The discussion in the Looking Ahead section is a description of what the official national guidance from the National Weather Service (NWS) National Centers for Environmental Prediction is depicting for current areas of dryness and drought. The utilized NWS forecast products include the WPC 5-day QPF and 5-day Mean Temperature progs, the 6–10 Day Outlooks of Temperature and Precipitation Probability, and the 8–14 Day Outlooks of Temperature and Precipitation Probability – valid as of late Wednesday afternoon of the USDM release week. The NWS forecast Web page used for this section is http://www.cpc.ncep.noaa.gov/products/forecasts/.

This U.S. Drought Monitor week saw improvements on the map across parts of the Southeast, Northeast, Northern Plains, the Rockies, and Desert Southwest. In the mountains of drought-stricken areas of Colorado and New Mexico, the cool-season is off to a positive start in portions of the central and southern Rockies where snow shower activity continued this week. In California, persistent dry conditions led to expansion of areas of drought in northern parts of the state where a dangerous and fast-moving wildfire broke out late last week in the Sierra Nevada foothills leading to destruction of the community of Paradise. The Camp Fire is now the most deadly and destructive fire in the state’s history and so far has resulted in the loss of 48 lives and destroyed 7,600 homes. In southern California, the Woolsey Fire broke out late last week and spread quickly across the Santa Monica Mountains because of dry vegetation and strong Santa Ana winds. The fire led to the evacuation of more than 100,000 residents in Los Angeles and Ventura counties and has been responsible for the destruction of >400 homes. In the Southeast, widespread rain shower activity helped alleviate areas of dryness in Alabama and Georgia while short-term precipitation deficits led to expansion of drought in portions of Florida.

The Northeast: On this week’s map, continued snow shower activity led to removal of the remaining areas of Moderate Drought (D1) in the Adirondacks of New York as well as in the Green Mountains of northern Vermont. Elsewhere in the region, light-to-moderate rainfall accumulations (1-to-4 inches) were observed in coastal areas of the region leading to removal of an area of Abnormally Dry (D0) in the Mid-Coast of Maine. According to the National Weather Service (NWS) National Operational Hydrologic Remote Sensing Center (NOHRSC), 45% of the Northeast region is currently covered by snow. Average temperatures for the week were below normal (ranging from 1-to-6 degrees) across most of the region.

The Southeast: On this week’s map, widespread shower activity improved conditions leading to removal of areas of Abnormally Dry (D0) in northern Alabama and eastern Georgia as well as removal of a small area of Moderate Drought (D1) in northeastern Georgia. Rainfall totals for the week ranged from 3-to-6 inches across Alabama, Georgia, and South Carolina. In Florida, below-normal soil moisture levels and precipitation deficits during the past 60 days led to expansion of areas of Abnormally Dry (D0) in southern and eastern portions of the state as well as the introduction of Moderate Drought (D1) in east-central Florida where 7-day average
streamflows were well below normal. Average temperatures across northern portions of the region were 1-to-6 degrees below normal while southern portions, including southern Georgia and Florida, were 3-to-9 degrees above normal for the week.

**The South:** On this week’s map, only minor improvements were made in the region including removal of remaining areas of Abnormally Dry (D0) in northeastern and southwestern Mississippi where heavy rains this week erased existing short-term precipitation deficits. In the Texas Panhandle, areas of Abnormally Dry (D0) and Moderate Drought (D1) were reduced in response to improving soil moisture levels from snow shower activity in and around Amarillo. During the past 120-days, precipitation across Texas has been well above normal. For the week, average temperatures were well below normal with the greatest negative anomalies (9-to-15 degrees) observed in the Texas Panhandle and northern Oklahoma.

**The Midwest:** During the past week, scattered snow shower activity continued across the Upper Peninsula and northern Michigan with the heaviest accumulations (4-to-12 inches) observed in areas adjacent to Lake Superior. According to NWS NORHSC, the Northern Great Lakes region is currently 78% covered by snow. In terms of drought, this week’s removal of a small area of Moderate Drought (D1) in western Missouri resulted in the region currently being drought-free on the map. For the week, average temperatures were well below normal across the region with the greatest negative anomalies (12-to-20 degrees below normal) observed in Iowa and Minnesota.

**The High Plains:** On this week’s map, improvements were made in North Dakota with the removal of two areas of Severe Drought (D2) in response to normal to above-normal precipitation during the past 30-to-60 days. In northeastern Kansas, areas of Abnormally Dry (D0) and Moderate Drought (D1) were reduced in response to improving soil moisture conditions and above-normal precipitation during the past 60-to-90 days. For the week, the region experienced below-normal temperatures with the largest negative anomalies (12-to-24 degrees below normal) observed in North Dakota, northeastern Nebraska, and northeastern Wyoming.

