



DROUGHT INFORMATION STATEMENT

SOUTH CENTRAL TEXAS

WFO AUSTIN/SAN ANTONIO, TX

ISSUED: APRIL 4, 2013



Summary

After a dry March across the area, April began with a fairly decent rainfall event to get the month going. Along the Rio Grande Plains rainfall amounts ranged from a third to a half inch with amounts increasing to one to two inches across the remainder of south central Texas. Locations along and east of I-35 did see amounts of two to three inches in some locations. A few locations saw locally heavier amounts of four to six inches. Most of this rainfall fell south of the lakes and reservoirs so not much long term drought improvement is expected. Short term this was a very beneficial rainfall. Current outlooks covering the next two weeks are indicating stronger trends for near average temperatures and rainfall.

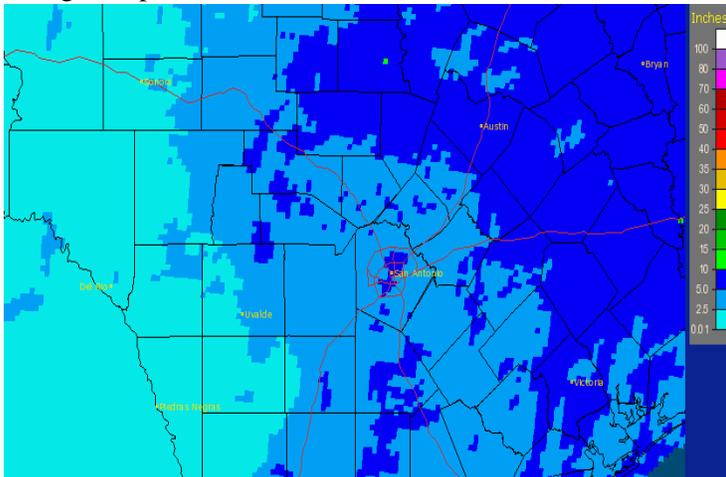


Figure 1 - Total Observed Rainfall January 1, 2013 to April 3, 2013

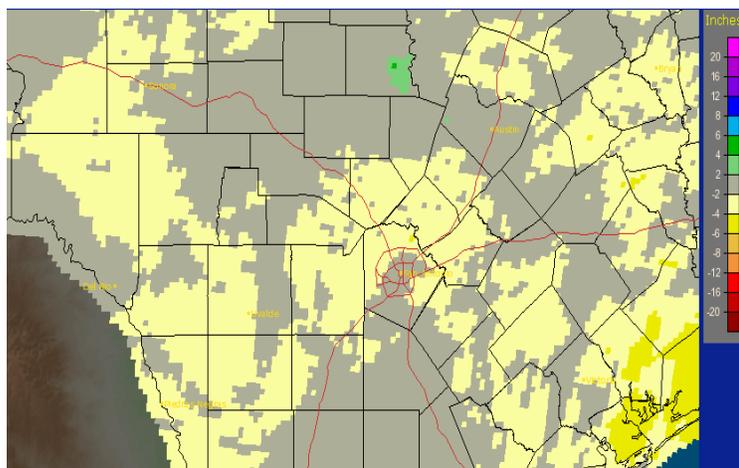
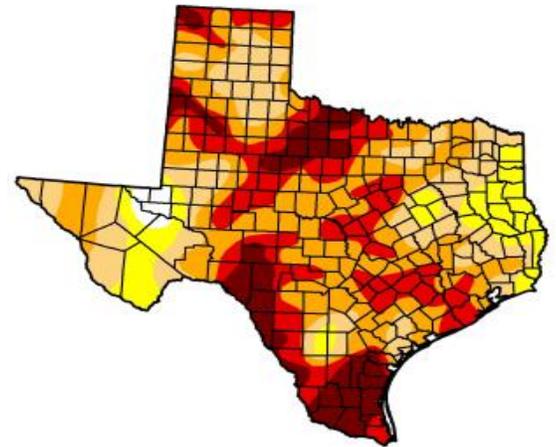


