



DROUGHT INFORMATION STATEMENT

SOUTH CENTRAL TEXAS

WFO AUSTIN/SAN ANTONIO, TX

ISSUED: JULY 21, 2011



Summary

Drought conditions continue to plague the region. July has seen spotty rainfall through the 20th, with a few locations receiving up to 2 inches of rain. A tropical wave did bring scattered showers and thunderstorms on July 19th, but many locations received little or no rainfall. Evaporation rates and water usage remain high due to the heat and continued dry conditions. We would need several more wide-spread rainfall events to break the current drought. Most of the region is now in Exceptional Drought (D4) status with only a small area in Extreme Drought (D3).

Figure 3, the [U.S. Drought Monitor](#) valid on July 19th through the [National Drought Mitigation Center](#), shows that drought conditions continue across all of South Central Texas. The majority of the region is now in Exceptional Drought (D4) conditions. Only a small portion of the area remains in Extreme Drought (D3) conditions. Currently 91 percent of the state is experiencing D3 to D4 drought status. Across the state, 75 percent of the state is currently in Exceptional Drought (D4) status.

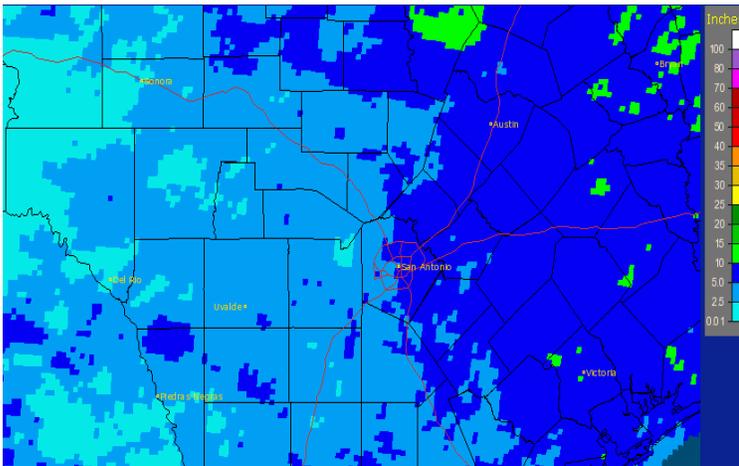


Figure 1 - Total Observed Rainfall January 1, 2011 to July 20, 2011

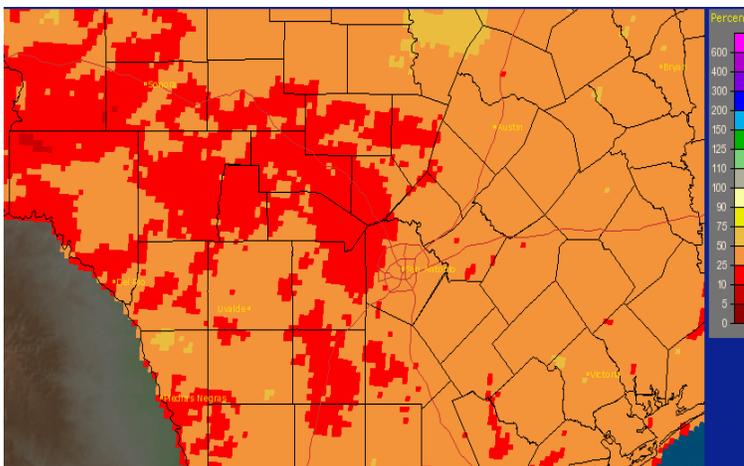
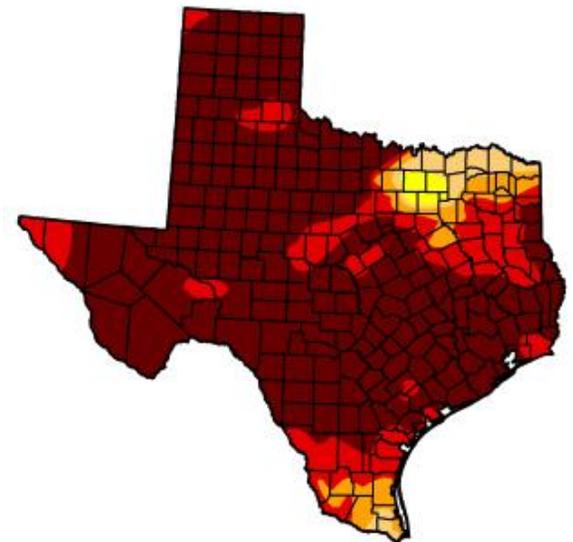


