Press Release **December 27, 2022**

To: **Radio and TV Broadcasters and News Directors**
What: **Top 5 Weather Events of 2022**

Contact: **Amy Campbell, Meteorologist in Charge, (325) 944-9445**

Top 5 Weather Events of 2022

In 2022, we endured a variety of impactful weather phenomena, ranging from record heat and substantial drought to severe weather and winter weather. As we all know, weather across West Central Texas can change dramatically, and is typically characterized by flash floods, drought, wildfires, wind storms, winter storms and tornadoes.

We are extremely grateful for our first responders who constantly save lives from hazardous weather. We are also thankful to many of our partners in emergency management, fire departments, law enforcement, amateur radio operators, county judges, DPS, USGS, TxDOT, Farm Safety Service, radio, TV, and social media, NWS Cooperative Observers, rainfall observers, and trained spotters who assist us with real time reports. Special thanks to our local emergency officials who work diligently to warn and protect their communities. Included below is is a recap of the top 5 weather events of 2022.

(1) Record Heat May into Early August:

Record heat was a prominent part of the weather from May into early August. Daily high temperatures of 100 degrees or more were common. At San Angelo, a new record was set for the highest number of consecutive days with highs of at least 100 degrees (37 days, from July 4th through August 9th). This smashed the previous record of 28 days, set in 2011. Abilene and San Angelo both had the second highest annual number of days with highs of at least 100 degrees (76 days at Abilene and 78 days at San Angelo).

The average temperature for July was not only the warmest on record for that month, but was the warmest of any month on record at Abilene (90.7 degrees) and tied for the warmest of any month on record at San Angelo (89.7 degrees). In addition, the average high temperature for July was the warmest of any month on record at Abilene (103.7 degrees) and San Angelo (103.5 degrees).

Leading up to July, the average temperature for May was the warmest on record at San Angelo and Abilene. A new record was set for the highest number of days in May with 100 degree temperatures at San Angelo (15 days) and Abilene (14) days. Daily record high temperatures were set or tied on 10 days in May at Abilene, and on 7 days in May at San Angelo.

June was the 3rd warmest on record at Abilene, and 4th warmest at San Angelo. At Abilene, the record was tied for the highest number of days in June with 100 degree temperatures (21 days). San Angelo recorded the second highest number of days in June with 100 degree temperatures (21 days).

