

Extreme to Exceptional Drought Covers Most of Oklahoma

August 09, 2012

Spurred by the rapidly intensifying flash drought and its impacts, including the extreme fire danger realized in the state over the last week, the U.S. Drought Monitor has now designated virtually all of Oklahoma in extreme to exceptional drought. Nearly 97 percent of the state is now depicted by the Drought Monitor in those worst two drought intensities, the highest such coverage for the state since the Drought Monitor effort began in 2000. A narrow swath of exceptional drought extends from Cleveland and McClain counties in central Oklahoma to the northwest, where it broadens and covers much of western Kansas. The next highest percentage of extreme to exceptional drought was 93 percent from the same week last year on August 9, 2011. The percentage of exceptional drought itself is only 16 percent, while the August 9 map from 2011 had 65 percent of the state designated in that most intense drought category.

Over 103,000 acres have burned due to wildfire across the state since Aug. 3. One fatality has been attributed to a wildfire east of Norman. The fire danger was exacerbated by the drought relief experienced through late winter into early spring. This winter and early spring were unusually wet and warm. The October 2011-March 2012 period was the 13th wettest and third warmest on record, dating back to 1895. March 2012 was the warmest March on record as well as the sixth wettest. That allowed for accelerated growth of Oklahoma's vegetation through that period. As the spring rains started to diminish during April and May, that abundance of vegetation began to go into dormancy or die. That process only accelerated as the extreme temperatures of summer returned, leaving much of the state covered in excessive fuel for wildfires.

Lake Thunderbird, Norman's primary source of drinking water, is now at 76 percent of capacity. The lake sat at 88 percent of capacity on June 4, 2012. Its lowest level during last year's drought was 73 percent on October 7, 2011. It has now been 63 days since the Oklahoma Mesonet site at Norman recorded at least a tenth of an inch of rain in a calendar day, with other areas across the state enduring that same number of days with less than a quarter inch of rain. According to data from the Oklahoma Mesonet, the statewide average rainfall total since May 1 through Thursday morning was 5.87 inches, 7.03 inches below normal and the second driest such period since 1921. Of similar periods in history, only that in 1934 was drier with an average of 5.69 inches. North central Oklahoma has received an average of 3.95 inches, 8.67 inches below normal. That is the driest such period since 1921 for that region of the state. Recent rains will help localized areas see some relief, but more widespread rains will be needed to alleviate the worst drought conditions.

The National Climatic Data Center ranked the May-July period as the third driest on record and the April-July period was the fifth driest on record. Those records date back to 1895. Adding to the impact of the precipitation deficits, the heat has been extraordinary as well. The May-July period was the fourth warmest on record according and the April-July period was the second warmest. Extending further back, the last 5-month through 12-month periods were all the warmest on record for Oklahoma, again dating back to 1895. That includes the first seven months of the year as Oklahoma continues towards the possibility of seeing its warmest year on record. The current record holder for warmest year is 1954 with a statewide average of 62.8 degrees. The 2012 January-July statewide average was 63.7 degrees.

The percent of the United States in drought fell this week to 62 percent, down from a peak of 64 percent on July 24. Within that 62 percent, however, the percentage of the county in severe to exceptional drought rose from 38.1 percent to 38.5 percent. The latest U.S. Seasonal Drought Outlook from the Climate Prediction Center has drought persisting or intensifying across much of the United States, including Oklahoma, though the rest of August and into early fall. Rain chances are somewhat limited for the next five days, other than the possibility of isolated storms. A little further out, the outlooks for precipitation and temperature show increased odds of below normal precipitation and above normal temperatures through the middle of August.

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