**The West:** In California, several dangerous and destructive wildfires broke out in both southern and northern California during the past week. In Butte County in northern California, the Camp Fire devastated the Sierra Nevada foothill community of Paradise – destroying nearly the entire community including 7,600 homes. According to CAL FIRE, the fire has burned in excess of 130,000 acres (35% contained) and has been responsible so far for the loss of 48 lives – making it the deadliest wildfire in California history. North of Los Angeles, the Woolsey Fire has burned 97,000 acres (40% contained) in and around the Santa Monica Mountains leading to the evacuation of more than 150,000 residents and destruction of >435 homes. Continued dry conditions in California led to expansion of an areas of Moderate Drought (D1) in the Sacramento Valley, extending to the western foothills of the northern Sierra Nevada. In the
Rockies, widespread snow showers were observed in the Front Range and adjacent foothills as well as in the Sangre de Cristo Range, leading to improvements on the map in north-central and south-central Colorado. Overall, Colorado’s snowpack is off to a positive start with above-normal snow water equivalent (SWE) levels in the Front Range, Sangre de Cristos, and the Mosquito Range of central Colorado. In New Mexico, recent snowfall and above-normal SWE levels led to reduction of Extreme Drought (D3) in the north-central part of the state. In eastern New Mexico, recent storm activity and improved soil moisture levels have improved conditions leading to reduction in areas of Moderate Drought (D1) and Severe Drought (D2). In central Arizona, wet conditions during the past 90-days led to reduction in areas of Moderate Drought (D1). In the Northern Rockies near Glacier National Park, areas of Abnormally Dry (D0) were removed in response to above-normal SWE levels associated with recent snowfall. Average temperatures were below-normal across most of the region during the past week.

**Hawaii, Alaska, and Puerto Rico:** No changes were made on this week’s map in Alaska or Hawaii. In the Hawaiian Islands, rainfall accumulations were generally light across the islands with 7-day storm totals ranging from 1-to-3 inches on Kauai, Oahu, Maui, and the Big Island with some heavier accumulations (~4 inches) observed along the windward sides of the Big Island and Oahu. Average temperatures hovered within a few degrees of normal for the week with the exception of South Kona and southwestern portions of the Ka’u District where temperatures were 3-to-5 degrees above normal. In Alaska, generally dry conditions prevailed across most of the state with the exception of some coastal areas in the Gulf of Alaska including Kodiak Island, Prince William Sound, and Yakutat where 5-to-6 inch (liquid) accumulations were observed during the past week. Average temperatures across the state were generally above normal with the largest positive anomalies observed in western Alaska and the North Slope where temperatures were 10-to-15 degrees above normal. In Puerto Rico, moderate-to-heavy rainfall accumulations (2-to-8 inches) were observed across western portions of the Cordillera Central as well as in the northeastern corner of the island during the past week. Below-normal precipitation levels (past 30-days) and areas with low streamflow led to expansion of areas of Abnormally Dry (D1) in south-central and northwestern Puerto Rico.

**Looking Ahead:** The NWS WPC 7-Day Quantitative Precipitation Forecast (QPF) calls for light-to-moderate accumulations ranging from 1-to-3 inches (liquid) along the Eastern Tier with the heaviest accumulations forecasted for portions of the Southeast and southern Mid-Atlantic. In the central and southern Appalachians, a wintry mix of rain, freezing rain, and snow is expected. West of the Mississippi River, conditions are expected to be dry with the exception of light-to-moderate accumulations in the Northern Rockies and western Washington. The CPC 6–10-day outlook calls for a high probability of above-normal temperatures across portions of the West including Arizona, California, Nevada, Utah, Oregon, and western Washington. In contrast, there’s a high probability of below-normal temperatures in the Midwest, Mid-Atlantic, and Northeast. In terms of precipitation, there is a high probability of above-normal precipitation across California, the western Great Basin, and Arizona while the Pacific Northwest and
Northern Rockies are expected to be drier than normal. Moving eastward, above-normal precipitation is expected across Texas, the Gulf Coast, Southern Plains, and Florida while below-normal precipitation is expected in the Midwest, Mid-Atlantic, and Northeast.

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**Dryness Categories**

D0 ... Abnormally Dry ... used for areas showing dryness but not yet in drought or for areas recovering from drought.

**Drought Intensity Categories**

D1 ... Moderate Drought  
D2 ... Severe Drought  
D3 ... Extreme Drought  
D4 ... Exceptional Drought

**Drought or Dryness Types**

S ... Short-term  
L ... Long-term

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