

National Drought Summary for March 18, 2025

Summary

For the drought-monitoring period ending the morning of March 18, significant precipitation fell in parts of the eastern and western United States, while warm, dry, windy weather led to worsening drought across portions of the central and southern Plains and neighboring regions. In recent days, major spring storms have fueled an extraordinarily active period of U.S. weather, featuring high winds, blowing dust, fast-moving wildfires, severe thunderstorms, torrential rain, and wind-driven snow. Some locations experienced multiple hazards within hours, or even simultaneously. High winds and blowing dust were especially severe across the southern High Plains and parts of the Southwest on March 14 and 18, with some locations reporting wind gusts topping 80 mph and visibilities of one-half mile or less. In Oklahoma alone, mid-March wildfires tore across at least 170,000 acres of land and destroyed more than 200 residences. Farther north, wind-blown snow affected portions of the central Plains and upper Midwest, mainly on March 15 and again on March 19-20, early in the new drought-monitoring period. Meanwhile, a severe weather outbreak from March 14-16 spawned nearly 150 tornadoes from the mid-South into the eastern U.S., based on preliminary reports from the National Weather Service. Early reports indicated that the extreme weather resulted in dozens of fatalities, with causes of death ranging from wildfires to tornadoes to chain-reaction collisions. Elsewhere, occasionally heavy precipitation locally trimmed drought severity, with some of the most extensive improvement occurring in the Southeast.

Northeast

A band of heavy rain swept through parts of the Northeast on March 16, leading to local improvement in the drought situation. Notably, coverage of extreme drought (D3) in New Jersey was reduced to less than 20% for the first time since November 5, 2024. In some areas, however, rainfall was less impressive, and in fact there was some expansion of severe drought (D2) in central Maryland.

Southeast

The Southeast was the beneficiary of drought-easing rainfall, especially on March 15-16, although some areas experienced severe weather and/or flash flooding. For example, Muscle Shoals, Alabama, in an area not experiencing drought, had its wettest day on record on March 15, with 6.01 inches. Previously, Muscle Shoals wettest day had been September 13, 1979, with 5.79 inches. Dryness and drought intensities were trimmed in several areas, mainly across various parts of Alabama, as well Georgia and the Carolinas. However, little rain fell across southern Florida, where several new

wildfires burned thousands of acres in typically swampy areas. Notably, the coverage of severe drought (D2) was expanded in southern Florida.

South

Dire conditions have developed in recent days across the southern Plains, where any benefit from last November's record-setting rainfall is quickly diminishing. During major dust storms on March 14 and 18, wind gusts in Lubbock, Texas, were clocked to 82 and 78 mph, respectively. The March 14 gust was a spring (March-May) record for Lubbock and marked the highest non-convective gust on record in that location. As the dust blew on March 14, numerous wildfires raged in Oklahoma, as well as neighboring areas in southern Kansas and the northern panhandle of Texas. The dusty scene was repeated on March 18, with visibilities as low as one-quarter to one-half mile widespread across western Texas. According to the U.S. Department of Agriculture, statewide topsoil moisture in Texas was rated 71% very short to short on March 16, while 71% of the rangeland and pastures were rated in very poor to poor condition. For the week ending March 18, broad expansion of all drought categories was noted in Oklahoma and Texas. Farther east, however, heavy rain led to large reductions in the coverage of dryness and drought in much of Tennessee.

Midwest

Parts of the lower Midwest were clipped by rain and severe weather starting March 14, leading to some improvement in the drought situation across Illinois, Indiana, and southern Michigan. Meanwhile, snow in Minnesota led to some targeted drought improvement. In contrast, large sections of Missouri were bypassed by significant rainfall, leading to increases in coverage of abnormal dryness (D0) and moderate to severe drought (D1 and D2).

High Plains

Significant changes were largely limited to Kansas, where expansion or introduction of dryness (D0) and moderate to severe drought (D1 to D2) resulted from mostly warm, dry, windy weather. By March 16, the U.S. Department of Agriculture indicated that statewide topsoil moisture in Kansas was rated 47% very short to short. Elsewhere, some drought improvement was introduced in central Wyoming, largely based on favorable snowpack observations.

West

A pair of Pacific storms system delivered widespread precipitation, which was heaviest along the West Coast and in the Cascades and Sierra Nevada. Parts of central and southern California and the Pacific Northwest noted up to one category of drought improvement. According to the California Department of Water Resources, the water equivalency of the high-elevation Sierra Nevada snowpack improved to nearly 25 inches by March 18, effectively ensuring a normal season. Notably, snowpack in the southern Sierra Nevada has greatly improved with recent storms, following an imbalanced start to the winter wet season during which much heavier precipitation fell in the northern Sierra Nevada. Although meaningful precipitation extended into the Southwest, snowpack deficits are so significant that any improvement in the overall drought and water-supply situation has been extremely limited. Additionally, harsh winds across the lower Southwest have led to extensive blowing dust in recent days, particularly across the areas of southern New Mexico experiencing severe to exceptional drought (D2 to D4).