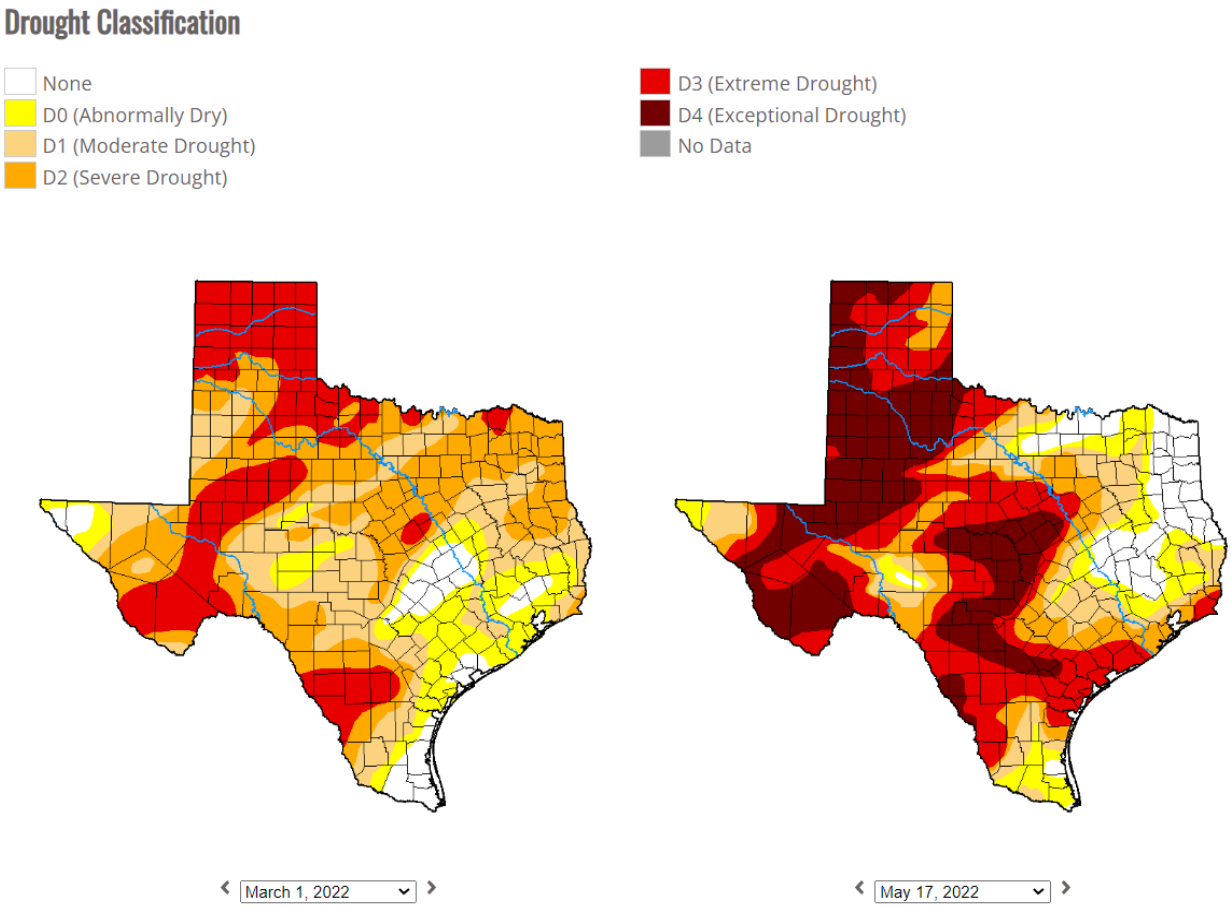
Above normal temperatures and dry conditions occurred during the first week of August, when an expansive upper level high pressure system was over Texas and the southern part the U.S. Afternoon highs were in the upper 90s to around 105 degrees, and early morning lows were mostly in the mid 70s to around 80 degrees. A slight change in the pattern in the second week of August brought an end to the consecutive streak of 100 degree temperatures at San Angelo.

At San Angelo, 37 consecutive days of 100 degree temperatures (July 4th through August 9th) smashed the old record consecutive streak of 28 days set in 2011. The hottest day during this streak was 110 degrees on July 11. The number of days during this streak with highs of at least 105 degrees were 13.

(2) <u>Substantial Drought:</u>

Another highlight for 2022 was the substantial drought which occurred in west-central Texas. Drought conditions were already in place at the beginning of the year. On the January 4th U.S. Drought Monitor for Texas, much of west-central Texas was in moderate to severe drought, and a portion of the Big Country was experiencing extreme drought. Precipitation was below normal in January. For a large part of the area north of an Ozona to Richland Springs line, the monthly precipitation was less than 25 percent of normal.

After some wet and colder weather in February, drought conditions worsened in the March to May time frame. The below U.S. Drought Monitor comparative maps for Texas show drought status on March 1st and May 17th.

