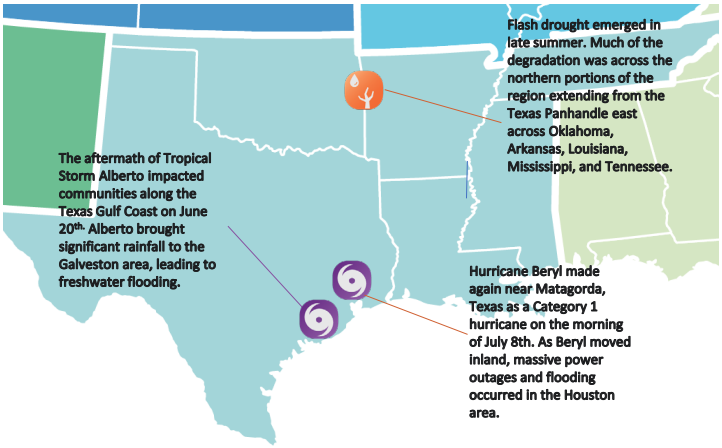
Quarterly Climate Impacts and Outlook

Southern Region

September 2024

Southern Region Significant Events — *Summer 2024*



Above normal temperatures and below normal precipitation across much of the Region led to rapid deterioration of drought conditions during the latter half of summer. Two landfalling tropical systems impacted the Southern Region during the summer, Tropical Storm Alberto and Hurricane Beryl.

Overview

Summer began with well above normal temperatures in the west of the Region with seasonable temperatures in the east. Tropical Storm Alberto became the first named storm of the season on June 19th in the western Gulf of Mexico, the aftermath impacting the Texas Gulf Coast.

July saw above normal temperatures in the west and east of the Region, with the central portions being below normal for temperature. Hurricane Beryl in early July brought heavy rains and winds to large portions of the Southern Region.

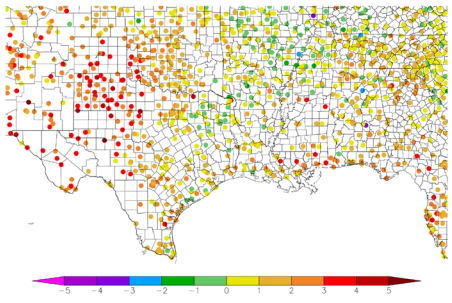
August saw below normal precipitation across most of the Southern Region. Rapid deterioration of drought conditions in western and central portions of the Region was common. Temperatures were generally above average.

Regional Climate Overview — *Summer 2024*

Temperature and Precipitation

Departure from Normal Temperature °F

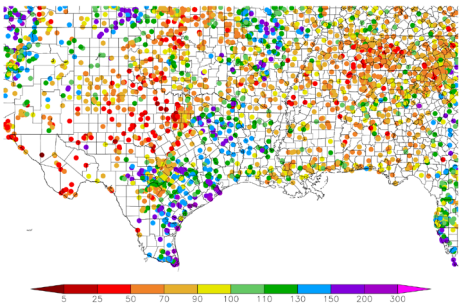
6/1/2024 – 8/31/2024



Summer 2024 temperatures were above normal for the western portions of the Southern Region, with most stations running 3F to 5F above normal. In the central and eastern portions of the regions, temperatures were more moderate, with most stations being within 1 degree F of normal. Temperatures along coastal Louisiana and Mississippi were 4F-5F above normal.

Percent of Normal Precipitation (%)

6/1/2024 – 8/31/2024

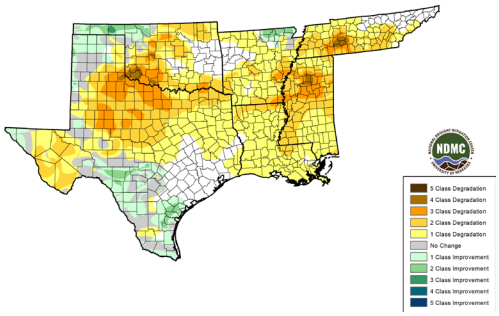


Precipitation was below normal in the western and eastern portions of the Region during Summer 2024, with the west observing 5 to 50 percent of normal precipitation and in the east 50 to 90 percent of normal was more common. A band of well above normal precipitation extended from Brownsville, Texas northeast to Arkansas seeing 130 to 200 percent of normal.

Drought

Overall Change

6/4/2024 – 8/27/2024



Much of the Southern Region experienced drought degradations, stretching from east of El Paso, Texas through Tennessee, with most areas experiencing 1 to 2 classes of degradation. Isolated pockets in Oklahoma, Mississippi, and Tennessee saw as much as 4 classes of degradation. Along the edges of the Region, isolated areas of improvement in drought condition were noted across Far West Texas, South Texas, portions of the Texas and Oklahoma Panhandles, and far northeastern Arkansas.

