

National Drought Summary for April 1, 2025

Summary

This U.S. Drought Monitor (USDM) week saw improvement in drought-related conditions across areas of the Intermountain West, High Plains, South, Upper Midwest, and Southeast. Meanwhile, conditions degraded on the map in the Southwest, Lower Midwest, and the Mid-Atlantic. Out West, a series of Pacific storms delivered significant rainfall to the lower elevation coastal areas and heavy mountain snow in the Klamath Mountains, Cascades, and Sierra Nevada ranges, as well as to the higher elevations of the Great Basin and the central and northern Rocky Mountains. In the coast ranges of Northern California, 7-day rainfall totals exceeded 10+ inches in some areas, according to preliminary data from the National Weather Service (NWS) California-Nevada River Forecast Center. The series of storms provided a late-season boost to mountain snowpack levels including in California, where the statewide snowpack (April 1) was 96% of normal, according to the California Department of Water Resources. In the Southwest, drought expanded and intensified across areas of southeastern and northeastern Arizona, northeastern New Mexico, and southwestern Colorado, where snowpack levels are below normal in the San Juan and Sangre de Cristo ranges. In the South, southern Texas received record-breaking rainfall (12+ inches) leading to widespread improvements in drought-related conditions. In the Upper Midwest, an ice storm impacted northeastern Wisconsin and northern Michigan, leading to widespread power outages. Precipitation from the storm event led to improvements on the map in those areas. In parts of the Northeast, some improvements occurred in response to a combination of factors, including normal to above-normal precipitation (past 30-60 days), increased streamflows, and some recovery in groundwater levels. In the Southeast, short-term dryness expanded areas of drought from North Carolina to Georgia, while Florida saw some minor improvement in drought conditions in response to recent rainfall events.

In terms of reservoir storage in areas of the West, Californias reservoirs continue to be at or above historical averages for the date (April 1), with the states two largest reservoirs, Lake Shasta and Lake Oroville, at 113% and 121% of average, respectively. In the Southwest, as of March 31, Lake Powell is 32% full (55% of typical storage level), Lake Mead is 34% full (54% of average), and the total Lower Colorado system is 41% full (compared to 42% full at the same time last year), according to the U.S. Bureau of Reclamation. In Arizona, the Salt River Project is reporting the Salt River system reservoirs 72% full, the Verde River system 53% full, and the total reservoir system 70% full (compared to 89% full one year ago). In New Mexico, the states largest reservoir along the Rio Grande is currently 14% full (30% of average). In the Pacific Northwest, Washingtons Franklin D. Roosevelt Lake is 81% full (148% of average for the date), Idahos American Falls Reservoir on the Snake River is 96% full (108% of average), and Hungry Horse Reservoir in northwestern Montana is 72% full (108% of average).

Northeast

On this weeks map, improvements were made in areas of New York, Vermont, New Hampshire, Connecticut, New Jersey, and Delaware in response to beneficial precipitation observed over the past 30-60 days. Conversely, short-term dryness and low streamflow levels led to the expansion of areas of drought in Pennsylvania, Maryland, and West Virginia. For the week, light precipitation accumulations (<1 inch liquid) were observed across the region and average temperatures were above normal, especially in the southern extent, where temperatures were 6 to 10 degrees F above normal. In terms of snowpack conditions, the NWS National Operational Hydrologic Remote Sensing Center (NOHRSC) is reporting that the Northeast region is currently 33.2% (82.7% last month) covered by snow (area) with an average depth of 2.1 inches and a maximum depth of 43.3 inches.

Southeast

During the past week, light-to-moderate rainfall accumulations were observed across the region, with the heaviest accumulations (ranging from 2 to 4 inches) occurring in the Florida Panhandle, southern Florida, and northeastern Alabama. In response to the rainfall across Florida, areas of Severe Drought (D2) and Moderate Drought (D1) saw reductions on the map. Conversely, continued short-term dryness (1 to 3 inches of rainfall deficits during the past 30-day period) in Virginia, the Carolinas, and Georgia led to the expansion of Moderate Drought (D1) areas. In terms of average temperatures for the week, the entire region experienced above-normal temperatures, with the greatest anomalies (8 to 10+ degrees F) observed across Virginia and North Carolina.

