Oklahoma Water Resources Bulletin
& Summary of Current Conditions

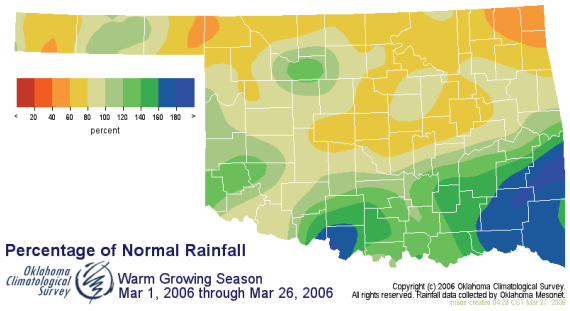
State of Oklahoma OWRB Water Resources Board the water agency

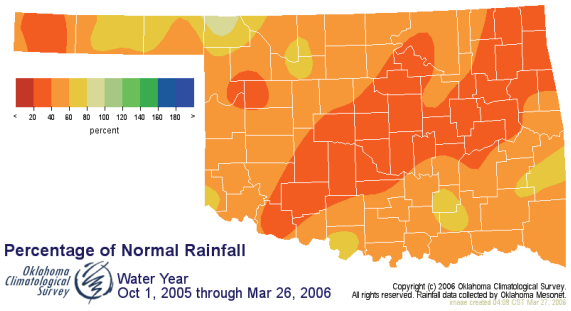
March 29, 2006

PRECIPITATION

Preliminary Statewide Precipitation

Climate Division (#)	Warm Growing Season March 1—26, 2006 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921	Water Year October 1, 2005—March 26, 2006 Total Rainfall (inches)	Departure From Normal (inches)	Percent Of Normal	Rank Since 1921
Panhandle	1.03"	-0.34"	75%	33rd wettest	3.16"	-2.62"	55%	23rd driest
North Central	1.91"	-0.34"	85%	29th wettest	5.33"	-5.11"	51%	15th driest
Northeast	2.21"	-0.87"	72%	41st wettest	6.09"	-10.07"	38%	2nd driest
West Central	1.85"	-0.17"	92%	25th wettest	4.18"	-5.28"	44%	9th driest
Central	2.15"	-0.56"	79%	34th wettest	4.96"	-9.47"	34%	3rd driest
East Central	3.35"	-0.08"	98%	29th wettest	7.50"	-12.04"	38%	2nd driest
Southwest	1.96"	+0.06"	103%	27th wettest	4.40"	-5.98"	42%	6th driest
South Central	3.96"	+0.99"	133%	9th wettest	8.82"	-8.15"	52%	10th driest
Southeast	6.15"	+2.39"	164%	6th wettest	13.18"	-10.62"	55%	7th driest
Statewide	2.66"	+0.06"	102%	25th wettest	6.29"	-7.75"	45%	3rd driest

