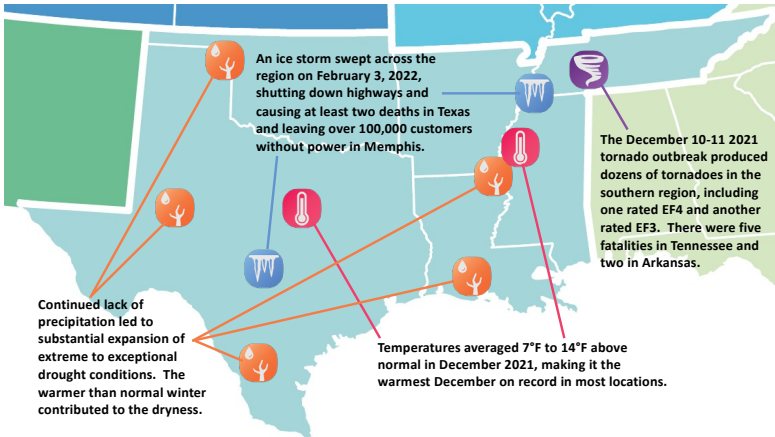


Southern Region Significant Events — Winter 2021-2022



Most of the Southern Region had to deal with below-normal rainfall and intensifying drought. Unusually high temperatures in December contributed to drought development. However, in Tennessee and surrounding areas there was adequate moisture and an unusual amount of severe weather.

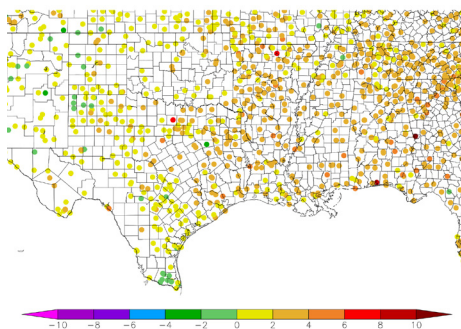
Overview

La Niña conditions persisted in the tropical Pacific Ocean during the winter, contributing to warm and dry conditions across much of the Southern Region. The rainfall pattern was exaggerated: south-central and southwest Louisiana experienced their driest winter on record, with precipitation less than 50% of normal. Overall, it was the 21st driest winter on record, with an average of 6.14 inches of precipitation. The only areas wetter than normal were Tennessee and surrounding areas, along with the lower Rio Grande Valley. Temperatures averaged 15th warmest on record, driven by a remarkably warm December. The average temperature across the region was almost 5°F warmer than the previous warmest December, according to records that begin in 1895, though limited data indicates that December 1889 may have been similarly warm.

Regional Climate Overview — Winter 2021-2022

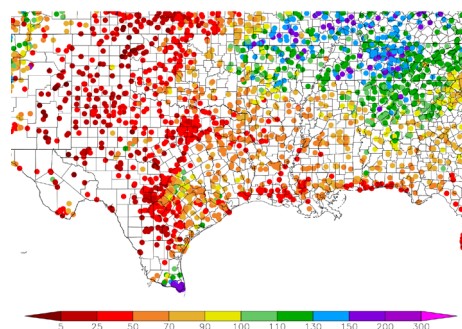
Temperature and Precipitation

Departure from Normal Temperature °F
12/1/2021 – 2/28/2022



Winter 2021-2022 temperatures were near normal across western Oklahoma and western and southern Texas. In the rest of the Southern Region, average winter temperatures ran about 2°F to 4°F above normal. Numerous stations set all-time records for average December warmth. After the exceptional December, temperatures in January were near normal and temperatures in February averaged about 2°F below normal.

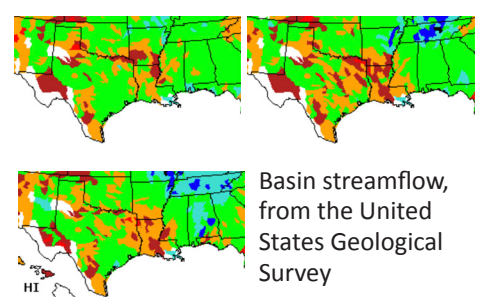
Percent of Normal Precipitation (%)
12/1/2021 – 2/28/2022



The northern half of Arkansas, all of Tennessee, parts of northern Mississippi, and isolated portions of Texas experienced above-normal precipitation during winter 2021-2022. Elsewhere, it was quite dry. Large areas of western Oklahoma, the Texas Panhandle and High Plains, central Texas, and south Texas received less than 25% of their normal winter precipitation, and much of Louisiana and southern Mississippi received less than 50%.

