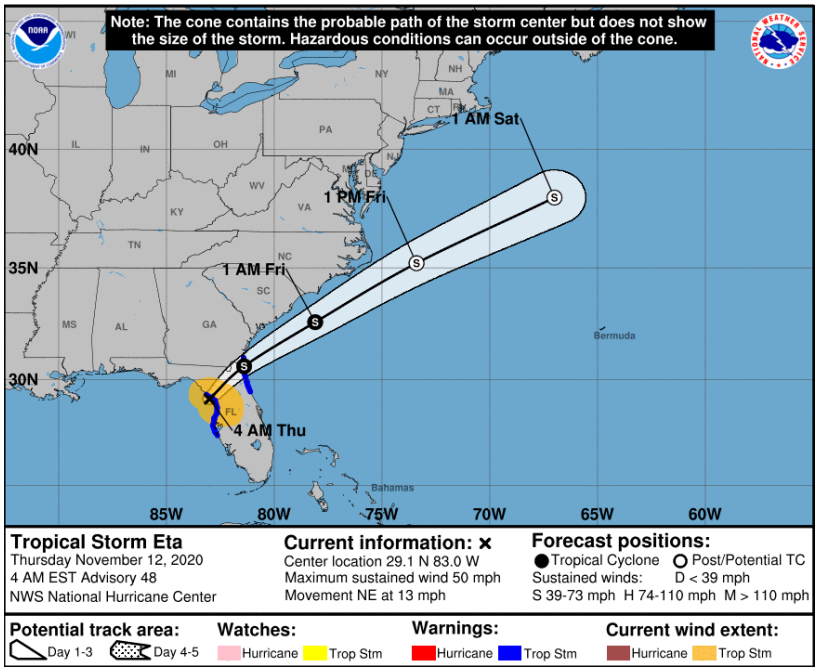
United States Department of Agriculture

Water and Climate Update

November 12, 2020

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

Tropical Storm Eta batters Florida

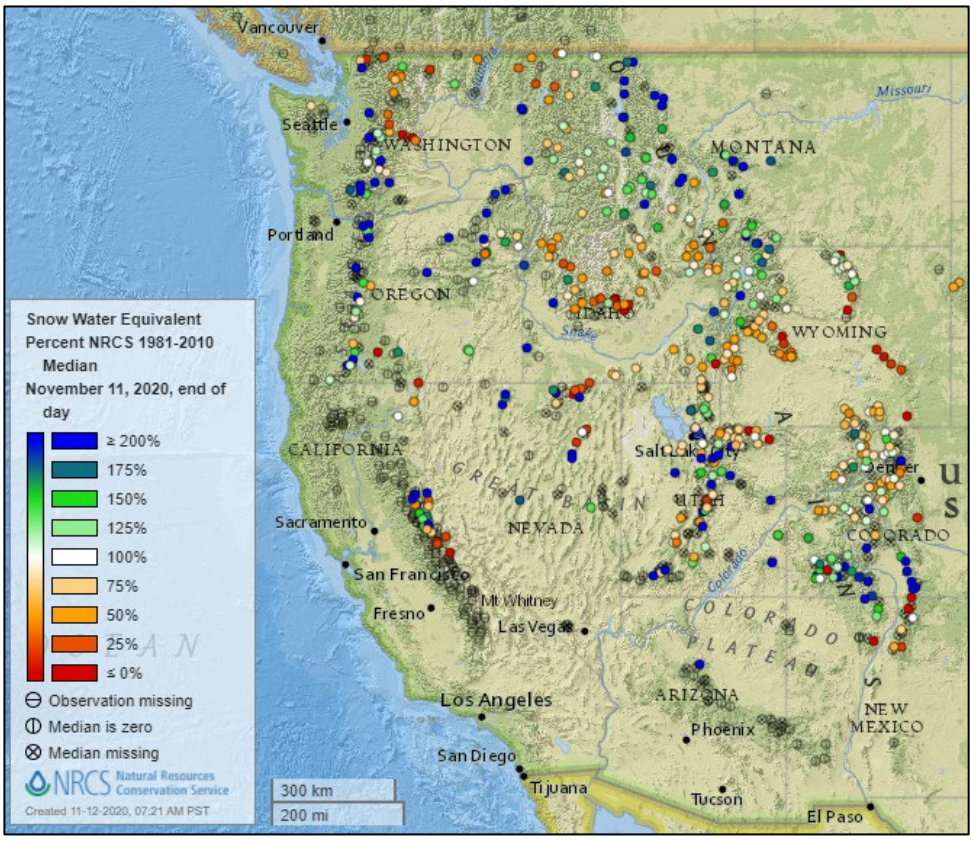


Tropical Storm Eta made landfall for the second time as it moved through the Gulf of Mexico. Most recently, the storm made landfall near Tampa Bay, with Wednesday's 3.99 inches of rain setting a record for November. Heavy rain, wind, and storm surge caused damage and thousands of power outages in the region. The storm made its first U.S. landfall as a hurricane in the Florida Keys, with up to 18 inches of rain reported in southern Florida. Given the record number of hurricanes this year, Eta was the first named storm to reach Florida.

Related:

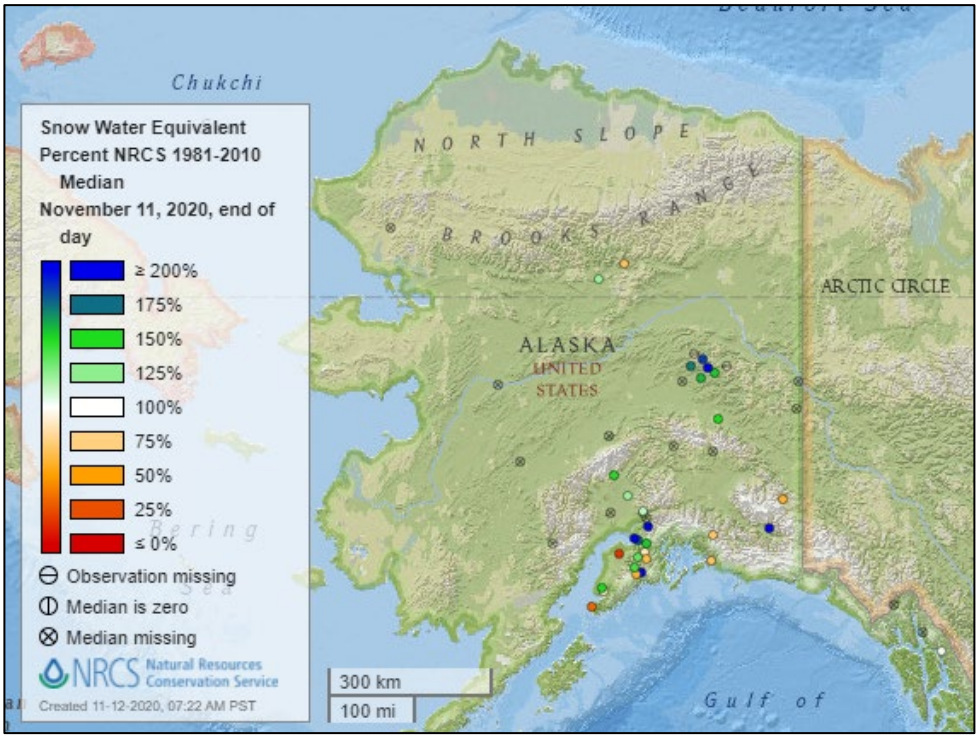
Tropical Storm Eta dumps blustery rain on Florida west coast - AP
Tropical Storm Eta pounds Tampa Bay with fierce winds, heavy rain – Tampa Bay Times (FL)
Tropical Storm Eta again makes landfall in Florida, brings extensive flooding – NBC News
Latest Updates: The aftermath of Tropical Storm Eta – Tampa Bay Times (FL)
National Hurricane Center updates: Tropical Storm Eta crossing Florida after landfall near Cedar Key – USA Today
Tropical Storm Eta hits Florida residents with strong storm surge and gusty winds – Orlando Sentinel (FL)

Snow



[Snow water equivalent percent of median map]

See also:
[Snow water equivalent values (inches) map]

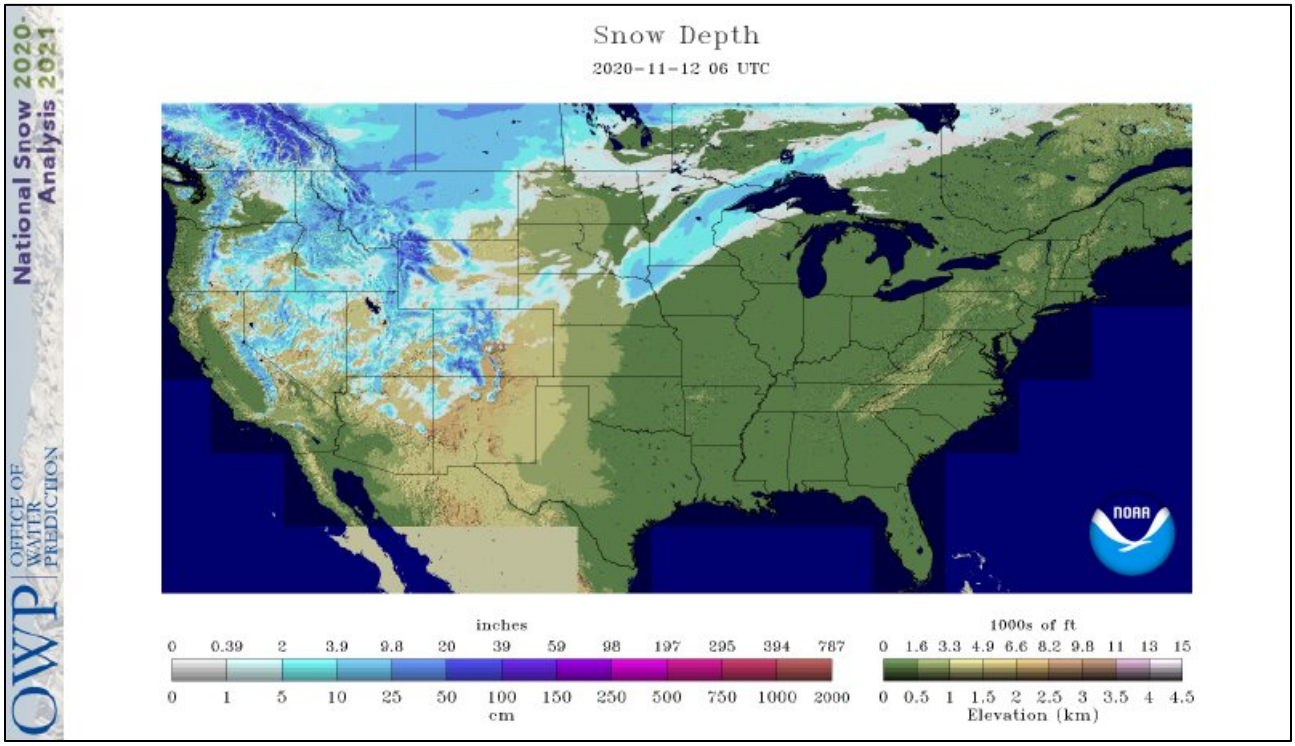


[Alaska snow water equivalent percent of median map]