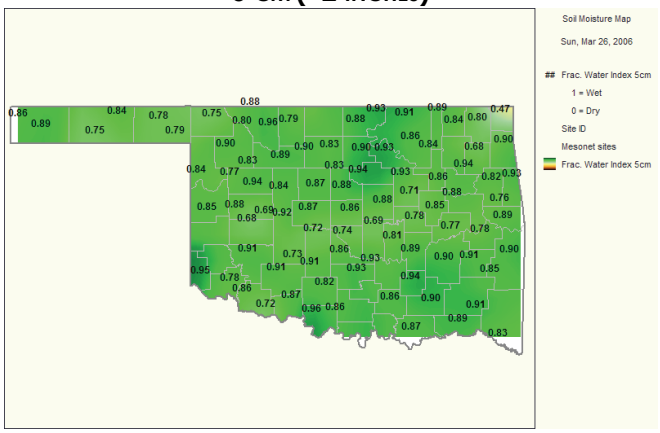




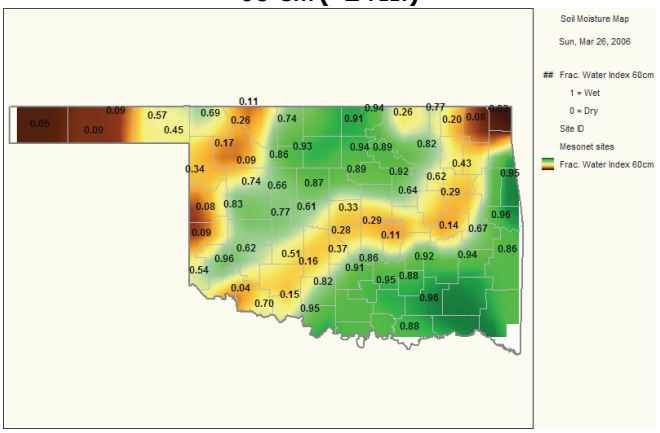
SOIL MOISTURE

Fractional Water Index[1]
March 26, 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

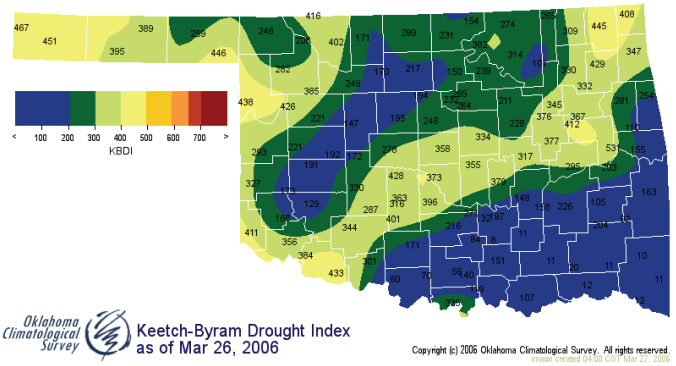
Palmer Drought Severity Index[1] / Standardized Precipitation Index[2] Through February 2006

Climate Division (#)	Current Status 3/25/2006	Value 3/25	Value 3/11	Change In Value	3-Month	6-Month	9-Month	12-Month
Northwest (1)	INCIPIENT DROUGHT	-0.53	-1.77	**1.24**	VERY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
North Central (2)	INCIPIENT DROUGHT	-0.94	-1.89	**0.95**	EXTREMELY DRY	VERY DRY	NEAR NORMAL	NEAR NORMAL
Northeast (3)	SEVERE DROUGHT	-3.33	-3.72	**0.39**	EXTREMELY DRY	EXTREMELY DRY	MODERATELY DRY	VERY DRY
West Central (4)	NEAR NORMAL	-0.39	-1.90	**1.51**	VERY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Central (5)	MODERATE DROUGHT	-2.02	-2.78	**0.76**	EXTREMELY DRY	EXTREMELY DRY	NEAR NORMAL	VERY DRY
East Central (6)	SEVERE DROUGHT	-3.34	-3.91	**0.57**	EXTREMELY DRY	EXTREMELY DRY	EXTREMELY DRY	EXTREMELY DRY
Southwest (7)	MILD DROUGHT	-1.39	-2.68	**1.29**	EXTREMELY DRY	VERY DRY	NEAR NORMAL	MODERATELY DRY
South Central (8)	MILD DROUGHT	-1.03	-2.61	**1.58**	VERY DRY	VERY DRY	NEAR NORMAL	VERY DRY
Southeast (9)	MILD DROUGHT	-1.92	-4.22	**2.30**	VERY DRY	EXTREMELY DRY	EXTREMELY DRY	EXCEPTIONALLY DRY

- Six climate divisions are currently experiencing drought conditions.
- All of Oklahoma's nine climate divisions have undergone PDSI moisture increases since March 11.