Figure 2 - Departure from Normal Rainfall January 1, 2013 to April 3, 2013

Figure 3, the [U.S. Drought Monitor](#) valid April 2nd and issued on April 4th through the [National Drought Mitigation Center](#), showed drought conditions have gotten slightly worse across the Rio Grande Plains and portions of the Coastal Plains. Extreme to Exceptional Drought conditions continue across the western Hill Country and the Rio Grande Plains. South Central Texas is currently Abnormally Dry (D0) to Exceptional Drought (D4), with most locations now in Severe Drought (D2) to Extreme Drought (D3) status. Currently 88 percent of the state is experiencing Moderate (D1) to Exceptional (D4) Drought status and twelve percent of the state in Exceptional (D4) Drought status.



Intensity:

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



Released Thursday, April 4, 2013
National Drought Mitigation Center,

Figure 3 - April 4th 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 Colorado and San Antonio basins reported normal flows. The Rio Grande basin reported below normal flows The Guadalupe, Frio and Nueces basins reported much below normal flows.

Reservoir conditions as of April 4th 2013 are presented in the following table.

Reservoir	Pool Elevation (ft)	Current Elevation (ft)
Amistad	1117.00	1065.3
Medina Lake	1064.2	984.7
Canyon Lake	909.00	899.7
Granger Lake	504.00	504.4
Georgetown Lake	791.00	777.8
Lake Buchanan	1020.00	991.4
Lake LBJ	825.00	824.7
Lake Marble Falls	738.00	736.7
Lake Travis	681.00	631.0
Lake Austin	492.90	492.6

According to Texas Commission on Environmental Quality (TCEQ), there are 1023 public water supply systems with voluntary or mandatory water use restrictions across the entire state. Figure 4 shows the locations of affected systems across Texas. This assessment is normally updated at least monthly.

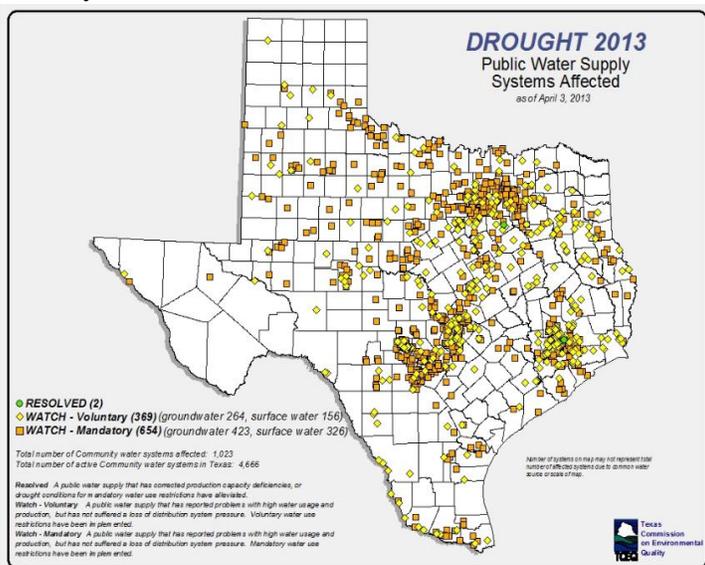


Figure 4 – Water Systems with Water Use Restrictions April 3, 2013

Fire Danger Impacts

As of April 4th, 15 counties in South Central Texas have county wide outdoor burn bans. These burn bans are established by county officials.

