

National Drought Summary for August 15, 2023

Summary

Conditions continued from last week with the southern part of the country, where above-normal temperatures and mostly dry weather across the Rio Grande Valley, Texas, and the lower Mississippi Valley saw drought conditions continue to deteriorate. Drought intensified across Texas and the lower Mississippi Valley, particularly in eastern Texas, Louisiana and south-central Mississippi. The Monsoon remains suppressed with increasing short-term drought across Arizona, New Mexico and southwest Colorado. Frequent rounds of heavy rainfall occurred from the Northeast into the central Mississippi valley, into southern Missouri and the upper Midwest. The continuing wet conditions are improving drought across parts of the Corn Belt and much of the southern and central Midwest. Farther to the north, drought continues to intensify across northern Wisconsin, North Dakota, Montana and Washington. Hawai'i continued to experience dry conditions, particularly on the leeward side of the islands. Conditions that came to a peak on August 8th with deadly Lahaina Fire on Maui.

Northeast

Rainfall continued across the Northeast, alleviating abnormally dry and drought conditions by increasing streamflows and soil moisture and replenishing groundwater deficits. The heaviest precipitation fell from Long Island westward across Pennsylvania and south into parts of Maryland and northern West Virginia. The remaining D1 on Long Island was improved to D0 (abnormally dry conditions). Preexisting D0 was removed, including areas in southern New York, primarily around New York City. Additional improvements occurred from western New York into northwestern Pennsylvania and from central and southern Pennsylvania south into Maryland. Slight D0 expansion occurred in Livingston County, New York, and parts of Maryland.

Southeast

Western North Carolina saw two or more inches of precipitation in the past week, while dryness continued in eastern North Carolina. Abnormally dry conditions have expanded to encompass most of the eastern and south-central portions of the state, with D1 conditions introduced in the southeast. Indicators supporting these depictions include 30-day precipitation, low streamflows and dry soil moisture. These conditions reflect the rapid declines being reported due to recent hot temperatures and dry weather. Agricultural reports from Pamlico, Craven and Jones counties also depict extremely dry conditions, with crops wilting and low top- and sub-soil moisture levels.

South Carolina also saw an increase in D0 conditions. The north-central part of the state saw D0 extend from North Carolina to the South Carolina border southward toward Williamsburg. While recent conditions have been near normal, longer-term precipitation patterns show moisture deficits, with rainfall totals over the last 60 days at 75 to 90% of normal for this time of year. The last 1-inch rain event occurred on July 5, with an additional .4 inches – the last good soaking rain - occurring on Aug. 3. D0 also expanded in Lexington County and York to Chesterfield counties toward Sumter and Florence counties due to low streamflows.

Northern central and western Georgia experienced upwards of two inches of precipitation this week, resulting in removal of D0 in areas of central Georgia. Far southwestern Georgia, southern Alabama, and the Florida Panhandle, saw new and expanding D0 conditions from below-normal precipitation and continuing high summer heat. While most of the Florida peninsula received precipitation, west-central Florida continues to remain relatively dry with high temperatures, averaging 3 – 5 degrees above normal over the past 30 days. The Little Manatee and Myakka rivers saw record low streamflows for this time of year, with other rivers experiencing about 10% of historic flows, showing that drought is extending inland. Tampa, Sarasota, Venice and Naples are experiencing the driest year to date in terms of rainfall.

South

Much of the South, from Texas to Mississippi, saw temperatures of 4 to 6 degrees above normal for the past two weeks. While northeastern Mississippi, Tennessee, northern Arkansas, and northeast Oklahoma, much of the rest of the south missed out. Northern Oklahoma and Arkansas benefited from this above-normal precipitation, allowing for the removal of D0 conditions. Meanwhile, D0 expanded in eastern Arkansas into northwest Mississippi due to continued dryness over the last 30 days, combined with extreme temperatures. A widespread expansion of dry conditions occurred from southern Mississippi into east-central Texas due to a continued lack of rainfall (about 8 – 14 inches over the last 90 days) combined with above normal temperatures. For example, rainfall in Southern Mississippi is well below normal for the year, with Crystal Springs only seeing 2.99 inches of rain for July and August. At the same time high temperatures of over 95 degrees have been recorded over 26 days — with 14 of those days over 100 degrees. Nearly all counties in southeastern and south-central Mississippi are in a burn ban, a commonality seen across the rest of the South. Many livestock producers are having to feed hay and have begun selling their livestock, leading to record cattle sales in various communities. Conditions from western Louisiana into eastern Texas continued to deteriorate, with D3 (extreme drought) expanding from the Louisiana boot heel into Houston, down to Corpus Christi. In Shelby County, Texas, little to no rain has fallen in the last 30 days, which has been accompanied by weeks of triple-digit heat. Agriculture across the southern Gulf Coast has seen enormous impacts due to this lack of precipitation and extreme heat. Eastern and central Texas also had extensive degradations with expansions of D2 (severe