Keetch-Byram Drought Fire Index[3]

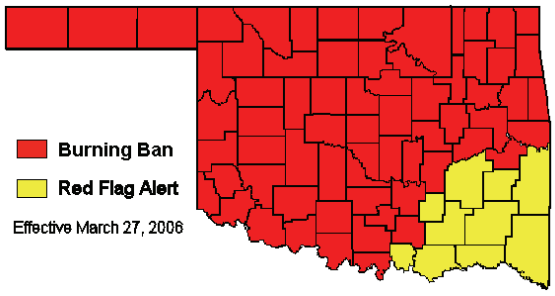
Mesonet Station	County	Climate Division	Current Value 3/27/2006
Webbers Falls	Muskogee	East Central	531
Kenton	Cimarron	Northwest	467
Boise City	Cimarron	Northwest	451



- Stations currently above 600 (March 27) = 0
- Stations above 600 on March 13 = 0

Statewide Wildfire Preparedness

Statewide Wildfire Preparedness has been reduced to Level 3 (high fire danger). As of March 27, Gov. Henry's Burning Ban continues for all counties but those in southeastern Oklahoma, where a Red Flag Fire Alert exists. Extended dry conditions and high winds have increased the fire danger. Dry vegetation will ignite easily and burn with surprising intensity.



[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.

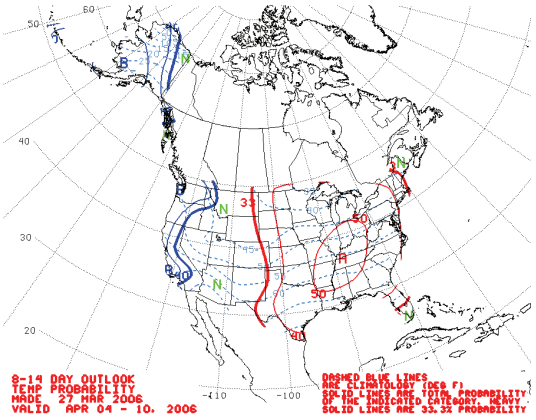
[2] The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while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

