warm Growing Season March 1—August 9, 2006 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921	Water Year October 1, 2005—August 9, 2006 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921
Panhandle	8.09"	-4.94"	62%	10th driest	10.22"	-7.22"	59%	9th driest
North Central	11.90"	-6.27"	66%	12th driest	15.32"	-11.04"	58%	5th driest
Northeast	17.62"	-4.23"	81%	20th driest	21.51"	-13.43"	62%	7th driest
West Central	11.78"	-4.90"	71%	16th driest	14.11"	-10.02"	58%	6th driest
Central	13.89"	-6.42"	68%	11th driest	16.69"	-15.32"	52%	2nd driest
East Central	17.45"	-5.54"	76%	15th driest	21.60"	-17.49"	55%	3rd driest
Southwest	9.78"	-7.24"	57%	6th driest	12.22"	-13.28"	48%	1st driest
South Central	13.49"	-7.34"	65%	12th driest	18.34"	-16.48"	53%	3rd driest
Southeast	19.63"	-4.76"	80%	20th driest	26.67"	-17.78"	60%	4th driest
Statewide	13.70"	-5.79"	70%	7th driest	17.33"	-13.59"	56%	2nd driest

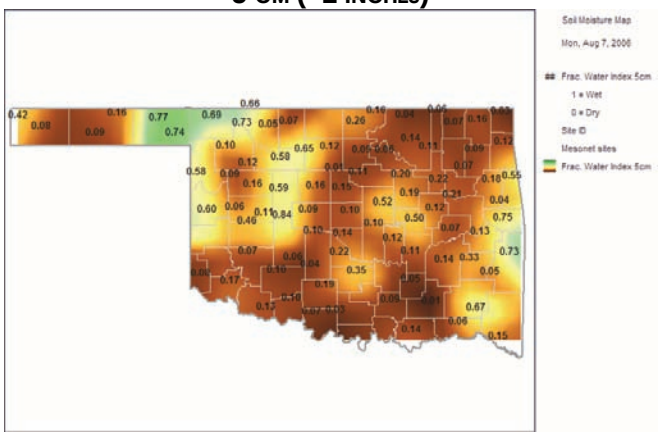




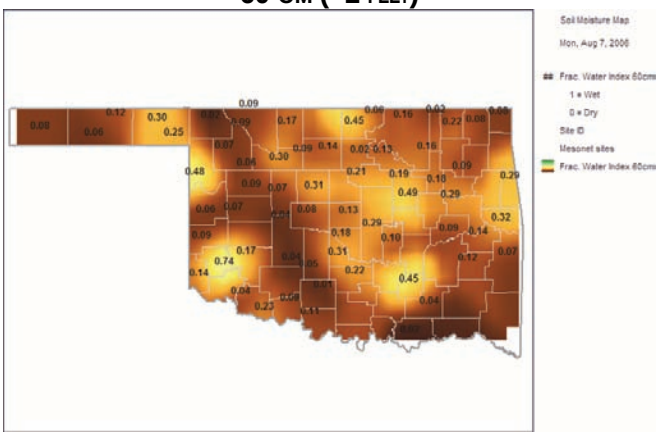
SOIL MOISTURE

Fractional Water Index[1]
August 7, 2006

5 CM (~2 INCHES)



60 CM (~2 FEET)



[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 July 2006

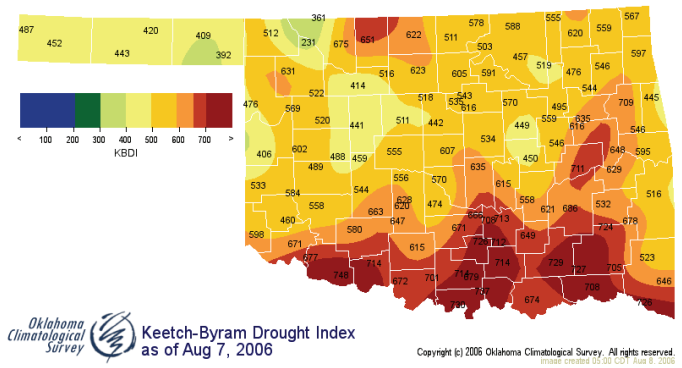
Climate Division (#)	Current Status 8/5/2006	Value 8/5	Value 7/22	Change In Value	3-Month	6-Month	9-Month	12-Month
Northwest (1)	EXTREME DROUGHT	-4.28	-4.04	**-0.24**	MODERATELY DRY	VERY DRY	VERY DRY	MODERATELY DRY
North Central (2)	SEVERE DROUGHT	-3.95	-3.64	**-0.31**	MODERATELY DRY	MODERATELY DRY	VERY DRY	NEAR NORMAL
