



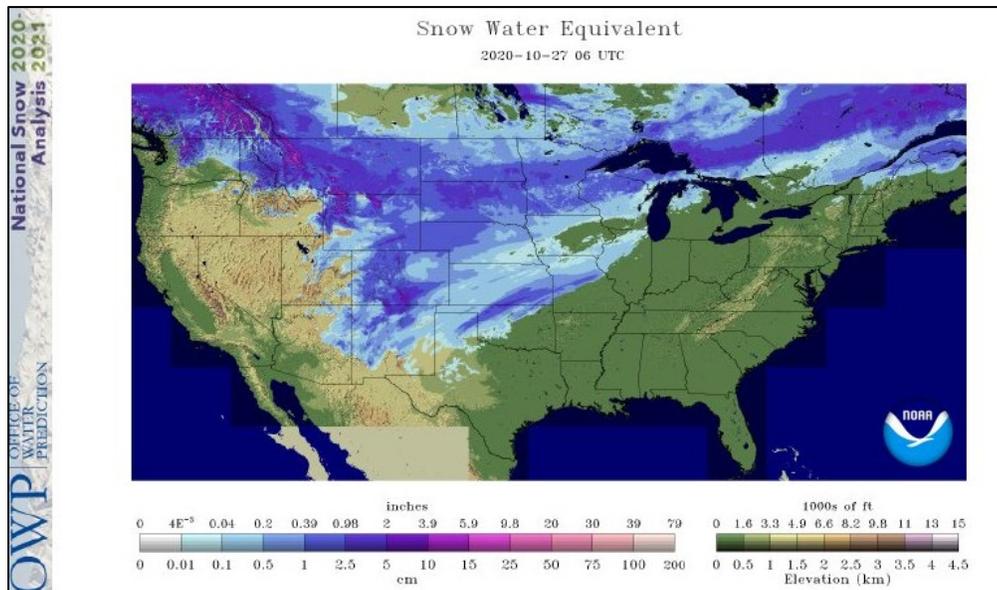
Water and Climate Update

October 29, 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.

Snow	2	Drought	10
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Early record cold and snowfall starts winter

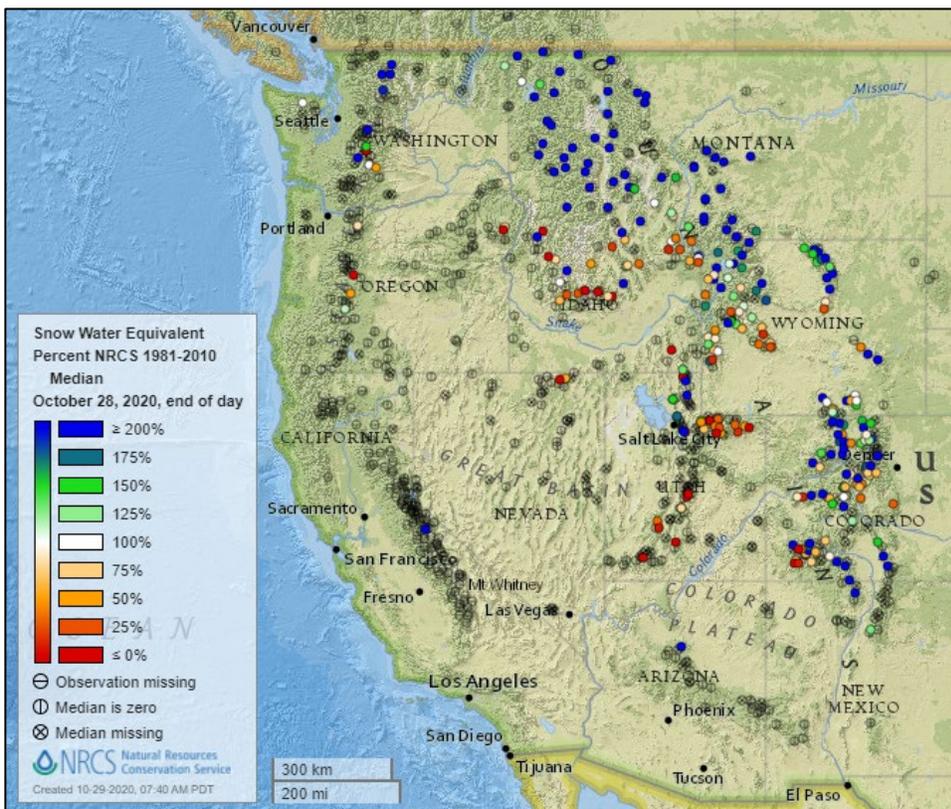


Record-breaking October snow fell from the northern Cascades across the Rockies and into the Plains and Great Lakes region this week. Snow records fell across the Plains where Sioux City’s 2.9 inches broke the previous record set in 1918. Many records were also broken in New Mexico, with the highest recorded amount of 22 inches in Arroyo Seco. Along with the heavy snow, record cold temperatures were seen across the region. Denver broke a 148-year-old record when high temperatures failed to reach 17°F on October 26. A cooperative National Weather Service observer in Lyman, Wyoming, recorded -31.0°F on October 26, making it the coldest temperature observed in October in the lower 48 states.

Related:

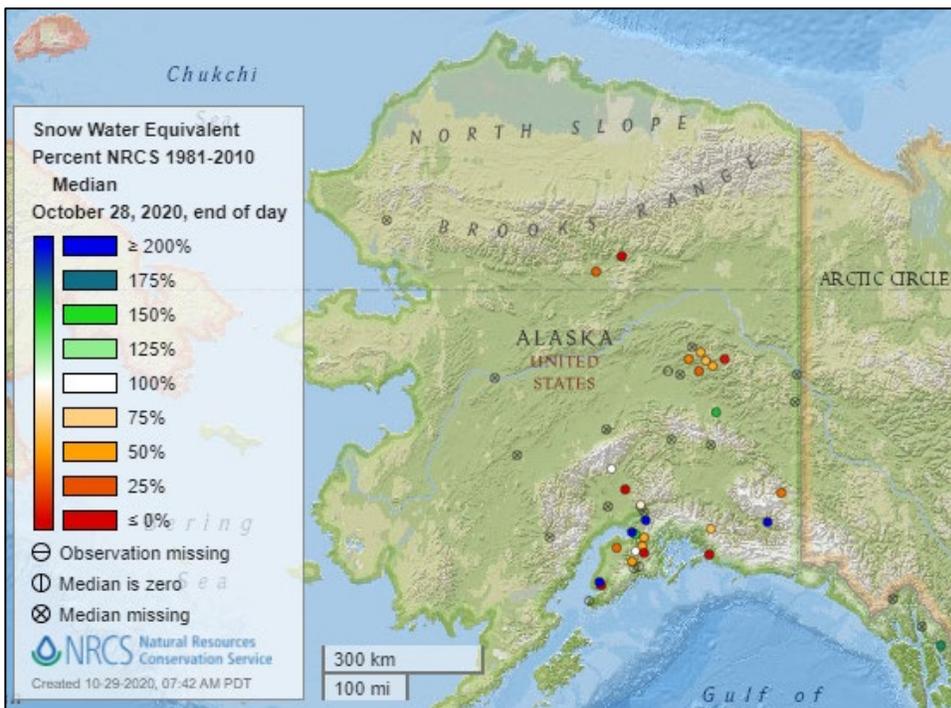
- [Old Man Winter arrives early for millions across the Great Plains and Upper Midwest](#) – Omaha.com
- [Record Early Season Snow Cover in N. America/U.S.](#) – Wood-TV
- [Omaha records less than an inch of snow, but other Nebraska spots had 12 inches or more](#) – Omaha.com (NE)
- [Sunday snowfall breaks 102-year-old record in Sioux City](#) – Sioux City Journal (SD)
- [San Antonio breaks 84-year-record for cold temperatures on Tuesday](#) – Houston Chronicle (TX)
- [A record-setting cold left a blanket of snow over the north-central US during the weekend](#) – KTVB (ID)
- [‘Killing freeze’ in Wichita weather forecast after snow and cold break NWS records](#) – The Wichita Eagle
- [How much snow fell around New Mexico? Preliminary snow totals for October 26-28 storm](#) – KRQE (NM)
- [Denver Weather: Another Record Shattered This Morning As Our Cold Snap Continues](#) – CBS Denver (CO)

Snow



[Snow water equivalent percent of median map](#)

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

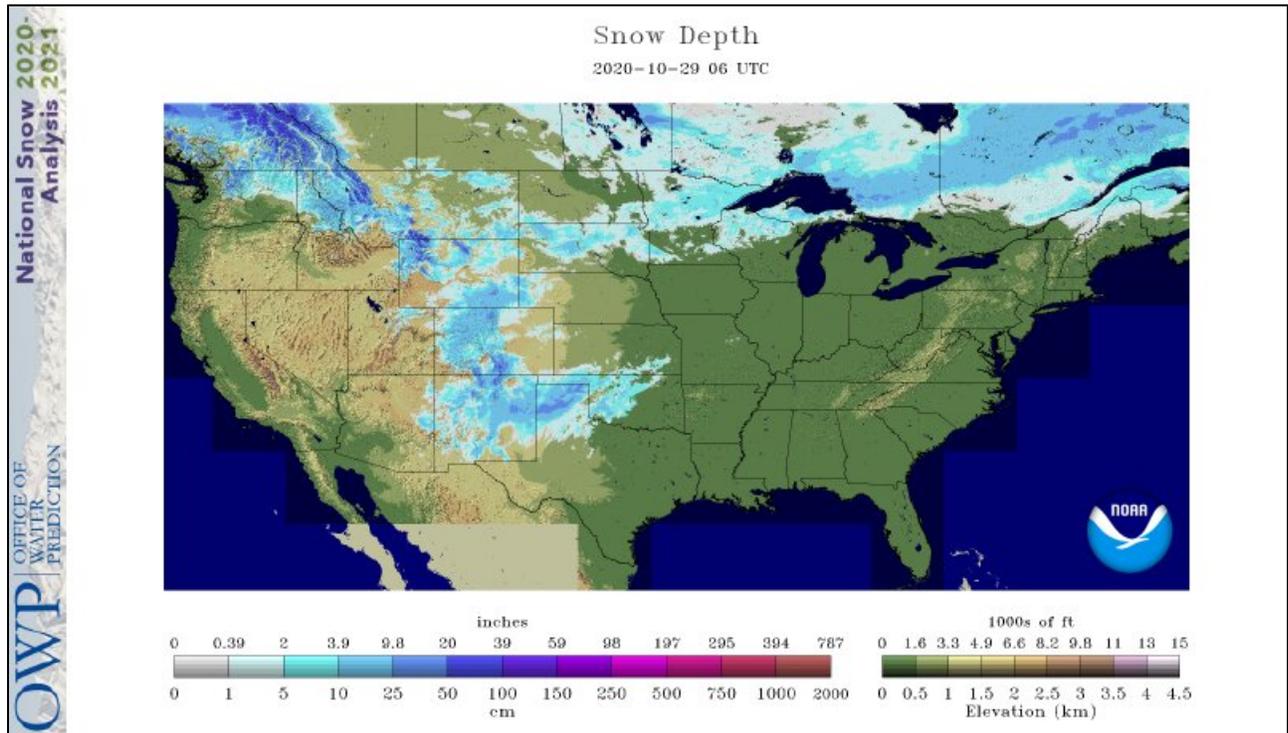


[Alaska snow water equivalent percent of median map](#)