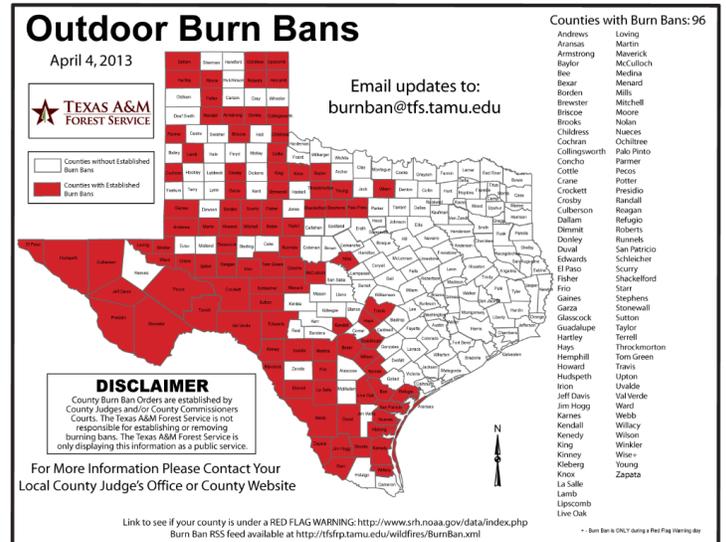


Figure 5 - Burn Bans Currently in Effect

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 April 4th issuance of the KBDI showed values of 200 to 500 across the eastern half of the region and 400 to 700 across the western half of the area.

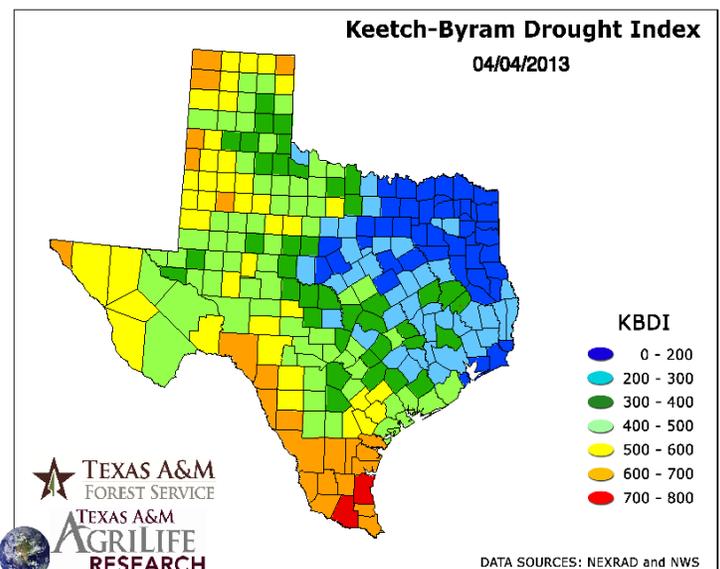


Figure 6 – KBDI Map

Agricultural Impacts

Each week, the [Climate Prediction Center \(CPC\)](#) analyzes the percent of available soil moisture as compared to normal. As of April 3rd the available soil moisture ranges from five to twenty percent of normal across South Central Texas.

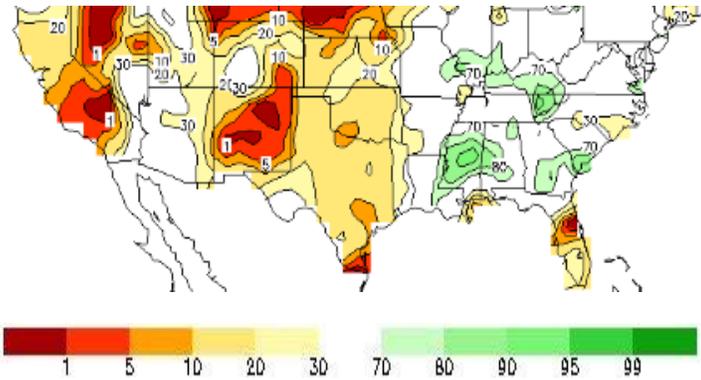


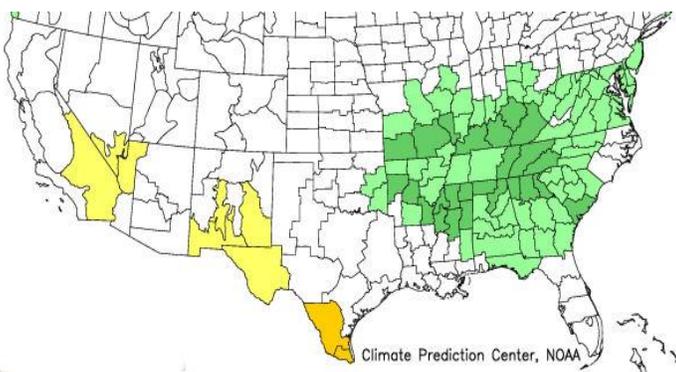
Figure 7 – Percent Available Soil Moisture

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 March 30th indicated that short term moisture conditions were Slightly Dry/Favorably Moist across South Central Texas.