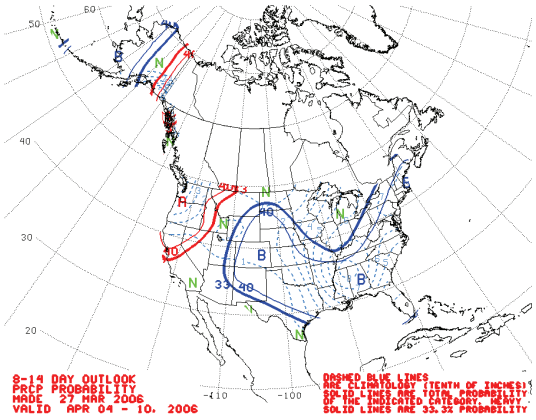
WEATHER/DROUGHT FORECAST

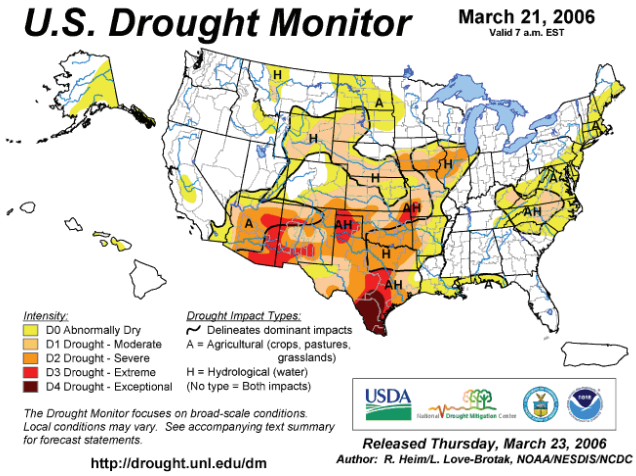
8 to 14-Day Forecast
April 4-10, 2006

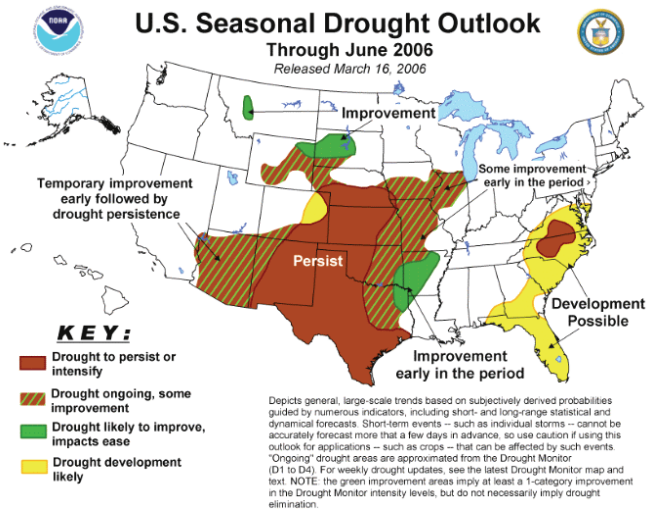
Temperature



Precipitation







National Drought Summary—The Plains:
An intense low pressure system pulled abundant Gulf moisture into the southern Plains last week. Many stations in southeast Oklahoma, northern Texas, and southwest Arkansas reported rainfall amounts of 4 to 6 inches, with locally heavier amounts. Weekly rainfall totals exceeded 7 inches at 21 stations in or near Dallas, Arlington, Cooper, Clarksville, and Commerce in northeast Texas, with totals topping 9 inches in the Dallas area. Rainfall reports of 2 to 4 inches were widespread surrounding this heavy rain core into the adjoining sections of these three states. But even with the recent heavy rains, significant long-term deficits remained: 10-inch deficits or more over the last 12 months across much of the southern Plains, with 15 to 20 inch deficits over parts of southeast Oklahoma, southeast Texas, and southern Louisiana. As a result, the D4 oval in northeast Oklahoma was improved to D3 and the D4 oval in southeast Oklahoma was improved to D2, with a large part of D3 across Oklahoma, Texas, and Arkansas improved to D2. In Arkansas and northeast Texas, the D2 and D1 boundaries contracted, with D2 shrinking in north central Oklahoma. Deterioration occurred in the western part of the Oklahoma panhandle where long-term deficits were severe, with D3 nudging into counties that received little precipitation from this week's storm.

Looking Ahead:
From March 27-31, the outlook calls for temperatures to remain warm in the western half and cool in the eastern half of the country. Normal precipitation is expected in the Pacific Northwest, while dry conditions will prevail throughout the rest of the country. A frontal system is forecast to pass through the lower 48, but expectations for precipitation remain low.

CROP REPORT

March 27 – Oklahoma experienced a mixed bag of weather for the week ending March 26th. Slow soaking rains lingered from the previous weekend into the early part of the week, followed by snow and colder temperatures during mid-week. The week was topped off with gusty winds and warm temperatures. Wheat and pasture land began to show marked improvement; however, additional rainfall is still needed for plant development. While the 5-month drought showed initial signs of ending, additional rain will be needed to get everything back to normal. Adequate topsoil moisture supplies climbed from 24 percent last week to 58 percent this week. Subsoil moisture advanced from 6 to 13 percent adequate. Agricultural producers experienced 3.2 days suitable for field work during the week.

Wheat and rye conditions improved only slightly during the week. Mid-week snow and cold temperatures may have damaged wheat that was in the early boot stage of development. Wheat jointing advanced to 43 percent, which was only slightly behind the 5-year average of 45 percent. Wheat jointing ranged from 12 percent in the Panhandle to 78 percent in the northeast. Rain prevented any fertilizer applications or weed spraying. Many wheat fields throughout the state were short on nitrogen and topdressing is needed.

