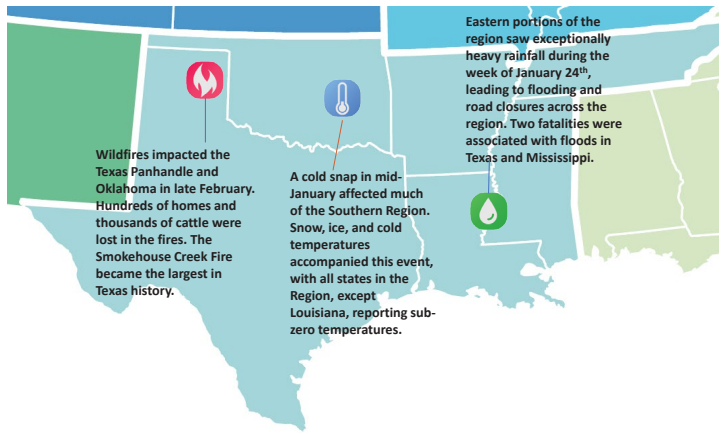


Southern Region Significant Events — Winter 2023-2024



Abundant precipitation in the east of the Region led to broad improvement of drought conditions, though widespread flooding was associated with the storms. Above normal temperatures were common, with a severe cold snap in late January. The largest wildfire in Texas history impacted Texas and Oklahoma in late February.

Overview

Winter began in December with above normal temperatures for much of the Southern Region.

Precipitation in the Southern Region during December was near or below normal, with isolated areas of above normal precipitation. Two to three class improvements in drought conditions were observed along the Gulf Coast.

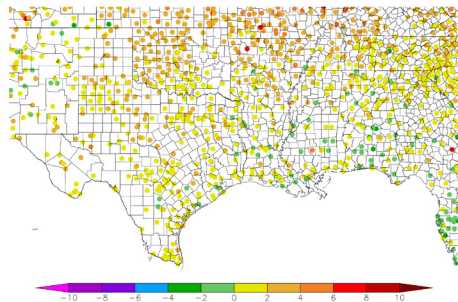
January brought colder temperatures to the Region. Precipitation was well above normal in all six states. Areas in across Texas, Louisiana, Arkansas, Mississippi, and Tennessee experienced heavy rains leading to widespread reports of flooding and damage from floodwaters.

Temperatures were above normal across the Southern Region during February. Precipitation was generally below normal in the Southern Region during February with isolated areas of well above normal precipitation. The largest wildfire in Texas state history began on February 26th, impacting large areas of the Texas Panhandle and western Oklahoma.

Regional Climate Overview — Winter 2023-2024

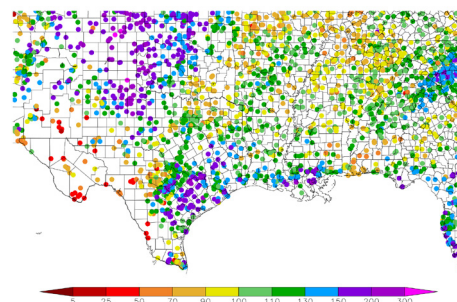
Temperature and Precipitation

Departure from Normal Temperature °F
12/1/2023 – 2/29/2024



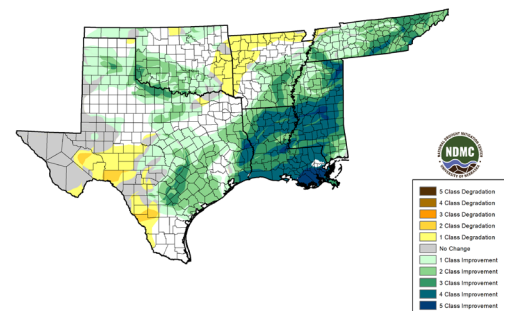
Winter 2023 temperatures were near normal to above normal for much of the Southern Region. Temperatures across the southern portions of the Region were 2F below to 2F above normal, while in the north most stations were between 2F and 4F above normal. Winter 2023-2024 ranked 14th warmest out of 130 years of data.

Percent of Normal Precipitation (%)
12/1/2023 – 2/29/2024



Precipitation was well above average along the Gulf Coast, in the Texas Panhandle, and western Oklahoma, with many stations receiving 150 to over 300 percent of normal precipitation. Outside of these areas, precipitation was near normal ranging from 70 to 130 percent of normal precipitation except West Texas where most stations recorded 25 or less of normal precipitation.