See also:
[Alaska snow water equivalent values (inches) map]

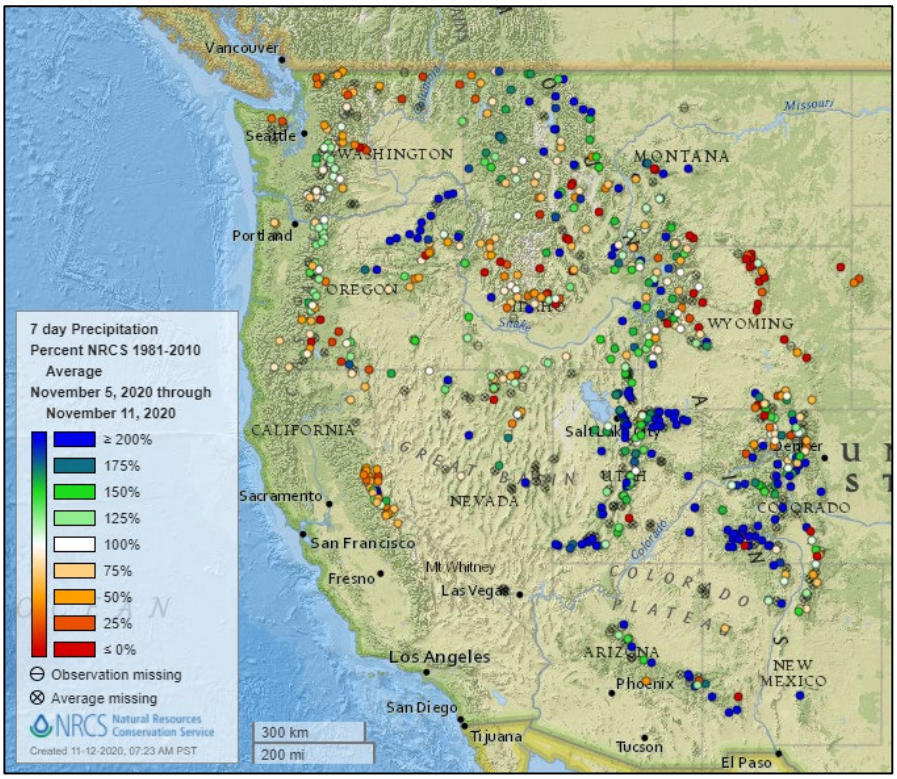
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

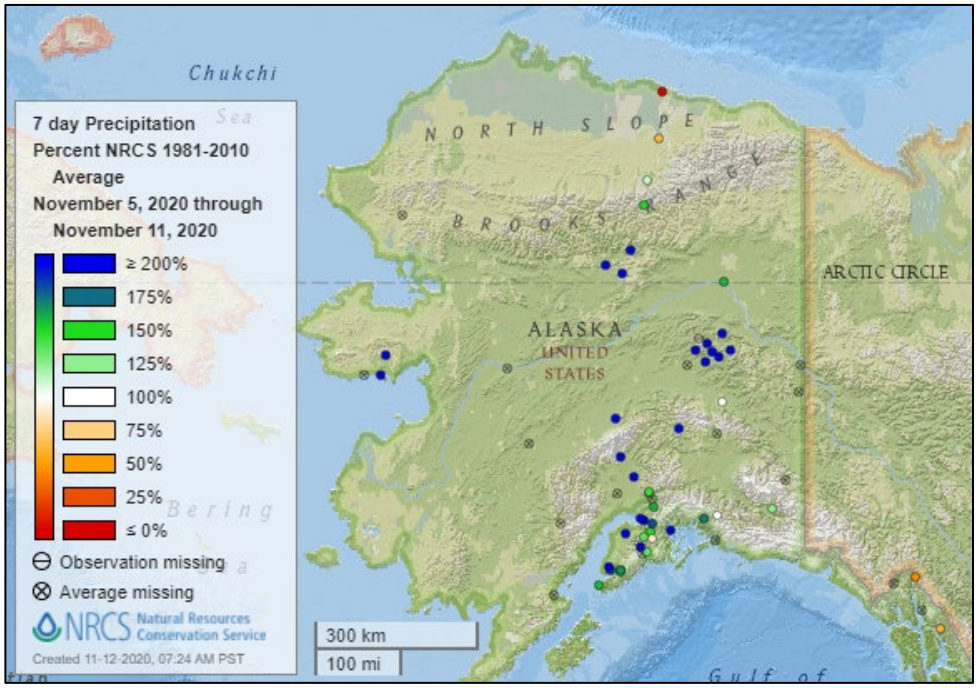


[7-day precipitation percent of average map]

See also:
[7-day total precipitation values (inches) map]

[Alaska 7-day precipitation percent of average map]

See also:
[Alaska 7-day total precipitation values (inches) map]

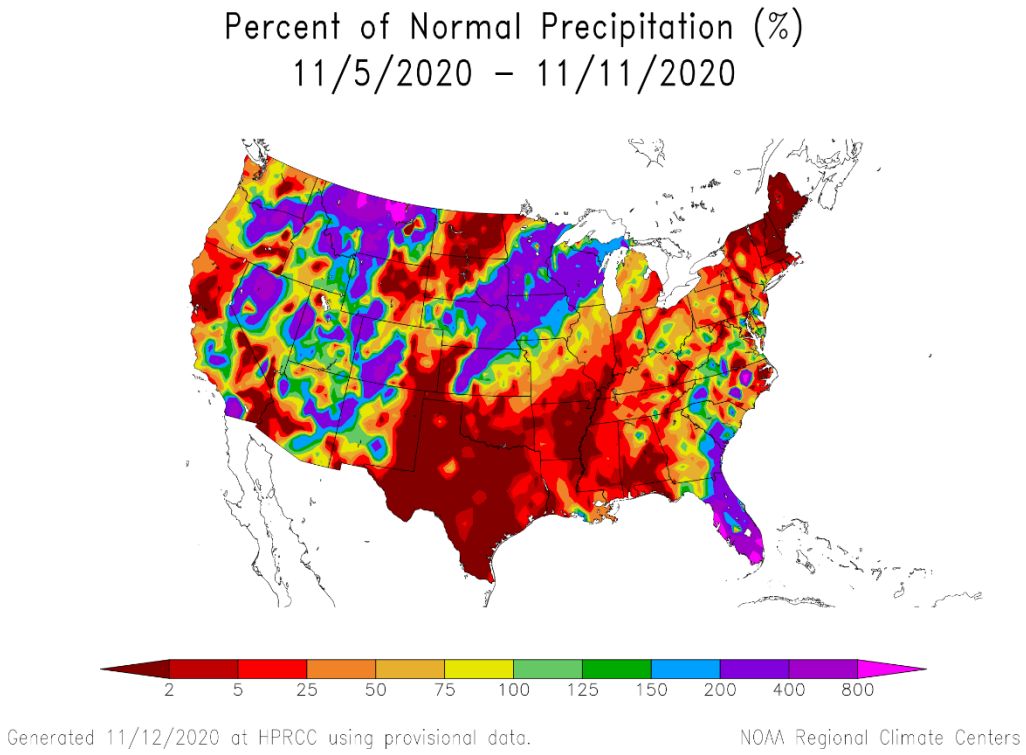


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map] for the continental U.S.

See also: [7-day total precipitation values (inches) map]

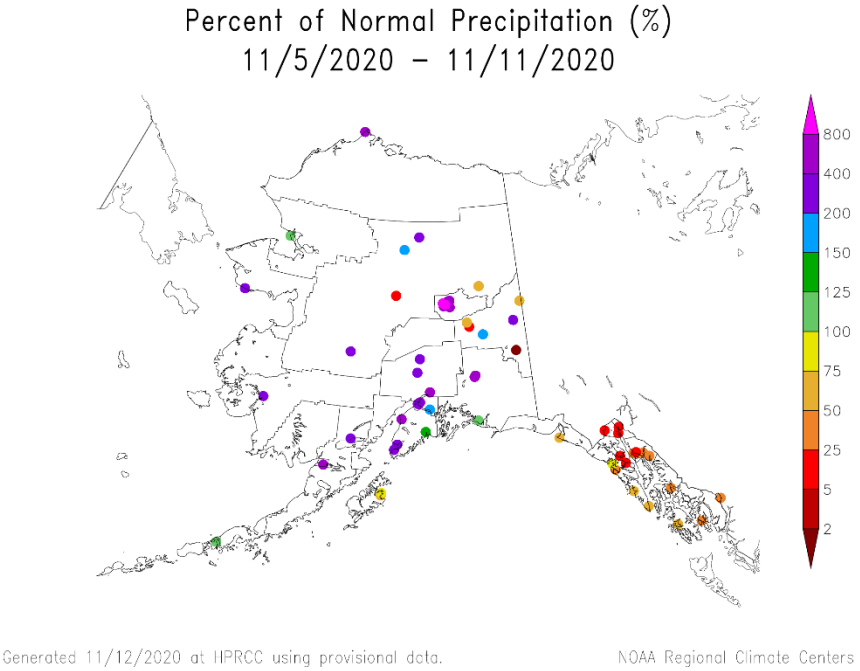


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

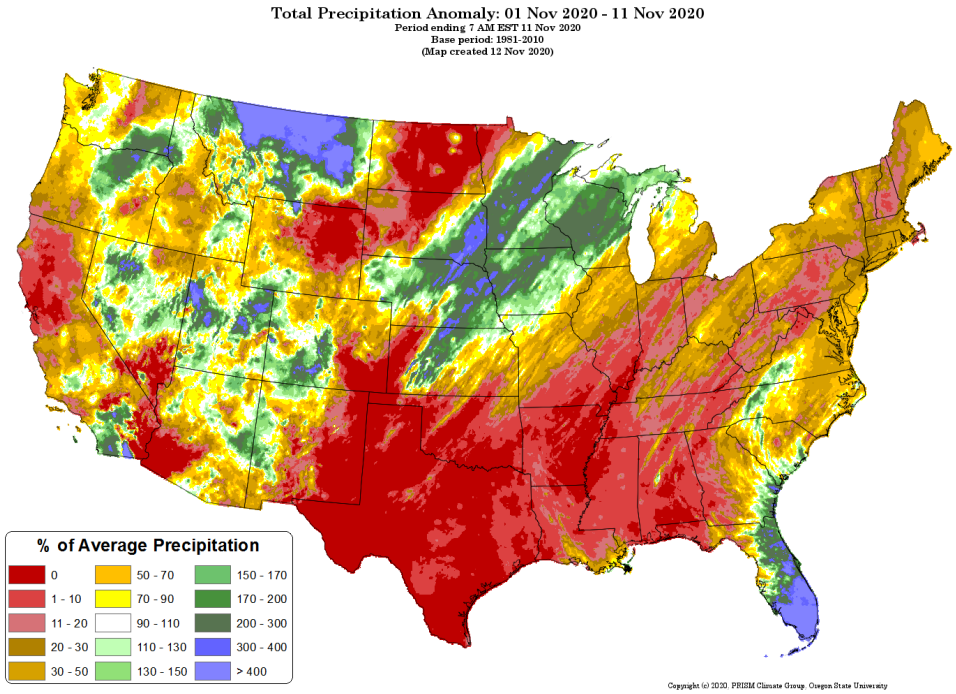
[7-day precipitation anomaly map] for Alaska.

