

# Hotter Temperatures, Severe Droughts and Growing Wildfire Risk in the Forecast for Texas

*Texas A&M State Climatologist and Texas 2036 unveil updated extreme weather report with new wildfire risk section*

AUSTIN, TEXAS, USA, April 22, 2024 /EINPresswire.com/ -- The latest edition of "[Future Trends of Extreme Weather in Texas](#)" reveals a concerning

acceleration in extreme weather

conditions across the state. Produced by the Texas State Climatologist at Texas A&M University, [Dr. John Nielsen-Gammon](#), in collaboration with Texas 2036, this study details significant increases in 100-degree days, intensifying droughts and heightened urban flooding events.



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*Dr. John Nielsen-Gammon*

In response to the record-breaking number of wildfires across Texas last year and the recent Smokehouse Creek Fire, a new section provides historic wildfire data and indicates that Texas should prepare for an increased frequency of wildfires, particularly in the western and southern regions of Texas, if trends continue. This third edition builds on past data and expands on the potential impacts and risks facing the state through the state’s bicentennial in 2036 and beyond.

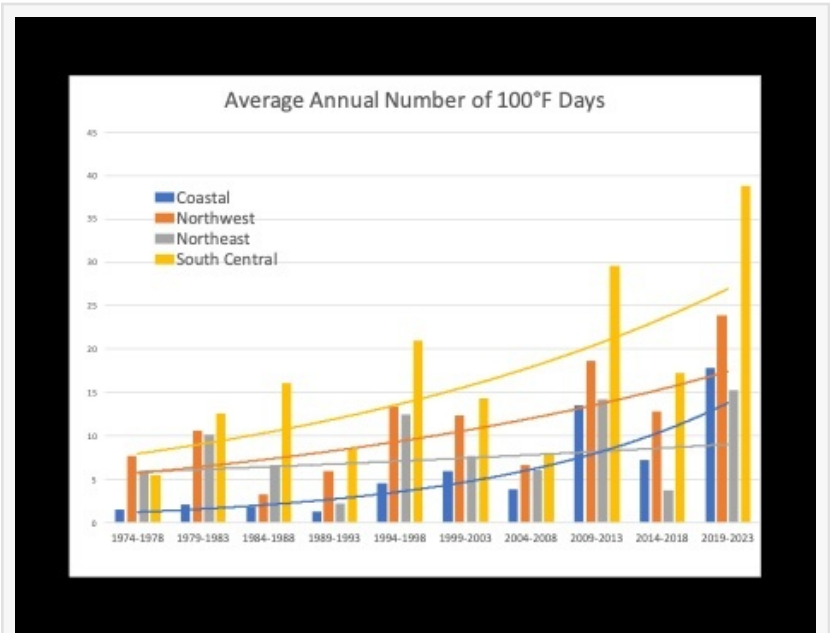
First launched in 2020 and previously updated in 2021, this pivotal report continues to serve as an essential resource for Texans and policymakers to understand and mitigate the impact of future extreme weather events.

"Our summers have been growing significantly hotter and rainfall has become more sporadic, reshaping Texas’ weather patterns," said Nielsen-Gammon. "If current trends continue, Texans will face more intense and frequent heat waves, more erratic rainfall and an increasing fire risk in certain areas of the state."

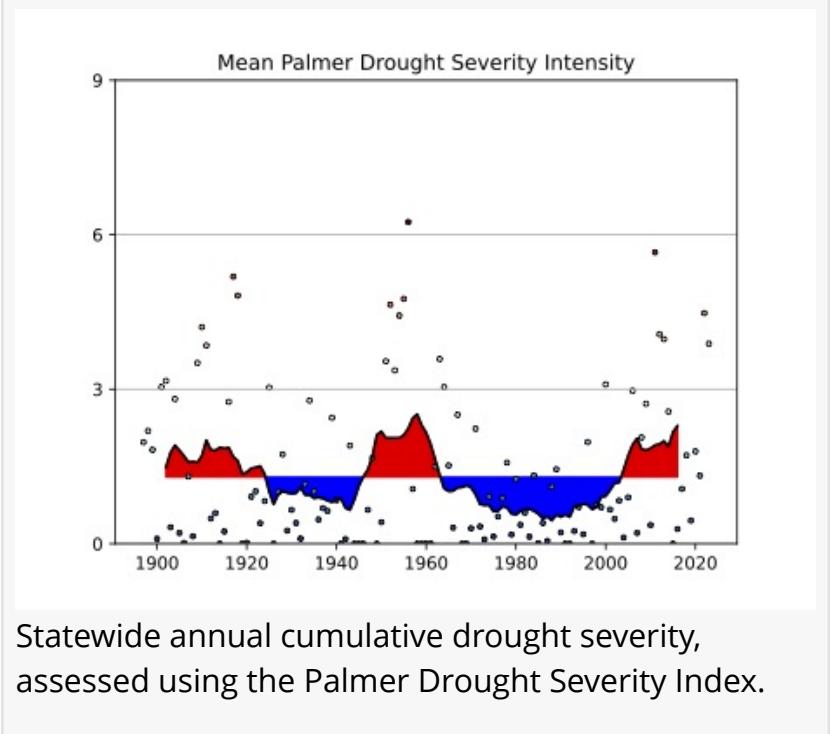
Key Findings and Implications

Updated data and analysis indicate a continued acceleration of extreme weather trends in Texas, posing daunting challenges to Texas' water supply, flood control and electric power resources, such as:

1. **Hotter Temperatures:** A dramatic rise in extreme heat, with 100-degree days close to four times as common by 2036 as in the 1970s and 1980s. As temperatures go up, Texans will likely keep their household thermostats steady, triggering greater demands for electricity.
2. **Accelerating Wildfire Risks:** Especially pronounced in western and southern Texas, with significant implications for property insurance rates.
3. **Intensified Drought Conditions:** A 7% increase in summertime evaporative losses by 2036 will exacerbate drought conditions as surface water supplies dry up faster.
4. **Increasing Urban Flooding:** A 15% increase in extreme one-day precipitation events since the late 20th century suggests an intensified rainfall pattern that will contribute to greater urban flooding by 2036.
5. **Changing Growing Season:** Over the past five decades, the agricultural growing season in Texas has become longer, now starting a half-month earlier and ending a half-month later.



Over the past 50 years, the linear trend shows an approximate tripling of the number of triple-digit days at stations in three of four regions.



Statewide annual cumulative drought severity, assessed using the Palmer Drought Severity Index.

“Our latest data show that extreme weather patterns will have a greater impact on all Texans in the coming years,” said [Jeremy Mazur](#), senior policy advisor at Texas 2036. “These findings underscore the urgent need for more strategic planning and smart investments in several key areas, including water supplies, the electric grid and wildfire management.”

Updates to the 2021 report rely on two-and-a-half additional years of data and new science. The

hot summers of 2022 and 2023 have enhanced the observed upward trend in 100-degree days. Recent research has also led to increases in the estimated changes in extreme precipitation and evaporation rates from lakes and reservoirs.

“This report is a testament to the power of combining Texas A&M’s outstanding research capabilities with Texas 2036’s unique strength in translating those results into research-based policy solutions for the state Legislature to consider,” said David Leebron, former president of Rice University and incoming president and CEO of Texas 2036. “This collaboration allows for informed decisions that will help safeguard our state’s future against these escalating extreme weather challenges.”

## Regional Impacts

The report shows that Texans’ risk of enduring various types of extreme weather varies based on where they live, with the following regions experiencing the most extreme conditions:

- West Texas Wildfires: This region has seen a dramatic increase in the number of days where it is susceptible to wildfires.
- Increased Rainfall in East Texas: Rainfall intensity by year 2036 will increase by 10% when compared to 2001-2020, and 20% relative to 1950-1999.
- Flooding in Urban Areas: Estimates of extreme rainfall based on historical data show a large uptick for the region, making it a hotspot for increased urban flooding. Urbanized surfaces lead to heightened flood risks, implying the need for infrastructure improvements.
- Rising Sea Level along the Coastal Bend: Observed increases in the relative sea level rise, including 2.18 feet per century in Galveston, 1.80 feet in Corpus Christi, and 2.02 feet in Sabine Pass, may contribute to a doubling of the storm surge risk.
- Increased Drought Severity Statewide: Higher temperatures and greater rainfall variability could increase future drought severity, accelerating strains on rivers, lakes and reservoirs.

## Texas 2036 Policy Solutions

Texas legislators, supported by Texas voters, have taken steps that begin to address these extreme weather challenges. Last year, the Legislature approved regional water planners’ use of more extreme drought scenarios in addition to creating a new \$1 billion fund for new water supply projects that received voter approval in November. Texas voters also approved the creation of a new fund to incent the expansion of the state’s electric generation capacity. Recently, House and Senate leaders directed legislative committees to make recommendations relating to wildfire risks, rising insurance costs, and water reliability.

## About Texas 2036

Texas 2036 is a nonprofit public policy organization committed to building long-term, data-driven strategies to ensure Texas’ prosperity up to its bicentennial and beyond. Our solutions are nonpartisan, grounded in thorough research, and focus on critical issues that matter most to all

Texans.

#### About the Office of State Climatologist

The Office of the State Climatologist fills an ever-expanding need in facilitating the best use of weather and climate information for decision-making by state and local governments, agencies, companies, groups, and individuals. The OSC is housed in the Department of Atmospheric Sciences, within the College of Arts & Sciences at Texas A&M University, and is located on the main campus in College Station.

As Texas State Climatologist, Dr. John Nielsen-Gammon helps the state of Texas make the best possible use of weather and climate information through applied research, outreach, and service on various state-level committees.

Read more here: <https://texas2036.org/weather/>. For press inquiries, email [media@texas2036.org](mailto:media@texas2036.org).

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