

National Drought Summary for February 18, 2025

Summary

A significant storm system moved through the South and into the Southeast during the week, which was associated with flooding rains over the Tennessee Valley and into Kentucky where some of these areas recorded 7-8 inches of rain or more. Portions of northwest Tennessee had CoCoRaHS reports of over 10 inches of rain over the previous week, with the greatest amount of 11.35 inches outside of Clarksville, TN. Many reports of 3 or more inches of rain were observed from northern Louisiana up to southern Virginia with pockets of northern South Carolina with widespread 6+ inches of rain recorded. With recent dryness and a prolonged rain event, many areas had good infiltration into the soil and even some runoff which helped the local hydrological conditions. The Northern and Southern Plains were mostly dry, with areas of east Texas seeing some benefits of rain. Rain returned to the lower elevations of California and up the West Coast as well as snow in the upper elevations in the West. Temperatures were colder than normal over most of the country, with the greatest departures over Montana and North Dakota where temperatures were greater than 25 degrees below normal. The warmest areas this week were in the Southwest and Southeast, where temperatures were near normal in the Southwest and 5-10 degrees above normal in Florida and southern Georgia.

Northeast

Temperatures in the region were 3-6 degrees below normal with the coldest air impacting northern Maine. Most areas recorded precipitation this week with almost all areas observing 125% or more of normal and the greatest amounts in southern Virginia. With a wetter pattern over the last few weeks, improvements were made in the drought status. In New York, abnormally dry conditions were improved in the east and moderate drought improved on Long Island, Rhode Island and eastern Massachusetts. In New Jersey, severe and extreme drought were improved in the central to southern portions of the state and were improved in southern Delaware. In Pennsylvania, moderate drought and abnormally dry conditions were improved in the far southwest while abnormally dry and moderate drought were improved in the southern areas. Severe drought was improved over southeast Maryland while moderate drought and abnormally dry conditions were improved over Virginia. In the panhandle of West Virginia, a full category improvement was made, leaving only a small area of abnormally dry conditions remaining in the state.

Southeast

A very wet week for the region except for the Florida peninsula. The greatest rains were recorded in Tennessee and Kentucky while the driest areas were along the west coast of Florida. With the rain, cooler-than-normal temperatures dominated the region as most areas were 3-6 degrees below normal but further south in the region, temperatures were warmer than normal with departures of 6-9 degrees above normal in southern Georgia and Alabama and most of Florida. With the soaking rain, a full category improvement was made over much of central and western North Carolina, improving the severe and moderate drought. In eastern North Carolina, some improvements were made to the severe drought areas, but also saw severe drought expand to areas that missed out on any precipitation. Northern areas of South Carolina had moderate drought improve this week and abnormally dry conditions were also removed while northern areas of Georgia also had improvements to moderate drought and abnormally dry conditions. Along the west coast of Florida, the short-term indicators allowed for the introduction of severe drought in a couple of areas. In Alabama, almost the entire state had a full category improvement to the drought status with moderate and severe drought being improved upon over much of central and northern parts of the state.

South

The cold from the north made its way into the region with most areas of Oklahoma, north Texas and northern Arkansas all being below normal for temperatures with departures of 6-12 degrees below normal. Areas of central to east Texas, eastern Oklahoma and most areas east of here had the greatest precipitation this week, with some areas of northeast Arkansas and northern Mississippi and Louisiana at greater than 800% of normal. Much of central and western Oklahoma and southern, western and northern Texas were dry this week. Improvements to moderate drought and abnormally dry conditions were made over northern Mississippi and northern Louisiana. A full category improvement was made to all drought and abnormally dry conditions in Tennessee. It was suggested that some of these areas could see more improvement and it was hoped that the hydrological response would allow for this in the coming weeks. The areas that missed out on the rain again did see some degradation, which included the expansion of severe and extreme drought in south Texas and abnormally dry conditions expanded in southern Louisiana.

Midwest

It was a colder-than-normal week throughout the region, with temperature departures ranging from 20-25 degrees below normal in Minnesota and Iowa to 5 degrees below normal in Ohio. Precipitation was greatest in the southern extent of the region from southeast Missouri through southern Illinois, Indiana and Ohio, where over 400% of normal precipitation was recorded. The driest areas were in the upper Midwest where little to no precipitation was recorded over much of western and northern Minnesota.