See also:
[7-day total precipitation values (inches) map]



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

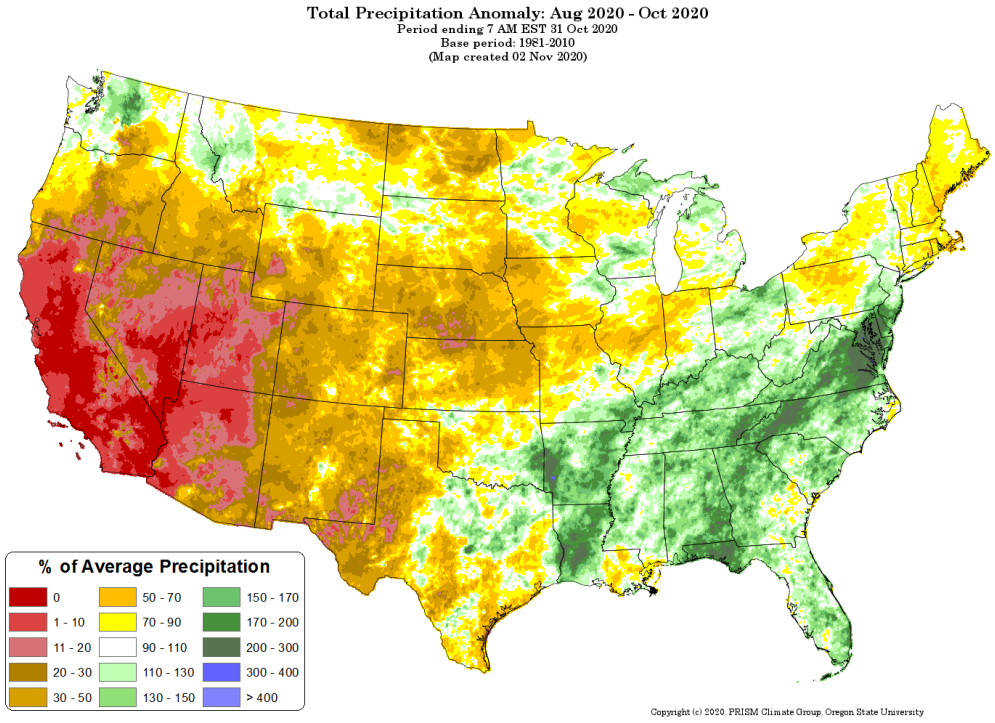


Month-to-date national total precipitation percent of average map

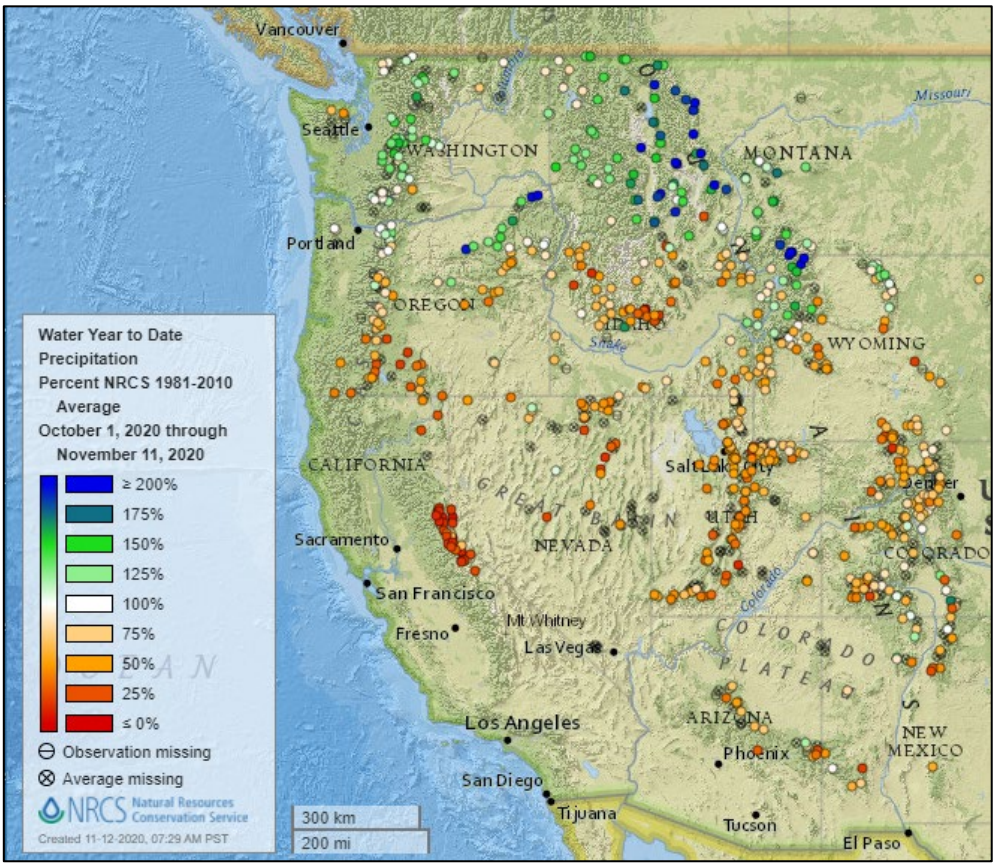
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

August through October precipitation percent of average map

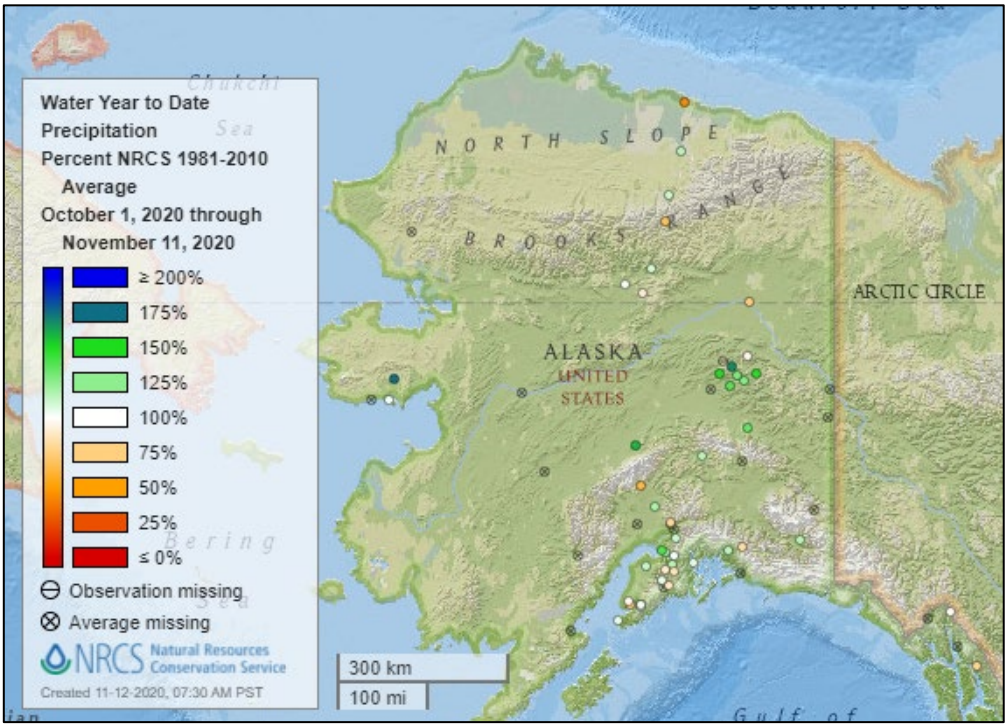


Water Year-to-Date, NRCS SNOTEL Network



[2021 water year-to-date precipitation percent of average map]

See also: [2021 water year-to-date precipitation values (inches) map]



[Alaska 2021 water year-to-date precipitation percent of average map]

See also: [Alaska 2021 water year-to-date precipitation values (inches) map]

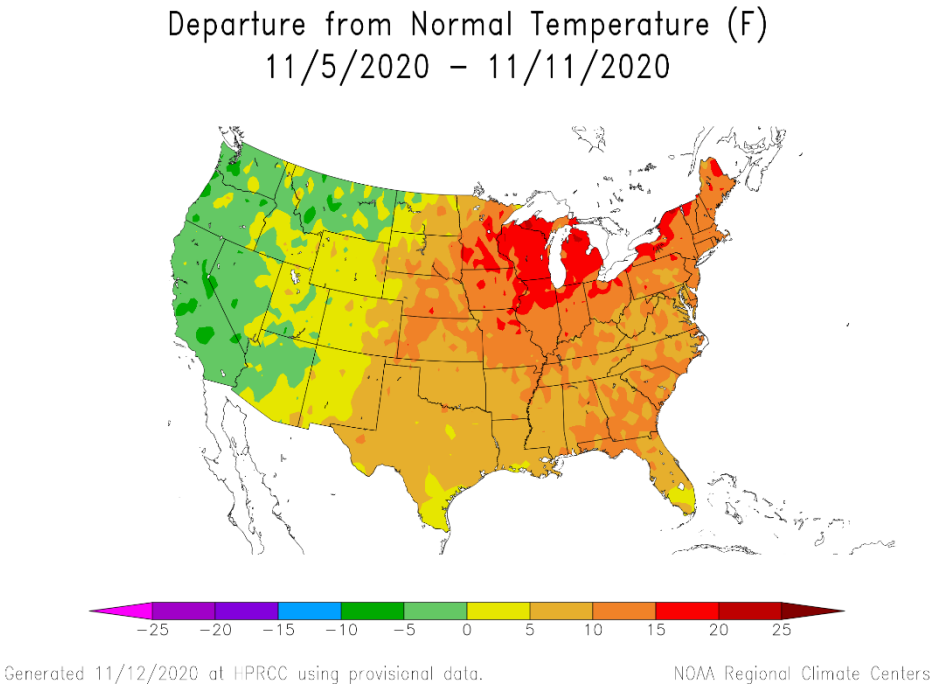
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for the contiguous U.S.

