



DROUGHT INFORMATION STATEMENT

SOUTH CENTRAL TEXAS

WFO AUSTIN/SAN ANTONIO, TX

ISSUED: JANUARY 26, 2010



Summary

El Nino began to impact the region in early September with abundant rainfall. Although the frequency of rainfall events has decreased most of South Central Texas continues to see normal or above normal rainfall. Portions of the Rio Grande Plains have seen less rainfall during the last four months and continue to deal with abnormally dry to severe drought conditions. Rainfall in January has ranged from one half inch over the Rio Grande Plains to three inches across South Central Texas and the Coastal Plains. A few locations have seen four to five inches. Figure 1 depicts the accumulated rainfall from January 1st to January 25th. Figure 2 shows the year-to-date rainfall departures for 2010.

Figure 3, the [U.S. Drought Monitor](#) issued on January 19th through the [National Drought Mitigation Center](#), shows that drought conditions across South Central Texas are no longer present. D0 (abnormally dry) to D2 (severe) drought conditions continue across the Western Hill Country and across the Rio Grande Plains. The rainfall over the past four months has helped to improve drought conditions by several categories since the beginning of September. With additional rainfall over the winter and into spring more improvements are likely. In response to the rainfall, area reservoir, lake, and river levels have shown some improvement.

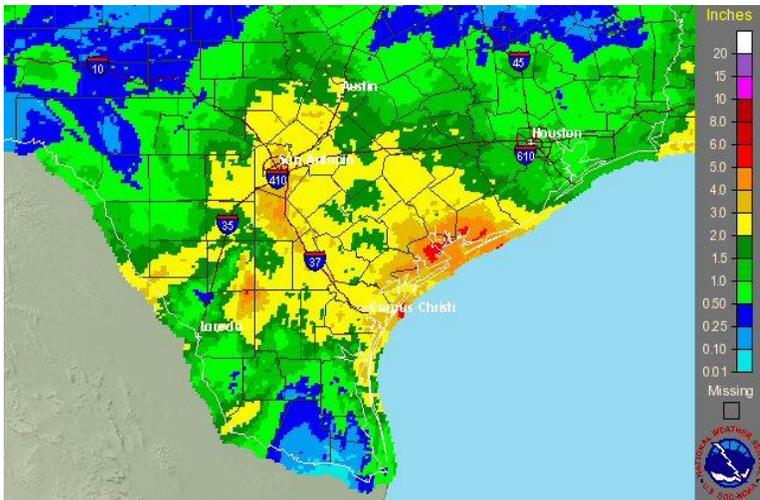


Figure 1 - Total Observed Rainfall January 1, 2010 through January 25, 2010.

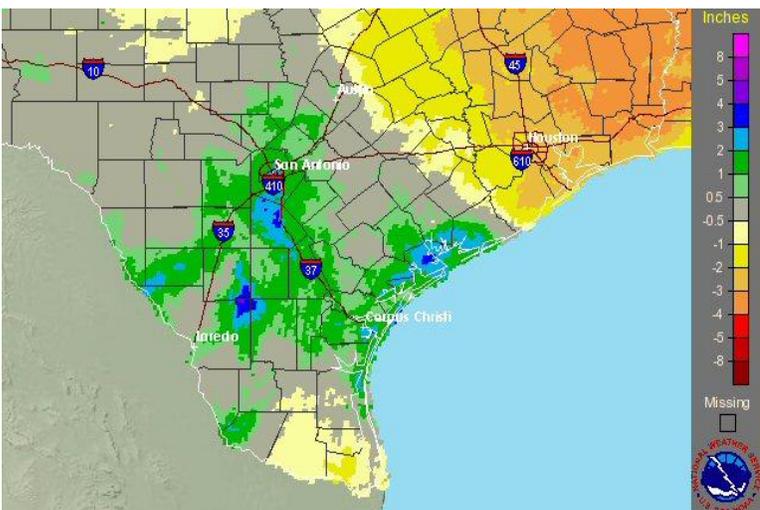
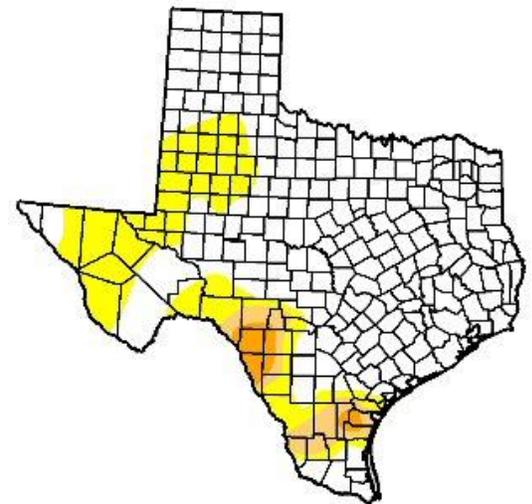


Figure 2 - Total Year-to-Date Rainfall Departure for 2010

January 19, 2010
Valid 7 a.m. EST



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

USDA National Drought Mitigation Center
Released Thursday, January 21, 2010
Author: D. Miskus, JAWF/CPC/NOAA

Figure 3 – January 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 6 AM Tuesday.