Most seedbed preparation continued to lag behind normal. Corn planting was 6 percent complete, mostly in eastern Oklahoma. Only a few soybean fields were planted in the southwest. Planting progress for these crops was very limited because ground temperatures were too cold for good seed germination. Peaches, apricots, and strawberries suffered undetermined freeze damage with the mid-week cold snap. Thursday's temperature dipped into the low 20's in major fruit-producing areas of eastern Oklahoma.

Slight improvement was made to the state's cool season grasses. Forage supplies were still rated mostly short with the largest deficiencies reported across the southern third of Oklahoma. With forage at a premium, supplemental feeding was active throughout the state. Cattle marketing was mostly average but some heavy trading was reported in east central and south central Oklahoma. Cold weather kept parasite activity down but cattle were still plagued with moderately heavy insect activity in the south. Cattlemen enjoyed the rainfall for pasture green-up but more runoff moisture is needed to replenish low stock ponds. Calving and lambing were still active.

RESERVOIR STORAGE

- 3.8 percent increase (90.4%) in total storage from that recorded on March 13 (86.6%)
- 5 reservoirs have experienced lake level decreases
- 23 reservoirs are currently operating at less than full capacity (compared to 27 two weeks ago)
- 5 reservoirs are now below 80 percent capacity

Storage in Selected Oklahoma Lakes & Reservoirs
March 27, 2006

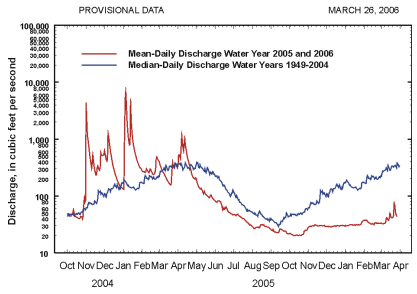
Climate Division Lake or Reservoir	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage
North Central			
Fort Supply	13,900	13,900	100.0
Great Salt Plains	31,420	31,420	100.0
Kaw*	398,695	395,707	99.3
Regional Totals/Averages	**444,015**	**441,027**	**99.3**
Northeast			
Birch	19,225	13,070	68.0
Copan	34,634	32,589	94.1
Fort Gibson	365,200	365,200	100.0
Grand	1,541,020	1,541,020	100.0
Hudson	200,300	170,149	84.9
Hulah	22,565	19,194	85.1
Keystone	510,059	433,152	84.9
Oologah	552,219	521,160	94.4
Skiatook	322,700	256,936	79.6
Regional Totals/Averages	**3,567,922**	**3,352,470**	**94.0**
West Central			
Canton	111,310	109,246	98.1
Foss	165,480	152,773	92.3
Regional Totals/Averages	**276,790**	**262,019**	**94.7**
Central			
Arcadia	27,520	27,128	98.6
Heyburn	7,105	6,295	88.6
Thunderbird	119,600	97,130	81.2
Regional Totals/Averages	**154,225**	**130,553**	**84.7**
East Central			
Eufaula*	2,314,583	1,800,968	77.8
Tenkiller	654,100	528,123	80.7
Regional Totals/Averages	**2,968,683**	**2,329,091**	**78.5**
Southwest			
Fort Cobb	80,010	80,010	100.0
Lugert-Altus	132,830	58,083	43.7
Tom Steed	88,970	58,256	65.5
Regional Totals/Averages	**301,810**	**196,349**	**65.1**
South Central			
Arbuckle	72,400	69,601	96.1
McGee Creek	113,930	107,626	94.5
Texoma*	2,418,626	2,377,435	98.3
Waurika*	190,200	171,086	90.0
Regional Totals/Averages	**2,795,156**	**2,725,748**	**97.5**
Southeast			
Broken Bow*	918,070	848,539	92.4
Hugo*	186,232	186,232	100.0
Pine Creek*	60,424	60,424	100.0
Sardis	274,330	263,082	95.9
Wister	60,162	60,162	100.0
Regional Totals/Averages	**1,499,218**	**1,418,439**	**94.6**
State Totals	**12,007,819**	**10,855,696**	**90.4**

* indicates seasonal pool operation; actual storage figures/percentages may vary.