drought) through D4 (exceptional drought). Presently, Austin's precipitation from June 1 to August 15 ranks as the fourth driest on record. Belton and Stillhouse Hollow reservoirs are also the driest on record for this time of year. Near Midland, Texas, conditions have been compared to the record-breaking drought of 2011. To the far West, parts of the Big Bend region have received 600% of normal weekly rainfall in the last week, resulting in improvement from D1 to D0. The Edwards Plateau saw some rainfall, but it was not enough to improve the long-term regional dryness. Soil moisture and streamflows through the region continue to decline. Southern Oklahoma also felt the effects of low precipitation and high temperatures, resulting in widespread expansion of D0 and degradation of areas of D0 into D1.

Midwest

Widespread improvements were seen throughout the Midwest due to precipitation and at- or below-normal temperatures. Ohio, Indiana and Illinois saw continuing improvement, with D1 removal from Ohio and Indiana. Much of Illinois, except for the northern region, and all of Missouri also saw continued improvements, with improving streamflow and soil moisture. Large parts of Wisconsin and Minnesota saw heavy precipitation. Southeastern Wisconsin and central Minnesota saw areas of 2 to nearly 5 inches of rain, aiding short-term dry conditions. Northwest Wisconsin had slight expansion of D3 and D4 along Lake Superior.

High Plains

Eastern parts of the High Plains saw the benefits of this week's precipitation along with below-normal temperatures. Kansas saw heavy precipitation continue from last week, bringing further improvements to the east and central regions. Areas near Kansas City saw upwards of 3 inches of precipitation, while the southeast areas received 4 to 7 inches of rain, carrying over improvements seen in Oklahoma. Some improvements occurred along parts of the Nebraska-South Dakota border. Both southeast and northeast South Dakota saw improvement from heavy rainfall and improving soil moisture. This improvement bled over in southeast North Dakota, where areas of D0 were removed due to heavy precipitation. Little precipitation was received further north. Continual soil moisture and streamflow impacts led to D1 and D2 expansions. Southeastern Colorado received spotty precipitation, adding to the already-degrading conditions and resulting in expansion of D1 and D0.

West

Much of the continental West remained status quo, with small improvements in central Utah and near Yellowstone National Park into Butte, Montana. Areas in The Helena-Lewis and Clark National Forest and in the east near Fort Peck Indian Reservation also saw improvements with the removal of D0 conditions. Northwestern Washington state saw continued above-normal temperatures, as high as 8 degrees above normal, and little measurable precipitation, resulting in slight expansion of D0-D2 from the Okanoga-Wenatchee National Forest to Puget Sound. The dry conditions experienced in Texas continued into New Mexico. Above-normal temperatures and below-normal precipitation in the eastern part of the state has led to further degradations, with the expansion of D1 near De Baca, Chaves and Lincoln counties. New Mexico has been on water restrictions for several months, with lake levels falling further below average.

Caribbean

No changes were made to the map in Puerto Rico this week.

No changes were made to the U.S. Drought Monitor depiction in the U.S. Virgin Islands this week, as mostly drier weather and hot temperatures continued. Short- and long-term extreme drought continued on St. Croix, where reported rainfall totals ranged from 0.09 inches to 0.59 inches. Groundwater levels decreased slightly this week as well on St. Croix. On St. Thomas, rain totals were generally one-quarter to one-half inch. Groundwater levels have appeared to recover slightly in the last few days, though with paltry rainfall and hot temperatures, short- and long-term extreme drought continued there as well. On St. John, rain totals ranged from 0.46 to 0.9 inches. Groundwater levels decreased slightly, and short- and long-term moderate drought continued there.

Pacific

The western Interior of Alaska saw the expansion of D1 conditions from low precipitation. Enough rain fell in the southeast mainland and Panhandle in the past week to provide D1 and D0 removal. While conditions were unchanged in the north, the Northwest Territories are now in the fourth-largest fire season since 1980 in terms of area burned.

Hawai'i saw continued light trade wind showers, limiting the rainfall to the east and northeast-facing slopes of the islands. Leeward areas have had even less rain. Combined with the seasonal August heat and strong winds from last week, conditions have been deteriorating in many areas. Kauai, Oahu, Moloka'i, Lanai and Kaho'olawe have had little rainfall, leading to very dry conditions designated by the introduction or increase of D0-D1. Maui saw further expansion of D2 along the lower elevations, where the dry and residual winds from Hurricane Dora greatly contributed to the catastrophic wildfires experienced earlier this week. The Big Island has seen some precipitation, but

not enough to improve conditions. D2 was introduced in the center of the island with D1 conditions radially expanding, along with the introduction of D0 on the leeward side of the island.

