



THE POTENTIAL FOR DROUGHT

Texas Drought: Expectations now through 2036

June 14, 2022

Texas' weather is growing more extreme. One major cause for concern is the threat of more severe droughts. According to the [National Weather Service Climate Prediction Center](#), most of Texas is expected to be experiencing drought by the end of June.

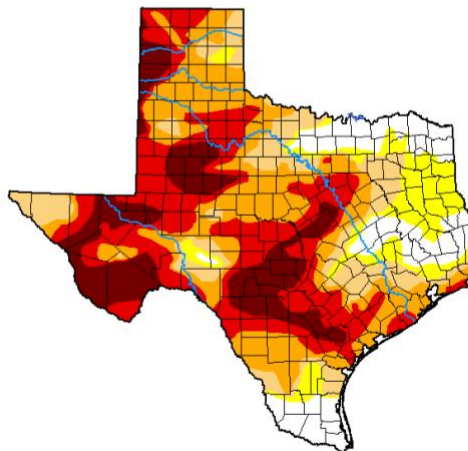
Precipitation variability, changes in water use and temperature variations are some of the factors influencing drought severity in the state. With current shifting trends, Texas can expect declining water availability and more intense future droughts.

Texans are heeding the call

A recent [Texas Voter Poll by Texas 2036](#) showed that residents are already feeling the damaging effects of changing weather—72% of voters recognize that the state's climate has changed over the past 10 years, with 32% of respondents saying those changes have been dramatic. Further, 59% of voters said the state is not well-prepared for extreme weather events.

With the future of Texas in mind, here is a look at the severity of extreme weather patterns hitting the state.

U.S. Drought Monitor Texas



June 7, 2022

(Released Thursday, Jun. 9, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	11.75	88.25	78.81	64.99	40.11	15.00
Last Week 05-31-2022	14.11	85.89	78.44	66.35	44.07	17.91
3 Months Ago 03-08-2022	3.95	96.05	89.93	68.43	36.38	6.39
Start of Calendar Year 01-01-2022	7.58	92.42	79.83	54.25	16.69	0.00
Start of Water Year 09-28-2021	45.57	54.43	7.26	0.27	0.00	0.00
One Year Ago 06-08-2021	77.24	22.76	12.57	7.71	4.47	1.16

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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droughtmonitor.unl.edu

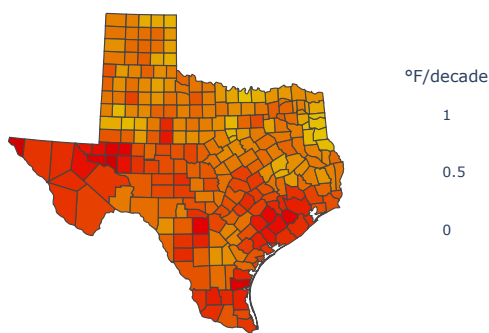
To download a copy of the extreme weather report, visit www.texas2036.org/weather.

Extreme Weather Trends

Research led by Texas State Climatologist Dr. John Nielsen-Gammon and supported by Texas 2036 finds that Texas is vulnerable to a wide range of natural hazards, most of which are associated with weather and climate events:

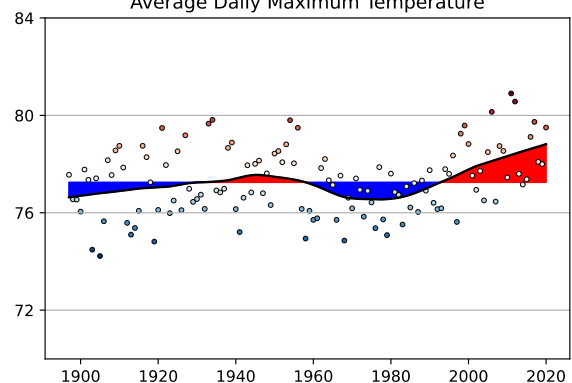
- **The number of 100-degree days has more than doubled** over the past 40 years and could nearly double again by 2036.
- Texas faces **increased drought severity**, as higher temperatures increase evaporation rates.
- Areas such as East Texas are at **increased risk for wildfires**.
- **Extreme rainfall has become more frequent and severe** and is expected to worsen. As a result, there will be a **significant increase in urban flooding** — as much as 30–50% more than occurred over the last half century.
- **Hurricane intensity is expected to increase significantly**. Due to sea level rise, the risk of hurricane storm surge in some places along the Texas Gulf Coast may in 2050 be twice as high as it was around 1900.

Average Temperature Trend, 1975-2020



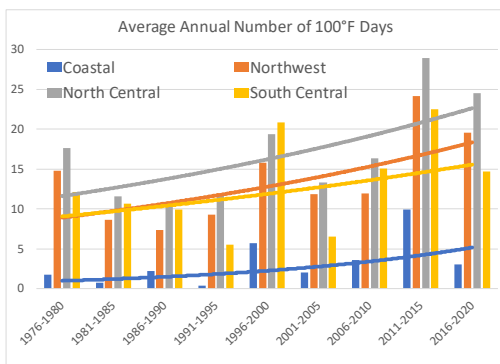
The rate of temperature increase in Texas since 1975 is 0.61°F per decade. The global trend since 1975 is .36°F per decade.

Average Daily Maximum Temperature



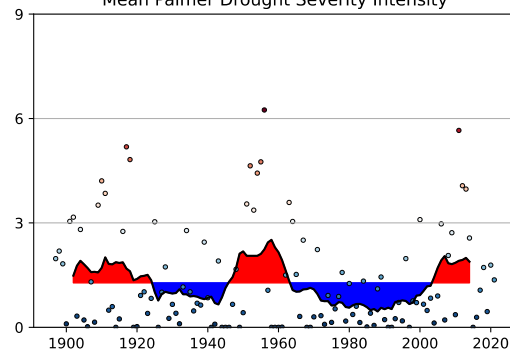
Texas temperatures climbed slightly during the early part of the 20th century, declined somewhat until the 1970s, and rose thereafter.

Average Annual Number of 100°F Days



Over the past 45 years, the linear trend shows an approximate doubling of the number of triple-digit days across the state.

Mean Palmer Drought Severity Intensity



Statewide annual cumulative drought severity, based on the Palmer Drought Severity Index which includes the effect of temperature on dryness.