Figure 2 – Percent of Normal Rainfall January 1, 2011 to July 20, 2011



- Intensity*
- D0 Abnormally Dry
 - D1 Drought - Moderate
 - D2 Drought - Severe
 - D3 Drought - Extreme
 - D4 Drought - Exceptional



Released Thursday, July 21, 2011
Matthew Rosencrans, NOAA/NWS/NCEP/CPC

Figure 3 – July 19th U.S. Drought Monitor County Level

The U.S. Drought Monitor is a comprehensive drought monitoring effort between government and academic partners. It is issued each Thursday morning and incorporates hydrometeorological data through 7 AM Tuesday.

Hydrologic Impacts

According to the [USGS Water Watch](#), most of the rivers across South Central Texas are reporting below to much below normal flows for this time of the year. The Rio Grande and San Antonio Basins are reporting normal flows.

Reservoir conditions as of July 21st, 2011 are presented in the following table.

| Reservoir | Pool Elevation (ft) | Current Elevation (ft) |
|-------------------|---------------------|------------------------|
| Amistad | 1117.00 | 1111.82 |
| Medina Lake | 1064.2 | 1031.05 |
| Canyon Lake | 909.00 | 903.59 |
| Granger Lake | 504.00 | 501.72 |
| Georgetown Lake | 791.00 | 774.94 |
| Lake Buchanan | 1020.00 | 999.63 |
| Lake LBJ | 825.00 | 824.44 |
| Lake Marble Falls | 738.00 | 736.30 |
| Lake Travis | 681.00 | 642.58 |
| Lake Austin | 492.90 | 492.24 |

According to Texas Commission on Environmental Quality (TCEQ), there are a number of public water supply systems with mandatory water use restrictions across the Hill Country and South Central Texas. Figure 4 shows the locations of affected systems across Texas. This assessment is normally updated at least monthly.

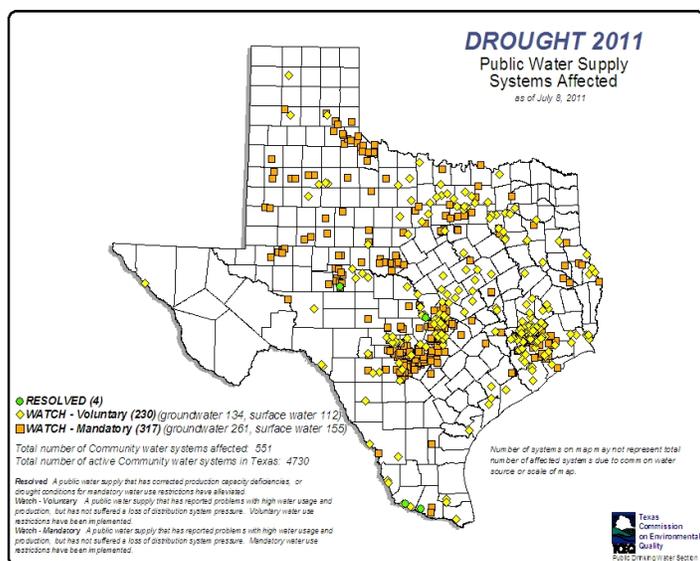


Figure 4 – Water Systems Under Water Use Restrictions as of July 8, 2011.

Fire Danger Impacts

As of July 21st, 33 counties in South Central Texas have county wide outdoor burn bans. These burn bans are established by county officials.