See also: [7-day temperature (° F) map]

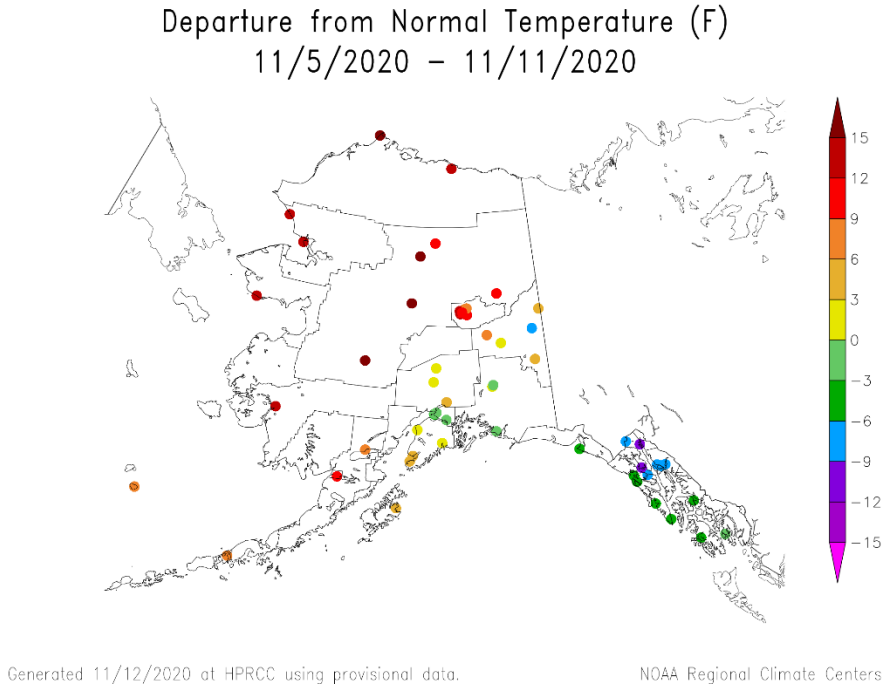


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for Alaska.

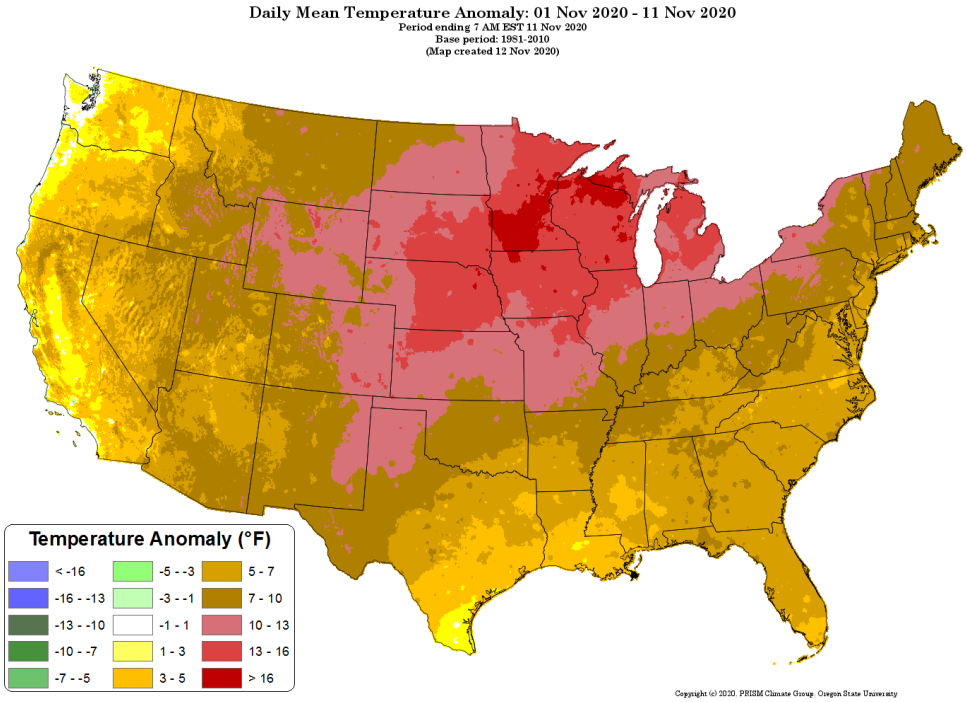
See also: [7-day temperature (° F) map]



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

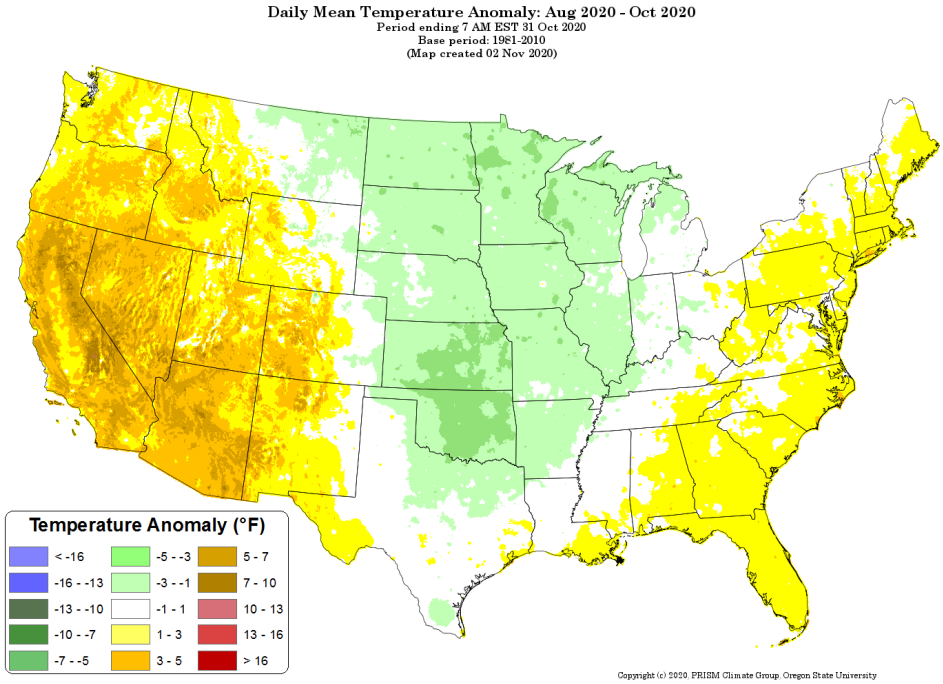
Source: PRISM

[Month-to-date national daily mean temperature anomaly map]



Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM



[August through October 2020 daily mean temperature anomaly map]

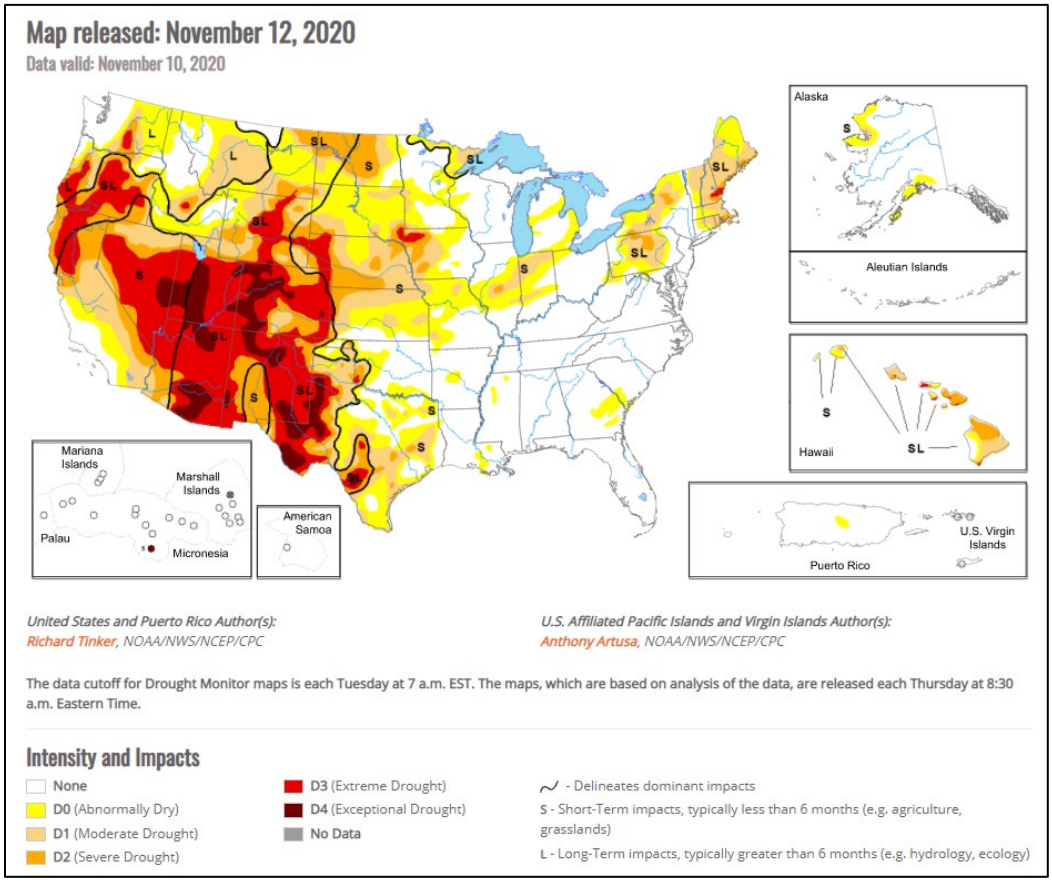
Drought

U.S. Drought Monitor

Source: National Drought Mitigation Center

U.S. Drought Portal

Source: NOAA



Current National Drought Summary, November 12, 2020

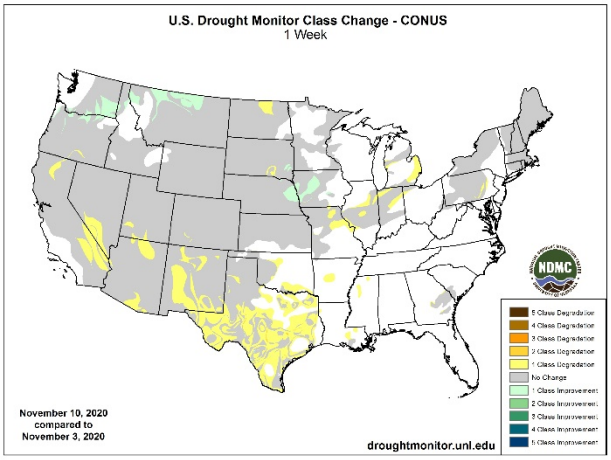
Source: National Drought Mitigation Center