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

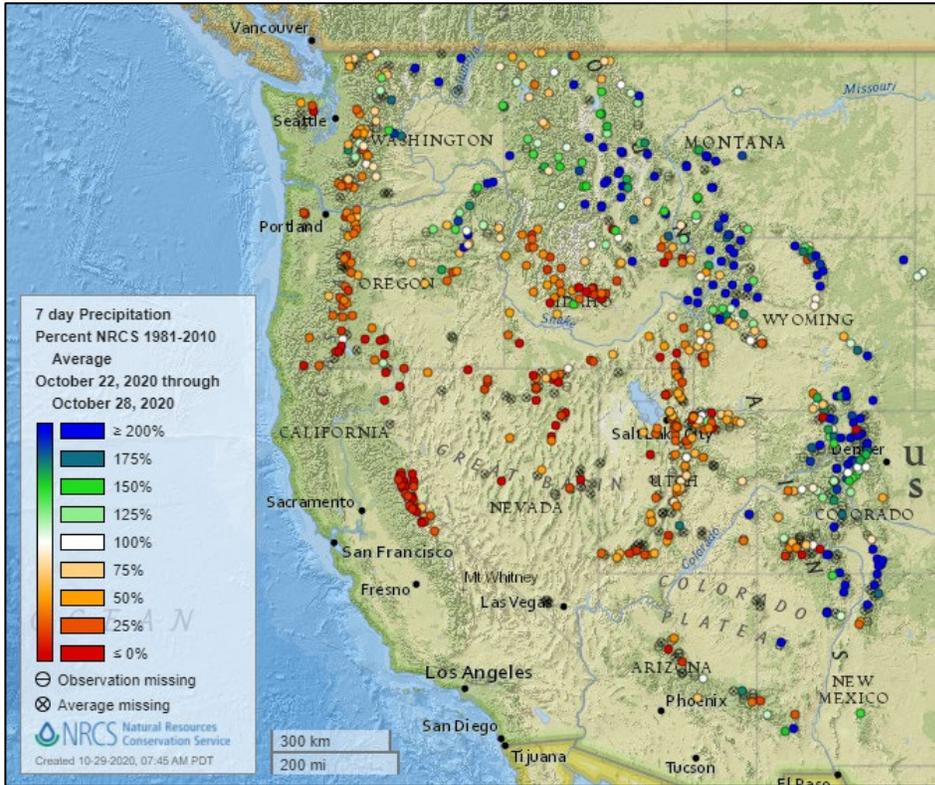
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

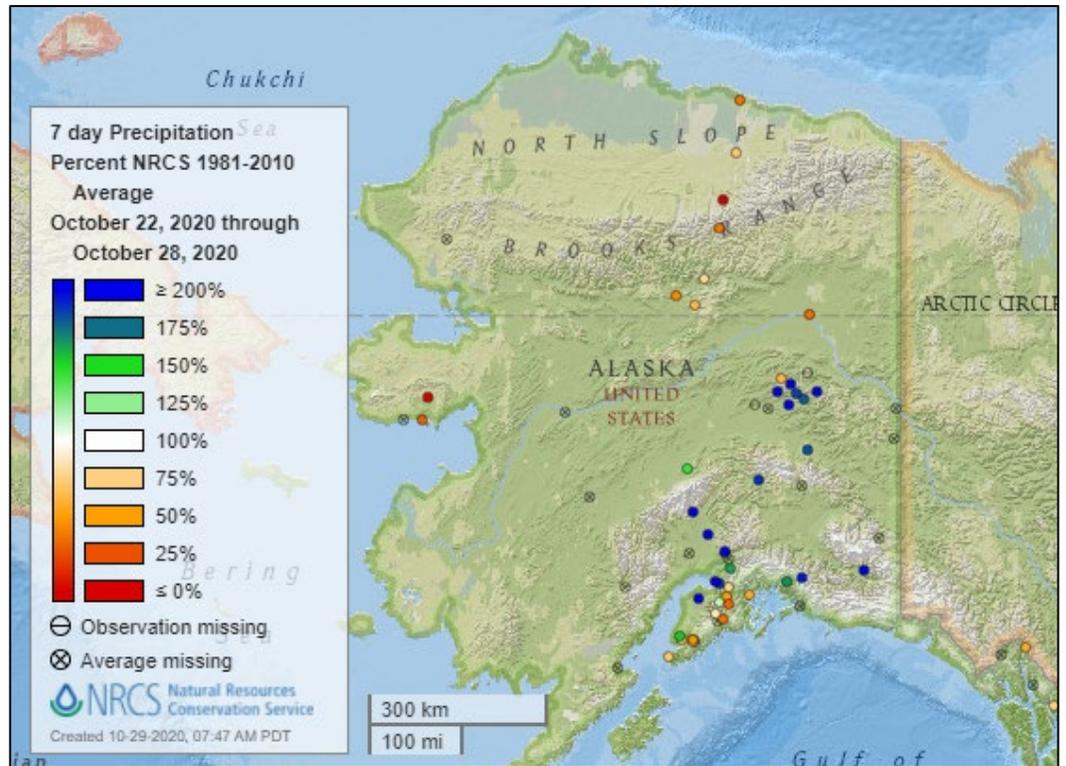


[7-day precipitation percent of average map](#)

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](#)



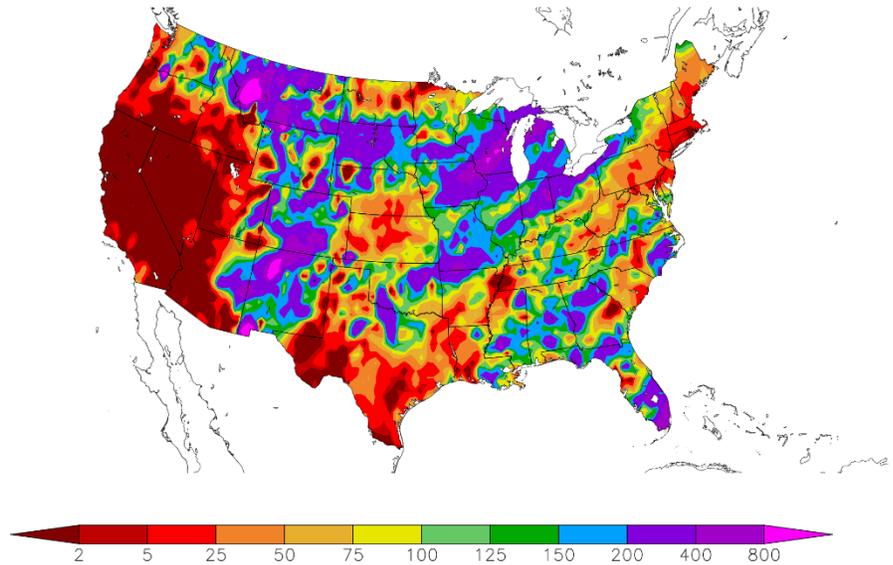
Last 7 Days, National Weather Service (NWS) Networks

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](#)

Percent of Normal Precipitation (%)
10/21/2020 – 10/27/2020



Generated 10/28/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

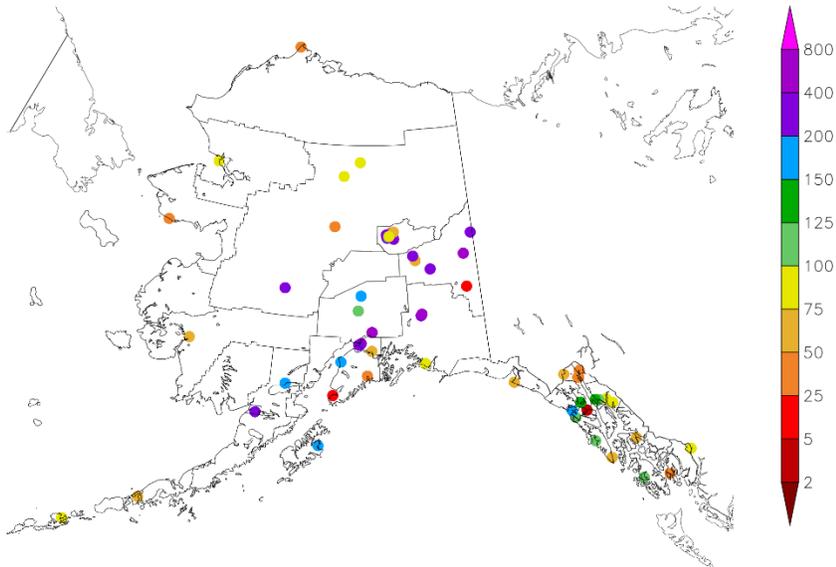
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation anomaly map](#) for Alaska.