Hydrologic Impacts

According to the [USGS Water Watch](#), most of the rivers across South Central Texas are reporting normal flows for this time of the year. However, a few across the western portion of the region are reporting below normal flows.

Reservoir conditions as of January 26th, 2010 are presented in the following table.

Reservoir	Pool Elevation (ft)	Current Elevation (ft)
Amistad	1117.00	1115.06
Medina Lake	1064.2	1017.57
Canyon Lake	909.00	901.17
Granger Lake	504.00	502.14
Georgetown Lake	791.00	793.66
Lake Buchanan	1020.00	996.84
Lake LBJ	825.00	824.84
Lake Marble Falls	738.00	736.56
Lake Travis	681.00	658.32
Lake Austin	492.90	492.15

According to Texas Commission on Environmental Quality (TCEQ), there are several 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 monthly.

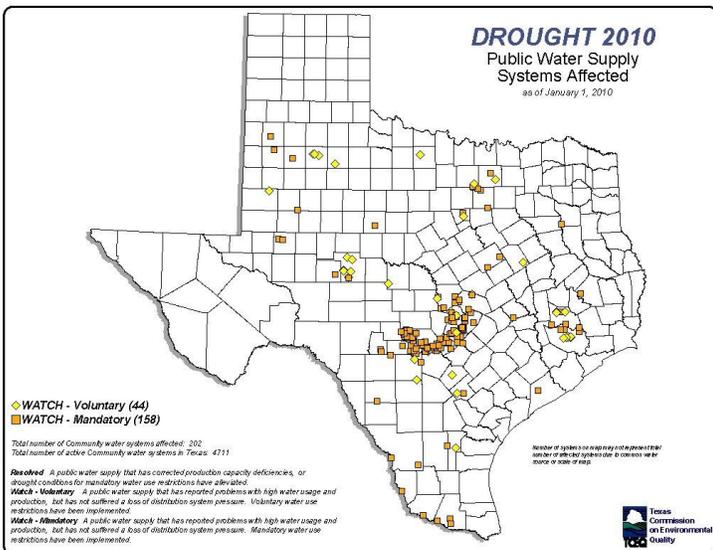


Figure 4 – Water Systems Under Water Use Restrictions as of January 1, 2010.

Fire Danger Impacts

As of January 22nd, 4 counties in South Central Texas have county wide outdoor burn bans. These burn bans are established by county officials.

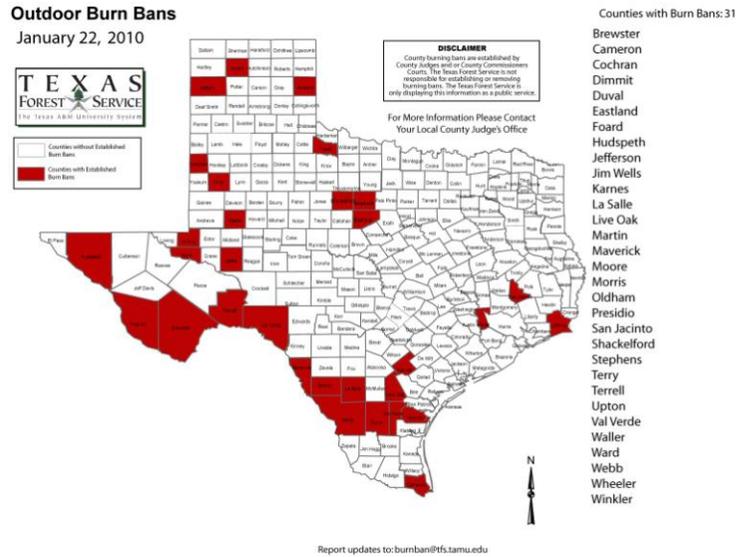


Figure 5 - Burn Bans Currently in Effect

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 January 26th issuance of the KBDI shows that most of the region falls within the 0 to 200 range. The Rio Grande Plains have drier values of 300 to 500 as less rain has fallen across the area during the recent rain events.

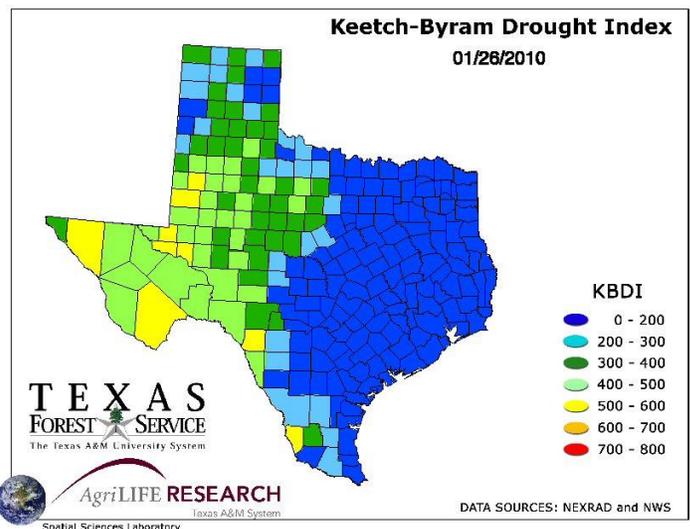


Figure 6 – KBDI Map

Agricultural Impacts

Each week, the [Climate Prediction Center \(CPC\)](#) analyzes the percent of available soil moisture as compared to normal. As of January 25th the available soil moisture ranges from 30 to 90 percent of normal across South Central Texas.