“The heaviest precipitation fell on northwestern and southeastern parts of the country. The higher elevations of Washington and Oregon recorded 1.5 to locally 8.0 inches, with 2 to 4 inch totals reported in northwest Montana, north Idaho, and parts of eastern Washington and Oregon. On the other side of the country, Tropical Storm Eta dropped heavy rains on southern Florida. Amounts between 5 and 10 inches soaked parts of the greater Miami area. Meanwhile, moderate precipitation – with locally heavy amounts in the higher elevations – fell in association with the Pacific Northwest storm as it moved eastward. In general, precipitation totals (and drought relief) generally increased moving north and west away from southern California and the southern Rockies. Most higher elevations, in addition to a broad area across Montana, received at least 0.5 inch. East of the Rockies, moderate precipitation of 0.5 to locally 2.5 inches covered a swath from the central Great Plains northward through the upper Mississippi Valley and western Great Lakes. Similar amounts fell on a small area in the Louisiana Bayou, but across the rest of the central and eastern United States, little or no precipitation fell. The High Plains and lower elevations of the southern Intermountain West and Rockies also recorded no more than a few tenths of an inch. Above-normal temperatures broadly dominated the Nation from the Intermountain West eastward to the Atlantic Coast. Temperatures averaged 10 to 18 deg. F above normal from the southern High Plains northward and eastward through the Great Plains and Great Lakes Region. Slightly below normal temperatures were restricted to the western tier of states.”

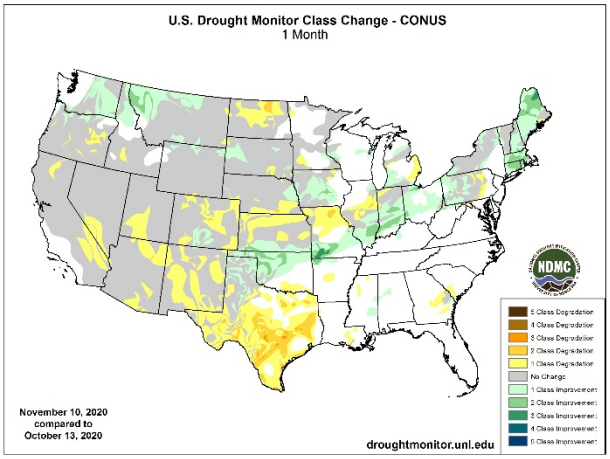
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

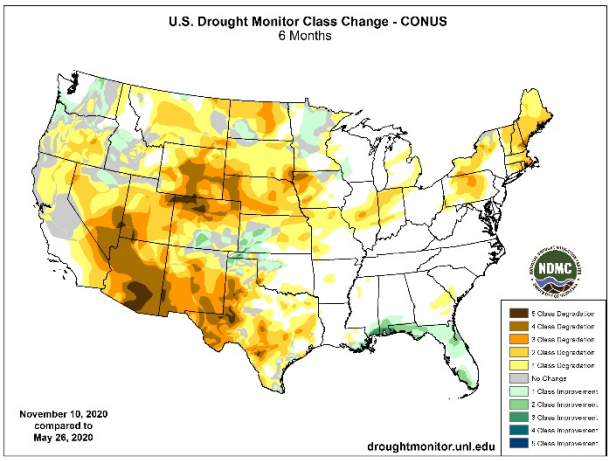
1 Week



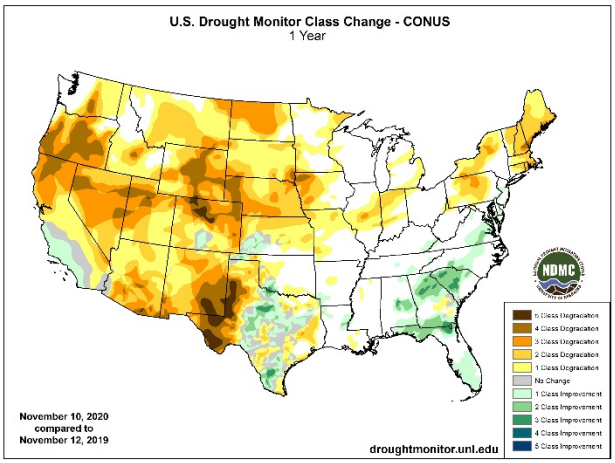
1 Month



6 Months



1 Year



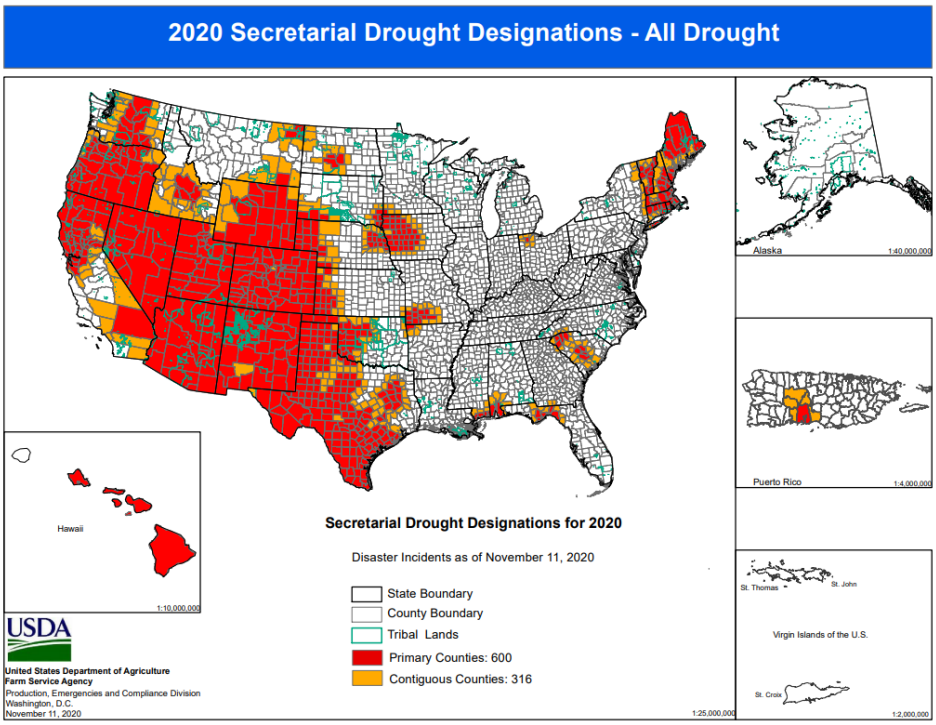
Changes in drought conditions over the last 12 months for the contiguous U.S.

Highlighted Drought Resources

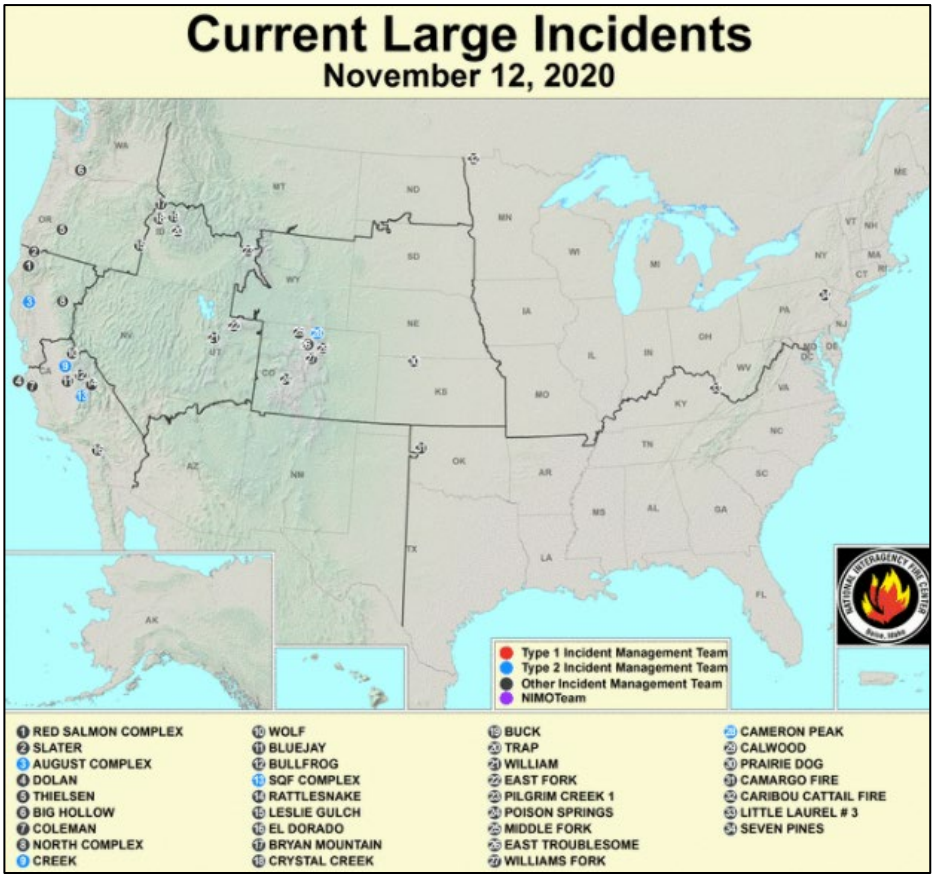
- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