Most areas did measure some precipitation this week. The wet pattern over the last few weeks allowed drought to be removed completely from Ohio with the last area of moderate drought improved this week. Abnormally dry conditions were trimmed in both Indiana and Illinois based on recent precipitation. In northern Illinois, there was a mix of improvements and degradation associated with the moderate drought. Some areas in the state improved while others degraded based on the short-term drought signal in the region. In far southwest Iowa and far northwest Missouri, moderate drought and abnormally dry conditions were improved this week as the drought signal has diminished.

High Plains

The wettest areas were from eastern Colorado into western Kansas and most of Nebraska where over 200% of normal precipitation was measured. The driest areas were in North Dakota and South Dakota as well as in southern Kansas. It was a cold week for the region with areas of western North Dakota recording departures from normal of 25 degrees or more. Almost all of the High Plains were at least 15 degrees below normal for the week. Only a few slight changes occurred in the region this week, with far southeast Nebraska and far northeast improvements to Kansas abnormally dry and moderate drought conditions and abnormally dry conditions removed from northeast Colorado along the Kansas and Nebraska borders.

West

Widespread precipitation occurred over much of the region with only pockets of Nevada, Utah, Wyoming, southern California, southern Arizona and New Mexico missing out. Temperatures were below normal for the region outside of the southern deserts of California, Arizona, and New Mexico where they were near to slightly above normal. The coldest air was over Montana and into Wyoming where departures were greater than 25 degrees below normal. The wetter conditions over California allowed for some improvements in areas where the current water year indicators improved and eased some of the drought conditions. In Washington, continued dryness allowed the expansion of moderate drought in the western portions of the state. Nevada had degradation along the eastern areas, where severe drought expanded, while improvements were made to the moderate drought and abnormally dry conditions of western Nevada. Severe drought expanded over more of western Utah while extreme drought expanded into more of southern Arizona. The last few months have been dry over much of New Mexico coming off a wetter period prior. In looking at the values for the current water year, most areas were holding status quo but degradation to the drought status was made in southwest New Mexico into south central areas of the state. In Colorado, several small snow events occurred, which allowed for some chipping away at the drought designations as conditions showed some improvement. In

southwest Colorado, moderate and severe drought improved and in western areas, abnormally dry and moderate drought improved. Northern Colorado continued to have a sharp gradient of areas where drought has developed, and some improvements were made here this week into southern Wyoming. Western areas of Wyoming continue to record better snowfall totals, improving the upper elevation snow numbers for this season. Improvements were made to the abnormal dryness and moderate drought in southern and western Wyoming while in northwest Wyoming, severe and extreme drought improved this week. With the active pattern over Montana as well, the recent improvements made over the last several weeks allowed for minimal changes with only some improvements to moderate drought over western Montana.

Caribbean

No changes were made in Puerto Rico this week.

The U.S. Virgin Islands remained free of drought or abnormal dryness this week. On St. John, Rafe Boulon/Windswept Beach reported 0.36 inches of rain this week. The depth to water level at Susannaberg DPW 3 well (St. John, USVI) on February 18 was 7.49 ft below land surface. The analysis showed a steady decrease in water level since November 18, when the water level was at 0.33 ft. The current water level is around 0.5 ft higher over the past year, where it was 7.94 ft below land surface on February 19, 2024. This weeks SPI values, at most timescales (1-, 6-, 9- & 12-month), also confirms wet conditions persist on the St. John, while the 3-month SPI value indicated slightly drier conditions. A total of 0.18 inches of rain were reported on St. Croix (Henry Rohlsen AP) this week. The depth to water level at Adventure 28 Well (St. Croix, USVI) on February 18 was 16.35 ft below land surface. The analysis showed a significant increase in water level (over 16 ft) over the past year, where it was 32.43 ft below land surface on February 19, 2024. This weeks 3-month SPI values indicated some dryness, but all other timescales confirmed wet conditions on the island. On St. Thomas, Cyril E. King Airport reported a rainfall total of 0.01 inches this week. The depth to water level at Grade School 3 well (St. Thomas, USVI) on February 18 was 5.67 ft below land surface. This is down by more than 5 ft from the 0.04 value on November 17, 2024, but about 2 ft above the water level value from last year (7.75 ft on February 19, 2024).