Northeast (3)	EXTREME DROUGHT	-5.04	-3.70	**-1.34**	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
West Central (4)	EXTREME DROUGHT	-4.27	-3.64	**-0.63**	NEAR NORMAL	NEAR NORMAL	VERY DRY	NEAR NORMAL
Central (5)	EXTREME DROUGHT	-5.25	-4.52	**-0.73**	MODERATELY DRY	MODERATELY DRY	VERY DRY	MODERATELY DRY
East Central (6)	EXTREME DROUGHT	-5.26	-4.54	**-0.72**	MODERATELY DRY	MODERATELY DRY	VERY DRY	VERY DRY
Southwest (7)	EXTREME DROUGHT	-5.32	-4.86	**-0.46**	MODERATELY DRY	VERY DRY	EXTREMELY DRY	MODERATELY DRY
South Central (8)	EXTREME DROUGHT	-5.03	-4.55	**-0.48**	EXTREMELY DRY	MODERATELY DRY	VERY DRY	VERY DRY
Southeast (9)	EXTREME DROUGHT	-4.40	-4.42	**0.02**	VERY DRY	MODERATELY DRY	VERY DRY	VERY DRY

- All nine climate divisions are currently experiencing drought conditions.
- Eight climate divisions have undergone PDSI moisture decreases since July 22.

Keetch-Byram Drought Fire Index[3]

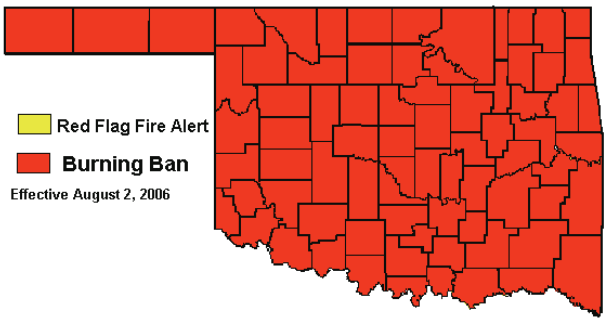
Mesonet Station	County	Climate Division	Current Value 8/8/2006
Grandfield	Tillman	Southwest	748
Madill	Marshall	South Central	737
Burneyville	Love	South Central	730

- Stations currently above 600 (August 8) = 52
- Stations above 600 on July 24 = 29



Statewide Wildfire Preparedness

As of August 2, a Burning Ban is in effect for all 77 counties in 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.



[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.

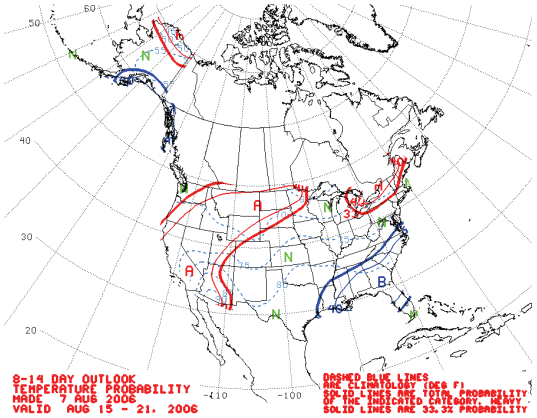
[2] The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while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