South

Generally dry conditions prevailed across areas of the region including Oklahoma, western Texas, Arkansas, and southern Mississippi. Conversely, the Gulf Coast regions of Texas and Louisiana received very heavy rainfall in some areas (5 to 15 inches based on radar estimates), with the highest accumulations observed along the southern Gulf Coast region of Texas and the South Texas Plains. The deluge of rainfall led to life-threatening flooding and loss of lives. The rains also led to significant improvements in drought-related conditions, with multiple category improvements made on the map. In contrast, short-term dry conditions continued in Arkansas, although heavy rains are expected to impact the state over the next week. For the week, average temperatures were well above normal, with anomalies ranging from 4 to 10+ degrees F. Looking at reservoir conditions in Texas, statewide reservoirs are reported to be 75.3% full, with many reservoirs in the eastern part of the state in good condition, while numerous reservoirs in the western portion of the state continue to experience below-normal levels, according to Water for Texas (April 2).

Midwest

On this weeks map, widespread improvements were made in response to a significant ice and winter storm that impacted northeastern Wisconsin and northern Michigan. The storm caused widespread power outages, leading to state of emergency declarations in both states. Precipitation totals for the storm ranged from 2 to 4+ inches (liquid), with the highest totals logged in northern Michigan. Elsewhere in the region, 7-day precipitation ranged from 1 to 2 inch accumulations, while some areas including northern Minnesota, northern Illinois, and eastern Iowa were generally dry this past week. According to NWS NOHRSC, the Northern Great Lakes region is currently 44.4% snow covered, with an average depth of 3.5 inches and a maximum depth of 58.6 inches. For the week, average temperatures were above normal across most of the region, with anomalies ranging from 2 to 10 degrees F above normal, excluding northern Michigan and Wisconsin where temperature were 2 to 6 degrees F below normal.

High Plains

On this weeks map, only minor changes were made in the region, namely in western Nebraska and areas of Kansas. In the Sand Hills of Nebraska, precipitation during the past 7-day period (1 to 2 inches) led to 1-category improvements in areas of Severe (D2) and Extreme (D3) drought. In Kansas, short-term dry conditions (past 30-60 days) led to the expansion of isolated areas of drought in the southwestern and northeastern parts of the state. Generally dry conditions prevailed across much of the region for the week, with some small accumulations (0.5 to 1 inch liquid) observed in southern and eastern South Dakota, northern Nebraska, and southeastern Kansas. In terms of temperatures, near-normal average temperatures were logged across the region.

West

Out West, a series of Pacific storms delivered heavy rain to the lower elevations and snow to the higher elevations of the Pacific Northwest and Northern California. In the Lake Tahoe area, 7-day snowfall totals ranged from 1 to 2+ feet, while areas of the Klamath Mountains of northwestern California received totals up to 3 feet. Other mountain regions, including the Cascades of Oregon, the Wasatch and Uintas of Utah, and the northern Rockies, received accumulations ranging from 6 to 24 inches. Looking at the regional snowpack, the NRCS SNOTEL network is reporting (April 1) the following region-level (2-digit HUC) SWE levels: Pacific Northwest 104%, Missouri 98%, Upper Colorado 89%, Great Basin 103%, Lower Colorado 49%, and Rio Grande 49%. In the Desert Southwest, areas of Extreme Drought (D3) expanded in northeastern and southeastern Arizona in response to very low streamflows and below-normal

precipitation since the beginning of the Water Year (Oct 1). In areas of southwestern and south-central Colorado, degradations were made on the map where snowpack conditions at numerous NRCS SNOTEL stations are reporting well below-normal SWE levels. Likewise, poor snowpack conditions have been observed in the mountain ranges of southern Utah, northern Arizona, and northern New Mexico.