Pacific

In Alaska, a new area of abnormally dry conditions was introduced in the southern part of the state where higher elevation snow has been well below normal for this time of year. Southeast Alaska is also being monitored for degradation as precipitation has been lagging this winter here as well.

In Hawaii, Kauai had improvements to the drought levels over the southwestern half of the island with abnormally dry conditions filling in the rest of the northern portion of the island, while on Niihau, a full category improvement was made this week. Abnormally dry conditions were added to west Maui and on the Big Island, moderate drought was removed from the southern part of the island while abnormally dry conditions were filled in for all of the eastern side of the island.

Conditions were wet over American Samoa this week. Pago Pago reported 9.41 inches of rainfall this week, with 5.76 inches falling on February 17 setting a new daily precipitation record. Toa Ridge and Siufaga Ridge reported 5.50 and 4.44 inches of rain, respectively, this week. These islands need a minimum of 2 inches of rain per week to meet water needs. Due to the abundance of rainfall this week, short-term abnormal dryness was removed from American Samoa this week.

Palau remained free of drought or abnormal dryness this week, with a reported rainfall total of 4.18 inches at the Koror COOP site.

Dry conditions persisted over the Mariana Islands this week. Guam and Rota reported weekly rainfall totals of 0.13 inches and 0.15 inches, respectively, and were degraded to short-term moderate drought this week. On Saipan, 0.11 inches of rain were reported this week, but they remained in short-term severe drought.

Dry conditions continued across the Federated States of Micronesia this week. Several locations, including Kosrae (1.77 inches), Pohnpei (0.99 inches), Lukunoch (0.84 inches), Nukuoro (0.57 inches), and Kapingamarangi (0.00 inches), reported rainfall totals below the 2-inch minimum threshold for water needs. However, these locations remained free of drought and abnormal dryness this week due to previously wet conditions. Short-term abnormal dryness persisted on Woleai (0.15 inches) and Pingelap (0.00 inches), while short-term moderate drought continued on Yap (0.30 inches) this week. Conversely, wet conditions were observed over Chuuk, receiving 2.98 inches of rain this week, bringing their month-to-date total to 10.71 inches. Data for Fananu and Ulithi were insufficient to make any assessments this week.

Conditions were mixed across the Republic of the Marshall Islands this week. Majuro received sufficient rainfall this week, with 4.47 inches exceeding the 2-inch minimum for water needs. The rain measured at Ailinglapalap (0.98 inches) and Jaluit (0.67 inches) were below the 2-inch threshold, but remained free of the drought and abnormal dryness this week. Kwajalein reported a rainfall total of 0.17 inches this week, remaining in short-term moderate drought. On Wotje, short-term abnormal dryness developed due to persistent dry conditions and rainfall deficits over the past two months. No depictions were made for Mili and Utirik due to missing data.

Looking Ahead

Over the next five to seven days, it is anticipated much of the area in the Southeast and into portions of the South will see additional precipitation with some areas that missed out on the last event potentially recording up to an inch of precipitation with this next storm system. Areas along the East Coast also are anticipated to see additional precipitation while much of the Pacific Northwest and into the northern Rocky Mountains is anticipated to see additional precipitation during this period. Much of the Plains, Midwest and Southwest are anticipated to be dry. In a reversal of recent weeks, warmer-than-normal temperatures are expected over much of the area from the Plains westward with departures of 13-16 degrees above normal over much of the Southwest. The areas east of the Plains are anticipated to be near normal.

The 6-10 day outlooks show the high probability of warmer-than-normal temperatures over the western half of the country, with the best probability of above-normal temperatures over the Southwest and portions of the High Plains. The greatest chances of below-normal temperatures will be over Florida. The greatest probability of above-normal precipitation will be along the Canadian border with the best chances of above-normal precipitation in portions of the High Plains, Midwest and New England. Above-normal chances of below-normal precipitation will be over much of the West, southern Rocky Mountains and southern Plains.

Author(s)

Brian Fuchs, National Drought Mitigation Center

Rocky Bilotta, NOAA/NCEI