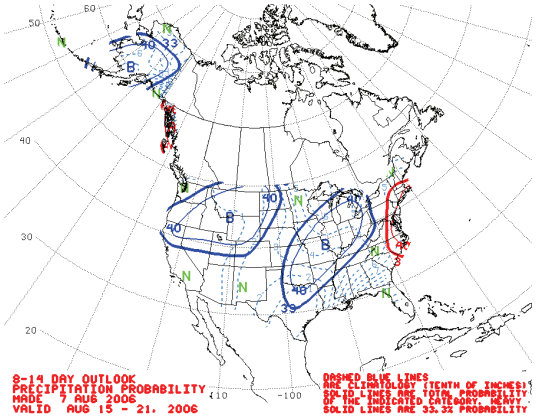
WEATHER/DROUGHT FORECAST

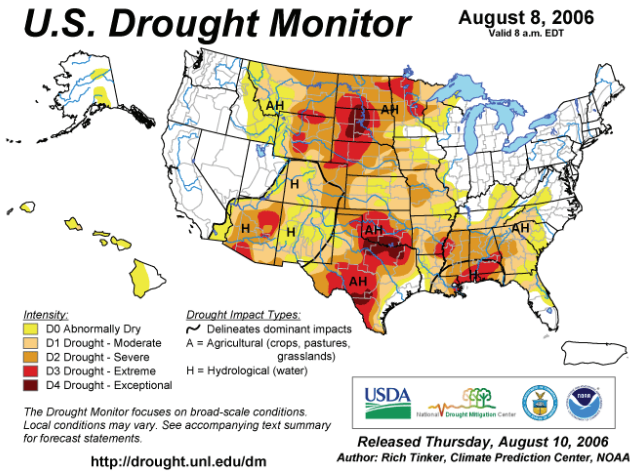
8 to 14-Day Forecast
August 15-21, 2006

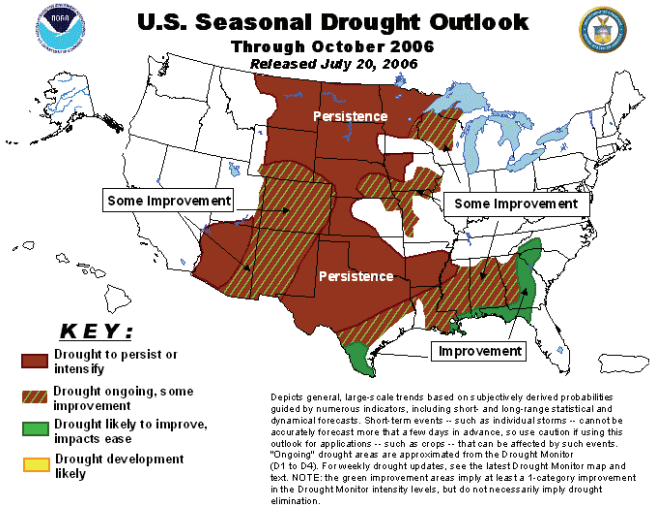
Temperature



Precipitation







Drought Summary & Outlook—The Plains:
August 8—Scattered moderate rains fell in parts of north central and east central Oklahoma as well as in isolated locations in the Panhandle and central Oklahoma. However, drought conditions declined to the worst classification, D4, in parts of southern Oklahoma. Much of this area has received only about 5 to 9 inches of precipitation since the first of the year, with the bulk of that coming in April and early May. The rest of Oklahoma remains in the moderate to extreme level of drought intensity.

According to the Drought Outlook, the ongoing drought should persist in Oklahoma and throughout much of the surrounding region. The summer monsoon rains are likely to offer short-term relief to the southwest, Colorado, and southern Wyoming although relief for water supplies will likely need to wait until next winter's snow season, at the earliest, since snow melt is the major source for water in the western U.S.