Caribbean

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

Surface high pressure dominating the tropical Atlantic contributed to breezy and windy conditions across the USVI during this most recent drought week (Wed, Mar 26-Tue, Apr 1, 2025). Trade-wind showers occurred early in the drought week, with precipitation coverage increasing later in the week as a pre-frontal trough approached the region from the northwest. No changes were made to the drought depictions for the three islands this week, as the USVI region is transitioning from its (climatological) dry season to its wet season.

In St. Croix, precipitation measurements ranged from 0.18-inch at VI-SC-24 (Christiansted 2.1 ENE) to 1.45 inches at VI-SC-20 (Frederiksted 1.7 ESE).

Intermediate rainfall amounts for the week included 0.51-inch at VI-SC-10 (Christiansted 1.6 E), 0.55-inch at VI-SC-25 (Christiansted 4.4 W), 0.64-inch at VI-SC-23 (Christiansted 6.5 W), 0.65-inch at VI-SC-30 (Christiansted 1.7 W), 0.72-inch at VI-SC-29 (Frederiksted 2.5 NNE), 1.14 inches at VI-SC-35 (Frederiksted 1.3 ENE), and 1.18 inches at VI-SC-34 (Frederiksted 1.9 NE).

Provisional data from the USGS Adventure 28 Well showed that until several days ago, the Depth to Water Level (feet below land surface) had been steadily declining throughout the month of March, from about 16.6 feet to 17.0 feet. On March 29-30, passing showers and/or thundershowers resulted in a spike in the well data time series that showed a very brief rise in groundwater level to 16.2 feet, before falling and settling around 16.7 feet at the end of the month, just as another round of precipitation moved into the region.

In St. John, rainfall totals for the drought week ranged from 0.27-inch at VI-SJ-4 (Cruz Bay 0.8 NE) to just under an inch (0.99-inch) at VI-SJ-10 (Cruz Bay 3.1 NNW). Several intermediate rainfall totals included 0.47-inch at VI-SJ-8 (Cruz Bay 7.4 E), 0.60-inch at VI-SJ-3 (Windswept Beach), and 0.96-inch at VI-SJ-5 (Cruz Bay 1.6 E).

For Windswept Beach, the total rainfall for 2024 was 70.02 inches, making it the third wettest year on record behind 2017 and 2010. The monthly rainfall totals for January, February, and March, 2025, were respectively: 1.52 inches, 2.16 inches, and 3.54 inches. In addition, March was both wet and very windy, with more than 60 percent of

the monthly rainfall occurring on one day (March 14th). The Standardized Precipitation Index values for Windswept Beach for the 1, 3, 6, 9, and 12-month time scales were, respectively: +1.61, +0.60, +1.00, +1.05, and +1.55. This indicates wet conditions for all periods.

Provisional data from the USGS Susannaberg DPW-3 Well showed a gradual decline in wellwater level occurred during the month of March, starting around 8.4 feet (below the land surface) at the beginning of the month and ending near 9.7 feet. A brief break in the pattern occurred on March 13-14, when the wellwater level rose from 9.11 feet to 8.71 feet, before reassuming its declining trend. This coincided with a period of shower/thundershower activity.

In St. Thomas, rainfall measurements taken during this drought week ranged from 0.28-inch at VI-ST-14 (Nadir 0.3 E, Tropical Marine) to 1.07 inches at VI-ST-13 (Charlotte Amalie 1.2 NNW). A couple of other reports included 0.71-inch of rain at VI-ST-15 (Charlotte Amalie West 1.3 N) and 0.92-inch at VI-ST-5 (Charlotte Amalie West 4.2 WNW).