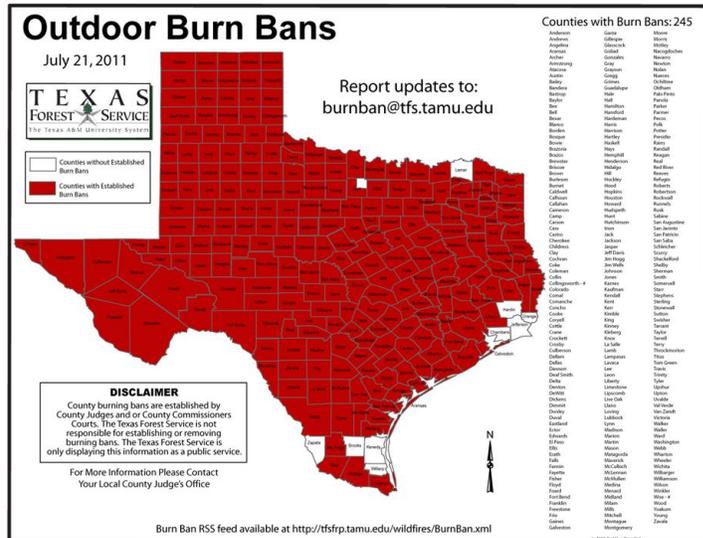


Figure 5 - Burn Bans Currently in Effect

The Texas Forest Service uses the Keetch-Byram Drought Index (KBDI) as a system for relating current and recent weather conditions to potential or expected fire behavior. It is a numerical index calculated daily for each county. Each number is an estimate of the amount of rain, in hundredths of an inch, needed to bring the soil back to saturation. The index ranges from 0 to 800, with 0 representing a saturated soil and 800 a completely dry soil. As shown below, the July 21st issuance of the KBDI shows that eastern portions of the region fall in the 600 to 800 range while the west falls into the 700 to 800 range.

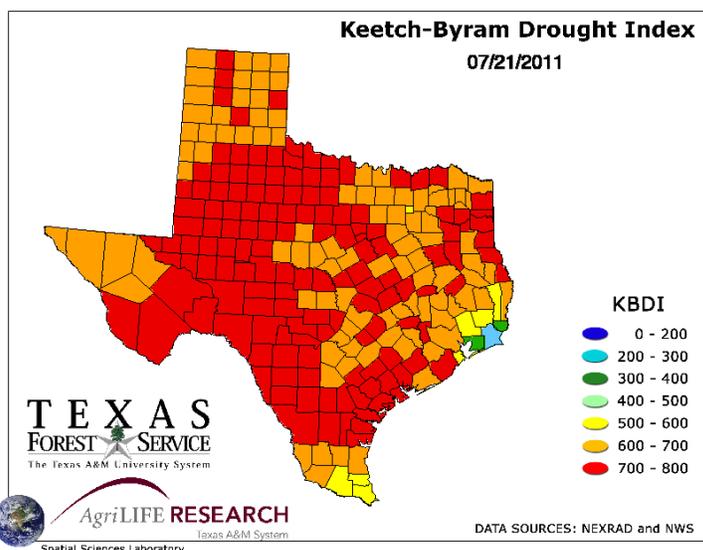


Figure 6 – KBDI Map

Agricultural Impacts

Each week, the [Climate Prediction Center \(CPC\)](#) analyzes the percent of available soil moisture as compared to normal. As of July 20th the available soil moisture is one to five percent of normal across South Central Texas.

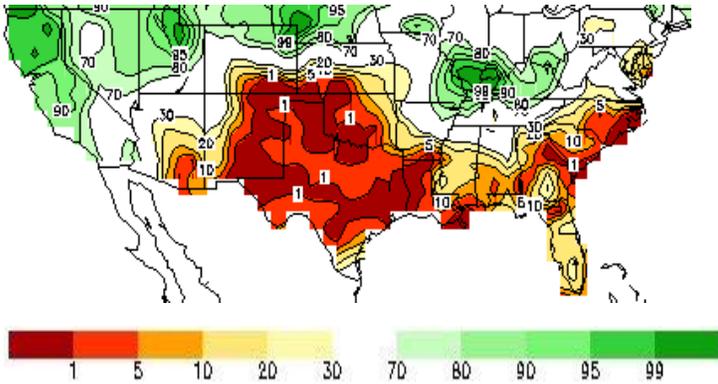


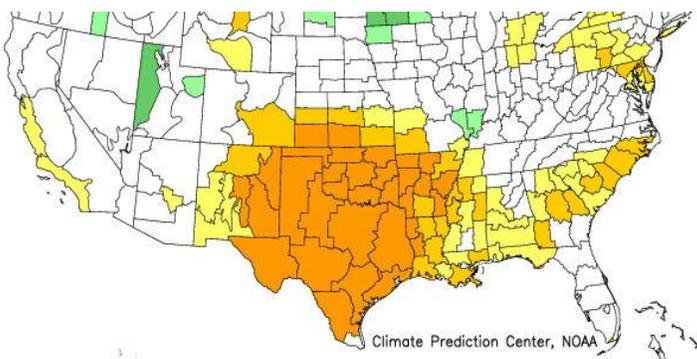
Figure 7 – Percent Available Soil Moisture

The Crop Moisture Index monitors short term need compared to available water across major crop producing regions. This index is *not* used to monitor long term drought conditions. The latest Crop Moisture Index issued by the CPC on July 16th indicated that short term moisture conditions remain Severely Dry.

