

National Drought Summary for April 8, 2025

Summary

This U.S. Drought Monitor (USDM) week saw widespread improvement in drought-related conditions across areas of the South, Southeast, and Midwest, where a series of strong storms delivered heavy rainfall, damaging winds, and severe flooding. The multi-day storm event saturated soils leading to inundation of rivers, and severe flooding in low-lying areas from Arkansas to Ohio. Storm totals from the multi-day event ranged from 4 to 18+ inches, with the highest accumulations observed across central Arkansas, southeastern Missouri, and western portions of both Tennessee and Kentucky. In addition to heavy rainfall, the storm system sparked dozens of tornadoes as well as strong gusty winds in other areas, causing widespread power outages. Elsewhere, improving conditions over the past 30 to 60 days, led to reduction in areas of drought in the Northeast, from New York to Maine, as well as in areas further south including New Jersey and Virginia. In the Midwest, this weeks rainfall event pushed rainfall totals well above normal levels for the past 30-day period, leading to improvements across the Midwest in Missouri, Illinois, Indiana, and Michigan. In the Upper Midwest and portions of the Plains, drought-related conditions improved on the map across areas of Minnesota, Wisconsin, and South Dakota, where precipitation has been above normal for the past 30-90-day period and soil moisture monitoring products are showing normal to above-normal levels. In the West, above-normal springtime temperatures are causing a rapid melting of high-elevation snowpacks across the entire region. Looking at the current snowpack conditions out West, deep seasonal snowpack deficits remain across the ranges of southwestern Colorado, New Mexico, northern Arizona, and southwestern Utah. Elsewhere in the region, areas of the Great Basin and Intermountain West saw improvements on the map including parts of northeastern Nevada, Wyoming, and northwestern Colorado. In terms of reservoir storage in the West, Californias reservoirs continue to be at or above historical averages for the date (April 8), with the states two largest reservoirs, Lake Shasta and Lake Oroville, at 116% and 120% of average, respectively. In the Southwest, the U.S. Bureau of Reclamation is reporting (April 6) Lake Powell at 33% full, Lake Mead at 34% full, and the total Colorado system at 41% full (compared to 42% full at the same time last year).

Northeast

On this weeks map, improvements were made in areas of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and West Virginia in response to beneficial precipitation during the past week as well as over the past 30-60 days. For the week, generally light precipitation accumulations (<1 inch liquid) were observed across New England, while areas in the southern extent of the region, including Pennsylvania and New Jersey, saw higher accumulations ranging from 2 to 4 inches. Average temperatures were near normal to

above normal, especially in the southern extent, where temperatures were 6 to 12 degrees F above normal.

Southeast

During the past week, light-to-heavy rainfall accumulations were observed across the region, with the heaviest accumulations (ranging from 5 to 8 inches) occurring in southern Alabama, the Florida Panhandle, Georgia, and western North Carolina. In response, areas of Severe Drought (D2), Moderate Drought (D1), and Abnormally Dry (D0) saw significant reductions on the map. Conversely, short-term dryness (3 to 6 inches of rainfall deficits during the past 60-day period) in east-central Florida led to the expansion of Severe Drought (D2) and Moderate Drought (D1) areas. In terms of average temperatures for the week, the entire region experienced above-normal temperatures, with the greatest anomalies (12 to 15+ degrees F) observed across southern Virginia, the Carolinas, southern Georgia, east-central Alabama, and north-central Florida.

South

On this weeks map, widespread improvements were made in response to very heavy rainfall accumulations observed across parts of the region, with the highest totals (ranging from 5 to 15+ inches) observed in northeastern Texas, eastern Oklahoma, Arkansas, western Tennessee, and southern Mississippi. The multi-day storm event led to catastrophic flooding in parts of the region as well as tornadic activity, widespread power outages, and loss of life. However, the deluge of rains also led to significant improvements in drought-related conditions, with multiple category improvements made on the map. For the week, average temperatures were above normal in eastern areas, with anomalies ranging from 3 to 12 degrees F. Conversely, the western extent of the region, including much of Texas, Oklahoma, and Arkansas, experienced temperatures ranging from 3 to 12 degrees F below normal. Looking at Texas reservoir conditions, statewide reservoirs are reported to be 75.7% full, with many reservoirs in the eastern part of the state in good condition (over 90% full), while numerous reservoirs in the western portion of the state continue to experience below-normal levels, according to Water Data for Texas (April 9). In terms of streamflow activity (April 9), the U.S. Geological Survey is reporting well above normals streamflows (>90th percentile) across northeastern Texas, southeastern Oklahoma, Arkansas, Mississippi, and western Tennessee, while areas of central and southern Texas are experiencing below normal levels (1st to 24th percentile range).