Precipitation amounts on American Samoa have been quite low again this week, ranging from 0.17 to 0.77 inches. The average temperature for August has also been running a couple degrees above normal, including several record daily high temperatures at Pago Pago, accentuating short-term dryness. Therefore, conditions there have degraded into the short-term abnormal dryness category.

Palau remained free of drought or abnormal dryness this week, with reported rainfall totals of 1.91 inches at Koror (with two days missing) and 6.31 inches at Palau Airport.

The Mariana Islands remained free of drought or abnormal dryness this week, as Saipan, Guam, and Rota all had copious rainfall totals. Saipan ended the week with 7.25 inches of rain, up from 1.7 inches last week. Guam also had a wet week, with 6.96 inches of rain. This week's rain totaled 7.29 inches on Rota.

Kwajalein received 2.18 inches of rain this week. While not enough to improve conditions, this prevented a degradation into moderate drought, so short-term abnormal dryness continued there. This week was much drier than the previous several weeks on Ailinglapalap, with only 1.47 inches of rainfall. However, they remained free of drought or abnormal dryness. Conditions remained dry in Jaluit this week, with 0.47 inches of rain. However, given that 2.87 inches of rain fell three weeks ago, conditions have not yet degraded to short-term abnormal dryness. No data were available for Utirik this week, so no U.S. Drought Monitor depiction was made there. After more than 3 inches of rain fell on Wotje last week, only 1.53 inches have fallen this week, so short-term abnormal dryness continued there. Drier weather also continued on Majuro this week, with 1.8 inches of rain, marking the second consecutive week with less than 2 inches of rain. However, conditions have not yet become abnormally dry. Plentiful rainfall continued this week on Mili, with 2.53 inches reported, and they remained free of drought or abnormal dryness.

Yap remained free of drought or abnormal dryness this week as rainfall amounts totaled 2.65 inches, with a couple days missing. Wet weather continued on Ulithi, where 6.5 inches of rain was reported (with a couple days missing), and they remained free of drought or abnormal dryness. Reported rainfall on Woleai this week was lower, with a total of only 0.54 inches, though four days were missing from the analysis. However, given recent wet weather, Woleai remained free of drought or abnormal dryness. Only 1.15 inches of rain have been reported on Fananu this week, continuing a recent dry stretch of weather. After a week of being marked as having missing data, Fananu's depiction has been reverted to short-term abnormal dryness. Wet weather continued this week on Chuuk, with 3.52 inches of rain reported, and they remained free of drought or abnormal dryness. After more than 5 inches of rain last week, Lukunor had a drier week, with 1.18 inches of rain. Given recent wet weeks, though, Lukunor remained free of drought or abnormal dryness. Only 1.56 inches of rain have been reported on

Nukuoro this week, down from 4.78 inches last week and a long stretch of wet weeks preceding that. Given the wet conditions before this week, no abnormal dryness or drought has developed there. July finished as a record wet month at Kapingamarangi, with 22.87 inches of rain. Since then, the last few weeks have been drier, though 3.77 inches of rain fell this week, and they remained free of abnormal dryness or drought. Wet weather continued this week in Pohnpei, with 5.51 inches of rain, and conditions remained free of drought or abnormal dryness. Only 0.19 inches of rain have fallen on Pingelap this week, marking the second consecutive drier week. However, given wetter conditions before then, no abnormal dryness or drought have developed. Rain on Kosrae this week totaled 3.24 inches, marking the ninth consecutive week with at least 2 inches of rain, and they remained free of drought or abnormal dryness.

Looking Ahead

According to the Weather Prediction Center (WPC), during the next five days (Aug. 17-22, 2023), significant rainfall is expected across parts of the Southwest and California as Tropical Storm Hillary approaches the California-Mexico border. While the storm is expected to reach hurricane status, forecasts call for it to weaken before making landfall due to cooler ocean temperatures and land interactions. Rainfall totals of 2–4 inches with isolated areas over 6 inches are expected — a considerable amount of rain for the dry Southwest. Rain is also expected across the Northwest and northern Rockies. Much of the rest of the country looks to remain mostly dry, with the exception of Florida and the Gulf Coast. Meanwhile, a heat wave will build over the southern and central U.S. into the Midwest. Daytime highs are expected to be 10-20 degrees above normal in some places, equating to highs near 100 degrees in places such as the upper Midwest.

Moving into next week, the Climate Prediction Center's 6-10 day outlook (valid Aug. 22-26, 2023) calls for an increased probability of above-normal temperatures throughout most of the Lower 48 states and much of Alaska. The only areas where below- or near-normal temperatures are favored include the Northeast, western Alaska and parts of the Southwest. Above-normal precipitation is favored across much of the western half of the U.S., parts of the Northeast, south Texas, South Florida and much of Alaska.

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