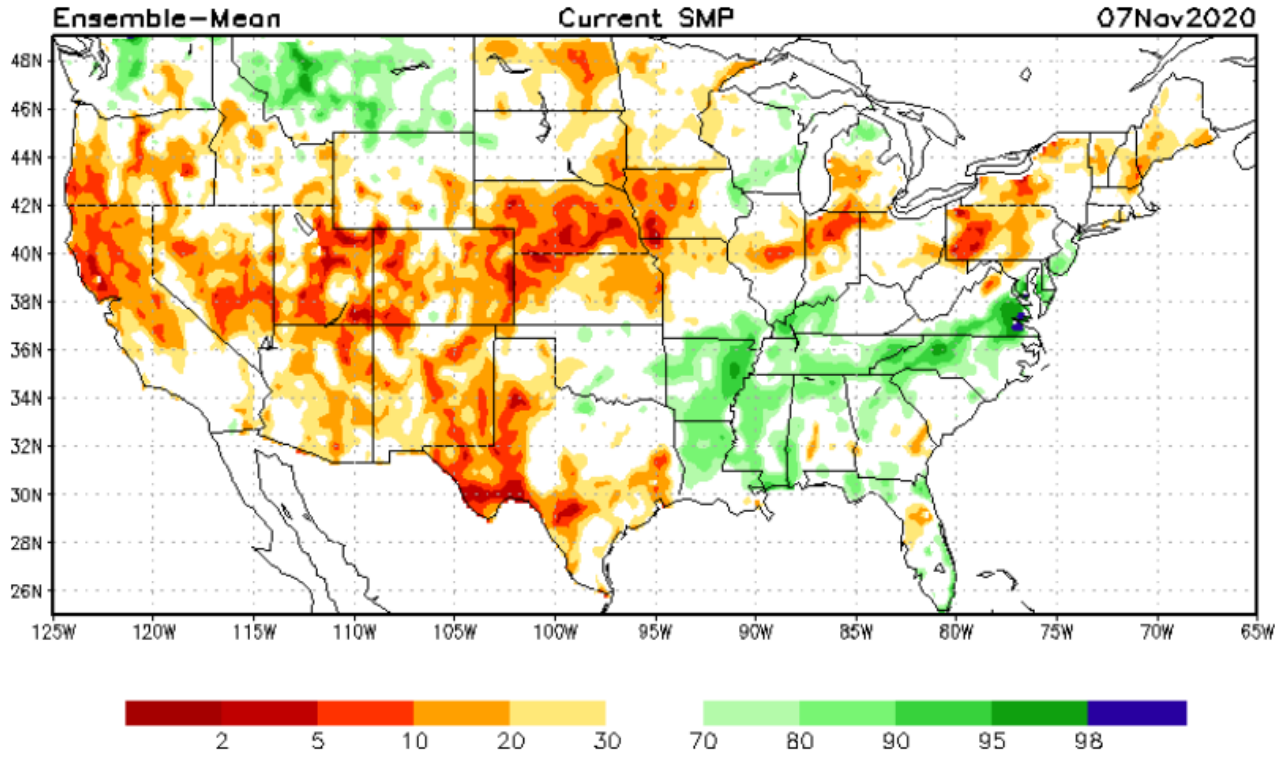
Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

Other Climatic and Water Supply Indicators

Soil Moisture

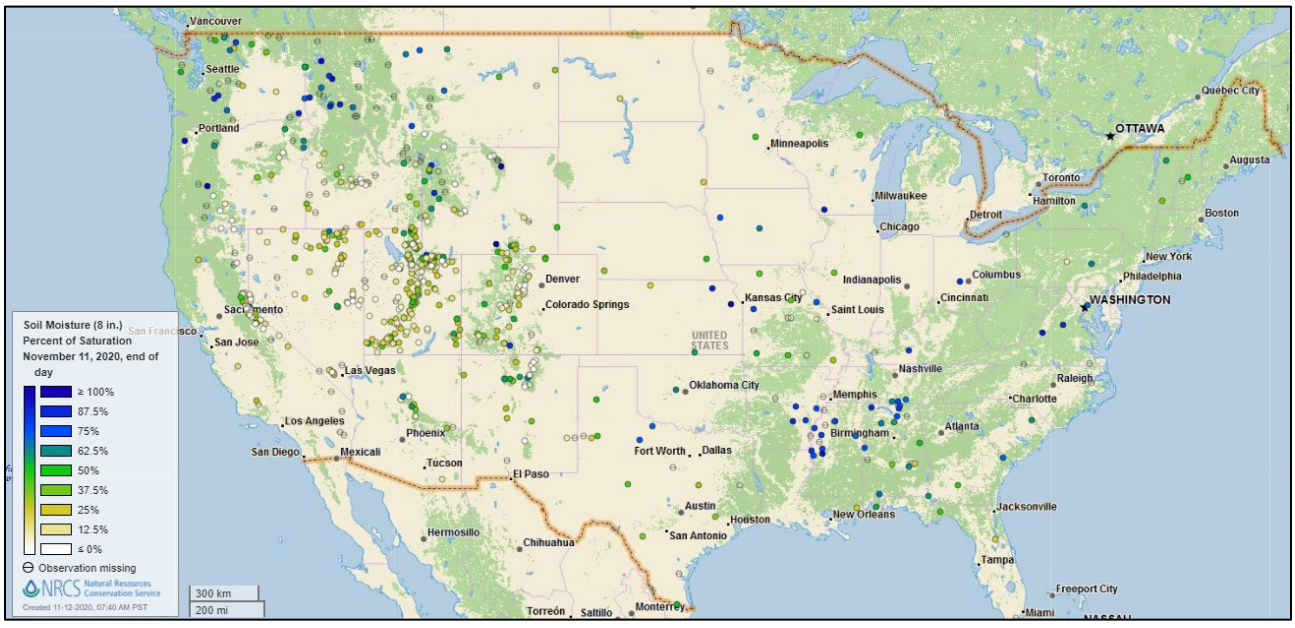
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of November 7, 2020

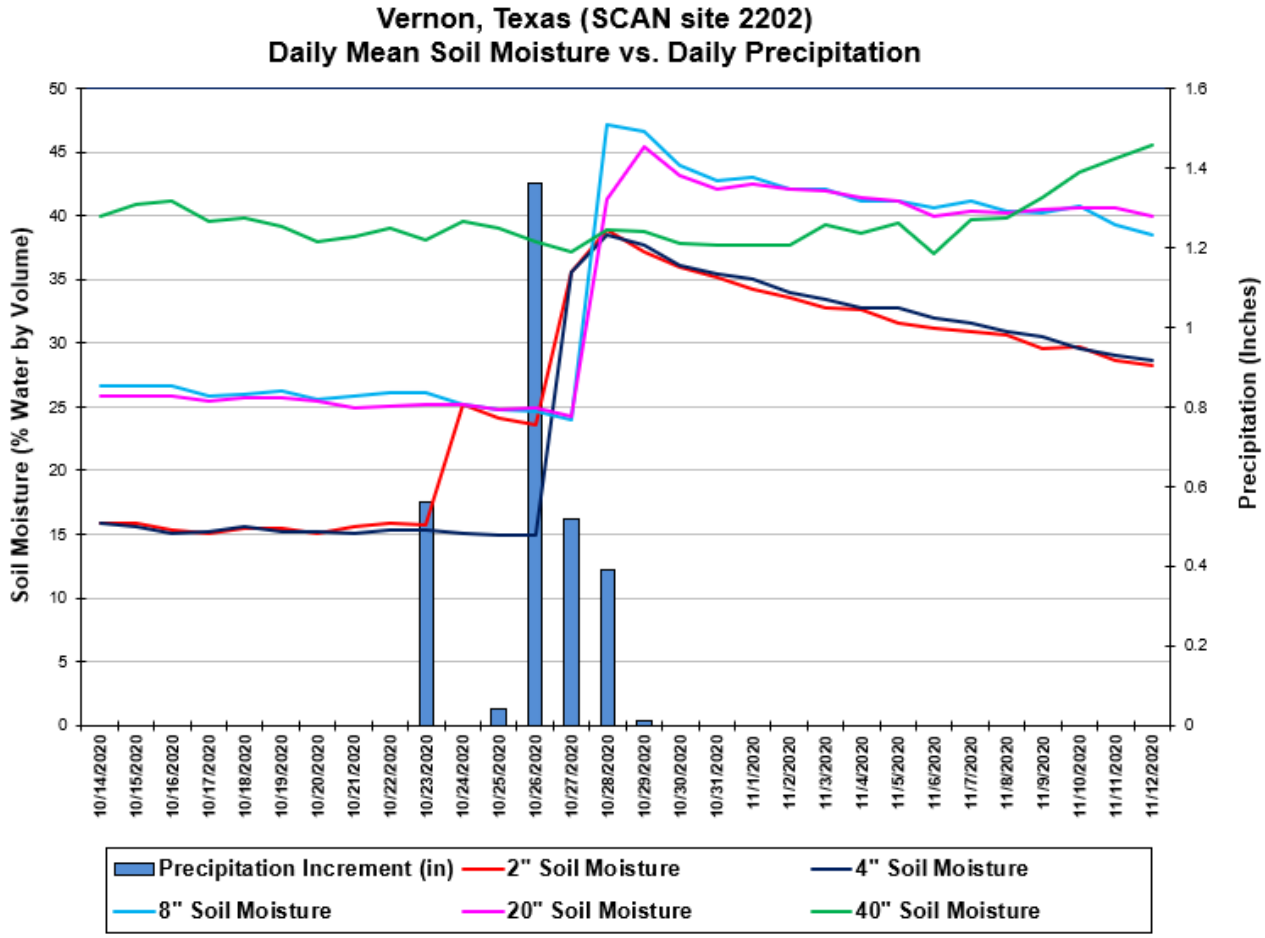
Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



