

# National Drought Summary for July 9, 2024

## Summary

The first landfalling tropical storm of the season came ashore in east Texas and brought significant precipitation to the area and up into the Ozark Plateau. Temperatures were cooler than normal over a large extent of the country from the Rocky Mountains and into the Plains and Midwest where departures from normal temperatures were 3-9 degrees below normal. Excessive heat dominated the West Coast where departures from normal temperatures over much of California were 12-15 degrees above normal. Many records were set, including 120 degrees in Las Vegas, beating the old record by 3 degrees, while Death Valley had 5 consecutive days with high temperatures over 125 degrees topping out at 129 on July 7. Near-normal to slightly above-normal temperatures dominated much of the East and Southeast. Along with the heat, much of the West was dry during the last week. Areas of the Plains recorded well above-normal precipitation with some areas receiving 400-800% of normal precipitation for the week. Spotty rains were common over the Southeast with a very typical summertime pattern of widely scattered thunderstorms accounting for most of the precipitation. The driest areas were from Mississippi and northern Alabama into Tennessee and the Mid-Atlantic. Portions of northern Illinois eastward into Ohio were also dry throughout the week.

## Northeast

Temperatures were warmer than normal over the region during the current period with departures from 4-6 degrees above normal in New England to 2-4 degrees above normal in the southern portions of the region. Precipitation was spotty with the greatest amounts recorded over Maine, southern New York, northern New Jersey and western Connecticut. Areas of the Mid-Atlantic were the driest, especially southern Pennsylvania, Delaware, southern New Jersey, eastern Maryland and northern Virginia. With the dryness, abnormally dry conditions spread over southern Maine into southern New Hampshire, central Pennsylvania and parts of New Jersey. Severe drought expanded over northern Virginia and eastern West Virginia as well as portions of southern Pennsylvania.

## Southeast

Scattered precipitation was common throughout the region. Tennessee, northern Alabama and northern Mississippi were the driest regions while southern Georgia, northern Florida, eastern Georgia and northern South Carolina were the wettest areas of the region. The entire region was near normal to slightly above normal for temperatures with most areas 2-4 degrees above normal and pockets in north Georgia, northern Florida, and central and eastern Tennessee 4-6 degrees above normal.

Drought expanded and intensified quickly over much of Tennessee, northern Alabama, western North Carolina and southern areas of South Carolina and North Carolina. Some improvements were made in southern Georgia and northern and central Florida where moderate drought was removed and some abnormally dry conditions were eliminated. Extreme drought was introduced into portions of South and North Carolina and severe drought was introduced into northern portions of Alabama and Mississippi and into Tennessee. Severe drought expanded in the Carolinas. The heat and dryness along with the spotty precipitation has seen dryness developing quickly, and this area will need to be monitored closely if conditions don't change as flash drought conditions are escalating with some areas recording enough precipitation to hold off on immediate expansion and intensification of drought.

## **South**

Outside of western Oklahoma and north Texas where temperatures were 4-6 degrees below normal, most of the rest of the region was 4-6 degrees above normal for the week. The greatest rains fell over Oklahoma and into portions of central and north Texas. Significant rains were associated with Beryl in east Texas into Louisiana and Arkansas. Those areas that did miss out on rains coupled with the warmer-than-normal temperatures did see drought expand and intensify, mainly over west Texas. Severe and extreme drought expanded over west Texas while all the moderate drought was improved over Arkansas with some additional abnormally dry areas removed. Even with the significant rains in western Oklahoma, only slight improvements were made to the moderate drought and abnormally dry conditions as long-term conditions remained dry in this region.

## **Midwest**

Temperatures over most of the region were below normal for the week. The coolest areas were in the north and west portions of the Midwest with areas of Iowa and Minnesota 4-6 degrees below normal for the week. The southern and eastern areas of the region were warmer than normal with southern Missouri, Kentucky and eastern Ohio 2-4 degrees above normal. Most of the region recorded some precipitation with the wettest areas over Iowa, northern Missouri, southern Minnesota, southern Illinois, southern Indiana and most of Wisconsin where 200-400% of normal precipitation was measured. It was drier than normal over northern Illinois, northern Indiana, and southern Michigan into northwest Ohio this week, which allowed for changes in drought conditions in these areas. Abnormally dry and moderate drought conditions were improved over Iowa and northern and southwest Missouri while abnormally dry conditions were removed from southern Illinois and Indiana. Abnormally dry and moderate drought conditions were expanded in northern portions of Illinois and Indiana with moderate drought expanding in southeastern Ohio too. Kentucky was mixed, with

both improvements and expansion of abnormally dry conditions as the spotty precipitation patterns were evident across the state.