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

Percent of Normal Precipitation (%)
10/21/2020 – 10/27/2020



Generated 10/28/2020 at HPRCC using provisional data.

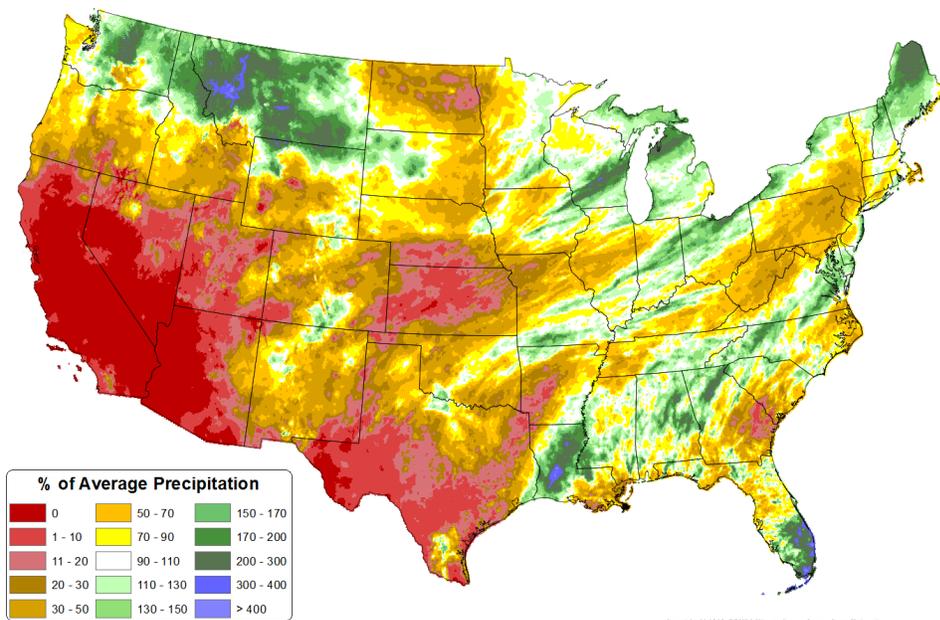
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2020 - 28 Oct 2020
Period ending 7 AM EST 28 Oct 2020
Base period: 1981-2010
(Map created 29 Oct 2020)

[Month-to-date national total precipitation percent of average map](#)



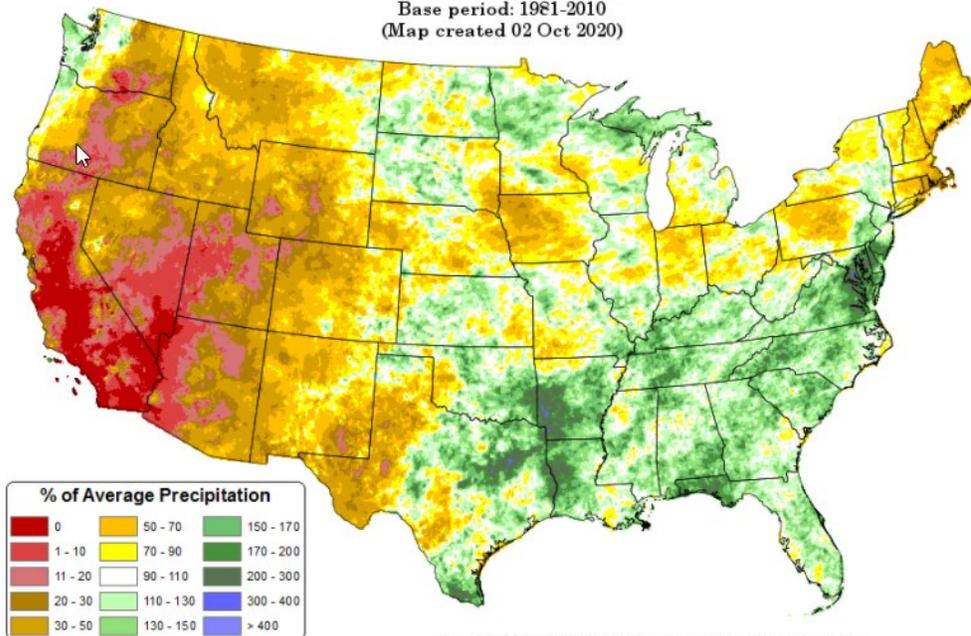
Copyright (c) 2020, PRISM Climate Group, Oregon State University

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

Source: PRISM

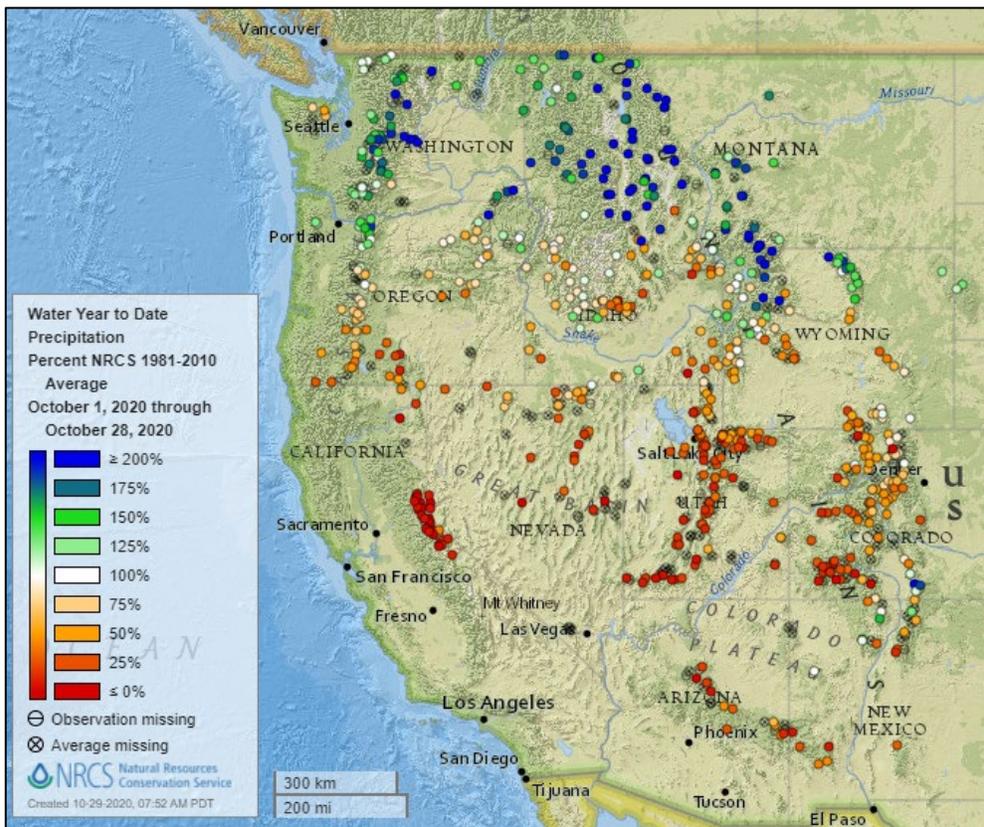
[July through September precipitation percent of average map](#)

Total Precipitation Anomaly: Jul 2020 - Sep 2020
Period ending 7 AM EST 30 Sep 2020
Base period: 1981-2010
(Map created 02 Oct 2020)



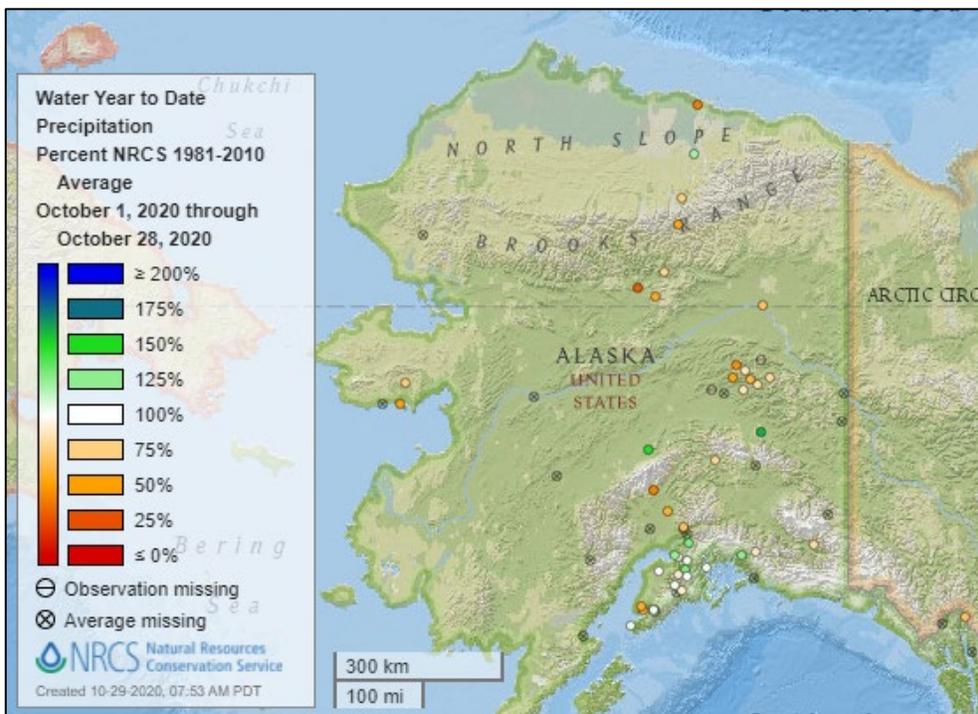
Copyright (c) 2020, PRISM Climate Group, Oregon State University