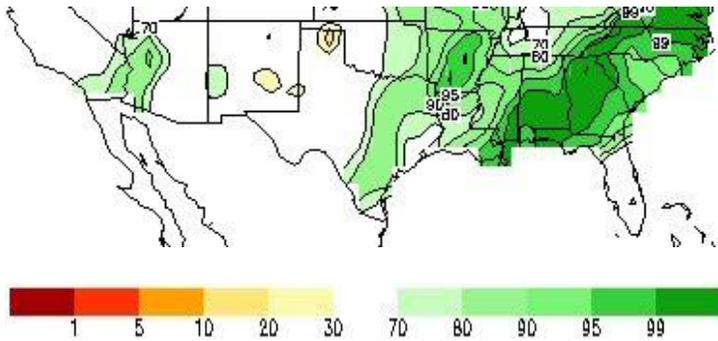


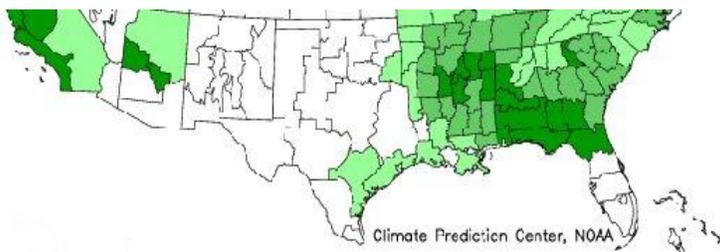
Figure 7 – Percent Available Soil Moisture

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 January 23rd indicated that short term moisture conditions are slightly dry/favorably moist across South Central Texas and the Hill Country. Over portions of the Coastal Plains, conditions are abnormally moist.

Crop Moisture Index by Division

Weekly Value for Period Ending JAN 23, 2010

Short Term Need vs. Available Water in 5 Ft 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 February through April indicates a greater chance for below normal temperatures across South Central Texas (figure 8). The outlook also shows a greater chance for above normal rainfall through April across the region (figure 9). The next three-month outlooks are scheduled to be available on February 18th.

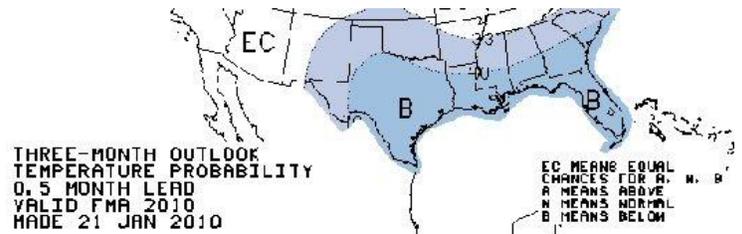


Figure 8 – Temperature Outlook



Figure 9 – Precipitation Outlook

As shown in figure 10, the latest U.S. Seasonal Drought Outlook indicates continued improvement of drought conditions are expected across South Central Texas through April 2010.

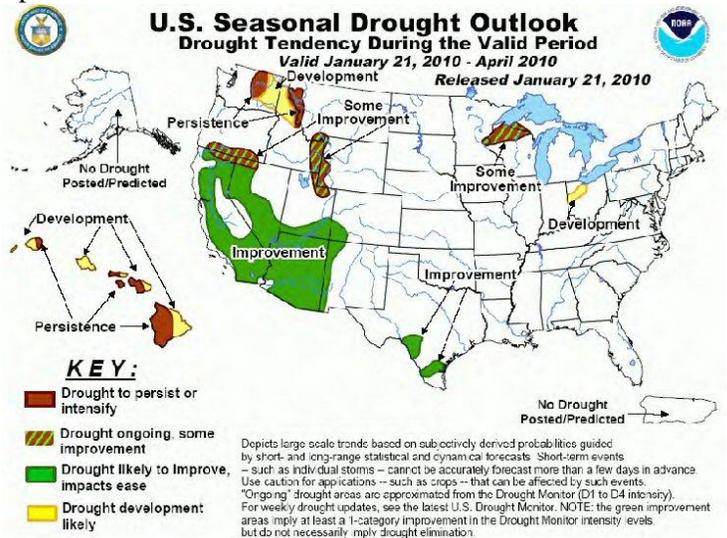


Figure 10 – U.S. Seasonal Drought Outlook Map

Contact Information:

Austin/San Antonio National Weather Service
 2090 Airport Road
 New Braunfels, TX 78130
 830.606.3617

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

Email: sr-ewx.webmaster@noaa.gov

Drought Related Links:

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://www.tamu.edu/ticc/>

The KDBI County Average Map:

<http://txforests.tamu.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