Crop Moisture Index by Division

Weekly Value for Period Ending JUL 16, 2011

Short Term Need vs. Available Water in a Shallow Soil Profile



- 3.0 or less (Severely Dry)
- 2.0 to -2.9 (Excessively Dry)
- 1.0 to -1.9 (Abnormally Dry)
- 0.9 to +0.9 (Slightly Dry/Favorably Moist)
- +1.0 to +1.9 (Abnormally Moist)
- +2.0 to +2.9 (Wet)
- +3.0 and above (Excessively Wet)

Outlook

The CPC Outlook for September through November indicates a greater chance for above normal temperatures across South Central Texas (figure 8). The outlook shows equal chances for normal, below normal or above normal rainfall through November across the region (figure 9). The next three-month outlooks are scheduled to be available on August 18th 2011.

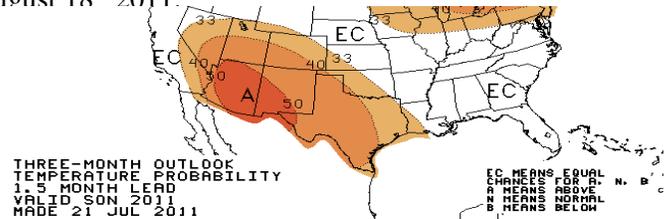


Figure 8 – Temperature Outlook

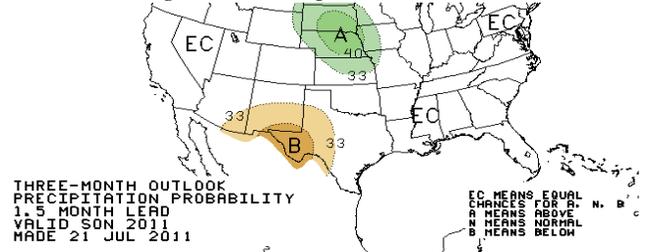


Figure 9 – Precipitation Outlook

As shown in figure 10, the latest U.S. Seasonal Drought Outlook indicates drought persisting through October 2011.

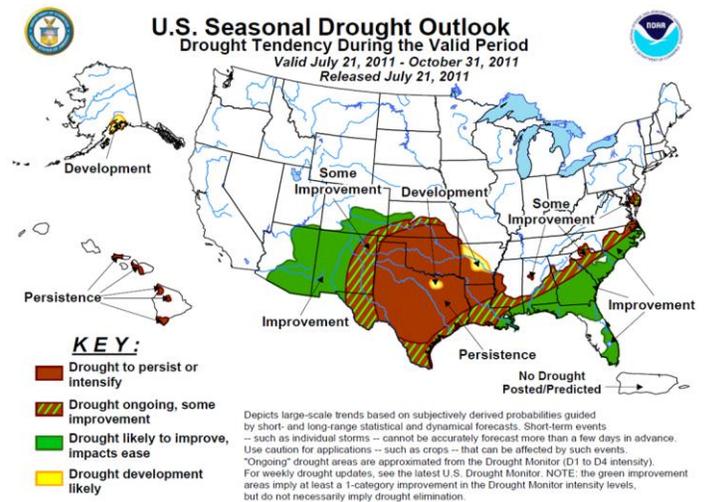


Figure 10 – U.S. Seasonal Drought Outlook Map

Contact Information:

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 New Braunfels, TX 78130
 830.606.3617

Website: <http://www.srh.noaa.gov/ewx/>

Email: sr-ewx.webmaster@noaa.gov

Drought Related Links:

Precipitation Data:

<http://water.weather.gov/precip/>

The U.S. Drought Monitor:

<http://www.drought.unl.edu/dm/monitor.html>

The USGS WaterWatch:

http://waterwatch.usgs.gov/?m=pa07d_nwc&r=tx&w=map

TCEQ Map of Water Systems under Water Use Restriction

http://www.tceq.state.tx.us/permitting/water_supply/pdw/trot/location.html

The Texas Counties Burn Ban Map:

<http://txforestservicetamu.edu/main/popup.aspx?id=1991>

The KDBI County Average Map:

<http://txforestservicetamu.edu/main/popup.aspx?id=1991>

CPC Soil Moisture:

http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml

Texas AgNews:

<http://agnews.tamu.edu/>

CPC Outlook Maps:

<http://www.cpc.ncep.noaa.gov/>

CPC U.S. Seasonal Drought Outlook:

http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html