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

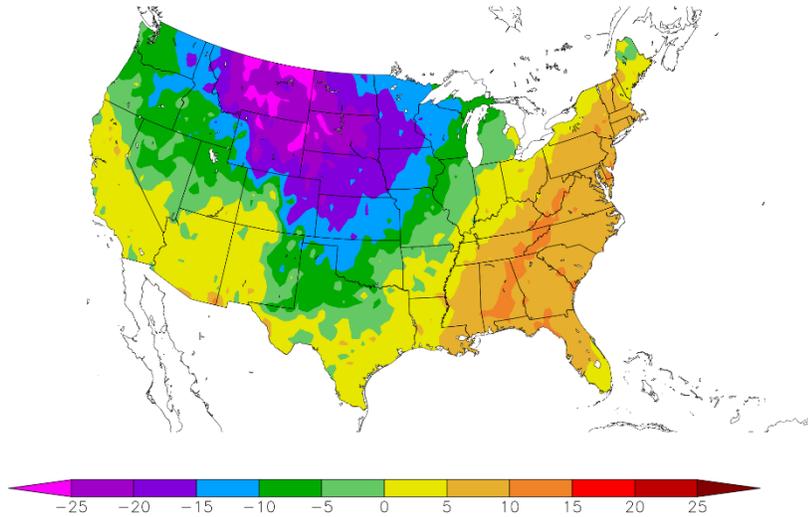
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/21/2020 – 10/27/2020



Generated 10/28/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

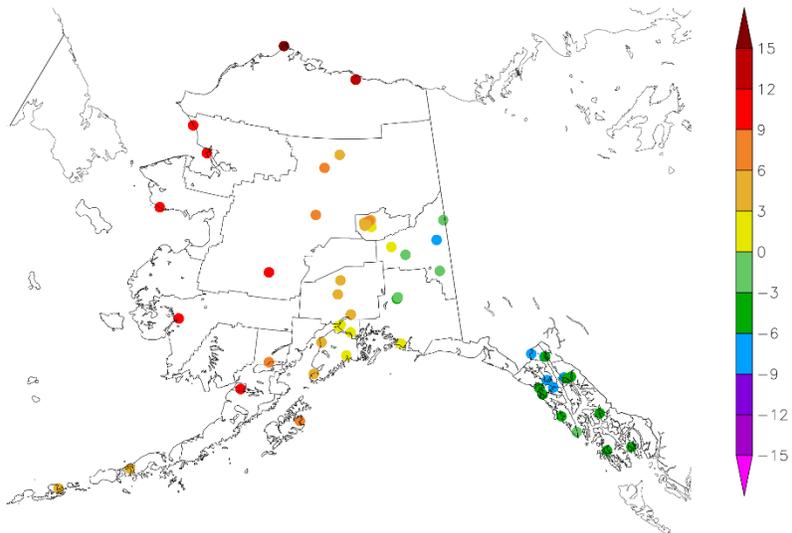
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for Alaska.

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

Departure from Normal Temperature (F)
10/21/2020 – 10/27/2020



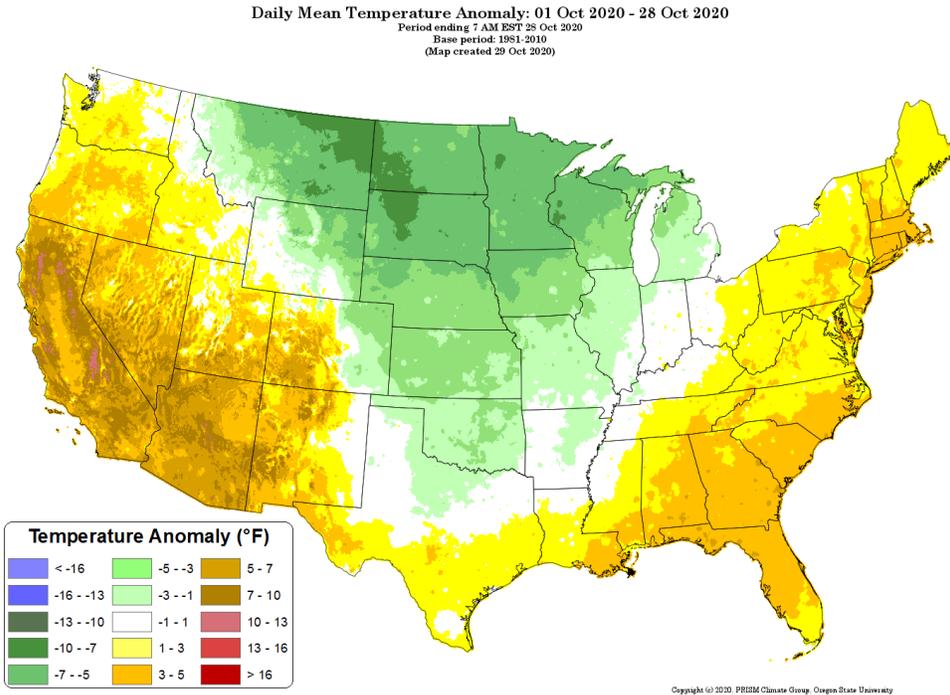
Generated 10/28/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

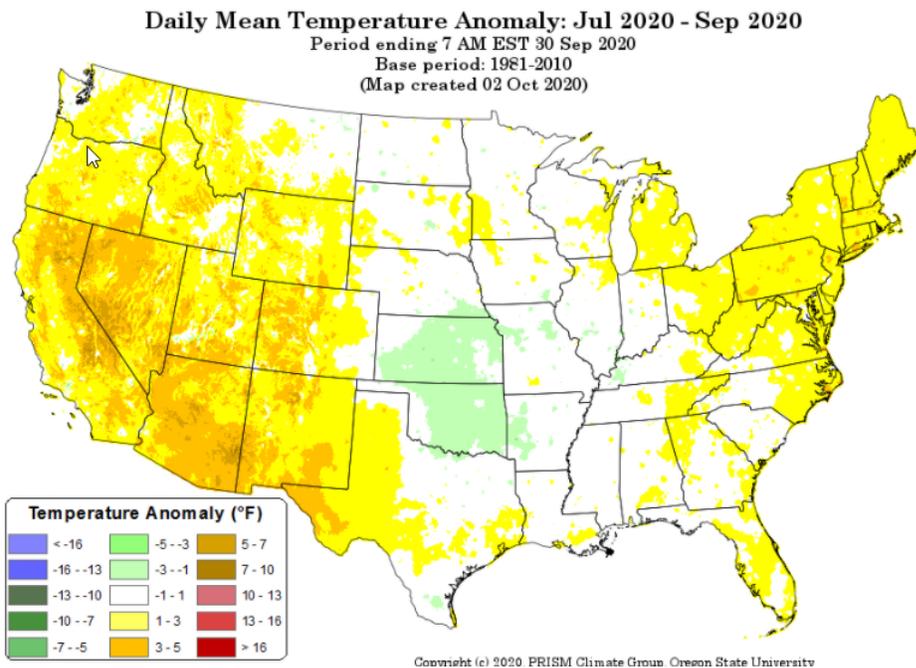
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[July through September 2020 daily mean temperature anomaly map](#)



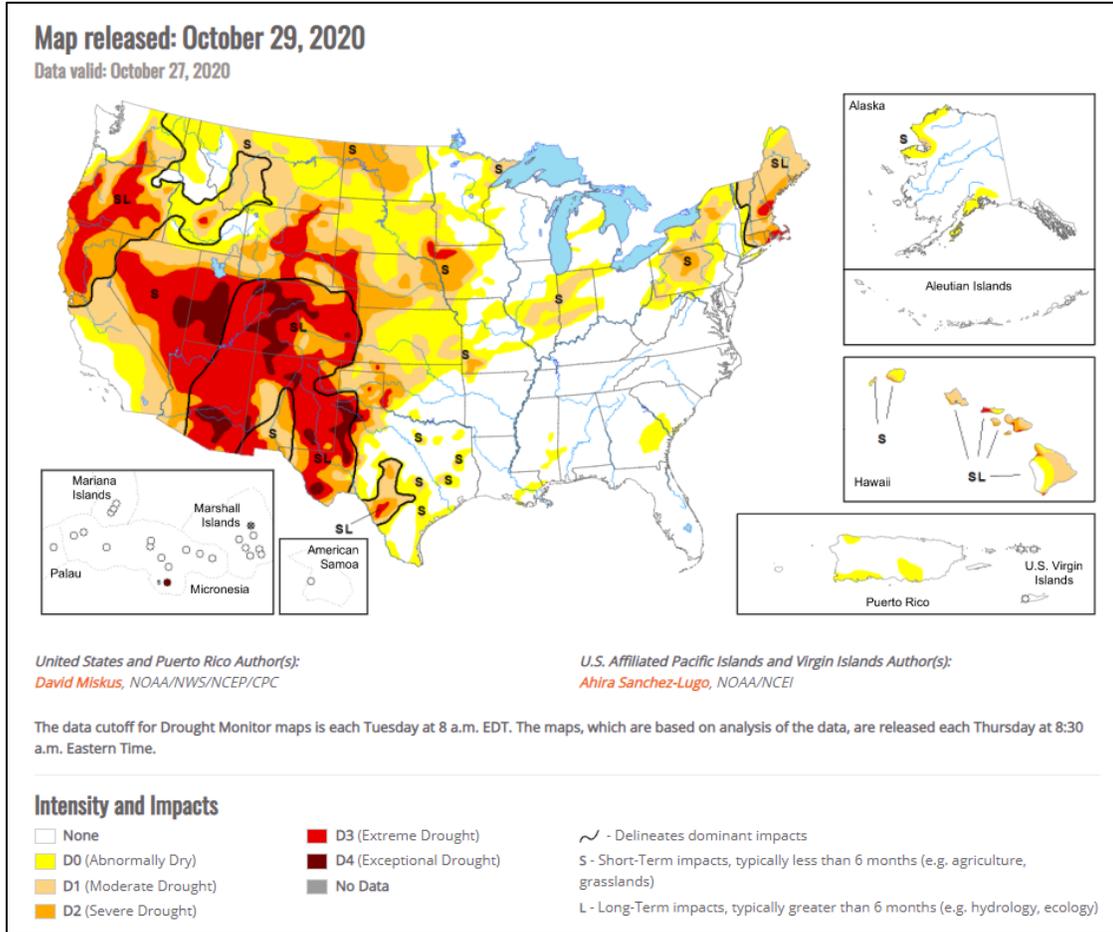
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