## **High Plains**

Like the Midwest, most of the region recorded precipitation during the week with pockets of heavier rains in Nebraska, Kansas, South Dakota and southeast Colorado. Cooler-than-normal temperatures dominated the region with almost all areas below normal for the week. The greatest departures were in Nebraska, South Dakota and Wyoming with temperatures 6-8 degrees below normal. With much of the region drought free, there were pockets of improvement over Nebraska, western Kansas and southeast Colorado where abnormally dry and moderate drought areas were reduced. Dryness in the Black Hills of South Dakota remained, and some expansion of severe drought took place this week. The driest areas remained in eastern Wyoming and eastern Colorado, where most places did not record much precipitation this week and moderate and severe drought conditions expanded along with more abnormally dry areas.

## **West**

It was a hot and dry week over the region with only some spotty precipitation in areas of California and Idaho and more widespread precipitation over Montana, western Colorado, and New Mexico. Temperatures were above normal over most all the West with only Idaho, Utah, Montana, Colorado and northern New Mexico below normal for temperatures. Abnormally dry conditions were expanded over a large area of northern California, western Nevada, and Oregon as well as in central Idaho. A significant expansion of moderate drought was introduced over much of Oregon where the short-term dryness coupled with the recent heat has worsened conditions in the state. Additional expansions of abnormally dry conditions were over northeast and southwest Utah, eastern Washington and southwest Wyoming. Moderate drought expanded over central Washington while severe drought expanded over northern Idaho. Improvements were made this week in western Montana to the severe drought and the moderate drought in northern New Mexico. Abnormally dry conditions were removed over much of southwest Colorado and portions of northeast Arizona.

## **Caribbean**

No changes were made in Puerto Rico this week.

The U.S. Virgin Islands (USVI) saw decent precipitation during this U.S. Drought Monitor (USDM) week (July 3 to 9), maintaining drought-free conditions. Weekly reports from a network of about a dozen volunteer (CoCoRaHS) observers noted rainfall totaling 0.49 to 3.01 inches on St. Thomas; 0.56 to 1.67 inches on St. John; and 0.37 to 0.81 inches on St. Croix. The U.S. Geological Survey well data showed St. Croix (24 ft below surface), St. Johns (8 ft below surface), and St. Thomas (5.5 ft below surface) conditions stayed steady from last week. Satellite data (VHI) showed no vegetative drought stress in the USVI and the Standardized Precipitation Index continued to indicate drought-free conditions at all time scales.

## **Pacific**

In Alaska, adjustments were made to both the moderate drought and abnormally dry conditions where the previous moderate drought was improved, and a new area introduced into the southern tip of the panhandle.

In Hawaii, moderate drought was introduced onto portions of Oahu, Molokai, Lanai and Kahoolawe in response to the recent rain patterns. On the Big Island, abnormally dry and moderate drought conditions expanded this week as well.

For the drought-monitoring period ending July 9, there was neither dryness nor drought in American Samoa and the Republic of Palau. At Pago Pago International Airport in American Samoa, 1.73 inches of rain was recorded this week. Similarly, Palau International Airport received 3.37 inches.

However, pockets of drought persisted in the Federated States of Micronesia. With just under 2 inches of rain, Yap remains in severe drought (D2-SL). Ulithi, following the improvement last week, saw only 0.6 inch of rain, remaining in moderate drought (D1-L). Rainfall data for Woleai, Fananu, Pingelap, and Kosrae was insufficient for analysis.

In the Republic of the Marshall Islands, drought was limited to Wotje, which remains in short-term severe drought (D2-SL). While Wotje received over an inch of rain (1.45 inches) for the first time in 6 weeks, any drought recovery has stalled. Jaluit (1.45 in), Ailinglapalap (3.24 in), and Jaluit (1.17 in) remain drought free during the drought-monitoring period. Kwajalein received 0.1 inch this week and only 0.28 inches for July. No data was reported for Mili and Utirik.

Abnormally dry conditions (D0-S) persist for Guam, Rota, and Saipan. Guam International Airport received 0.77 inch of rain this week and 1.63 inches for the month of July. This week, Rota and Saipan received 0.63 and 0.57 inch, respectively.

## ***Looking Ahead***

Over the next 5-7 days, some monsoonal precipitation is anticipated over portions of the Southwest, but most of the West overall remains quite dry. The dryness is anticipated to develop over much of the Plains and continuing over much of the Southeast. Coastal areas of the Gulf of Mexico and along the eastern seaboard are anticipating the most precipitation, with the greatest amounts from South Carolina into the Mid-Atlantic. The Midwest is anticipated to remain wet with this pattern extending into the Northeast. Temperatures are anticipated to be above normal over most of the country with the greatest departures from normal over the Pacific Northwest and in the Southeast into the Mid-Atlantic. The Southwest into western and southern Texas is anticipated to be cooler than normal, albeit slightly.

The 6-10 day outlooks show that much of the country is anticipated to have above-normal temperatures during the period, with the greatest chances over the northern Rocky Mountains and the Southeast. The highest chances of above-normal precipitation will be over the Four Corners region and along the Rio Grande in Texas as well as over the coastal regions of the Carolinas. The best chances of below-normal precipitation occurring are from the northern Rocky Mountains into the Great Basin and into central California.

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