CROP REPORT

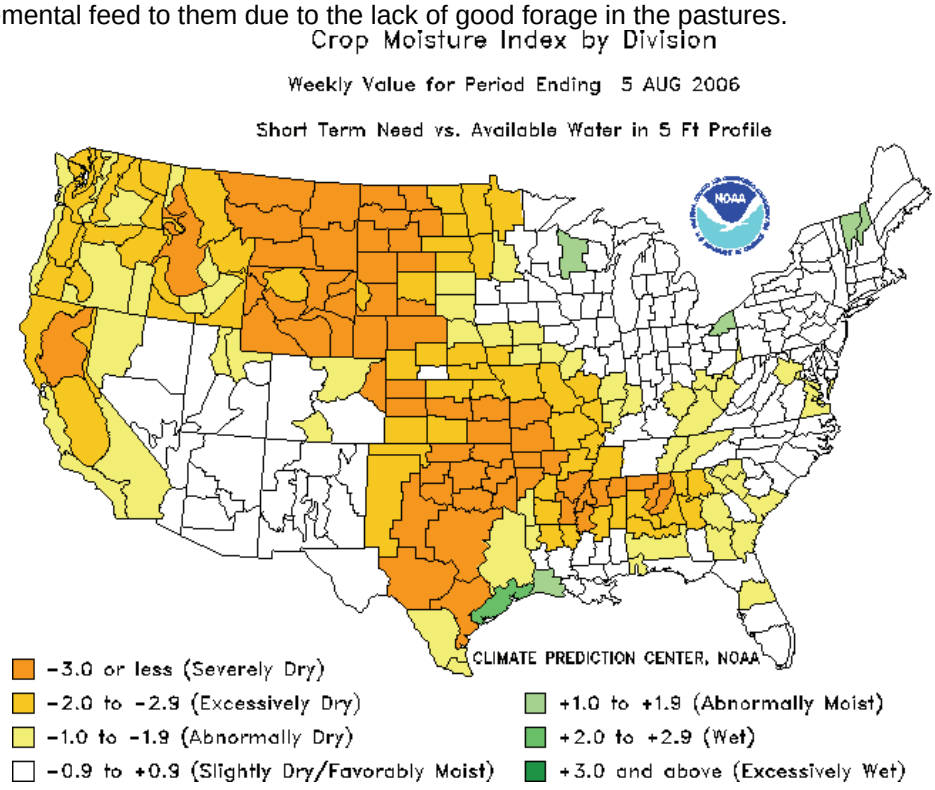
August 7—Triple digit temperatures remain prevalent and the benefit of any rain that was received last week was quickly offset by a return to above normal temperatures. Spotty rains that fell in parts of the state helped improve some crop conditions, but producers need a lot more rain in order to offset the drought conditions currently facing the row crops. Topsoil and subsoil moisture remained mostly in the short to very short range. There were 6.3 days suitable for fieldwork.

Wheat and oats plowed was winding down at 90 and 95 percent, respectively. Seedbed preparations for small grains were well ahead of normal, as producers get ready for the 2007 crop. The rainfall received last week was the most beneficial to the sorghum crop as it helped improve conditions to the mostly fair to good range. The other row crops received limited benefits from the rain since the high temperatures quickly zapped the soil moisture. Over half of the cotton and nearly half of the soybeans were in poor to very poor condition. Corn and peanut conditions held steady. The consistent hot, dry weather was also creating a negative impact on the progress of major row crops. Cotton and soybeans were shedding blooms due to the lack of moisture. Sorghum heading was 22 points behind normal at 34 percent, while only 12 percent of the crop was starting to turn color compared to the normal of 24 percent. Soybeans began to reach maturity in some areas of the state. Over three fourths of the peanuts had set pods while 7 percent of the crop reached maturity. Cotton squaring was winding down at 95 percent, while cotton boll set remained ahead of normal at 74 percent. Corn harvest was underway in some areas.

Alfalfa hay and other hay conditions continued to decline and were mostly in poor to very poor condition. Producers were struggling to find hay for sale to prepare for the winter. Alfalfa third and fourth cuttings were slightly below normal due to the dry conditions and lack of moisture. Other hay first cuttings were 93 percent complete while second cuttings were 30 points behind normal at 16 percent. The watermelon harvest remained well above normal at 85 percent.

The hot and windy conditions continued to take a toll on pastures that remained in mostly poor to very poor condition. Some producers were beginning to graze their CRP acreage to survive through the drought season and to prepare for the winter months. Pond water remained dry last week in many areas.

Fifty six percent of the livestock were rated in mostly poor to very poor condition. Livestock marketings were high as cattlemen continued to take more cattle to the livestock auctions. Water supplies for livestock in many areas were becoming an issue as ponds remained dry. Producers that were holding on to their cattle continued to supply supplemental feed to them due to the lack of good forage in the pastures.



RESERVOIR STORAGE

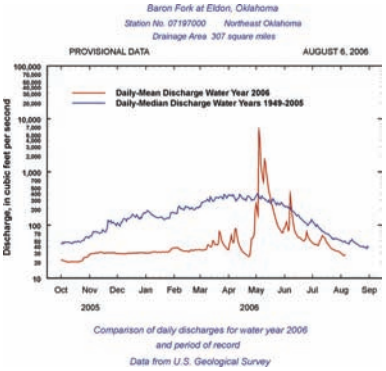
- 2.0 percent decrease (89.0%) in total storage from that recorded on July 24 (91.0%)
- 26 reservoirs have experienced lake level decreases
- 25 reservoirs are currently operating at less than full capacity (compared to 22 two weeks ago)
- 6 reservoirs are now below 80 percent of their total conservation storage