Caribbean

On Puerto Rico, there is neither dryness nor drought, continuing a designation that has been in place since November 12, 2024. In San Juan, year-to-date rainfall through March 18 totaled 8.28 inches, slightly above normal, while several volunteer (CoCoRaHS) observers in northern and eastern Puerto Rico have received totals ranging from 12 to 18 inches. Meanwhile, seasonably dry conditions mainly across southern Puerto Rico are being monitored for the potential development of abnormal dryness (D0).

PlaceholderSt. Thomas and St. John received most 0.5 to 1.5 inches of precipitation over the past week, while the central to eastern portion of St. Thomas got roughly 1.5 to 3 inches. Precipitation was lighter on St. Croix, where amounts were 0.5 inches or less island wide, according to the National Water Prediction Services estimates. St. Thomas and St. John remained in D0.

The Standardized Precipitation Index did not indicate dryness at any time scales, although the Vegetation Health Index may show a minimal amount of stress for St. Croix. Well levels on St. Thomas and St. John responded somewhat to the recent precipitation, while the well on St. Croix remained more than 16 feet below the land surface.

Pacific

Although some snow fell in early to mid-March across southern Alaskas abnormally dry (D0) areas, the water equivalency of that precipitation was relatively low. For example, Anchorage received 16.9 inches of snow during the first 18 days of March, with a liquid equivalency of 0.65 inch. With mountain snowpack running below average in many of the dry areas, D0 was retained.

In Hawaii, variable rainfall was heaviest in windward locations, resulting in some targeted improvements in the drought depiction. Notably, moderate drought (D1) was improved to abnormal dryness (D0) across windward sections of Kauai, Oahu, and Maui, while D0 was eradicated across the eastern portions of Molokai and the Big Island. In contrast, the lower southeastern slopes of Haleakala on Maui have continued to dry out, with the intensity changed from moderate to severe drought (D1 to D2).

The Republic of Palau received 1.07 inches at Koror. Both Koror and Palau IAP received more than 3 inches the previous week, so water supplies ought to be adequate.

The Mariana Islands continued to be dry. Guam and Rota were in D0, while Saipan was in D2. Guam received 0.66 inches, while Rota reported 0.38 inches. Saipan received from 0.36 to 1.21 inches. These islands need an inch weekly to meet minimum water needs.

Most locations in the Federal States of Micronesia received ample rain. Kapingamarangi remained at D0 and received 1.89 inches. Pingelap was improved from D1 to D0 after more than 3 inches of rain fell this week. Woleai and Yap, which was at D1, have gone two weeks with below normal rainfall. Chuuk, Lukunor, Nukuoro, Pohnpei, and Kosrae all got more than 2 inches of precipitation, with Kosrae collecting 14.24 inches in their rain gauge.

Nearly all of the Marshall Islands were in D0 or D1 as precipitation continued to miss the islands. Ailinglaplap and Jaluit were in D0 and received 0.15 and 1.68 inches of rain, respectively. Majuro entered D0 as precipitation has been below average for the past three weeks, leaving its reservoirs holding 25.5 million gallons as of March 18. Kwajalein and Wotje were in D1 and got 0.22 and no rain, respectively. Utirik was also in D1 and has gotten 0.10 so far this month. Mili was the only site not in any drought classification and received more than 2 inches in the last week.

American Samoa remained free of dryness. Pago Pago has received 6.54 inches since March 1, and Toa Ridge received 3.87 inches over the same time frame.

Looking Ahead

A low-pressure system moving into eastern Canada on Thursday will drag a cold front through the eastern United States. Locally severe thunderstorms may affect the middle

Atlantic States on Thursday, followed by widespread Northeastern precipitation rain and snow lingering through Friday. Meanwhile, conditions across the nations mid-section will improve, following Wednesday's blizzard from the central Plains into the upper Midwest and a widespread high-wind event. Still, an elevated wildfire threat will persist at least through Friday in parts of the south-central U.S., including the southern High Plains. Farther north, a pair of Pacific disturbances will move eastward near the Canadian border. The initial system will be fairly weak, but the second storm will intensify during the weekend across the northern Plains and upper Midwest. Impacts from the latter system, which will persist into early next week, should include late-season snow from the Cascades to the Great Lakes region; another round of windy weather across the nations mid-section; and potentially severe thunderstorms across portions of the South, East, and lower Midwest.

The NWS 6- to 10-day outlook for March 25-29 calls for the likelihood of near- or below-normal temperatures in most areas from the Mississippi River eastward, while warmer-than-normal weather will broadly prevail from the Pacific Coast to the Plains. Meanwhile, near- or above-normal precipitation across much of the country should contrast with drier-than-normal conditions in the Southeast, excluding southern Florida, and an area stretching from the Four Corners region to the central High Plains. Areas with the greatest likelihood of experiencing wetter-than-normal weather include southern Texas and the Pacific Northwest.

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