[Current National Drought Summary, October 29, 2020](#)

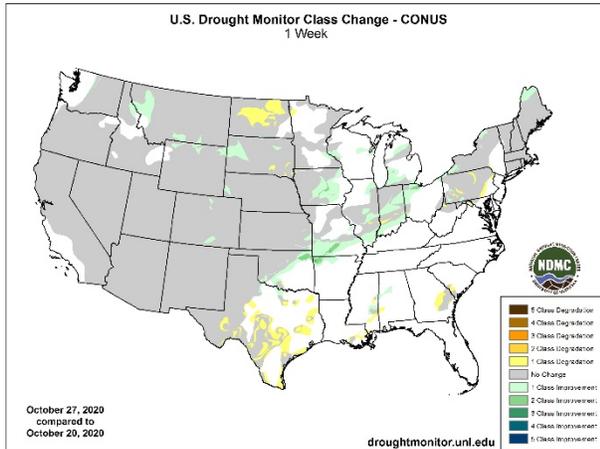
Source: National Drought Mitigation Center

“A blast of frigid Arctic air invaded the North Central States, producing weekly temperatures averaging 15 to 25 degrees F below normal in Montana, the Dakotas, Wyoming, Minnesota, Iowa, and Nebraska. The chill was accompanied by a slow-moving storm system that produced light snow across most of the Rockies, Plains, and upper Midwest. Although outdoor conditions were harsh, the storm and cold were welcome as it brought a halt to the abnormal warmth and dryness that had expanded and deepened the drought in the region. In the southern Plains, mixed precipitation (snow, sleet, freezing rain, and rain) glazed portions of New Mexico, western Texas, Oklahoma, and Kansas, while beneficial moderate to heavy rains fell from southwestern Oklahoma northeastward into the eastern Great Lakes region. Heavy rains also were measured in the western Great Lakes region and south Florida. Scattered, light precipitation was measured across most of the Pacific Northwest, Southeast, Midwest, and western portions of the Northeast. Much of the Southwest and Intermountain West was dry, with wild fires still burning across California. In addition, little or no precipitation fell on the southern Plains, parts of the Southeast, and eastern sections of the Northeast. Above normal temperatures enveloped the Southwest, southern Plains, and eastern third of the Nation. At the end of the period, all eyes were on Hurricane Zeta in the Gulf of Mexico as it tracked toward yet another Louisiana landfall.”

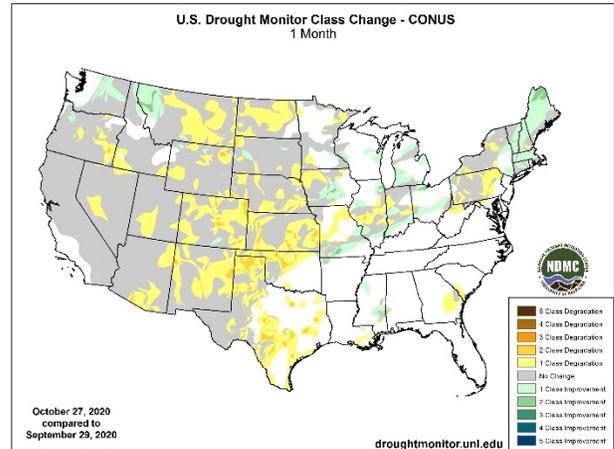
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

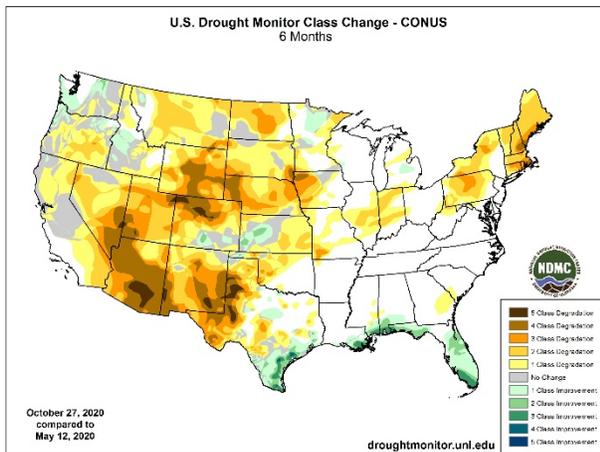
1 Week



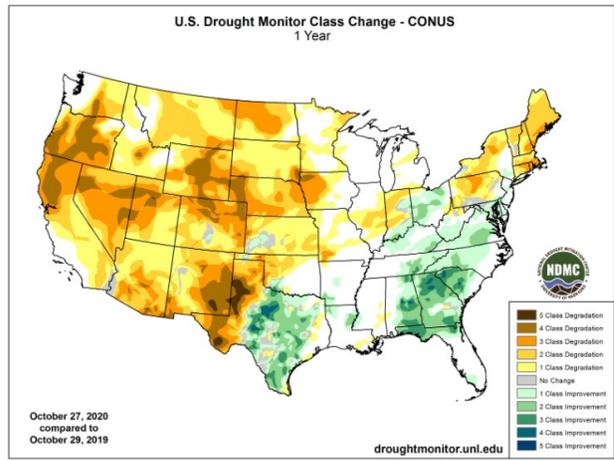
1 Month



6 Months



1 Year



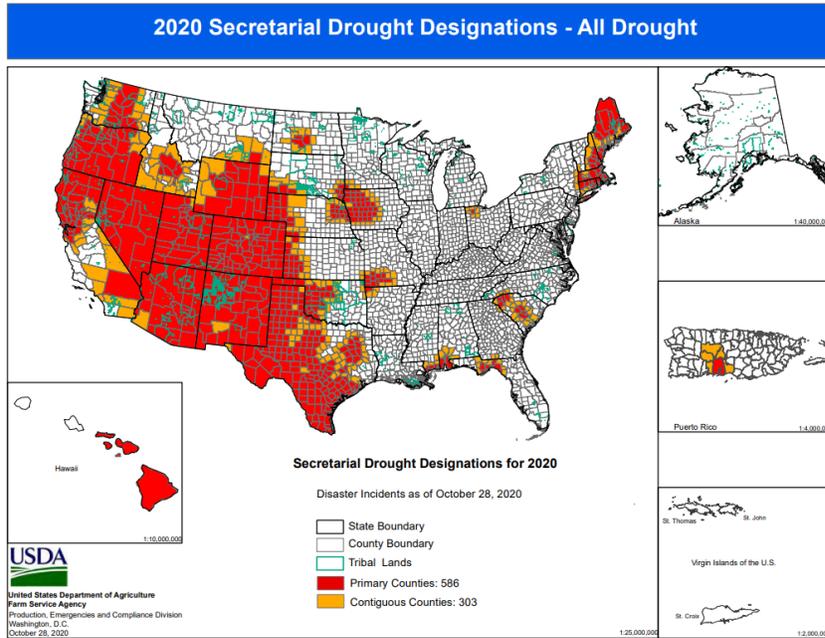
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

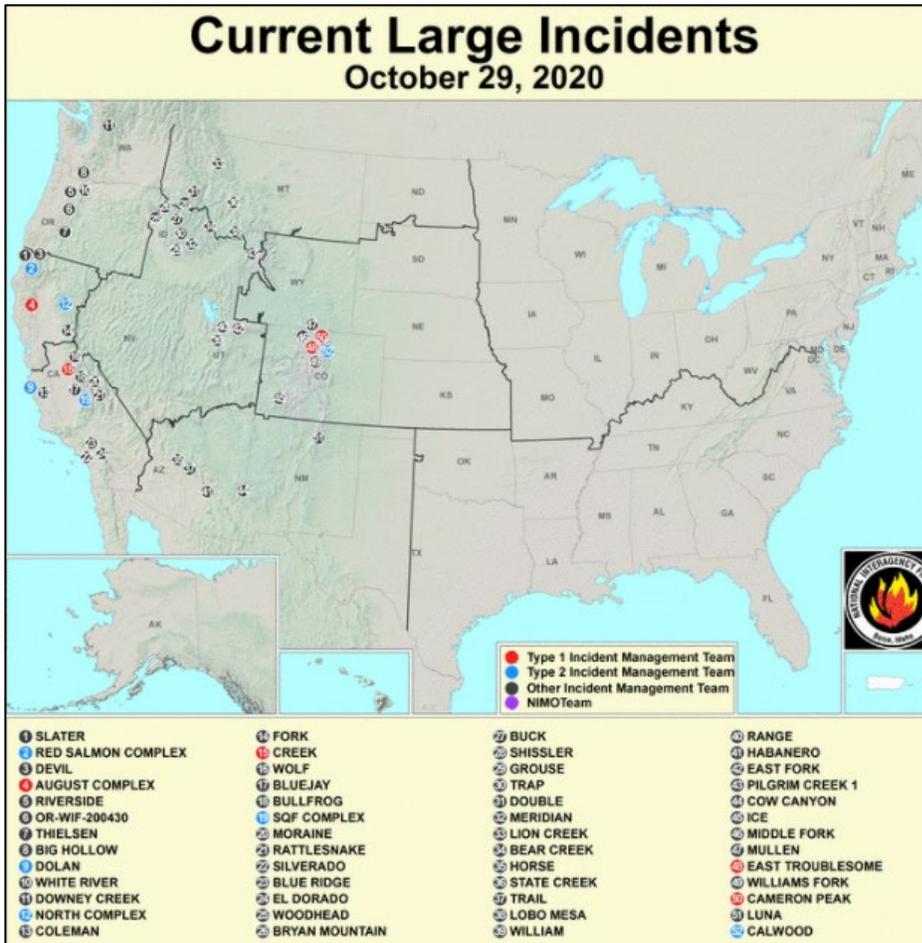
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