Storage in Selected Oklahoma Lakes & Reservoirs
August 9, 2006

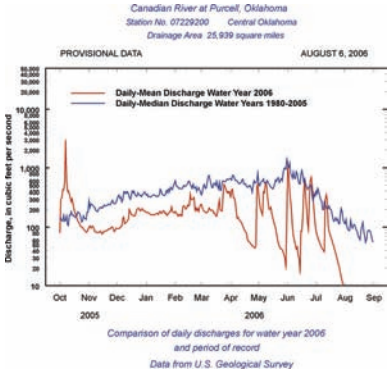
Climate Division Lake or Reservoir	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage
North Central			
Fort Supply	13,900	11,358	81.7
Great Salt Plains	31,420	25,762	82.0
Kaw*	375,160	375,160	100.0
Regional Totals/Averages	**420,480**	**412,280**	**98.0**
Northeast			
Birch	19,225	18,064	94.0
Copan	34,634	30,923	89.3
Fort Gibson	365,200	365,200	100.0
Grand	1,672,000	1,524,959	91.2
Hudson	200,300	200,300	100.0
Hulah	22,565	21,984	97.4
Keystone	512,307	512,307	100.0
Oologah	552,219	547,990	99.2
Skiatook	322,700	251,166	77.8
Regional Totals/Averages	**3,701,150**	**3,472,893**	**93.8**
West Central			
Canton	111,310	79,240	71.2
Foss	165,480	142,019	85.8
Regional Totals/Averages	**276,790**	**221,259**	**79.9**
Central			
Arcadia	27,520	26,399	95.9
Heyburn	7,105	5,947	83.7
Thunderbird	119,600	85,383	71.4
Regional Totals/Averages	**154,225**	**117,729**	**76.3**
East Central			
Eufaula*	2,378,951	2,046,322	86.0
Tenkiller	654,100	606,929	92.8
Regional Totals/Averages	**3,033,051**	**2,653,251**	**87.5**
Southwest			
Fort Cobb	80,010	75,155	93.9
Lugert-Altus	132,830	19,591	14.7
Tom Steed	88,970	43,619	49.0
Regional Totals/Averages	**301,810**	**138,365**	**45.8**
South Central			
Arbuckle	72,400	67,445	93.2
McGee Creek	113,930	110,899	97.3
Texoma*	2,628,914	2,310,781	87.9
Waurika*	190,200	147,880	77.7
Regional Totals/Averages	**3,005,444**	**2,637,005**	**87.7**
Southeast			
Broken Bow*	958,180	854,665	89.2
Hugo*	174,397	174,397	100.0
Pine Creek*	63,480	63,480	100.0
Sardis	274,330	262,145	95.6
Wister	60,162	55,154	91.7
Regional Totals/Averages	**1,530,549**	**1,409,841**	**92.1**
State Totals	**12,423,499**	**11,062,623**	**89.0**

