National Drought Summary for April 8, 2021

**SUMMARY**

A cold front moving across the eastern half of the country last week brought showers and thunderstorms and left record-breaking cold temperatures in its wake. Meanwhile, dry conditions and warmer than normal temperatures continued in the West with many locations setting daily record high temperatures. The overall effect was a general deterioration of conditions across the Lower 48 as moisture deficits continued to build in the West and in locations in the eastern half of the country that missed out on the heaviest rainfall. Improvements were minimal and limited to parts of the Midwest and Southern Plains.

**Northeast:** Widespread precipitation occurred across much of the region, limiting the expansion of drought and abnormal dryness. In western New York, D1 (moderate drought) expanded again this week where precipitation deficits are close to 3 inches over the last 90 days and are reflected in low streamflow values and declining groundwater. Farther east, D0 (abnormal dryness) increased in eastern New York and Massachusetts. D1 remains in New Hampshire and Vermont. Last week, New Hampshire officials warned the public that water shortages may occur if the drought persists since conditions haven’t fully recovered from the drought of 2020.

**Southeast:** A strong cold front swung across the region last week, bringing showers and thunderstorms. Much of the region remains free of drought with pockets of D0 (abnormal dryness). Last week’s rain held off most potential degradations. The only exception is in South Florida, which missed out on most of the rain. Here, D0 and D1 (moderate drought) expanded in response to rainfall totals ranging from 5% to 50% of normal, extremely low streamflow, rapidly falling groundwater levels and increased fire danger.

**South:** Showers and thunderstorms impacted the Lower Mississippi and Tennessee valleys last week, resulting in improvements to abnormally dry (D0) areas in Mississippi. Having missed out on the heaviest rainfall, drought and abnormal dryness generally expanded in the western part of the region. In Texas, degradations occurred throughout the state in response to rainfall deficits, increased evaporative demand and vegetation health. Most notable is an expansion of D3 (extreme) and D4 (exceptional) drought in the long-term drought area in the western part of the state. In Oklahoma, this week’s map shows broad expansions of D0 and D1 (moderate drought). Warm, dry weather combined with gusty winds increased evaporative demand, drying out soils and vegetation. The only improvements this week occurred in the Texas Panhandle and western Oklahoma. Despite the lack of rain last week, a reassessment of indicators shows that conditions have started to recover.

**Midwest:** The most notable weather in the Midwest last week was the development of subfreezing temperatures. Locations in central Ohio, southern Indiana, southern Illinois and Kentucky set daily low records. For the most part, precipitation that fell generally missed the drought areas in the northern part of the region. The cooler than normal temperatures generally kept conditions from deteriorating despite drier than normal weather. Changes to this week’s map include an expansion of moderate drought (D1) in northeast Illinois and southeast Wisconsin in response to rainfall shortages of about 2 to 5 inches over the last 90 days and declining soil moisture.

**High Plains:** High temperatures in Nebraska and the Dakotas reached the upper 70s to mid-80s last week. With values of about 20 to 30 degrees above normal, many locations set daily records. These
warm temperatures combined with low relative humidity and gusty winds to increase fire danger across the region. North and South Dakota declared fire emergencies due to ongoing drought conditions and increased wildfire activity. Severe (D2) and extreme (D3) drought expanded in both states as precipitation deficits continued to grow and increased evaporative demand dried out soils and stressed vegetation. USDA reports that, as of April 4, 92% of North Dakota’s topsoil and 68% of South Dakota’s topsoil was rated short to very short, indicating that soil moisture supplies are significantly less than what is required for normal crop growth development. In North Dakota, county Extension agents report that producers are starting to de-stock livestock herds by culling cows and grain farmers are very concerned about the lack of moisture. Photos show soil drift due to the dry conditions and high winds.

**West:** As the wet season begins to wind down in the West, widespread extreme (D3) to exceptional (D4) drought continues across much of the Southwest. Another week of warm, dry weather didn’t help. High temperatures ranged from 4 degrees above normal in the Northwest to 15 degrees above normal in the Southwest while little to no precipitation fell across much of the region. Where exceptions occurred, in the Pacific Northwest and the Northern Rockies, totals generally weren’t enough to overcome shortages. In eastern Washington, abnormal dryness (D0) and moderate drought (D1) expanded as precipitation deficits continued to increase, drying out soils. Conditions also deteriorated in Oregon. Most notably, D3 expanded and D4 was introduced in south central Oregon in response to record low water-year-to-date total precipitation, streamflow and soil moisture. It’s worth noting that since the U.S. Drought Monitor began in 2000, this is only the second time that D4 has occurred in the state (last occurrence in summer and fall of 2003). In California, the April 1 snow survey showed that snow water content in the Sierra Nevada Mountains was at 59% of average and the state, as a whole, received about 50% of its average precipitation for the water year. Two consecutive dry years have left reservoirs about half full. These precipitation deficits, combined with high temperatures, have reduced streamflow, dried out soils, and stressed vegetation. Changes to this week’s map include an expansion of D3 in northern California and western Nevada and an expansion of D2 (severe drought) and D3 in southern California. D1 expanded in northwest Wyoming and southeast Montana to reflect below normal precipitation over the water year and its effect on soil moisture and streamflow. Eastern Montana also saw deteriorating conditions with an expansion of D2 and D3. Here, the lack of precipitation over the last 2 to 3 months has dried out soils and stressed vegetation. USDA reports that, as of April 4, 76% of the state’s topsoil was rated short to very short indicating that soil moisture supplies are significantly less than what is required for normal crop growth development.

**Alaska, Hawaii, and Puerto Rico:** In Alaska, April has started off snowy in parts of the Alaskan interior. With only one week into the month, it is already the third-wettest April on record. For the most part, much of this snowfall either missed the abnormally dry (D0) areas of the northern and far-eastern interior or wasn’t enough to make up for the season-long deficits. Improvements were limited to northwest Alaska and the southern and western edge of the D0 area in the interior. Hawaii also saw improvements this week. A solid trade wind pattern combined with a wet March resulted in the removal of D0 on Maui and Molokai. D0 remains on the Big Island where rainfall totals continue to be below average. Puerto Rico saw both improvements and degradations this week. On the northwest part of the island, slight decreases were made to D0 and D1 (moderate drought) conditions improved in response to above normal rainfall totals over the last 90 days.

**Looking Ahead:** The National Weather Service Weather Prediction Center forecast for the next 5 days (April 8 through the 12) forecasts heavy rain and the potential for thunderstorms for the central U.S.
the storm system pushes eastward, chances increase for heavy rain and thunderstorms across the Upper Midwest, south-central, and southeastern U.S. In the Northwest, a storm moving in from the Pacific will bring colder than normal temperatures with snow likely falling in the Cascades and Northern Rockies and rain at lower elevations. In the Southwest and southern High Plains, warm, dry weather combined with gusty winds is expected to persist, leading to the potential continuation of dangerous fire weather conditions. Moving into next week, the Climate Prediction Center six- to 10-day outlook (valid April 12 through April 16) favors above normal temperatures across the West, Northeast and Southeast, with the largest probabilities centered over the Great Basin and New England. Below normal temperatures are most likely across the Great Plains, Mississippi Valley and Alaska. The greatest probabilities of above normal precipitation are across the Southern Plains, Southeast and Mid-Atlantic states.