

National Drought Summary for December 10, 2024

Summary

Rains, locally heavier, fell across roughly the east half of Texas this week, with heavier amounts (locally 4-7 inches) falling in parts of the central Gulf Coast region. Lighter precipitation amounts fell in parts of Mississippi, Alabama, Georgia and Tennessee, and in the Ohio River Valley. Snow, some of it lake effect, fell in parts of the Upper Great Lakes, and heavier lake effect snow fell downwind from Lakes Erie and Ontario. Most of the Great Plains and West was dry this week, except for high elevation areas of western Montana and northern Idaho and in western parts of Oregon and Washington. Degrations in drought conditions occurred in southern California and southern Nevada, parts of high elevation Wyoming, across portions of the Mississippi River Valley, in the Florida Peninsula and in parts of Texas. Generally drier weather in Hawaii led to widespread degradations as well, mostly on the windward sides of the islands. Improvements occurred in parts of east and deep south Texas, western Montana and central Washington, Mississippi, Alabama, Georgia and Tennessee, in the Upper Peninsula of Michigan and northeast Minnesota, and in Erie County, Pennsylvania and southwest and south-central New York.

Northeast

Most of the Northeast this week had temperatures within 5 degrees of normal, mostly on the colder side. Northeast Maine and West Virginia finished the week 5-10 degrees colder than normal. Downwind of Lake Erie, more heavy snow fell during the last week, which combined with previous snows led to the removal of abnormal dryness in Pennsylvanias Erie County and southwest New York. In these areas, the recent snowfall led to improvements in groundwater and streamflow. Due to lessening precipitation deficits, moderate drought was slightly reduced in coverage in south-central New York, where around or just over an inch of precipitation fell. Elsewhere across the region, severe and extreme short- and long-term drought continued across southern New England. The lack of snowfall has disrupted ski resort operations in parts of Vermont, while a water system failure amid very low water supply in Whitehall, New York, led to a school cancellation and the shutting off of water in the village.

Southeast

Light precipitation, generally totaling under an inch, fell across parts of Virginia and the Carolinas. Heavier rain fell across northern and west-central Georgia, as well as southern Alabama, the latter of which received 2 to locally 7 inches of rainfall. Weather across Florida, aside from the far western Panhandle and adjacent southeast Georgia, was mostly dry. Temperatures were mostly colder than normal this week, ranging

mostly from 3-9 degrees below normal. Due to decreasing streamflow and growing short-term precipitation deficits, abnormal dryness and moderate drought increased in coverage in parts of South Carolina. Significant short-term precipitation deficits continued to build across the Florida Peninsula, along with decreasing soil moisture, leading to widespread expansion in short-term abnormal dryness and moderate drought. In northern Georgia, recent rainfall led to minor improvements. Widespread heavy rain in southern Alabama led to widespread improvements to abnormal dryness and drought as precipitation deficits lessened and streamflow and soil moisture increased.

South

Widespread rains fell across parts of the south this week, especially in eastern Texas, Louisiana, Mississippi and western Tennessee, while the rest of Texas, most of Arkansas, and Oklahoma remained mostly dry. Western Texas was mostly 3-9 degrees warmer than normal, while Mississippi was mostly near normal or 3-6 degrees below normal. In between these areas, temperature anomalies varied but were mostly within 3 degrees of normal. Due to lessened precipitation deficits and increased streamflow and soil moisture, drought areas were reduced in coverage in central Tennessee, parts of Mississippi, western Louisiana and parts of east Texas. Short-term precipitation and streamflow deficits continued to build in northeast Arkansas, leading to widespread expansion of abnormal dryness and moderate drought there. In parts of southeast and south-central Texas, conditions worsened where soil moisture and streamflow deficits grew amid growing precipitation deficits. In far southern Texas, heavy rains led to local improvements near the mouth of the Rio Grande. In Bexar County, Texas, certain types of fireworks were temporarily banned from sale or usage due to ongoing drought conditions, while lake and reservoir levels dropped to 20% capacity in the Corpus Christi area.

Midwest

Precipitation amounts this week across the Midwest were generally light (an inch or less), with a few exceptions. Some precipitation exceeding an inch fell across southern Kentucky, while more widespread precipitation amounts between an inch or two fell in the northern Lower Peninsula of Michigan, Michigan's Upper Peninsula and far northeast Minnesota. The heavier precipitation amounts in northern Michigan and northeast Minnesota led to localized improvements to conditions there. Decreasing soil moisture and streamflow and growing precipitation deficits led to expansions of abnormal dryness and moderate drought in northern and southern Illinois, central and southwest Indiana, southeast, south-central and north-central Missouri, and southeast Iowa and far southwest Minnesota. Temperatures were mostly 2-6 degrees below

normal in eastern Illinois, Indiana and Ohio; 2-8 degrees below normal in Kentucky; and 2-8 degrees warmer than normal in Iowa, Wisconsin and Minnesota.

High Plains

Except for parts of the Front Range of the Rocky Mountains in Colorado, weather across the High Plains region was mostly dry this week. Temperatures were primarily warmer than normal, ranging from 3-12 degrees above normal in most areas (with locally warmer readings). Drought and abnormal dryness coverage remained mostly unchanged. Moderate drought coverage was reduced southwest of the Denver area as precipitation deficits lessened there. Abnormal dryness was also removed from west-central Kansas after conditions were reassessed there following wetter-than-normal weather over the last couple of months. Well-below-normal early season snowpack and short- and long-term precipitation deficits led to expansion of extreme drought in parts of the Wyoming, Wind River and Bighorn mountain ranges in Wyoming. Water usage is currently restricted to essential use only, due to low well levels, in the communities of Auburn and Peru in southeast Nebraska, where moderate drought is ongoing.