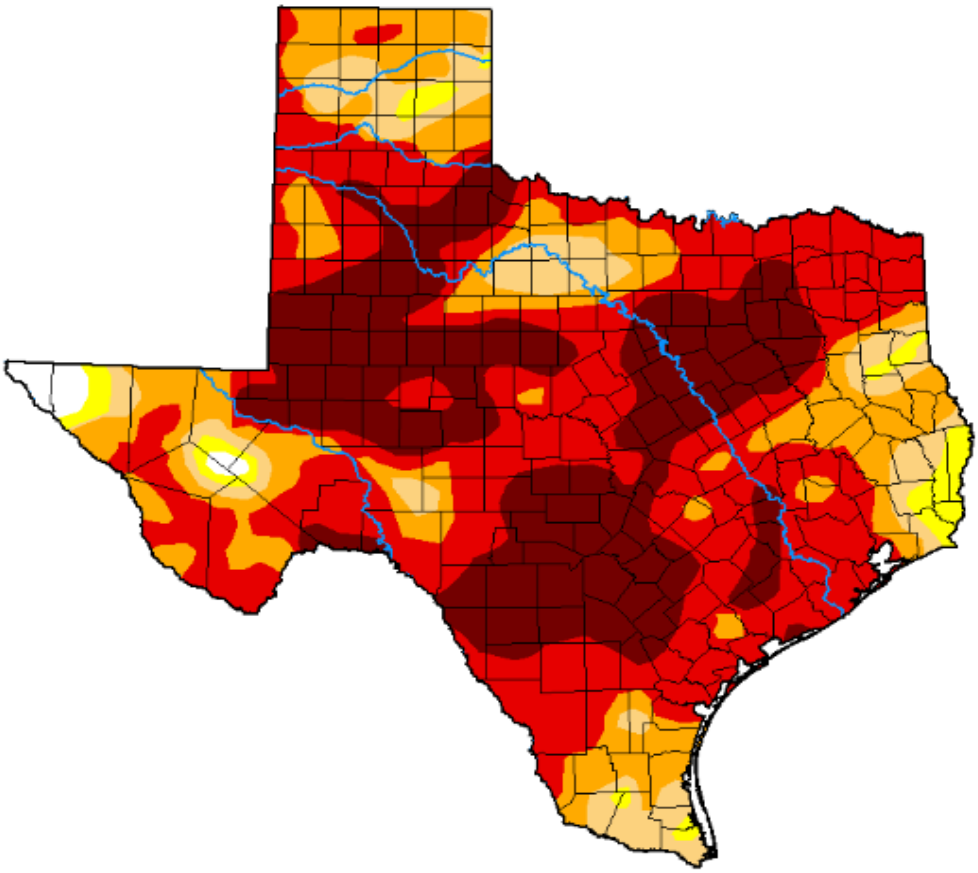


Precipitation for March was well-below normal across nearly all of west-central Texas. Numerous locations received less than 25 percent of normal precipitation for the month. On several occasions, dryline advances into the area brought very dry air (relative humidity as low as 5 to 15 percent). During the middle of March, very dry air masses were over west-central Texas.