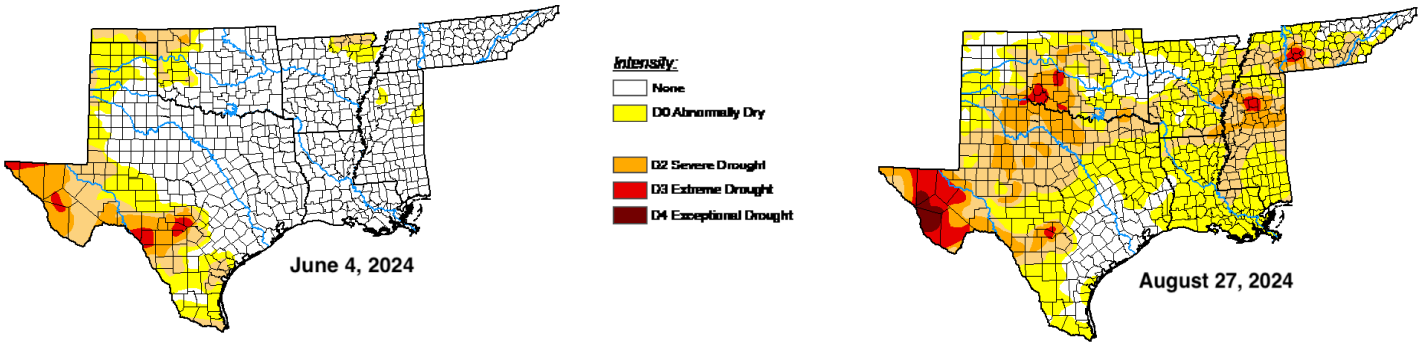
Contact: William Baule (wbaule@tamu.edu)

Southern Regional Impacts

Drought, Agriculture, and Water Supply

Spring 2024 saw the total amount of area experiencing drought in the Southern Region, remain relatively steady from Winter 2023-2024. As of May 28th, 15 percent of the Region was in some level of drought, down from 17 percent as of March 5th. The spatial nature of drought shifted during spring, with large improvements over the eastern portions of the Region and widespread degradation in the western portions of the Region. Drought conditions remained steady across much of Far West Texas, the west central Texas Panhandle, and Bandera County, Texas (a majority of which has been at Moderate Drought or worse since 1/11/2021). As of May 28th there is no Exceptional Drought in the Southern Region and 0.96 percent is in Extreme Drought.

With substantial spring rains across East Texas, Louisiana, Mississippi, portions of Arkansas, and Tennessee flooding was a constant companion for the Region during spring. Over the period from April 28th to May 7th areas of San Jacinto, Walker, Polk, and Trinity counties in Texas received over 25 inches of precipitation, leading to devastating river flooding in the area and downstream towards Houston.



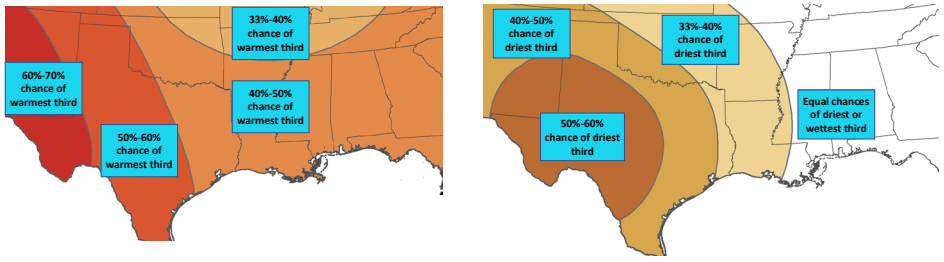
US Drought Monitor depiction of the Southern Region. The US Drought Monitor is produced by the National Drought Mitigation Center, the USDA, and NOAA.

Seasonal Outlook

Temperature

Precipitation

Outlook for October-December 2024



The seasonal temperature outlook from NOAA's Climate Prediction Center calls for enhanced probabilities of above average temperatures for the entire Southern Region. The highest probabilities, 60-70 percent chance of above normal temperatures, are in Far West Texas. The probabilities decrease as one looks eastward across the Region, decreasing to 33-40 percent.

The precipitation outlook for October through December calls for enhanced probabilities of below normal precipitation, 50 to 60 percent, across West Texas. As one moves east chances decrease to 33-40 percent of below normal precipitation in Eastern Oklahoma, much of Arkansas, much of Louisiana, and far western Mississippi. The eastern portions of the region are projected to have equal chances of above or below normal precipitation from October to December.

ENSO Outlook

Currently, conditions in the Tropical Pacific suggest neutral conditions, however La Niña conditions are forecast to emerge within the next three months and persist through the coming winter season. La Niña winters across the Southern Region tend to be drier and warmer than normal.

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)