

Water and Climate Update October 22, 2020

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

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Cameron Peak fire largest in Colorado history

Ten large wildfires continue to burn in Colorado, including the 207,000 acre Cameron Peak wildfire, the largest in Colorado history. The Cameron Peak fire began on August 13 in the Arapaho and Roosevelt National Forests in heavy timber and rugged terrain. Currently, 1,330 personnel are assigned to fight the fire which grew by more than 70,000 acres over the weekend. Recent strong winds continue to fuel the fires in Colorado, hindering containment. Wednesday, the nearby East Troublesome fire increased six times in size and forced the evacuation of the 500 people of Grand Lake, Colorado.

Related:

Colorado wildfires update: Latest on the CalWood, Lefthand Canyon, Cameron Peak and Ice fires – The Denver Post (CO) Firefighters brave 'really tough' conditions at Cameron Peak Fire, the largest wildfire in Colorado history – USA Today Colorado wildfire forces evacuations, burning 6,000 acres per hour: "It's getting worse and worse" – NBC News Here's a look at all the wildfires burning in Colorado right now – KUSA (CO) Wildfires in northern Colorado show no sign of slowing as high winds again fan flames The Gazette (CO)

East Troublesome Fire Explodes During Wind-Fueled Nighttime Run – CPR News (CO)

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

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 (%) 10/14/2020 - 10/20/2020



Generated 10/21/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

<u>7-day precipitation</u> anomaly map for Alaska.

See also: 7-day total

precipitation values (inches) map





NOAA Regional Climate Centers



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

Source: PRISM



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



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Water Year-to-Date, NRCS SNOTEL Network

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

See also: 2021 water year-todate precipitation values (inches) map

Alaska 2021 water yearto-date precipitation percent of average map

See also: Alaska 2021 water year-todate precipitation values (inches) map

⊗ Average missing

INRCS Natural Resources Conservation Service

Created 10-22-2020, 08:13 AM PDT

300 km

200 mi

Gulf of

Alaska

Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers



Generated 10/21/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

<u>7-day temperature</u> <u>anomaly map</u> for Alaska.

See also: <u>7-day temperature</u> (° F) map



Generated 10/21/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers



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

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 22, 2020

Source: National Drought Mitigation Center

"Over the past week, beneficial precipitation fell over the higher elevations of Washington and Oregon, in much of Montana (particularly the mountainous western half), in the Lower Missouri River and Ohio River valleys, and in New England, leading to improving conditions in parts of these regions. Meanwhile, the southeast United States (with the exception of the Florida Peninsula) was mostly dry. Dry weather also continued across much of the central and southern Great Plains this week, as well as most of the southwestern United States. With background dry conditions in many areas that did not receive rain, combined with high evaporative demand over much of the High Plains and western United States, widespread worsening of drought conditions occurred from the Great Plains to the Southwest."

Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center



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

- <u>National</u> Interagency Fire Center
- <u>InciWeb</u> <u>Incident</u> <u>Information</u> <u>System</u>
- Significant
 Wildland Fire
 Potential
 Outlook

Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction



Soil Moisture Percent of Saturation

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



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



Nunn #1, Colorado (SCAN site 2017)

This chart shows the precipitation and soil moisture for the last 30 days at the Nunn #1 SCAN site in Colorado. Several small precipitation events throughout the month failed to increase soil moisture significantly at all five sensor levels. Accumulated precipitation for the period was 0.39 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



Map of flood and high flow conditions (15 in floods [major: 1, moderate: 3, minor: 11], 8 in near-flood)

	_	Expla	anation - Perc	entile	classes	
<95	95-98	>= 99	Above A action stage floor	Above od stage	Above moderate flood stage	Above major flood stage
	Δs	itreamgage w	ith flood stage OSt	reamgage	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 22, 2020: "An expansive cold outbreak will further intensify. Sub-Zero temperatures will continue through Monday morning across northern sections of the Rockies and High Plains, while readings below 20°F may occur early next week as far south as the northern panhandle of Texas. Meanwhile, another snowfall will affect the North, starting later today. Snow, initially in the northern Rockies, will spread across the northern Plains on Saturday. By early next week, snow may blanket central and southern parts of the Rockies and High Plains, aiding wildfire containment efforts and benefiting winter wheat. Farther east, significant rain may occur from the southeastern Plains into the Ohio Valley. Mostly dry weather will persist, however, in California, where the wildfire threat will be substantially elevated on Sunday and Monday. Elsewhere, a low-pressure system over the western Caribbean Sea will drift northward, with some possibility of development. Regardless of intensity, the system may produce heavy rain in Florida. The NWS 6- to 10-day outlook for October 28 – November 1 calls for the likelihood of below-normal temperatures across the Rockies, Plains, Midwest, and Northeast, while warmer-than-normal weather will be confined to the Southeast and Far West. Meanwhile, below-normal precipitation in the upper Midwest and much of the western half of the U.S. should contrast with wetter-than-normal conditions from the southern Plains to the Atlantic Coast."

Weather Hazards Outlook: October 25 - 29, 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



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

More Information

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