Crop Moisture Index by Division

Weekly Value for Period Ending MAR 30, 2013

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 May through July indicates stronger trends for above normal temperatures and stronger trends for near average precipitation across South Central Texas (figure 8) and (figure 9). The next three-month outlooks are scheduled to be available on April 18th 2013.

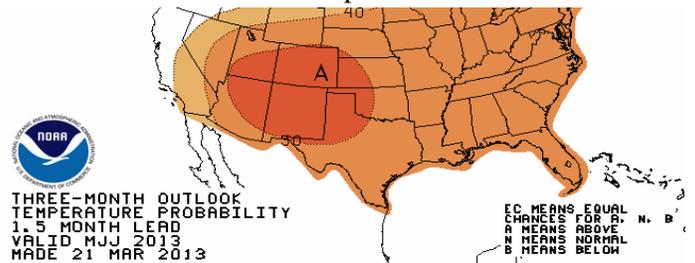


Figure 8 – Temperature Outlook

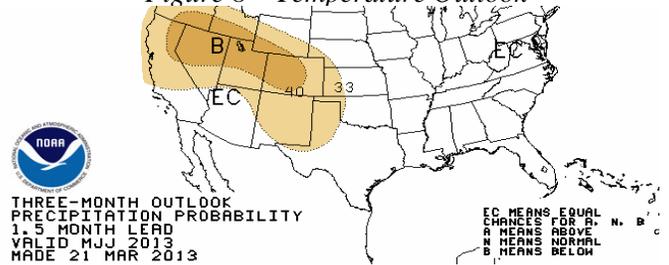


Figure 9 – Precipitation Outlook

As shown in figure 10, the latest U.S. Seasonal Drought Outlook indicates drought conditions will persist through June 30, 2013.

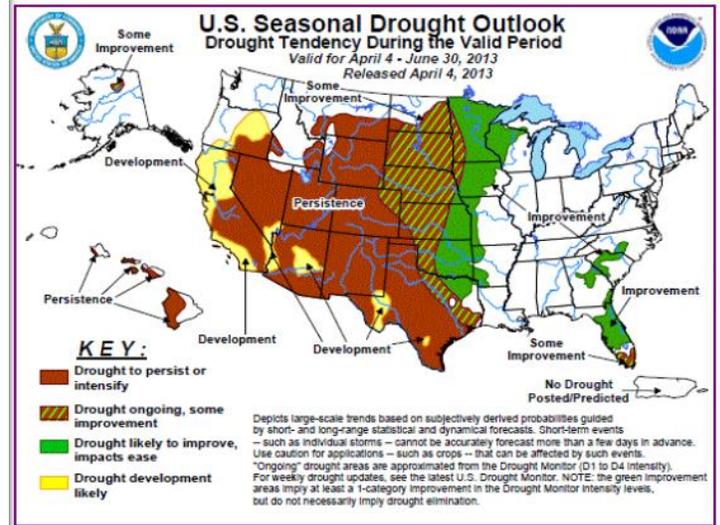


Figure 10 – U.S. Seasonal Drought Outlook Map

Contact Information:

Austin/San Antonio National Weather Service
 2090 Airport Road
 New Braunfels, TX 78130
 830.606.3617
 Website: <http://www.weather.gov/austin/>
 Email: sr-ewx.webmaster@noaa.gov

Drought Related Links:

Precipitation Data:

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

The U.S. Drought Monitor:

<http://droughtmonitor.unl.edu/>

The USGS Water Watch:

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