Midwest

Widespread improvements were made across the region in response to this weeks severe storm event that delivered very heavy rainfall accumulations and severe flooding to parts of the region including Missouri, Kentucky, Illinois, Indiana, Michigan, and Ohio. The multi-day storm caused widespread power outages, catastrophic flooding, damaging winds, and tornadic outbreaks. Precipitation totals for the storms ranged from 2 to 18+ inches, with the highest totals logged in western Kentucky. The rainfall improved conditions on the map in Missouri, Illinois, Indiana, Ohio, and southern Michigan. Elsewhere in the region, above-normal precipitation during the past 30-90 days, led to reductions in areas of drought in Minnesota, Wisconsin, and northern Michigan. For the week, average temperatures were below normal across most of the region, with anomalies ranging from 2 to 8 degrees F above normal.

High Plains

On this weeks map, improvements were made in the region, namely in northern Kansas, northern Nebraska, and South Dakota, where shorter-term precipitation (past 30-60 days) is normal to above normal. Additionally, these areas were showing improvements in other drought indicators including soil moisture, streamflow activity, and satellite-based vegetation health. In western North Dakota, areas of Extreme (D3), Severe (D2), and Moderate (D1) drought expanded on the map in response to a combination of factors, including numerous recent impact reports from the agricultural sector, below-normal precipitation (past 30 days), and low streamflow and soil moisture levels. For the week, generally dry conditions prevailed across western portions of the region, while eastern portions received modest accumulations of <1.5 inches (liquid). In terms of temperatures, below-normal average temperatures (ranging from 2 to 10+ degrees F) were logged across the entire region.

West

Out West, generally dry conditions prevailed over much of the region, including areas of California, the Great Basin, the Intermountain West, and the Desert Southwest (southern Arizona and southwestern New Mexico). However, some mountain locations in the Pacific Northwest and the Rocky Mountains received light-to-moderate precipitation accumulations. On the map, areas of Extreme (D3) drought were introduced in southeastern Arizona, where precipitation deficits existed at both short- and longer-term time scales. Similarly, ongoing below-normal snowpack conditions (snow water equivalent at NRCS SNOTEL stations ranging from 6 to 55% of median) in the Nacimiento, San Juan, and Sangre de Cristo ranges of New Mexico, led to the introduction of areas of Extreme (D3) drought. Elsewhere, some improvements were made on the map in drought-affected areas of northeastern Nevada, northeastern Utah, northwestern Colorado, and Wyoming. Looking at the regional snowpack, the NRCS SNOTEL network is reporting (April 8) the following region-level (2-digit HUC) SWE

levels: Pacific Northwest 102%, Missouri 97%, Upper Colorado 89%, Great Basin 104%, Lower Colorado 69%, and Rio Grande 46%.

Caribbean

No changes were made in Puerto Rico on this weeks map.

During the past drought week (Wed-Tue, April 2-8, 2025) surface high pressure over the west-central Atlantic shifted south and helped to tighten the pressure gradient over the northeast Caribbean. This resulted in increased trade wind speeds of 25 mph with frequent gusts of 35-45 mph. A weak mid-level trough brought showers to the region early in the drought week. By mid to late week, as the winds diminished in speed, temperatures and precipitation coverage increased. Rising mid-level heights and associated warmer mid-level temperatures helped stabilize the atmosphere and suppress thunderstorm activity. However, an increase in lower level moisture content brought increased precipitation coverage across the area. With generally near normal precipitation amounts reported this week, and the USVI region transitioning from its (climatological) dry season to its wet season, no changes were rendered to the station drought depictions.

Weekly rainfall measurements (Apr 2-8) in St. Croix ranged from 0.40-inch at VI-SC-23 (Christiansted 6.5 W) to 0.96-inch at VI-SC-20 (Frederiksted 1.7 ESE). Intermediate precipitation totals included 0.41-inch at VI-SC-10 (Christiansted 1.6 E), 0.43-inch at VI-SC-25 (Christiansted 4.4 W), 0.44-inch at VI-SC-34 (Frederiksted 1.9 NE), 0.52-inch at VI-SC-24 (Christiansted 2.1 ENE), 0.60-inch at VI-SC-35 (Frederiksted 1.3 ENE) and also at VI-SC-30 (Christiansted 1.7 SW), and 0.63-inch at VI-SC-29 (Frederiksted 2.5 NNE). At East Hill (672560), the latest 1, 3, 6, 9, and 12-month Standardized Precipitation Index (SPI) values are, respectively: +0.97, +0.35, +1.46, +1.56, +1.62 . This indicates mostly wet conditions. Provisional groundwater data at St. Croixs Adventure 28 Well ranged from 16.63 to 16.85 feet below the land surface throughout the week.