Provisional data from the USGS Grade School 3 Well showed groundwater levels ranged between 4.0 and 7.0 feet (below the land surface) during the month of March, with a value near 6.0 feet reported at months end. An abrupt rise in wellwater level occurred on March 13-15 (from 7.0 feet to 3.9 feet), before gradually subsiding to its present level. The abrupt rise in wellwater level in mid-March coincided with a period of shower/thundershower activity.

Pacific

No changes were made in Alaska on this weeks map.

In the Hawaiian Islands, generally stable conditions prevailed, with only light rainfall accumulations (<1 inch) observed across the state due to weakened trade winds. Some minor changes were made on the map, including the expansion of areas of Abnormally Dry (D0) across the windward side of the Big Island as well as in Molokai. In terms of impacts, streamflow activity across the state remains below normal levels, and on the Big Island, there have been several reports of low water supplies in rain catchment systems, according to the National Weather Service in Honolulu.

During the past drought week (Wed-Tue, Mar 26-Apr 1, 2025), passing trade wind troughs and fragmented shear lines brought relatively light showers and breezy conditions to the Commonwealth of the Northern Mariana Islands (CNMI). A weak disturbance south of the Republic of Palau helped to displace an area of trade wind convergence towards the Republic and the western Federated States of Micronesia (FSM), but rainfall was very limited for the week. Over the eastern FSM, a mesoscale convective system (MCS) and trade wind convergence brought heavy rainfall to parts of

the region. Relatively dry trades prevailed across the Republic of the Marshall Islands (RMI), with most stations falling far short of the 2-inch weekly rainfall threshold required to meet most water needs. South of the equator, American Samoa experienced showers and thunderstorms during portions of the drought week from two separate mid-level troughs that approached from the northeast. Excessive rainfall and flash flooding were not an issue this week, thanks in large part to the South Pacific Convergence Zone (SPCZ) remaining well south of the islands.

Satellite-based rainfall estimates for the past 7 days (SPoRT IMERG) across the tropical western Pacific ranged from 0.0 to 2.0 inches (locally greater), with the more significant rainfall over the central and eastern FSM, and parts of the RMI. Approximately one inch of rain was indicated over the vicinity of American Samoa this week.

The Republic of Palau experienced a dry week (i.e. less than the 2-inch weekly minimum threshold to meet most water needs), with 0.21-inch of rain reported at Koror and 0.82-inch at the WSO Palau (Airai). As every month since April 2024 has been wet, drought-free conditions continue at Palau.

Across the FSM, Yap received 0.69-inch of rain this week, which fell well short of the weekly minimum rainfall requirement. The past 4 months have been dry. Yaps drought depiction remains unchanged at D1(S) as the previous weeks amount of 2.96 inches of rain helped to offset additional degradation. Rainfall data was unavailable at Ulithi and Fananu this week, while no precipitation was reported at Woleai (3 days missing, but remains free of drought). Chuuk Lagoon reported 1.17 inches of precipitation this week. Although considered a dry week, this amount of rain combined with 10 of the past 12 months being wet, helped to maintain its drought-free designation. Drought-free conditions persist at Lukunor, which experienced a wet week (3.02 inches), and the last 4 months (Dec 2024-Mar 2025) have also been wet. North Fanif came in wet this week, with 2.63 inches of rain. Nukuoro also came in wet this week, registering over three times the weekly minimum requirement (6.38 inches). The past 6 weeks and past 7 months have also been wet, ensuring drought-free conditions will continue for a while. Kosrae and Pohnpei also came in wet this week, with 5.27 inches and 2.48 inches of rain, respectively. Both locations easily remain drought-free this week. Kapingamarangi received 3.58 inches of rain this past drought week. Monthly rainfall has been highly variable during the past 12 months. Its depiction remains unchanged at D0(S), though if next week is also wet, its depiction may be upgraded to drought-free. In contrast to the wet week for much of the central and eastern FSM, Pingelap came in dry this week (0.78-inch). Of the past 12 weeks, only one was wet (the week ending 18 March, with 3.28 inches). For now, its depiction remains unchanged at D0(S). If next week is dry, it would make three dry weeks in a row, and likely require a one-category degradation.