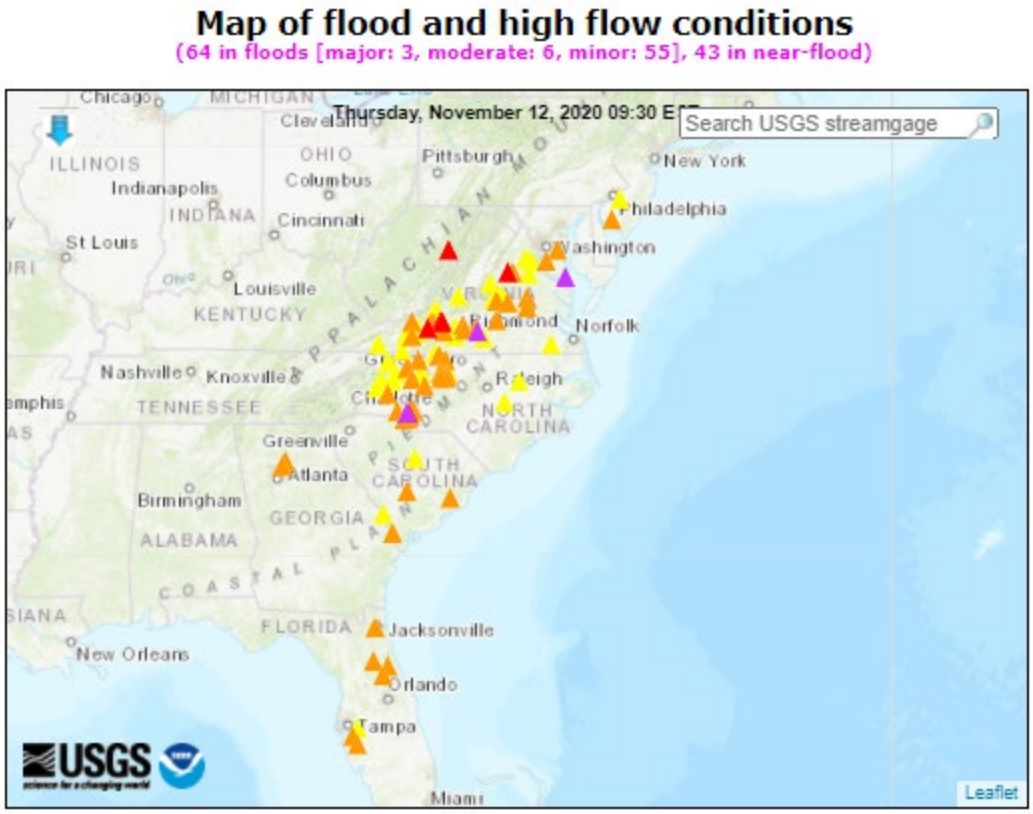
This chart shows the precipitation and soil moisture for the last 30 days at the Vernon SCAN site in Texas. Precipitation between October 25-29 increased soil moisture at the -2", -4", -8", and -20" sensors. Accumulated precipitation for the 30-day period was 2.88 inches.

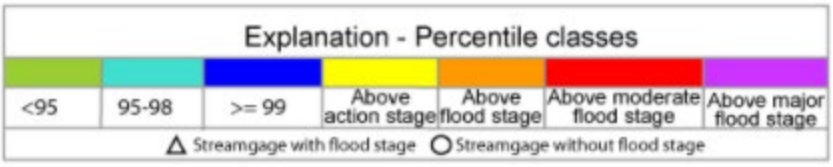
Soil Moisture Data Portals

- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey



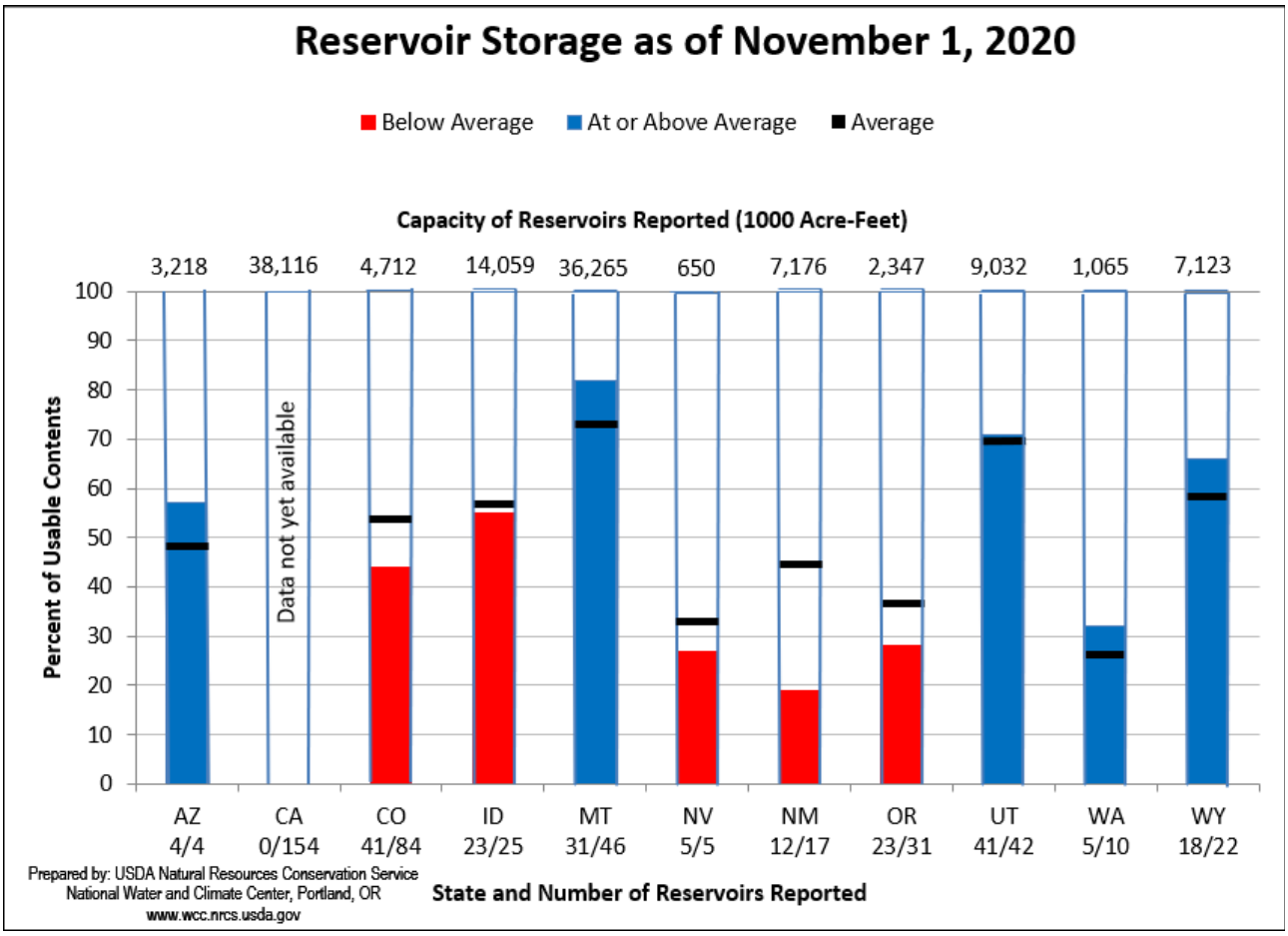


[WaterWatch: Streamflow, drought, flood, and runoff conditions]

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



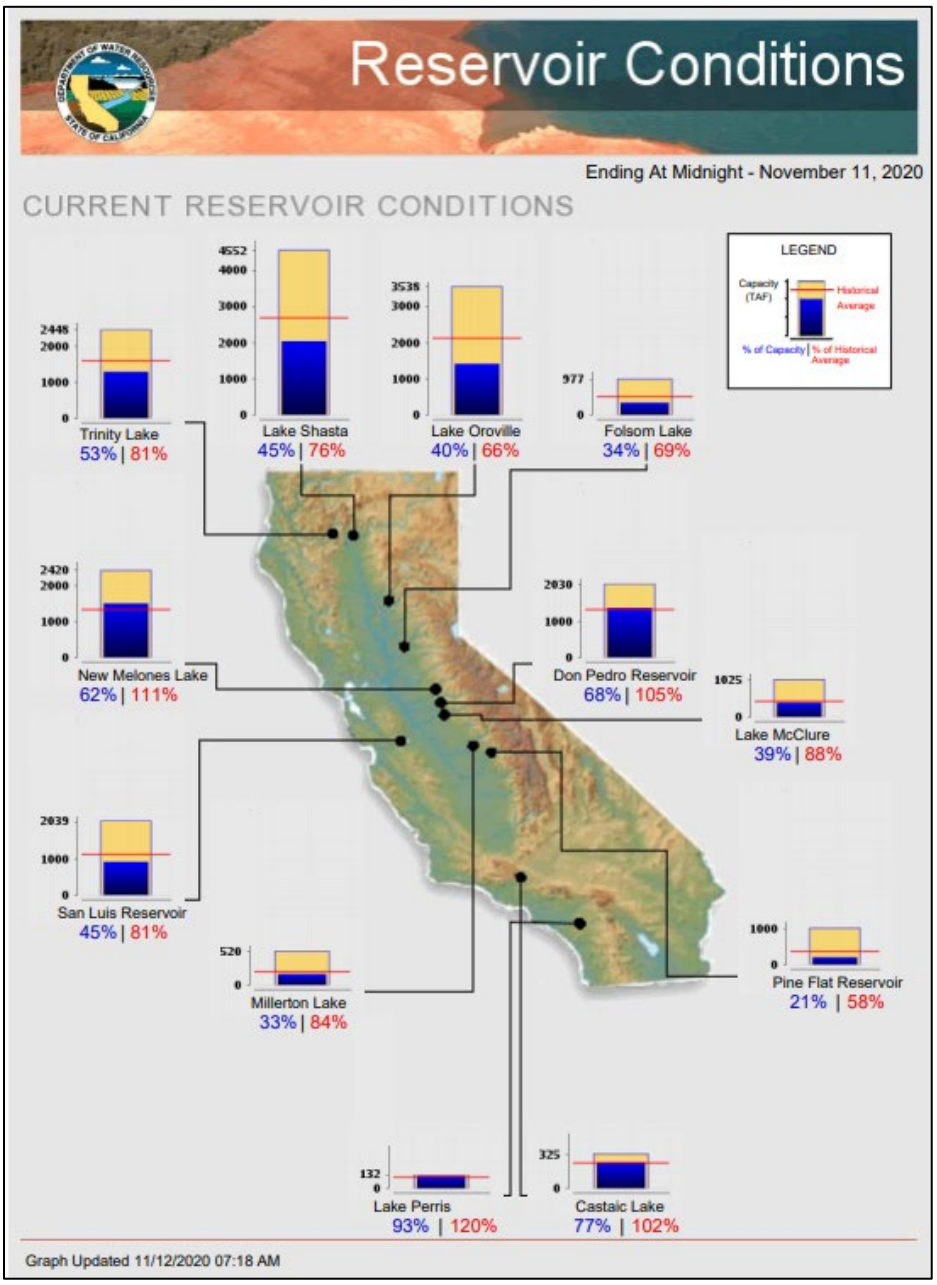
November 1, 2020 Reservoir Storage: Chart | Dataset

Hydromet Teacup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- Upper Colorado
- Pacific Northwest/Snake/Columbia
- Sevier River Water, Utah
- Upper Missouri, Kansas, Oklahoma, Texas