Weekly rainfall measurements in St. John ranged from 0.47-inch at VI-SJ-3 (Windswept Beach) to 1.26 inches at VI-SJ-10 (Cruz Bay 3.1 NNW). Intermediate precipitation totals included 0.63-inch at VI-SJ-9 (Myall Point 0.1 S), 0.72-inch at VI-SJ-8 (Cruz Bay 7.4 E), 0.95-inch at VI-SJ-5 (Cruz Bay 1.6 E), and 1.02 inches at VI-SJ-4 (Cruz Bay 0.8 NE). At Windswept Beach, the total rainfall for March was 3.54 inches, and the 1, 3, 6, 9, and 12-month SPI values are, respectively: +1.50, +0.88, +1.11, +1.02, +1.40. This indicates wet conditions for all time periods. Provisional well-water data at St. Johns Susannaberg DPW-3 Well ranged from 9.63 to 9.94 feet below the land surface.

St. Thomas received between 0.30-inch of rain at VI-ST-14 (Nadir 0.3 E (Tropical Marine)) and 1.13 inches of rain at VI-ST-13 (Charlotte Amalie 1.2 NNW). Other rainfall amounts for the week included 0.68-inch at VI-ST-5 (Charlotte Amalie West 4.2 WNW)

and 0.77-inch at VI-ST-15 (Charlotte Amalie West 1.3 N). Provisional well-water data at St. Thomas Grade School 3 Well ranged from 5.52 to 5.96 feet below the land surface.

Pacific

No changes were made in Alaska on this weeks map.

In the Hawaiian Islands, generally dry conditions prevailed, with some light rainfall accumulations observed across the lower elevations of the north and northwest slopes of Kauai as well as the North Shore of Oahu. Streamflows were particularly low across Oahu and the Big Island, with numerous streams registering flows below the 10th percentile. Other impacts include poor pasture conditions on the Big Island near South Point and in Honokaa, where a rancher is reporting usage of supplemental feed, according to the NWS in Honolulu. Moreover, satellite-based vegetation health indicators are showing dry vegetation along the lower leeward slopes of the Kohala Mountains on the Big Island. On the map, degradations were made on the Big Island, Maui, Molokai, Oahu, and Kauai, including the introduction of Extreme Drought (D3) on the southern extent of Kauai.

During the past drought week (Wed-Tue, April 2-8, 2025), the Commonwealth of the Northern Mariana Islands (CNMI) remained firmly in the grip of a dry season trade-wind regime, accompanied by minimum rainfall. Fire danger remained elevated on Guam, with the Keetch Byram Drought Index (KBDI) climbing into the mid 660s on April 8th (the index ranges from 0 (saturated ground) to 800 (maximum drought possible)). Over eastern Micronesia, scattered showers and isolated thunderstorms resulted from the interaction of very weak troughs with the regional area of trade-wind convergence. On the third of April, the WSO in Majuro reported 2.76 inches of rain, in addition to a downburst which caused some damage to roofs. Drier conditions prevailed later in the week. Over western Micronesia, a developing disturbance near the far southern islands of Palau shifted the band of trade-wind convergence northward. On April 4th, the Joint Typhoon Warning Center (JTWC) labelled the disturbance near 3N/131E as Invest 98W, where scatterometer data showed a broad circulation southwest of the main islands of Palau, and within the Net Equatorial Trough (NET). The circulation drifted westward towards Mindanao with time and weakened. South of the equator, American Samoa experienced fairly significant precipitation amounts each day of the drought week (ranging from 0.06-inch to 1.46 inches), ending the week with surface high pressure and a prevailing easterly flow with embedded showers and possible thunderstorms.

Estimated weekly precipitation amounts (from satellite-based SPoRT IMERG) ranged from 0.5-2.0 inches across a wide swath of the tropical western Pacific, to the south of the CNMI, with embedded 2-4+ inch amounts over the central and eastern FSM. Satellite-based rainfall estimates show approximately one inch of rain fell over American Samoa this week. In general, these estimates appear to fall short of many of the more

localized ground-based measurements (i.e., rain gauges and automated weather stations (AWS)).

In American Samoa, precipitation for the week totaled 3.21 inches at Pago Pago. The monthly precipitation threshold (8 inches) required to meet most water needs was easily surpassed during the last five months (Nov 2024 Mar 2025), and 7 of the past 8 weeks were also wet. The higher elevation sites of Siufaga Ridge and Toa Ridge received 1.84 inches and 1.60 inches of rain this week, respectively. Tutuila continues to be free of dryness and drought.