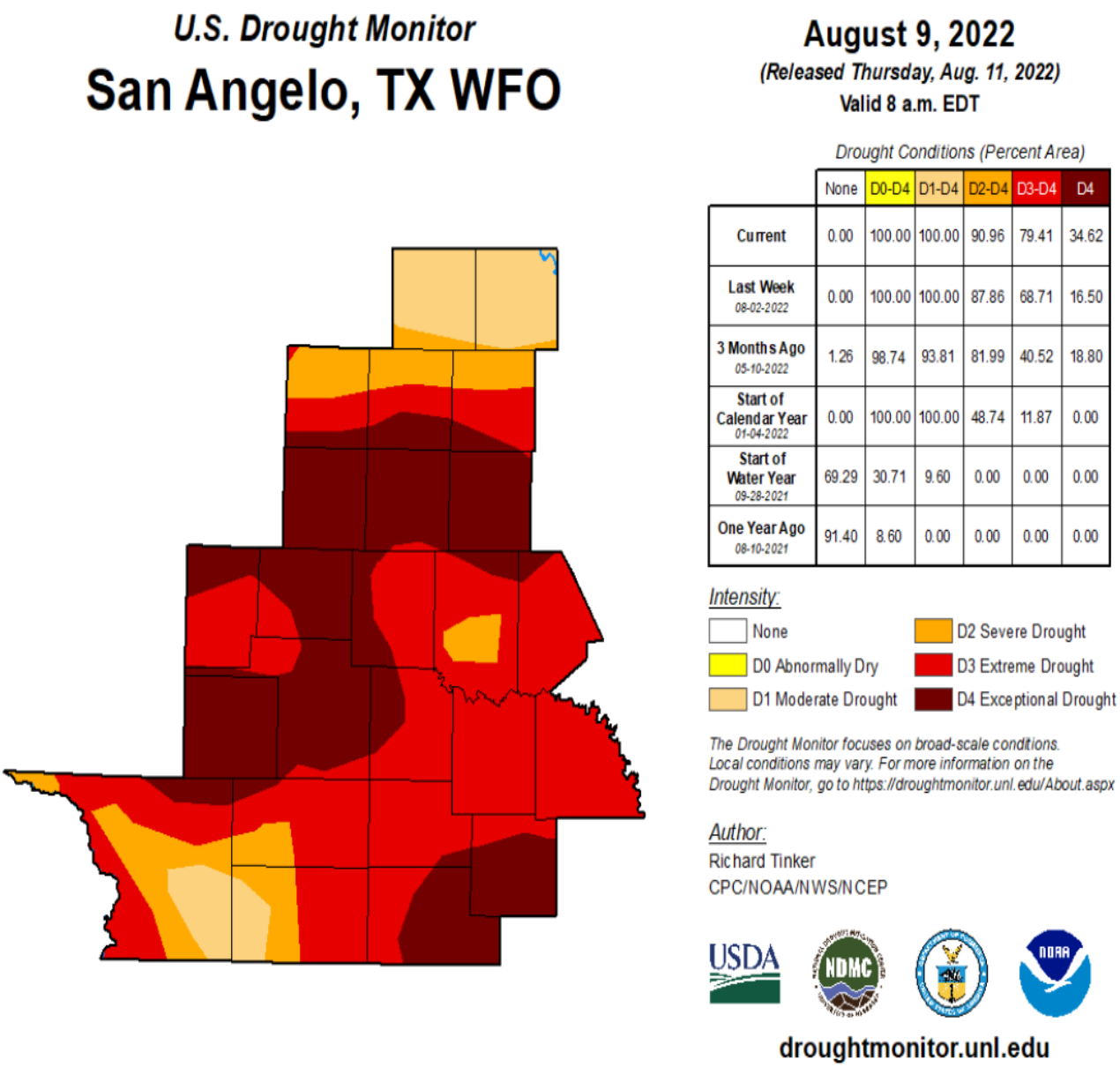
Dry conditions prevailed in April. Relative humidity dropped to less than 20 percent on a number of days in the early and middle parts of the month. Record heat in May was combined with well-below normal rainfall across much of the area. Abilene recorded its 9th driest May on record.

In June, record heat was combined with well-below normal rainfall across much of the area. July brought a continuation of record heat, and rainfall was well-below normal across much of the area.

Above normal temperatures and dry conditions persisted through the first week of August. The peak of drought conditions (worst) was evident in the U.S. Drought Monitor for Texas on August 9th (shown on the map below). By this time, drought conditions were extreme to exceptional across most of west-central Texas (red and maroon shaded areas on the map).



August 9, 2022



In the National Weather Service San Angelo county warning and forecast area (August 9 U.S. Drought Monitor map above), nearly 91 percent of the forecast area was in severe or worse drought (34.62% in Exceptional Drought, 44.79% in Extreme Drought, and 11.55% in Severe Drought).

The effects of the drought were major, and included the loss of pasture and grazing for cattle, liquidation/sale of cattle, and failure or significantly reduced yields of the winter wheat and cotton crops.

A combination of very dry air and occasionally windy conditions in the spring, with record heat and lack of rainfall in June, July and early August, resulted in higher evaporative losses from area reservoirs. Several rain events occurred from late August into the first half of December. However, with insufficient runoff, water levels on area reservoirs continued to decrease.

The table below shows the changes on several area reservoirs in the past year.