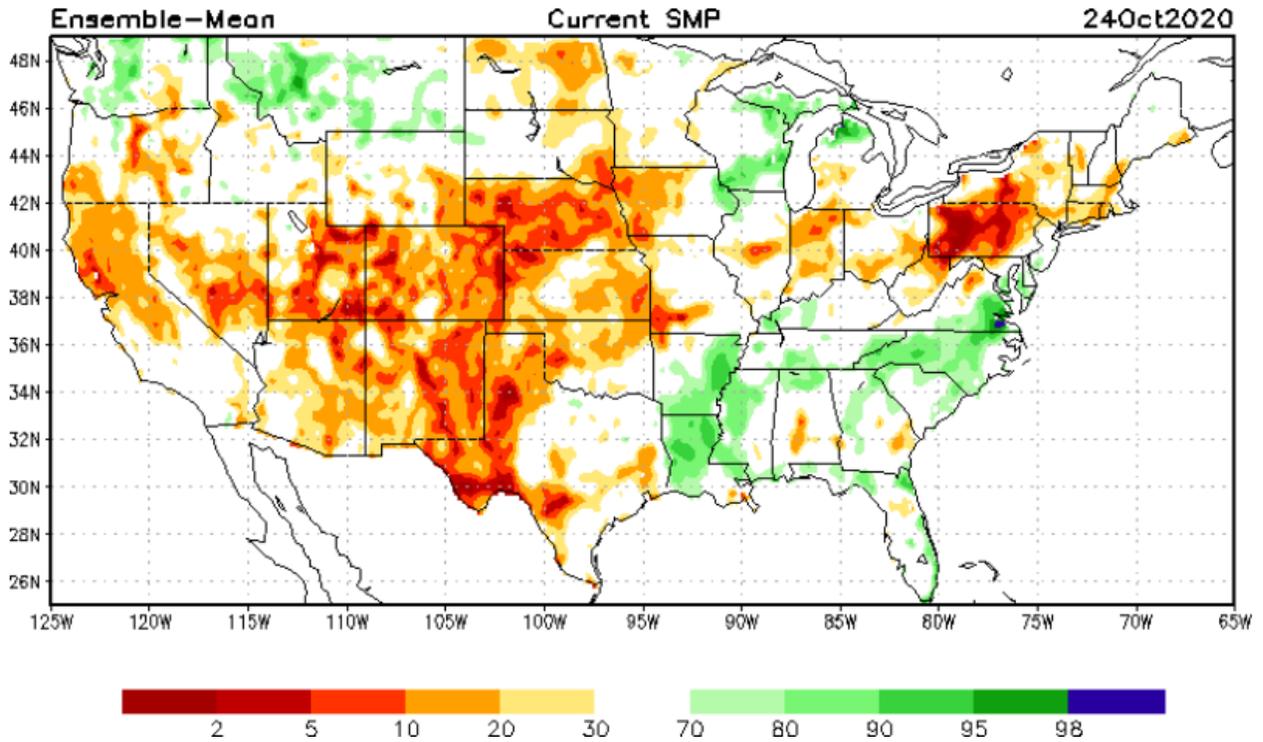
Highlighted Wildfire Resources

- [National Interagency Fire Center](#)
- [InciWeb Incident Information System](#)
- [Significant Wildland Fire Potential Outlook](#)

Other Climatic and Water Supply Indicators

Soil Moisture

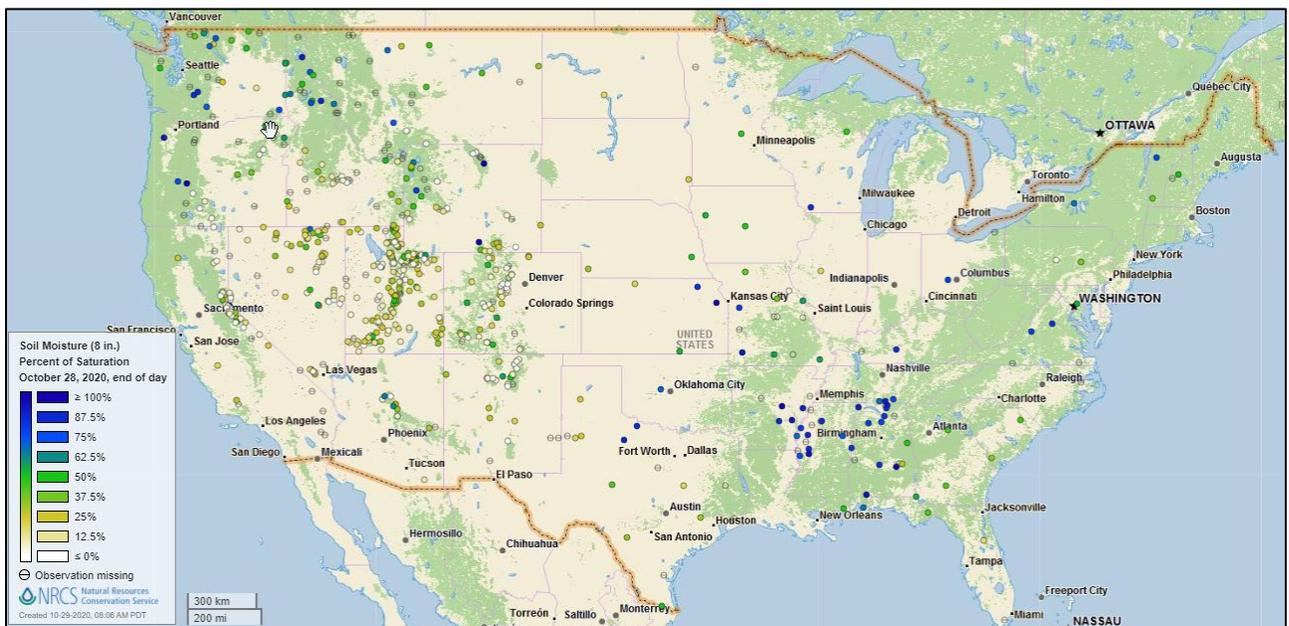
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of October 24, 2020

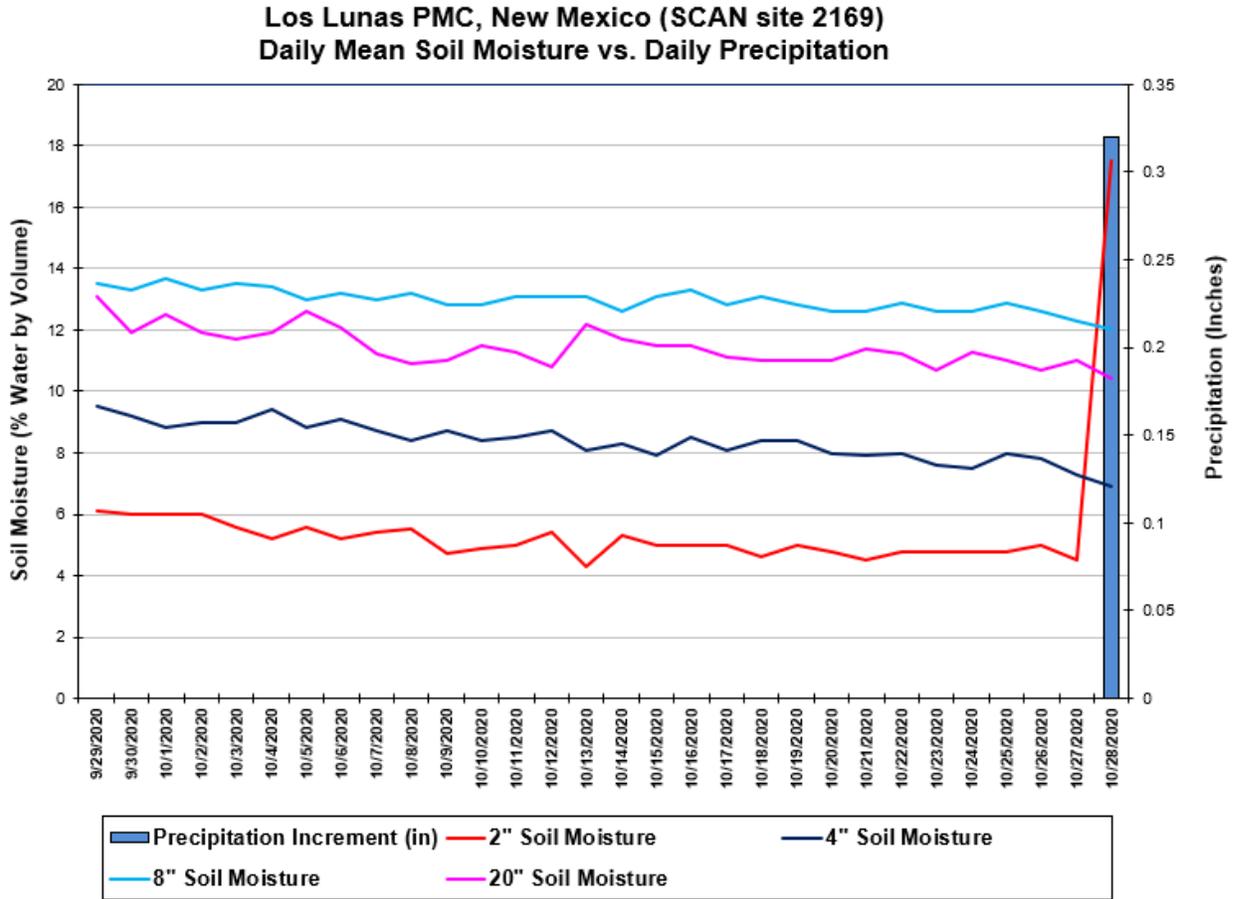
Soil Moisture Percent of Saturation

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 [Los Lunas PMC](#) SCAN site in New Mexico. Precipitation on October 28 increased soil moisture at the -2" sensor.