A dry week ensued across the CNMI (less than the 1-inch weekly minimum requirement) with precipitation totals ranging from a meager 0.13-inch of rain at Guam to 0.72-inch at the Saipan International Airport (IAP). In Guam, the week ending 4 March was the only wet week in the past 12 weeks (3.93 inches), with this rainfall total

falling just short of the monthly minimum requirement of 4 inches. From June 2024-January 2025, each month was wet; though more recently, February and March 2025 were dry. The Keetch-Byram Drought Index (KBDI), which attempts to measure the amount of precipitation necessary to return the soil to full field capacity, breached 600 this week in Guam (zero represents a saturated soil and 800 an absolutely dry soil). For this week, Guams depiction remains unchanged at D0(S). Intermediate precipitation amounts for the CNMI include Tinian (0.18-inch), Dededo (0.22-inch), Saipan (AMME NPS, 0.22-inch), Agat (0.47-inch), and Rota (0.50-inch). Like Guam, the past 12 weeks in Rota have been mostly dry, with only the week ending on 4 March being wet (2.17 inches). Its depiction remains D0(S) this week. The last wet month in Saipan was in November 2024, when 6.14 inches of rain fell. Saipans depiction remains at D2(S) this week.

Across the RMI, weekly rainfall amounts ranged from zero inches at Wotje and Utirik to 2.51 inches at Mili. Wotje has been dry the past 12 weeks, and during the past 4 months (Dec 2024-Mar 2025). Its depiction remains at D1(S) this week, but conditions appear ripe for additional deterioration next week unless significant precipitation falls. Utirik received a scant 0.14-inch of rain in March, but retains its D1(S) depiction for now. In contrast, 6.20 inches of rain was measured at Mili in the month of March, though this still falls well short of the 8-inch monthly minimum requirement. Mili remains drought-free. Intermediate rainfall amounts of 0.22-inch was noted in Ailinglaplap, 1.14 inches in Kwajalein (most of which fell on the last day of the drought week), 1.30 inches in Majuro, and 1.45 inches in Jaluit. In Ailinglaplap, each month from May 2024 through December 2024 was wet, but so far in 2025, the first three months have been dry. Its drought depiction remains at D0(S). This same depiction of D0(S) continues for both Jaluit and Majuro. The latter location reported that nine of the past 12 months have been wet. Majuros reservoir contains 23.4 million gallons of freshwater (64.3 percent of capacity). In Kwajalein, the last 12 weeks (and the last 4 months) have been dry. Its current designation of D1(S) may require a one-category deterioration next week, if no significant rain falls before that.

South of the equator, Pago Pago in American Samoa reported a wet week with 2.86 inches of rain. The past 5 months have been wet, with 17.28 inches of rain being reported in March. The precipitation measurements at higher altitude sites include 1.16 inches at Toa Ridge and 1.00-inch at Siufaga Ridge. This weeks drought designation at Tutuila remains unchanged with drought-free conditions.

Looking Ahead

The NWS Weather Prediction Center (WPC) 7-Day Quantitative Precipitation Forecast (QPF) calls for moderate-to-heavy precipitation accumulations ranging from 3 to 10+ inches (liquid) across areas of the South, Lower Midwest, and the Pacific Northwest (Washington), with the heaviest accumulations expected in the Middle Mississippi Valley and Ohio River Valley regions. Light-to-moderate accumulations are expected in

areas of the Southeast, Mid-Atlantic, Upper Midwest, and central and southern Plains. In the central and southern Rocky Mountains, mountain snowfall is expected. 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. and Plains, while below-normal temperatures are expected across the Midwest and Eastern Tier. In terms of precipitation, there is a moderate-to-high probability of below-normal precipitation across most of the West, Plains, South, and the Midwest. Elsewhere, above-normal precipitation is expected across the Eastern Seaboard and in the Pacific Northwest (Washington).

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