Surface Water

Monthly Average Streamflow



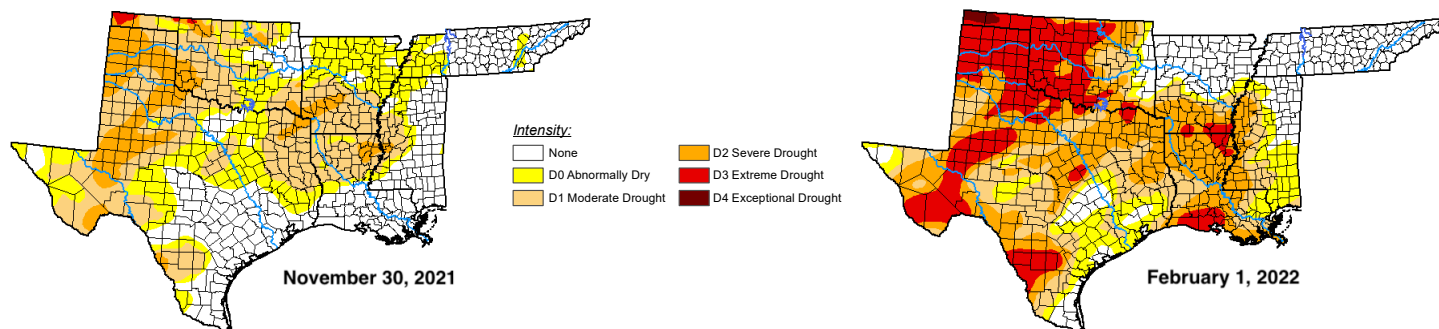
Streamflow across the Southern Region was generally near or below normal. By the end of February, most of Louisiana was in the lowest quarter of historical flows, with many areas in the lowest tenth percentile. Streamflow in Tennessee was generally high throughout the period, with some areas experiencing flows in the highest tenth percentile. Record low streamflows were found in parts of northeastern Texas and adjoining Louisiana.

Southern Regional Impacts

Tropical Weather, Drought, and Agriculture

Drought conditions degraded considerably across most of the Southern Region during winter 2021-2022. According to the US Drought Monitor, Oklahoma went from 61% of the state in drought at the beginning of December to 87% in drought at the end of February. Extreme drought expanded from 2% to 57%, and exceptional drought expanded from 0% to 12%. Texas went from 49% in drought to 90%, and from no extreme or exceptional drought to 36% extreme and 6% exceptional. Louisiana went from 36% in drought to 100% in drought, and from no severe or extreme drought to 90% severe and 33% extreme. Mississippi went from 7% in drought to 57% in drought, and from no severe or extreme drought to 28% severe and 6% extreme. Arkansas went from 20% in drought to 34% in drought, and from no severe or extreme drought to 24% severe and 5% extreme. Tennessee went from 1% in drought to no abnormal dryness at all.

Primary impacts are with winter wheat, which is mostly rated poor to very poor, and livestock forage and water. The drought is not yet seriously impacting water supplies. As dryness persists into spring planting season, the consequences may become much more severe.



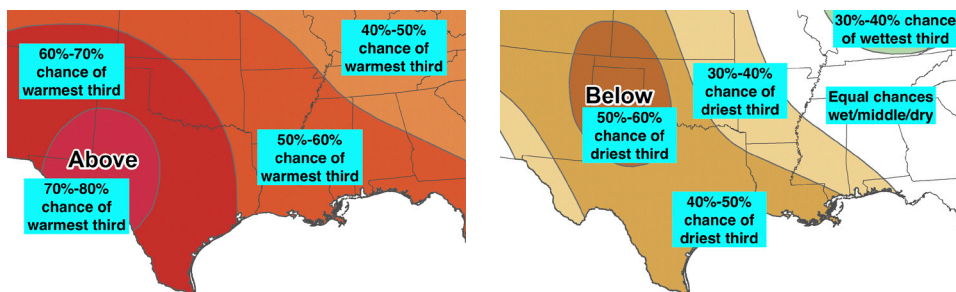
US Drought Monitor depiction of the Southern Region. The US Drought Monitor is produced by the National Drought Mitigation Center, the USDA, and NOAA.

Seasonal Outlook

Temperature

Precipitation

Outlook for April-June 2022



The seasonal temperature outlook from NOAA's Climate Prediction Center calls for enhanced chances of above normal temperatures. Above-normal temperatures are most likely in West Texas, where the outlook calls for a 50%-60% chance that temperatures will rank among the warmest third of recent historical temperatures.

The seasonal precipitation outlook features enhanced chances of drier than normal conditions. In most of Texas and half of Oklahoma, there is a 40%-50% chance that precipitation will rank among the lowest third of recent historical precipitation totals. In Tennessee and parts of adjoining states, there are equal chances of precipitation being substantially greater or substantially less than normal.

Drought Outlook

Consistent with the seasonal outlook favoring warm and dry conditions, the drought across the Southern Region is expected to persist or even worsen over the next three months, with elimination of drought judged by NOAA's Climate Prediction Center to be likely only for parts of southern Mississippi.

Southern Partners

NOAA/NWS Climate Prediction Center
(cpc.ncep.noaa.gov)

NOAA National Centers for Coastal Ocean Science
(coastalscience.noaa.gov)

NOAA Gulf of Mexico Collaboration Team
(regions.noaa.gov/gulf-mexico)

NOAA/NESDIS National Centers for Environmental Information
(ncei.noaa.gov)

NOAA/NWS Southern Region
(weather.gov/srh)

Southern Climate Impacts Planning Program
(southernclimate.org)

Southern Regional Climate Center
(srcc.tamu.edu)