Soil Moisture Data Portals

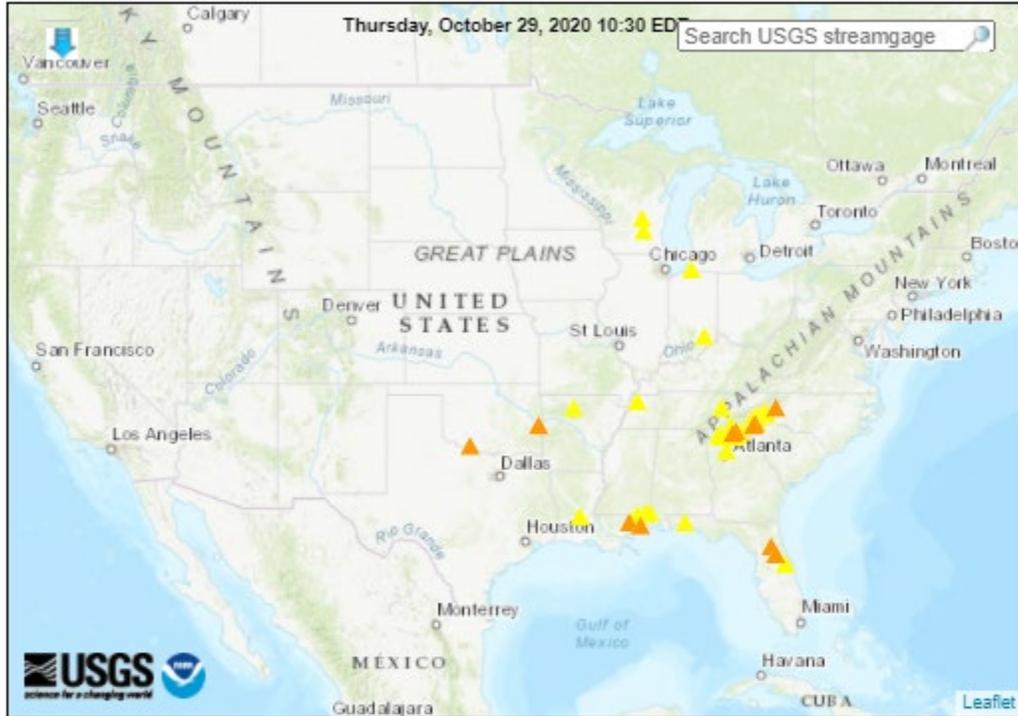
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(12 in floods [moderate: 1, minor: 11], 26 in near-flood)



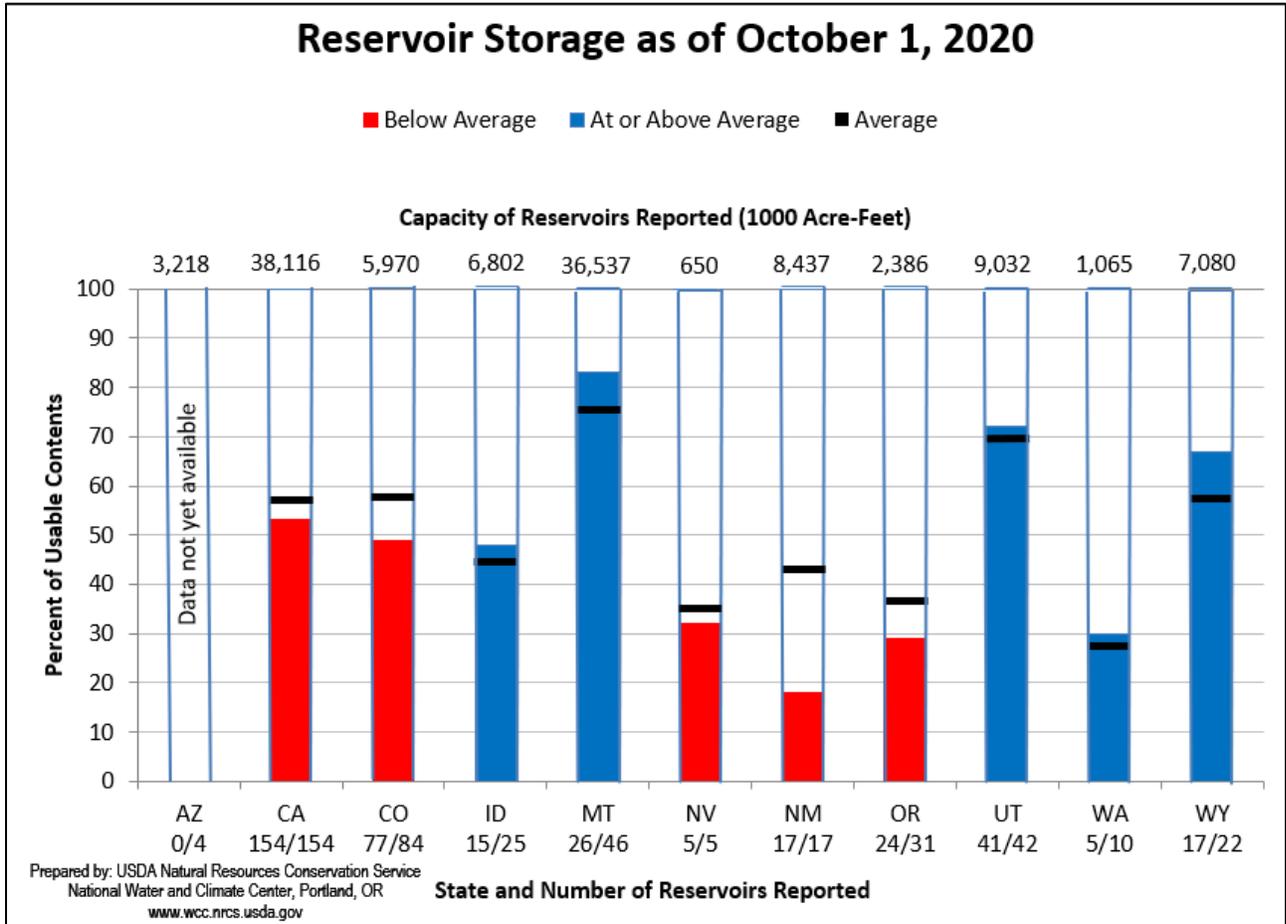
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			△ Streamgage with flood stage	○ Streamgage without flood stage		

[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



October 1, 2020 Reservoir Storage: [Chart](#) | [Dataset](#)

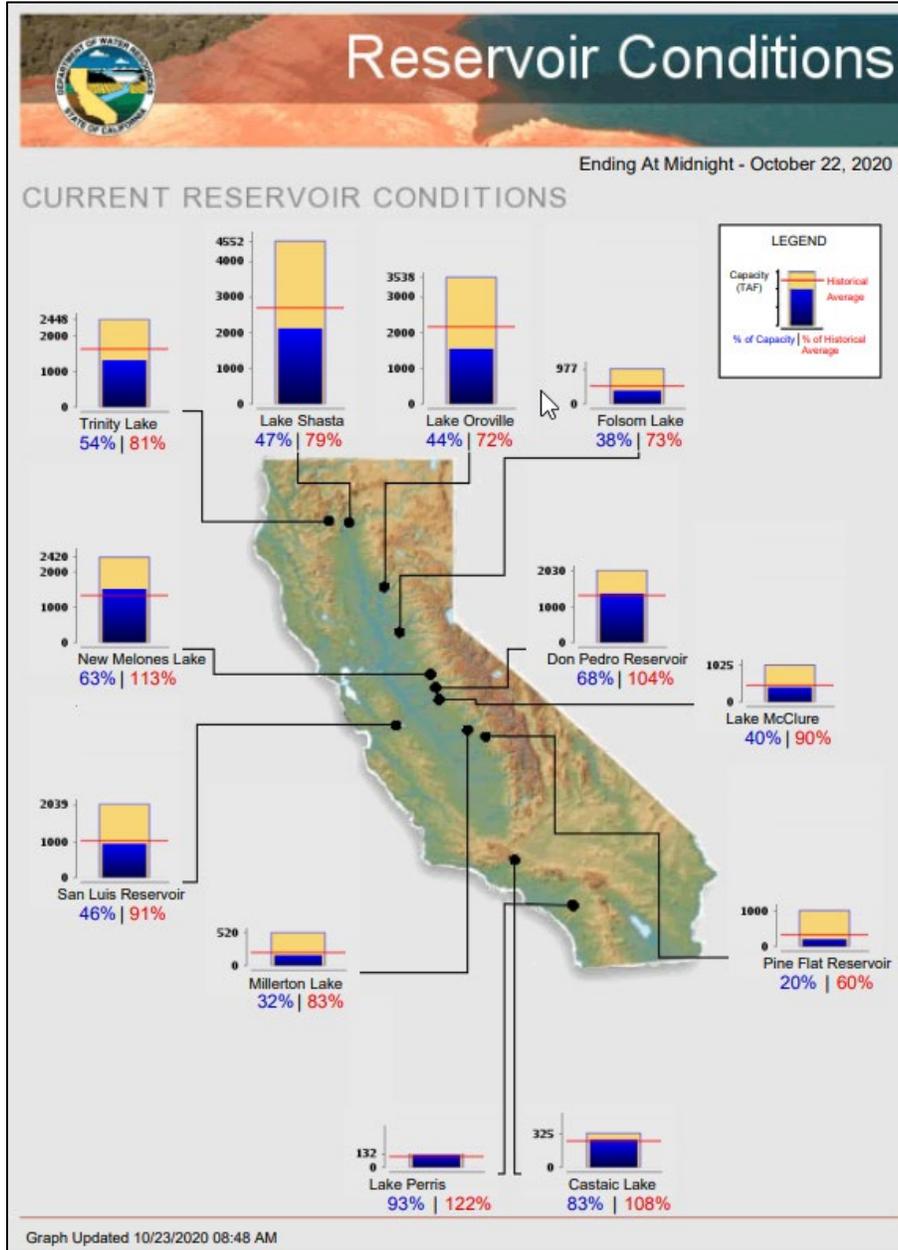
Hydromet Teacup Reservoir Depictions

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](#)