In the Republic of the Marshall Islands (RMI), rainfall amounts for the week ranged widely from 0.50-inch at Ailinglaplap to 5.33 inches at Majuro. For Ailinglaplap, this week marks the 8th consecutive dry week, and each month in 2025 so far has been dry. Therefore, its drought designation was degraded by one category, from D0(S) last week to D1(S) this week. Over 5 inches of rain in Majuro this week improved its depiction from D0(S) to dryness/drought free conditions. As of last week, the Majuro reservoir contained 23.4 million gallons of freshwater (64.3 percent of capacity). Other intermediate precipitation totals for the week included Kwajalein (1.00-inch, D1(S) degraded to D2(S) this week), Wotje (1.26 inches, the last 12 weeks and the last 4 months were dry, D1(S) degraded to D2(S) this week, and Mili (1.49 inches, with 6.20 inches reported for the month of March by an automatic weather station (AWS), remains free of dryness and drought). Two other stations, both of which recorded 1.68 inches this week, include Utirik and Jaluit. Utiriks AWS reported a meager 0.14-inch of rain last week, and its drought depiction remains at D1(S) this week. Jaluit, similar to Ailinglaplap, reported 8 consecutive dry weeks, but its last wet month was more recent, February 2025, so its depiction remains at D0(S).

Across the Federated States of Micronesia (FSM), precipitation totals broadly ranged from 0.46-inch (Yap, 3 days missing, D1(S)) to 10.07 inches (Woleai) this week. For Woleai, this value exceeds the 8-inch monthly threshold required to meet most water needs. Woleai remains free of dryness and drought. Intermediate precipitation values included 0.87-inch (North Fanif), 0.92-inch (Rumung), 1.29 inches (Pingelap), 1.40 inches (Kosrae), 2.27 inches (Kapingamarangi), 3.93 inches (Lukunoch), 3.95 inches (Nukuoro), 6.37 inches (Chuuk), and 7.58 inches at Pohnpei.

Following are some interesting precipitation statistics for the USAPI region. At Pingelap, only one week in the past 12, and one month in the past 12, have been wet. Its drought designation was worsened by one category, from D0(S) to D1(S). Kapingamarangis precipitation data over the past 12 weeks and past 12 months show a highly variable rainfall pattern, and its drought designation remains at D0(S). Kosrae, Lukunoch, Nukuoro, Pohnpei and Chuuk are dryness and drought free this week. Data were not available for an analysis at Fananu and Ulithi this week.

The Commonwealth of the Northern Mariana Islands (CNMI) remained very dry this week, with precipitation amounts ranging from 0.00-inch at Agat to 0.26-inch at Tinian. Intermediate rainfall values included Saipan (0.07-inch), Guam (0.11-inch), and Rota

(0.18-inch). The Saipan International Airport has been dry for the past 12 weeks, and for the last 4 months. Its drought designation remains at D2(S) this week. In Guam, 11 of the past 12 weeks registered dry, and February-March 2025 was also dry. In contrast, each month from Jun 2024-Jan 2025 was wet in Guam. The drought depictions at both Guam and Rota remain unchanged this week at D0(S). Reassessment of data next week across the CNMI may necessitate some deterioration of the station drought depictions.

Across the Republic of Palau, a wet week ensued where both Koror and Airai (WSO Palau) reached/exceeded the 2-inch weekly rainfall requirement to address most water needs. Koror measured 2.08 inches, and every month from May 2024 through March 2025 was wet. Airai reported even more precipitation this week, with 2.82 inches. Palau remains dryness and drought free, but with an important caveat. In order to present a more complete picture of the situation in Palau, it is noted that the northernmost parts of the big island of Babeldaob may be much drier than the rest of the island nation, due to a lack of rain gauges and regional climatology.

Looking Ahead

The NWS Weather Prediction Center (WPC) 7-Day Quantitative Precipitation Forecast (QPF) calls for relatively dry conditions across the conterminous U.S., except for light-to-moderate accumulations across areas of the Pacific Northwest, northern Plains, Lower Midwest, Mid-Atlantic, and the Northeast. The Climate Prediction Center (CPC) 6-10-day Outlook calls for a moderate-to-high probability of above-normal temperatures across the Western U.S., Plains, and areas of the South, while below-normal temperatures are expected across eastern portions of the Midwest and portions of the Northeast. Elsewhere, near-normal temperatures are favored. In terms of precipitation, there is a low-to-moderate probability of above-normal precipitation across New Mexico, Texas, and Oklahoma as well as areas of the Upper Midwest. Elsewhere, below-normal precipitation is expected across most of the West, Southeast, and Mid-Atlantic.

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