



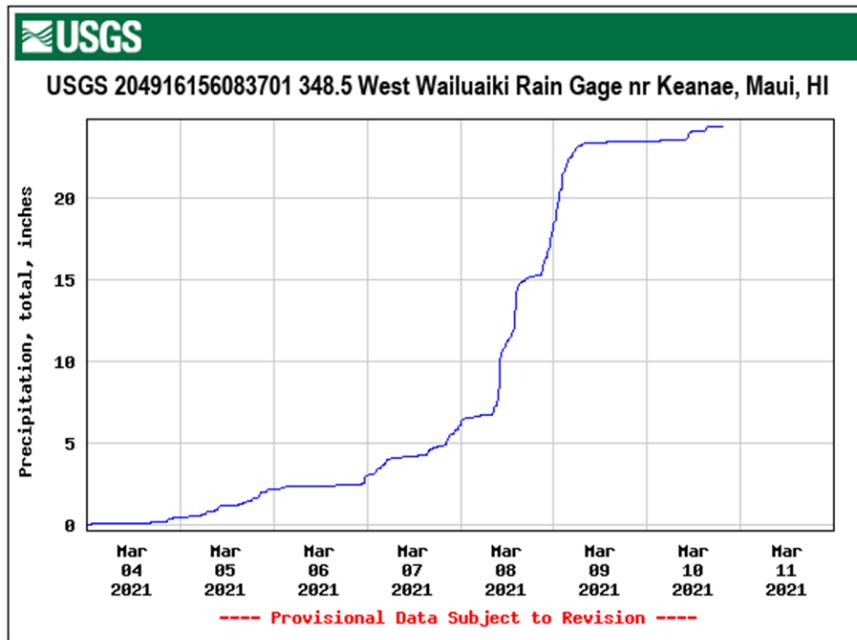
Water and Climate Update

March 11, 2021

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
Precipitation	4	Other Climatic and Water Supply Indicators	13
Temperature.....	8	More Information	19

Intense, sustained rainfall in Hawaii triggers flash flooding

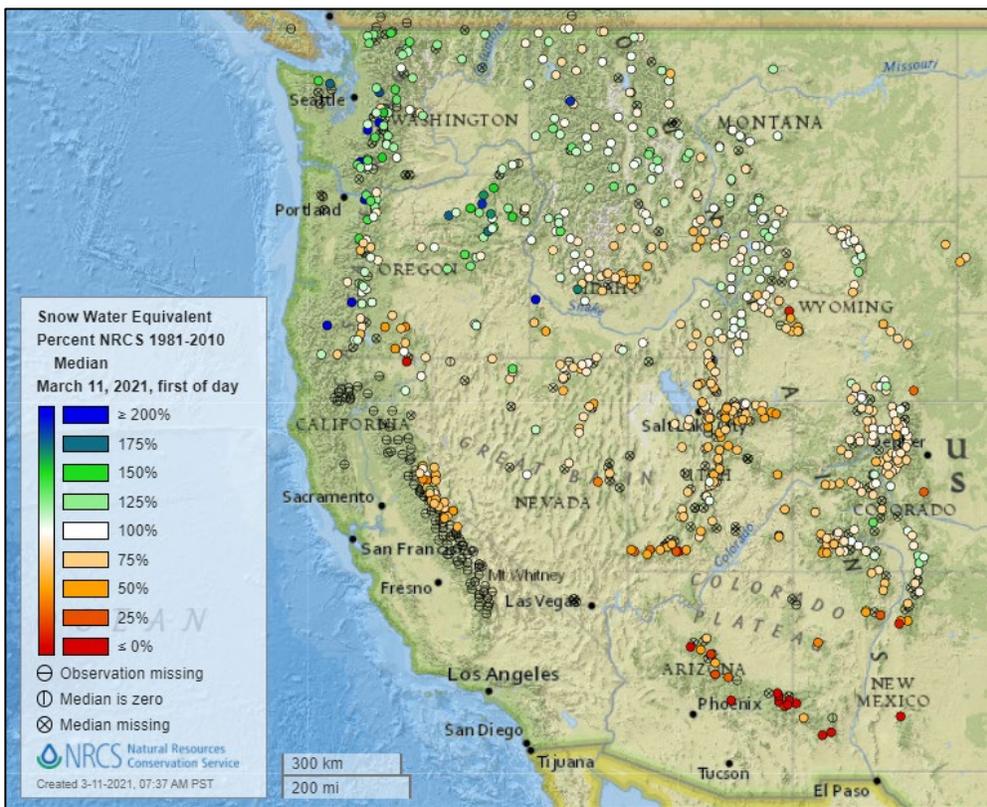


Several days of torrential rainfall fell across Hawaii this week, causing severe flash flooding on many of its islands. Power outages, flooded roads, and widespread damage were reported. Maui authorities ordered the evacuation of several thousand people on March 8 after a dam overflowed, causing major damage to downstream homes and bridges. The Governor of Hawaii declared a state of emergency on March 9 in response to the disaster. Rainfall totals of one to two feet or more within 24 hours were recorded in some locations. Additional unsettled weather is predicted to continue through the weekend.