Drought Overall Change
12/5/2023 – 3/5/2024



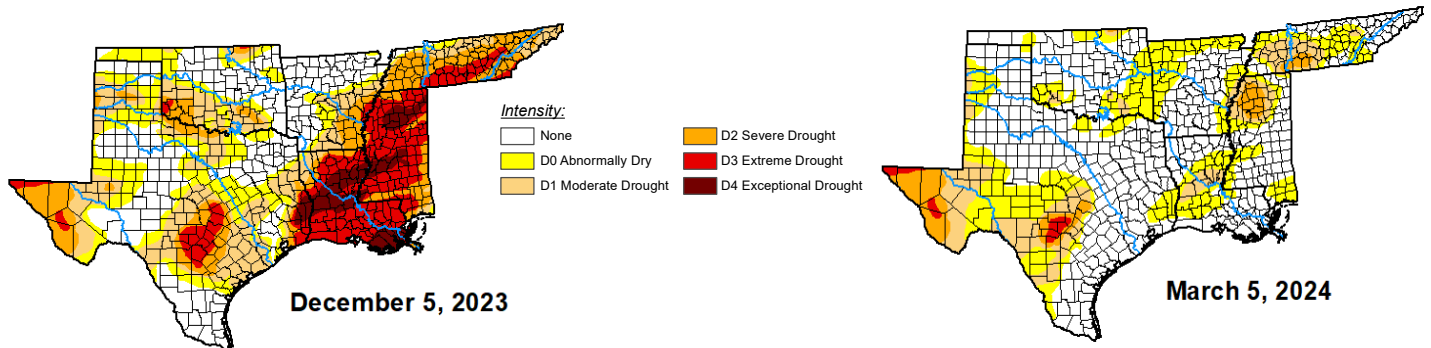
Large portions of Louisiana, Mississippi, Tennessee, and portions of Texas, Oklahoma, and Arkansas saw improvements in drought conditions, due to above normal winter precipitation. Some areas of Louisiana and Mississippi saw as much as 4 categories of improvement according to the US Drought Monitor. Extreme and Severe drought conditions persisted in Central and West Texas. While Moderate and Severe Drought persisted in northern Mississippi and southcentral Tennessee.

Southern Regional Impacts

Drought, Agriculture, and Water Supply

Winter 2023-2024 saw the total amount of area experiencing drought in the Southern Region decrease substantially. As of March 5th, 17 percent of the Region was in some level of drought, down from 55 percent on December 5th, 2023. Areas experiencing the greatest amount of improvement include southeastern Louisiana, Southeast Texas, and isolated portions of Mississippi, with these areas seeing 4 classes of improvement according to the US Drought Monitor. Deteriorating drought conditions were observed in West Texas and South Texas, with isolated areas of Extreme Drought persisting in isolated areas of Central and Far West Texas. Despite improvements in portions of northwestern Mississippi and southcentral Tennessee, these areas remain affected by Severe Drought.

Despite improvements in drought conditions, flows on the Mississippi River below St. Louis remain well below their historical averages. Beginning on February 26th, multiple wildfires broke out across the Texas Panhandle and spread quickly covering large portions of the Texas Panhandle and parts of western Oklahoma. The largest of these fires, the Smokehouse Creek Fire, quickly grew and as of March 7th, 2024 has burned approximately 1,059,570. It is currently the largest wildfire in Texas state history.

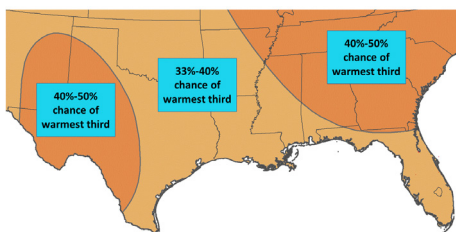


US Drought Monitor depiction of the Southern Region. The US Drought Monitor is produced by the National Drought Mitigation Center, the USDA, and NOAA.

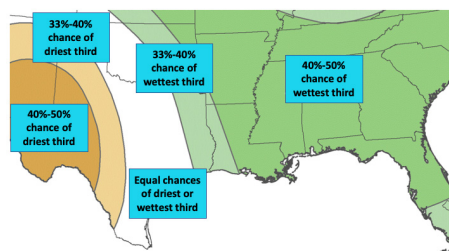
Seasonal Outlook

Temperature

Outlook for April-June 2024



Precipitation



The seasonal temperature outlook from NOAA's Climate Prediction Center calls for enhanced probabilities of above average temperatures across the entire Southern Region. The highest probabilities, 40 to 50 percent chance of well above normal temperatures, are called for over West Texas, northern Mississippi, northeastern Arkansas, and Tennessee. Across East Texas, the Texas Panhandle, Oklahoma, Louisiana, southern Mississippi, and western Arkansas, the probabilities for well above average temperatures are somewhat lower.

The precipitation outlook for April through June calls for enhanced probabilities of above normal precipitation in the east of the Region and for below normal precipitation in the west. The highest probabilities of below normal precipitation are in West Texas and the Texas Panhandle, while the greatest probabilities for above normal precipitation are across Louisiana, Mississippi, Arkansas, and Tennessee.

ENSO Outlook

El Niño conditions present throughout the winter are rapidly weakening and are expected to continue weakening throughout the spring months. Long-range forecasts suggest emerging La Niña conditions by summer, which can contribute to above normal tropical activity in the Gulf of Mexico.

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)