Name of Reservoir	Percent Full 12/20/2021	Percent Full 12/20/2022	Percent Change From One Year Ago
Lake Brownwood	**93.0**	**62.3**	**-30.7**
O.H. Ivie	**54.7**	**40.1**	**-14.6**
Twin Buttes	**51.9**	**29.2**	**-22.7**
Fort Phantom Hill	**94.3**	**67.1**	**-27.2**
Oak Creek	**69.1**	**49.1**	**-20.0**

(3) Wildfires:

Drought conditions were already in place across west-central Texas at the beginning of the year. With dry, dormant vegetation and a prolonged period of strong, gusty north to northwest winds January 14th-15th, a few brush and grass fires were reported. The wildfires occurred in Fisher, Shackelford, and Callahan Counties.

During the middle of March, very dry air masses were combined with very dry vegetation and stronger winds at times. With these conditions, several grass and brush fires occurred. This led to the development of new grass fires on March 17th west of Barnhart (Chico Lane Fire in Reagan County), and in Sterling County (Edmunson Fire). In addition, the Crews Fire along the border of Runnels and Coleman Counties was reignited. On March 20th, the Ramsey Fire developed in Brown County, and expanded to the north. The area affected by this fire was from near Blanket north to near May. A few evacuation notices were posted for that area.

In April, temperatures averaged well-above normal while precipitation was well-below normal for a large part of the area. With dry conditions and record heat combined with very dry vegetation, a few grass and brush fires occurred in May. The largest of these was the Mesquite Heat fire, which affected parts of Taylor County west of Buffalo Gap and southwest of Abilene. The size of this fire reached 10,960 acres, according to the Texas A&M Forest Service. This fire burned 20 homes and 7 outbuildings.

July brought a continuation of record heat, and rainfall was well-below normal across much of the area. With a persistence of above normal temperatures and dry conditions during the first week of August, the Ranger Creek wildfire (August 5th-8th), near the Haskell and Throckmorton county border just south of U.S. Highway 380, burned a total of 3,237 acres.

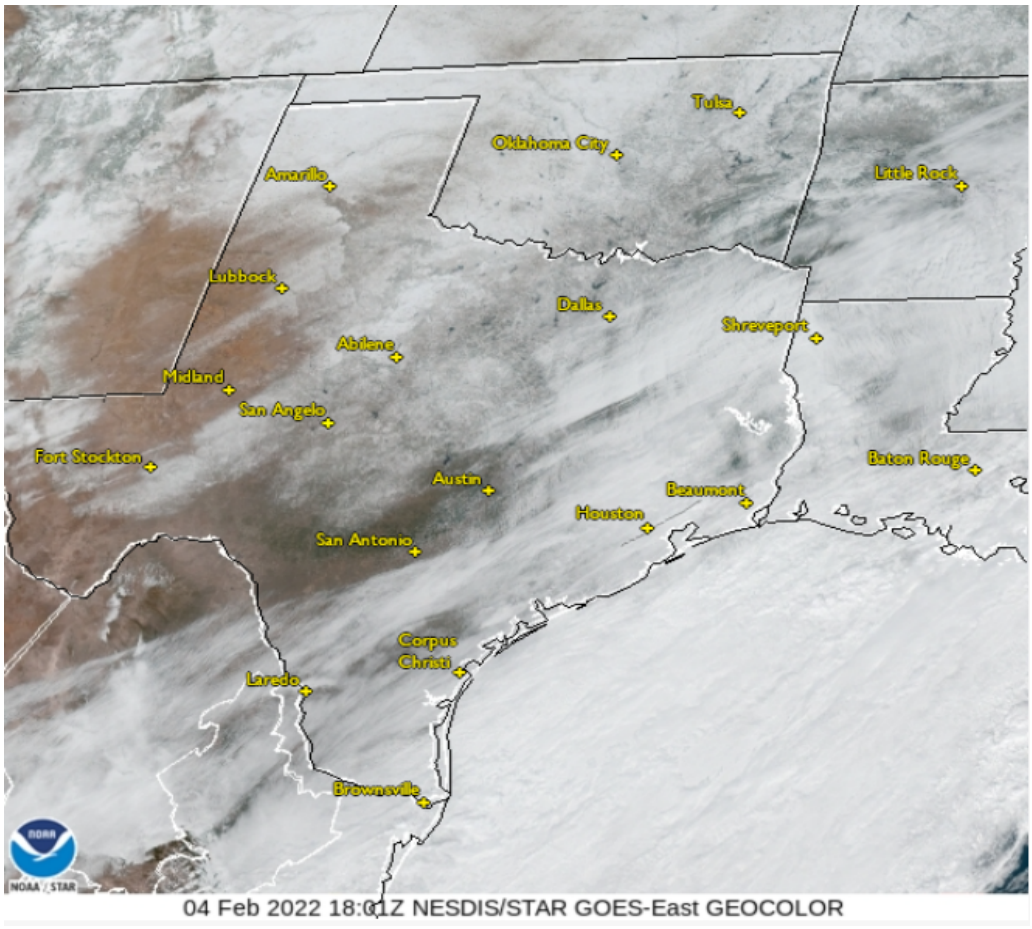
(4) Severe Weather Event May 24th:

A severe weather event occurred on May 24th, when a strong upper level disturbance interacted with a dryline entering the area from the west, and a cold front moving across the area from the north. With this setup, two areas of thunderstorms moved east and southeast across west-central Texas, during the evening and nighttime hours. Large hail (baseball to teacup size) and damaging winds occurred with the leading area of thunderstorms, while strong winds accompanied the second thunderstorm complex. In all, a total of 31 severe weather reports were received for this event. Heavy (and much needed) rainfall accompanied the thunderstorm complexes. Localized flooding was reported in Brown County (4 miles south-southeast of Brownwood) and in Tom Green County (1 mile north of Mereta).

(5) <u>Winter Weather Event February 2nd-3rd:</u>

Following a strong cold frontal passage the previous night, temperatures fell through the day on February 2nd. By evening, temperatures were at or below freezing across the northern two-thirds of the area. Temperatures continued to drop overnight, and were in the upper teens to lower 20s by 6 AM on February 3rd. A cold and freezing rain initially developed across the Big Country on February 2nd. The precipitation became mixed with sleet, and transitioned to a sleet and snow mix. Farther to the south, across the Concho Valley and Heartland areas, a cold rain was mixed with sleet at times, before changing to freezing rain and sleet. The precipitation became mostly sleet in the evening and early nighttime hours, and ended as light snow overnight into the morning of February 3rd. In southern parts of the area, rain became freezing rain as temperatures dropped to and below freezing. Freezing rain mixed with and changed to sleet overnight.

The image below is a GOES Visible Satellite image on the morning of February 4th, which showed the snow cover after skies cleared.



The higher snowfall amounts (2 to 5 inches) occurred across the Big Country. In the Concho Valley and Heartland areas, snowfall accumulations were one-half inch to 2 inches. In southern parts of the area, snow accumulation was a trace to one-half inch. Sleet accumulations were around one-half inch. The light freezing rain and sleet produced a glaze of ice.

Complete List of Snow, Sleet and Ice Reports.

Wind Chill values were very cold (mostly between 5 degrees and 7 degrees below zero) during the overnight hours of February 3rd and 4th. The cold air lingered through February 5th.

Three ways to keep safe:

1) Always have more than one way to receive forecast & warning information via the web, apps, and NOAA weather radio. weather.gov/sanangelo.

2) Know what to do by having a plan, and practice executing your plan regularly.

3) Review NWS Weather safety tips at weather.gov/safety.

On behalf of the staff of the National Weather Service located in San Angelo, we wish you and yours a happy and safe holiday season!

Mike Castillo
Warning Coordination Meteorologist

Thomas Pepe
Lead Forecaster

Matthew Groh
General Forecaster

Working Together to Save Lives"