West

Primarily dry weather occurred in the West this week, except for western Washington, western Oregon, western Montana and northern Idaho. Most of the West finished this week either within 5 degrees of normal or 5-10 degrees warmer than normal. Central and eastern Montana saw widespread temperatures range from 10-15 degrees above normal. Widespread improvements to drought conditions occurred in western Montana and adjacent Idaho due to lessened short- and long-term precipitation deficits and increased soil moisture. In central Washington, small adjustments (both improvements and degradations) occurred in abnormal dryness and moderate drought areas where streamflow amounts and short- and long-term precipitation deficits changed. Short-term precipitation deficits continued to mount in southern and central Nevada and in southern California, leading to expansion of drought and abnormal dryness areas there.

Caribbean

Except for the far west reaches of the island, drier-than-normal weather continued in Puerto Rico this week. Rainfall deficits are starting to mount in some areas, though with good reservoir levels and near-normal streamflow and soil moisture, abnormal dryness has not yet developed. Temperatures were mostly 1-4 degrees warmer than normal in Puerto Rico this week.

The U.S. Virgin Islands received low to moderate rain this past week. St. Thomas got 0.22 to 0.45 inches, St. Johns received 0.19 at Windswept Beach, and St. Croix received 0.06 to 0.55 inches. All locations remained in normal condition.

The Standardized Precipitation Index was positive at all time scales for all islands, indicating adequate moisture. The Vegetation Health Index indicated no vegetative stress on St. John, but some amount of mild stress for western and central parts of parts of St. Croix and St. Thomas.

Well water levels on St. Thomas and St. John were relatively high at 1.29 feet and 2.11 feet below the land surface, respectively, a slight decrease from last week. The St. Croix well was 15.94 feet below the land surface on Dec. 10.

Pacific

Alaska remained free of drought or abnormal dryness this week. Temperatures were warmer than normal across Alaska; most of central Alaska was 12-20 degrees above normal. Precipitation amounts this week were mostly under an inch, with the exception of southeast Alaska.

Weather in Hawaii this week was mostly drier than normal, leading to growing precipitation deficits and decreasing streamflow in many areas. Widespread expansion of drought or abnormal dryness occurred, especially on the Big Island and in windward areas of Oahu, Molokai and Maui. Temperature reports on Kauai, Maui, Molokai and Lanai were mostly near normal or a degree below normal. Temperatures were mostly either near normal or a degree or two warmer than normal on Oahu and the Big Island.

The Republic of Palau received 1.5 inches at Palau IAP and 0.82 inches at Koror COOP. While conditions are still okay, continuing lack of precipitation in the coming weeks could elevate into abnormally dry (D0) conditions as both islands need 2 inches of rain weekly.

The Mariana Islands had low rainfall amounts this past week. Abnormal dryness was introduced to Saipan after it received 0.13 and 0.02 inches at Saipan ASOS and Saipan AMME NPS, respectively. Guam saw 0.88 inches with Agat Bay seeing 1.28 inches, while Rota reported only 0.39 inches. These islands need an inch weekly to meet minimum water needs.

The Federal States of Micronesia were mixed with most locations receiving more than 2 inches, except Yap with 0.76 inches, Pingelap with 1.19 inches, and Utirik with 1.87 inches.

The Marshall Islands all received more than 2 inches of precipitation in the past week. These islands need 2 inches of rain each week to meet minimum water needs. Majuro

WSO backfilled the Ulithi and Mili automatic station data back to October 2024 and September 2024 respectively. Ulithi only got 0.48 inches of rain this past week and less than 2 inches each week over the prior 4 weeks, showing conditions supported the introduction of abnormal dryness (D0).

American Samoa remained free of dryness as Siufaga Ridge and Toa Ridge each received 3 or more inches of rain. Pago Pago missed out on much of the rain, only receiving 0.88 inches.

Looking Ahead

Through the evening of Monday, Dec. 16, the National Weather Service Weather Prediction Center is forecasting at least an inch of precipitation in the middle Mississippi River Valley, lower Ohio River Valley, western Tennessee, northwest Mississippi, eastern Texas, southeast Oklahoma, northern Louisiana and Arkansas. Precipitation of at least 1 inch is also forecast in parts of eastern New England and in a few areas downwind (east) of lakes Erie and Ontario. Heavy precipitation is also forecast in northern and northwest California and southwest Oregon, where locally up to or over 5 inches of precipitation is possible. At least 1.5 inches of precipitation is also forecast in many areas of western Washington and Oregon, while mostly lesser amounts are forecast in eastern Washington and Oregon and in parts of Idaho. The Southwest, western Great Plains, southeast Alabama, southern Georgia and the Florida Peninsula are forecast to remain mostly dry.

The National Weather Service Climate Prediction Centers 6-10 day forecast, covering December 17-21, favors warmer-than-normal temperatures across almost the entire U.S., except for eastern Missouri, Illinois and parts of the Upper Midwest. Forecaster confidence is high for above-normal temperatures in the West, New England, southern Alaska and Hawaii. Precipitation amounts are likely to be below normal for this period across most of the central and northern Great Plains and the West, except for northwest Washington and Oregon, where above-normal precipitation is slightly favored. Above-normal precipitation is also favored in central and southern Texas, the Florida Peninsula, and the Atlantic Coast. Above-normal precipitation is also favored in southern Alaska, while drier-than-normal weather is favored in northern Alaska and in Hawaii.

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