STREAMFLOW CONDITIONS

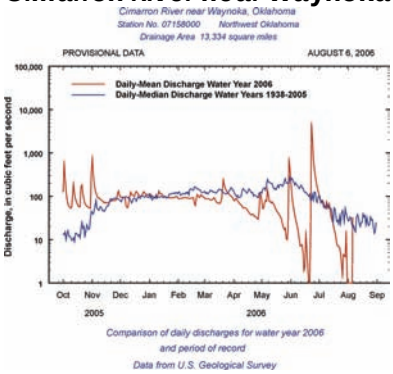
Baron Fork at Eldon



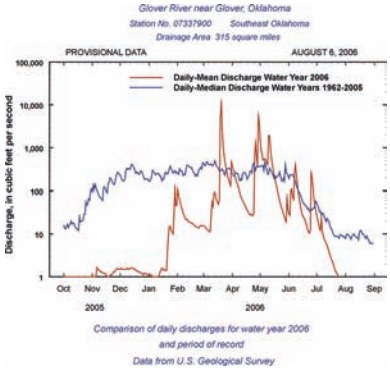
Canadian River at Purcell



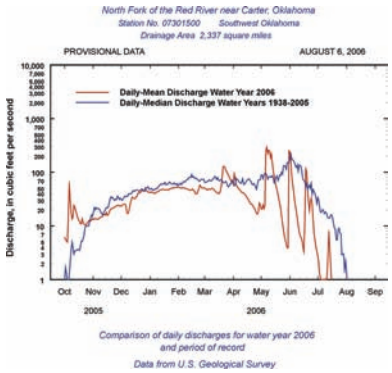
Cimarron River near Waynoka



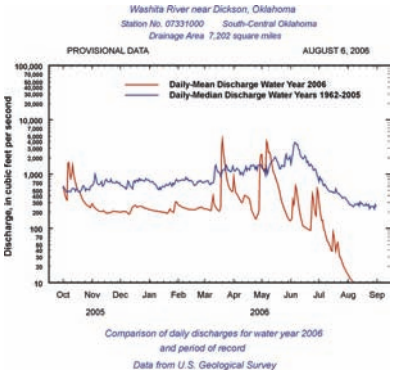
Glover River near Glover

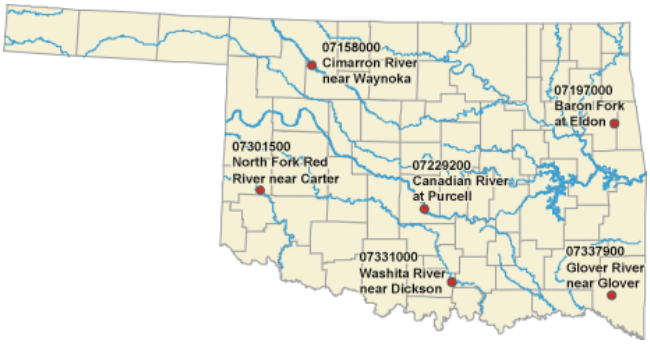


North Fork of the Red River near Carter



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 and http://www.mesonet.ou.edu/public**.

DEQ Rationing Report 2006

Best available information as of Monday, August 07, 2006

Contact local system officials for latest information

SYSTEM	*RATIONING TYPE*	*COUNTY*	*REASON*	*STATUS*
Byars	V	Garvin	well capacity diminished	voluntary rationing, may drill wells or connect to rural water
Maysville	M	Carter	lake level low	mandatory rationing, alternate source sought
Colbert	M	Bryan	well capacity diminished, alternate source sought	mandatory rationing, alternate source sought
Pontotoc RWD 8	M	Pontotoc	high usage, distribution capacity problem	no watering between 5pm-10pm, system to upgrade lines beginning this summer
Guymon	V	Texas	proactive due to high usage	"water watch" voluntary conservation
Tuttle	M	Grady	problem with seller system's pumps	voluntary rationing until pumps are repaired
Piedmont	M	Canadian	capacity problem	even/odd watering allowed between 8pm and 8am
Tecumseh	M	Pottawatomie	lake level low	mandatory hand watering only, pumping wells into lake
Shawnee	M	Pottawatomie	lake level low	outside watering allowed 2 days/week
Newcastle	M	McClain	capacity problem	mandatory rationing
Arkoma	M	LeFlore	seller system working on reservoir	mandatory yard watering once per week only
Norman	V	Cleveland	line break (now repaired)	7/24/06, back to voluntary even-odd rationing Update 8/1/06 conservation plan reviewed at council meeting held 7/25/06
Enid	V	Garfield	pump problem (now repaired)	outside watering ban lifted 7/27/06, back to voluntary conservation
Ada	M	Pontotoc	high demand, aquifer level dropping	mandatory hand watering only
Nichols Hills	V	Oklahoma	five wells offline due to construction	outdoor watering from 6am to 9pm only
Logan Co RWD 1	M	Logan	low pressure due to high demand	mandatory outdoor watering ban
Alex	M	Grady	one well out of service	mandatory rationing, repairing well

Rationing Type Key:M=mandatory rationing, V=voluntary rationing, S=Suspend rationing, $=surcharge

SYSTEM	*RATIONING TYPE*	*COUNTY*	*REASON*	*STATUS*
51 East Corp	$	Payne	seller system lake level down	adding surcharge for high usage
Tillman Co RWD 1	M	Tillman	three of five wells dry, seller plant under renovation	mandatory rationing, drilling new well
McIntosh RWD 6	M	McIntosh	diminshed well capacity	no outside watering, except livestock

Rationing Type Key:M=mandatory rationing, V=voluntary rationing, S=Suspend rationing, $=surcharge