Current California Reservoir Conditions
Source: California Department of Water Resources



Current California Reservoir Conditions

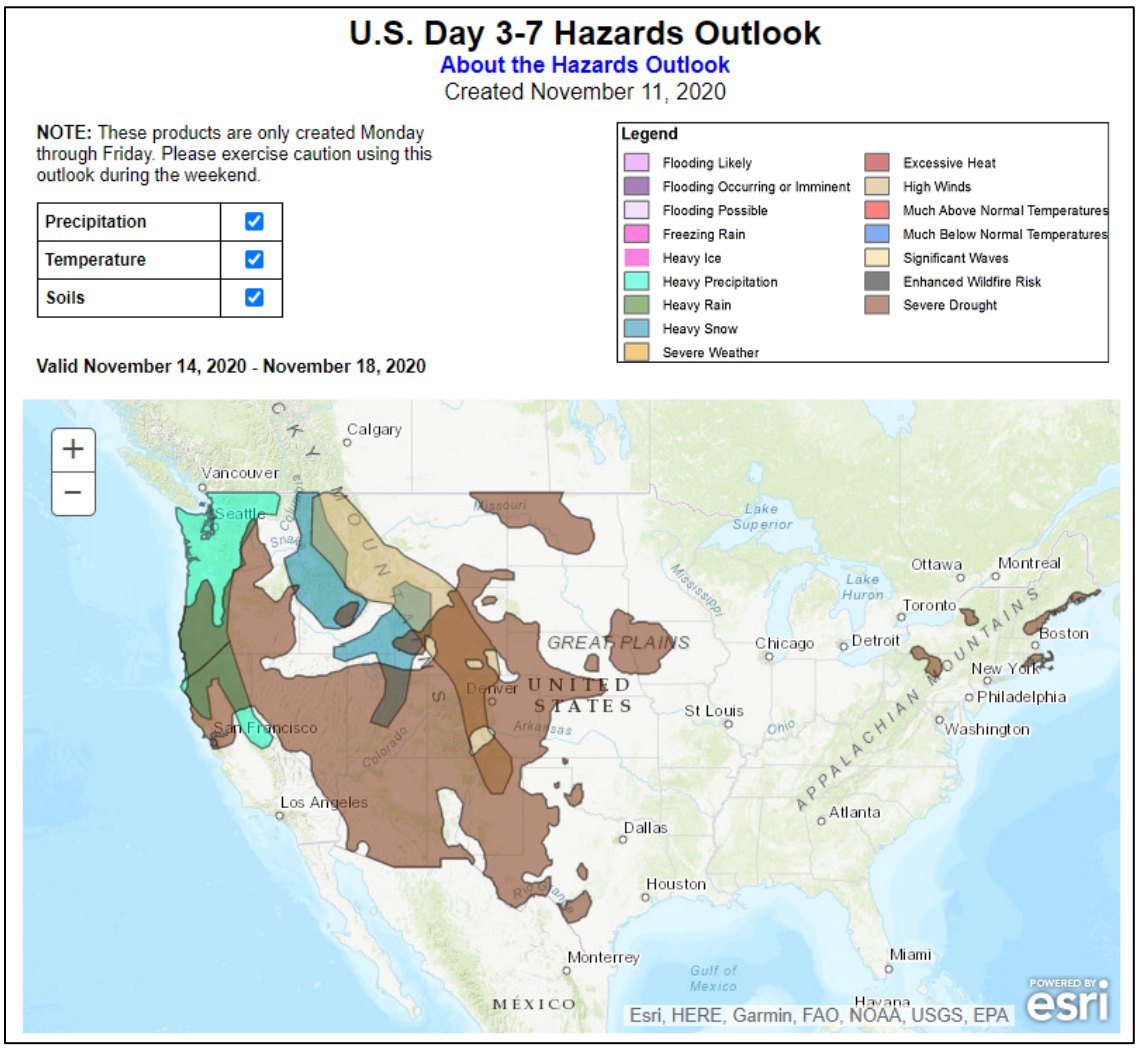
Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, Thursday, November 12, 2020: "For the remainder of today, the interaction between Tropical Storm Eta and a cold front will continue to produce heavy rain (locally 2 to 4 inches or more) in parts of the Carolinas and Virginia, leading to additional flooding and fieldwork. Meanwhile, a Pacific storm system will arrive in the Northwest, bearing widespread precipitation. Significant, late week snow will fall from the Cascades to the northern Rockies, while high winds will affect portions of the Rockies, Great Basin, Northwest, and Intermountain West. By Friday, precipitation will spread as far south as northern California and the northern Great Basin. During the weekend and early next week, rain and snow showers will develop from the Midwest into the Northeast and linger across the Northwest. Western temperatures will rebound to above-normal levels by early next week, except near the Canadian border. The NWS 6- to 10-day outlook for November 17 – 21 calls for the likelihood of near- or above-normal temperatures nationwide, except for cooler-than-normal conditions in the middle and northern Atlantic States. Meanwhile, below-normal precipitation across much of the eastern half of the U.S. should contrast with wetter-than-normal weather in northern California and the Northwest."

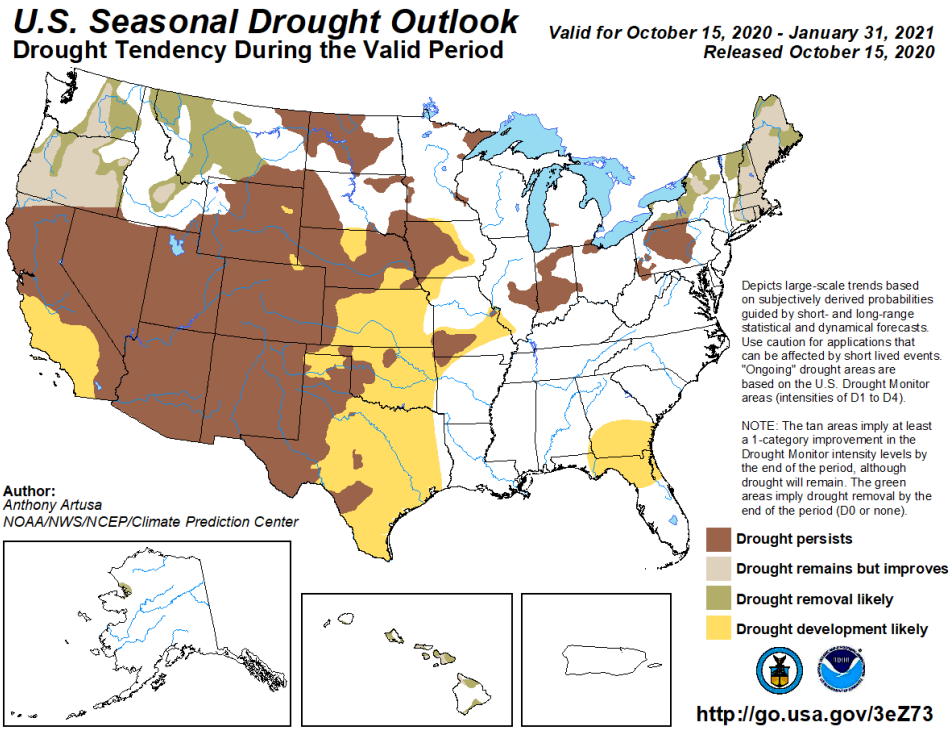
Weather Hazards Outlook: November 14 - 18, 2020

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: October 15, 2020 – January 31, 2021

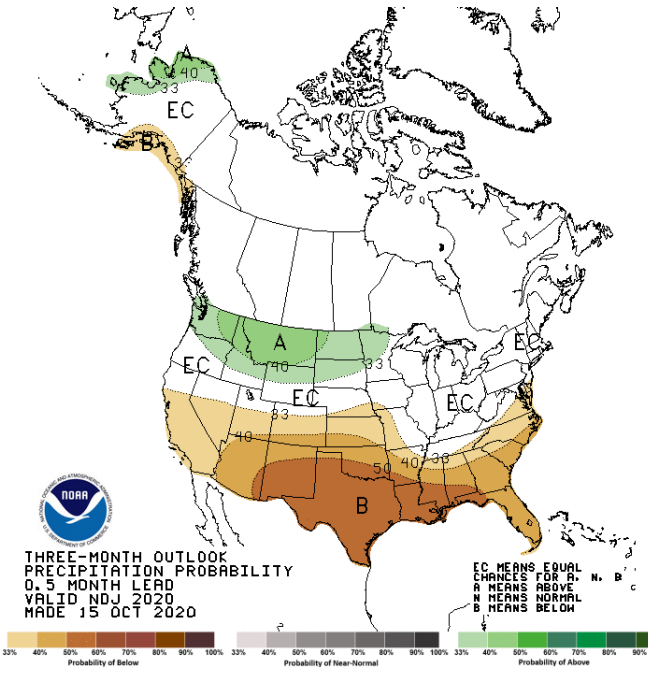
Source: National Weather Service



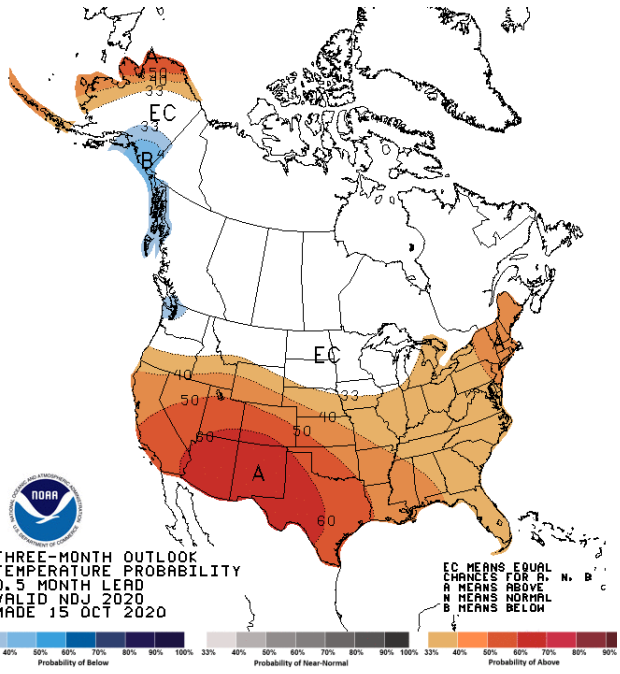
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



November-December-January (NDJ) 2020-2021 precipitation and temperature outlook summaries

More Information

The NRCS National Water and Climate Center publishes this weekly report. We welcome your feedback. If you have questions or comments, please contact us.