STREAMFLOW CONDITIONS

Baron Fork at Eldon

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

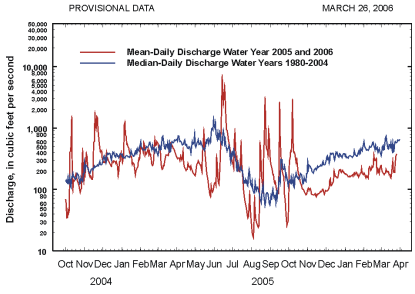


Comparison of daily discharges for water year 2005 and 2006 and period of record

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

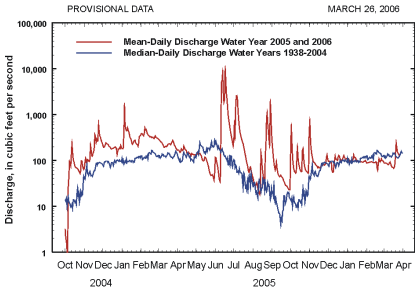


Comparison of daily discharges for water year 2005 and 2006 and period of record

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

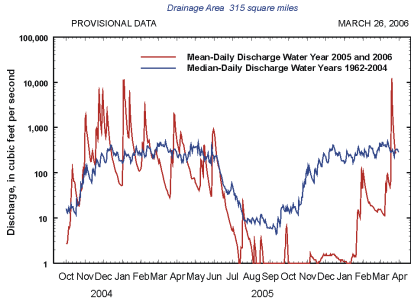


Comparison of daily discharges for water year 2005 and 2006 and period of record

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

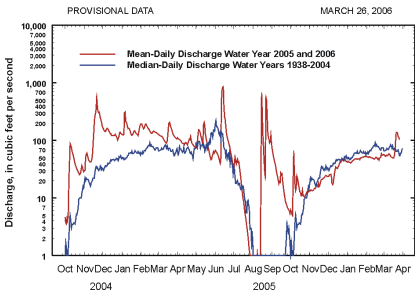


Comparison of daily discharges for water year 2005 and 2006 and period of record

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

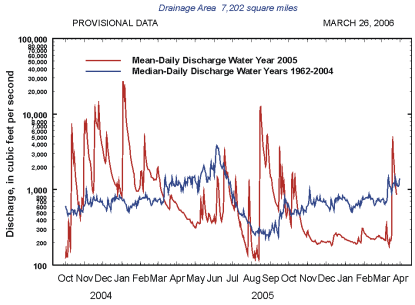


Comparison of daily discharges for water year 2005 and 2006 and period of record

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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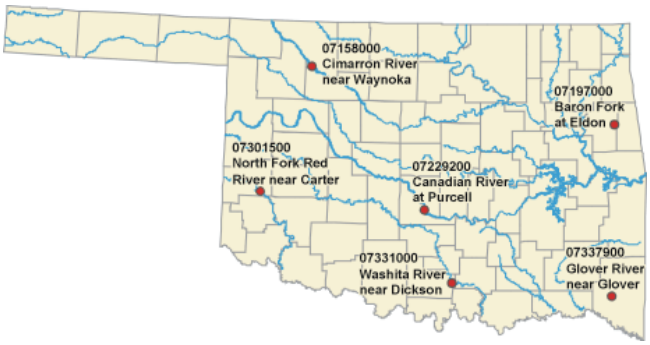

Water Bulletin information/data courtesy of National Weather Service, Climate Prediction Center, Oklahoma Climatological Survey, State Department of Agriculture, Food, and Forestry, Agricultural Statistics Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture/Forest Service, U.S. Geological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