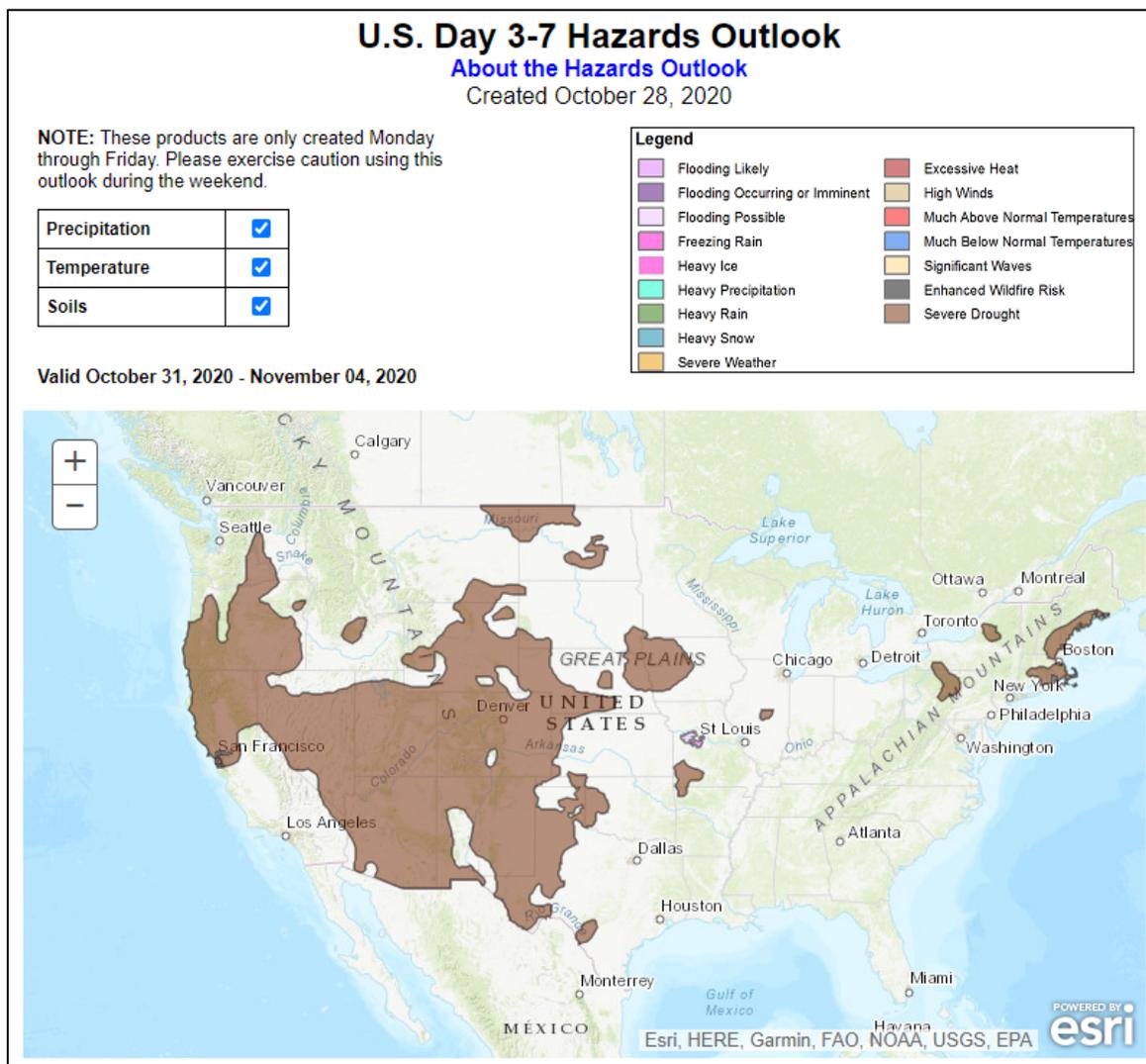
Agricultural Weather Highlights

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

National Outlook, Thursday, October 29, 2020: “For the remainder of today, Tropical Storm Zeta will accelerate northeastward across the mid-Atlantic before moving offshore. Meanwhile, a storm system departing the southern Plains will move eastward, closely trailing the former hurricane. By Friday and continuing into early next week, mostly dry weather will cover most of the country. Notably, cool, dry weather in areas heavily affected by Zeta will favor recovery efforts and damage assessments. Farther north, however, a weekend cold front will spark some rain and snow showers from the Great Lakes States into the Northeast. Periodic showers will also affect the Pacific Northwest. Elsewhere, a Western warming trend will continue, while a sharp surge of cold air will overspread the Midwest and Northeast during the weekend and early next week. The NWS 6- to 10-day outlook for November 3 – 7 calls for the likelihood of near- or above-normal temperatures and near- or below-normal precipitation across most of the country. Cooler-than-normal conditions should be confined to New England, while wetter-than-normal weather will be limited to the southern tip of Florida and areas from the Pacific Northwest to Montana.”

Weather Hazards Outlook: October 31 – November 4, 2020

Source: NOAA Weather Prediction Center

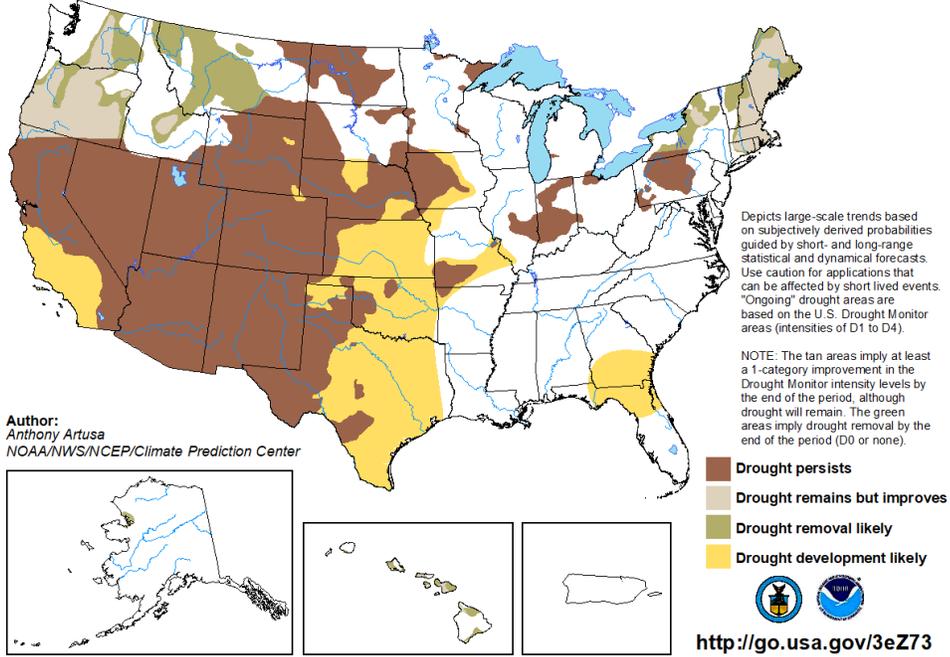


Seasonal Drought Outlook: [October 15, 2020 – January 31, 2021](#)

Source: National Weather Service

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid for October 15, 2020 - January 31, 2021
Released October 15, 2020

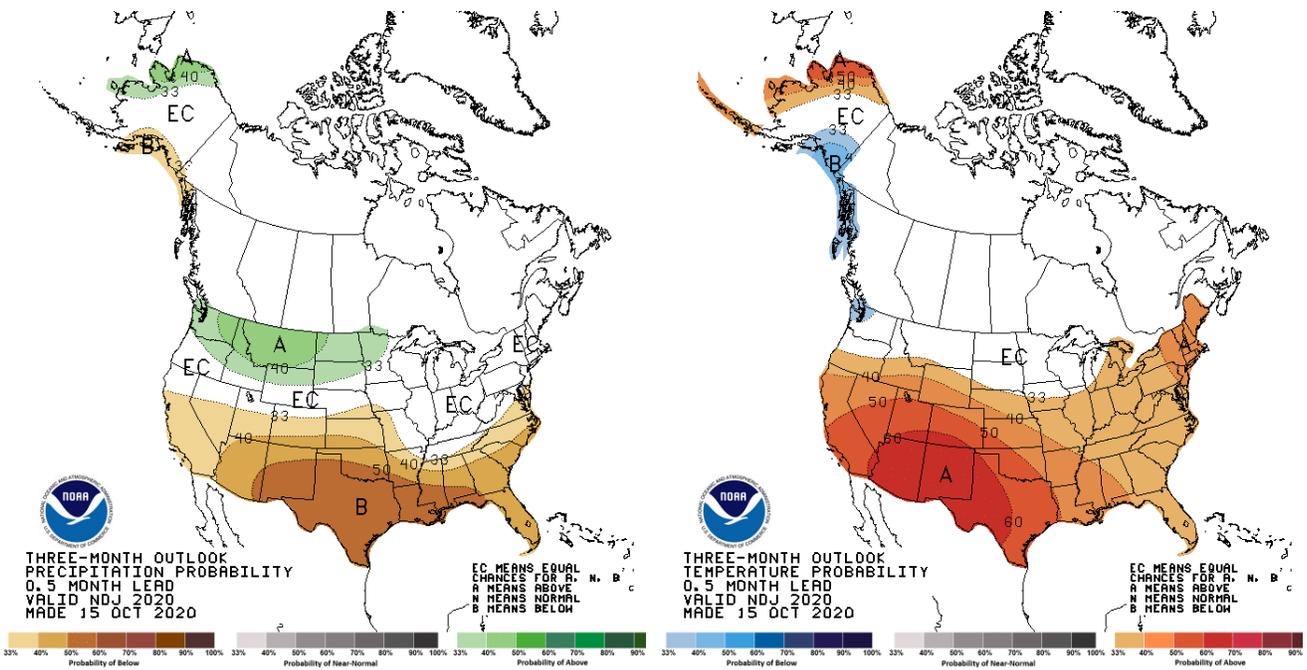


Climate Prediction Center 3-Month Outlook

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](#).