Related:

- [Homes flooded, roadways damaged on Maui as torrential rains batter state](#) – KHNL (HI)
- [Hawaii declares emergency due to floods, orders evacuations](#) - Reuters
- [Severe flash flooding triggers state of emergency in Hawaii](#) – Washington Post
- [Flash flood warning extended for Oahu; 4.2 magnitude earthquake shakes Big Island](#) – Honolulu Star-Advertiser (HI)
- [Evacuation order lifted for Haleiwa residents, but threat of flooding remains](#) – Hawaii News Now (HI)
- [Hawaii governor declares emergency after heavy flooding causes extensive damage](#) – NBC News
- [Governor declares state of emergency in the wake of damaging floods on Oahu, Maui](#) – KHNL (HI)
- [Hawaii Flooding Prompts Emergency Declaration, Evacuations And Fears Of Dam Failure](#) – NPR

Snow



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

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

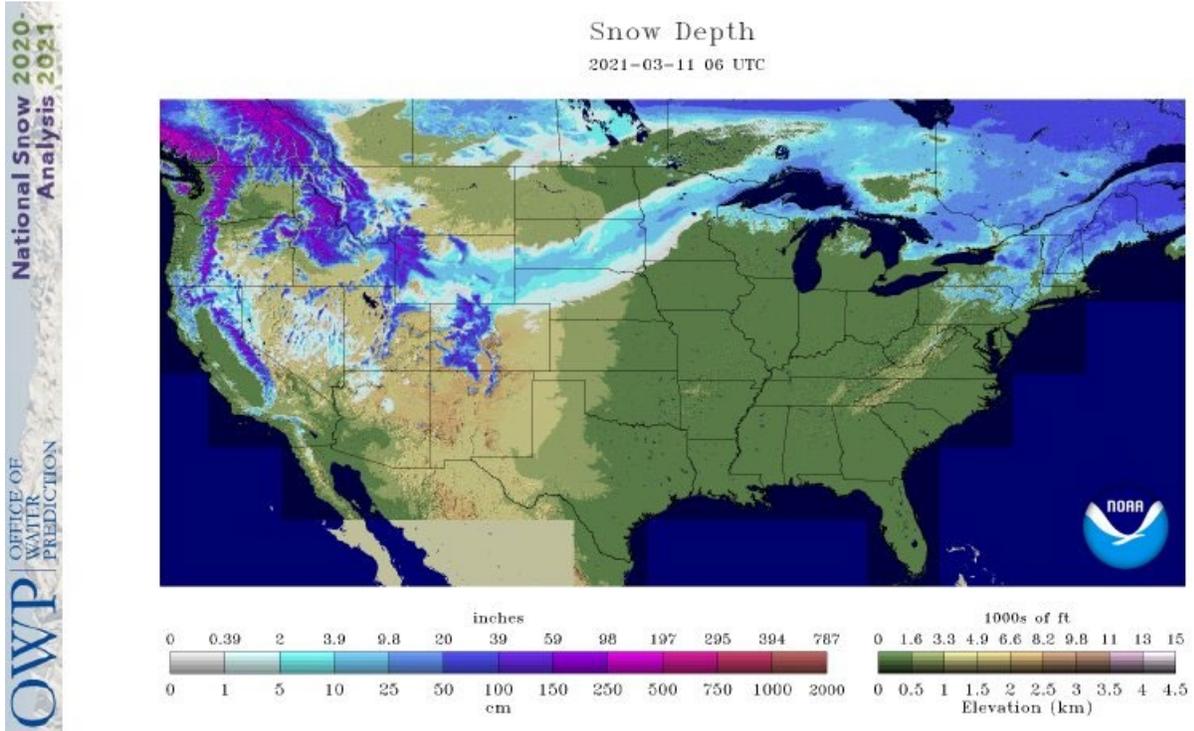


[Alaska snow water equivalent percent of median map](#)

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

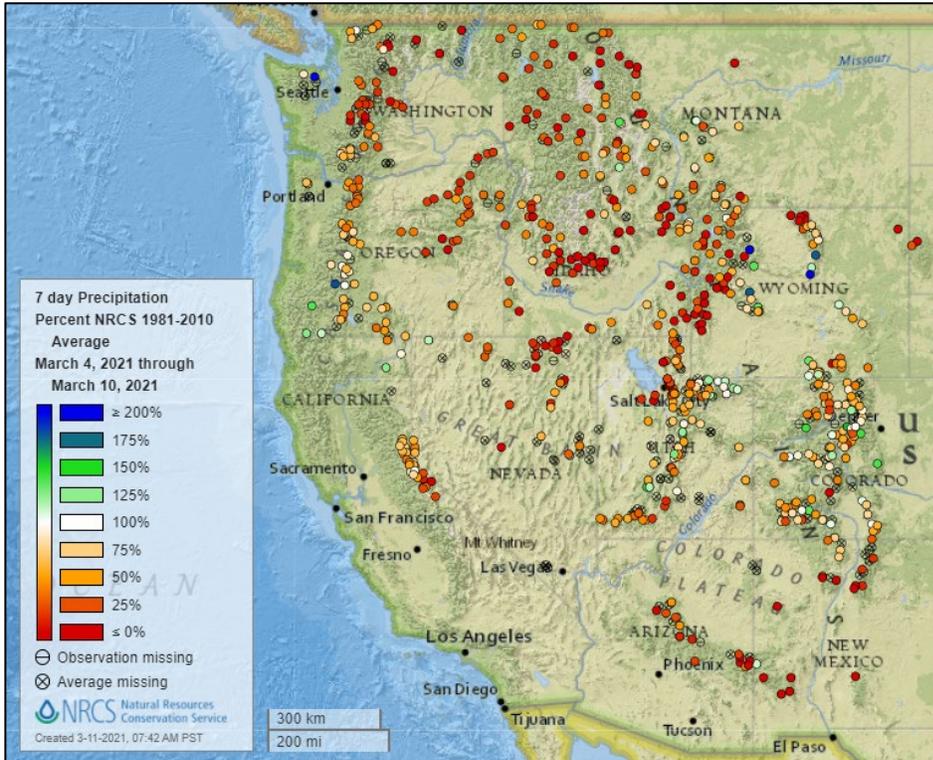
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

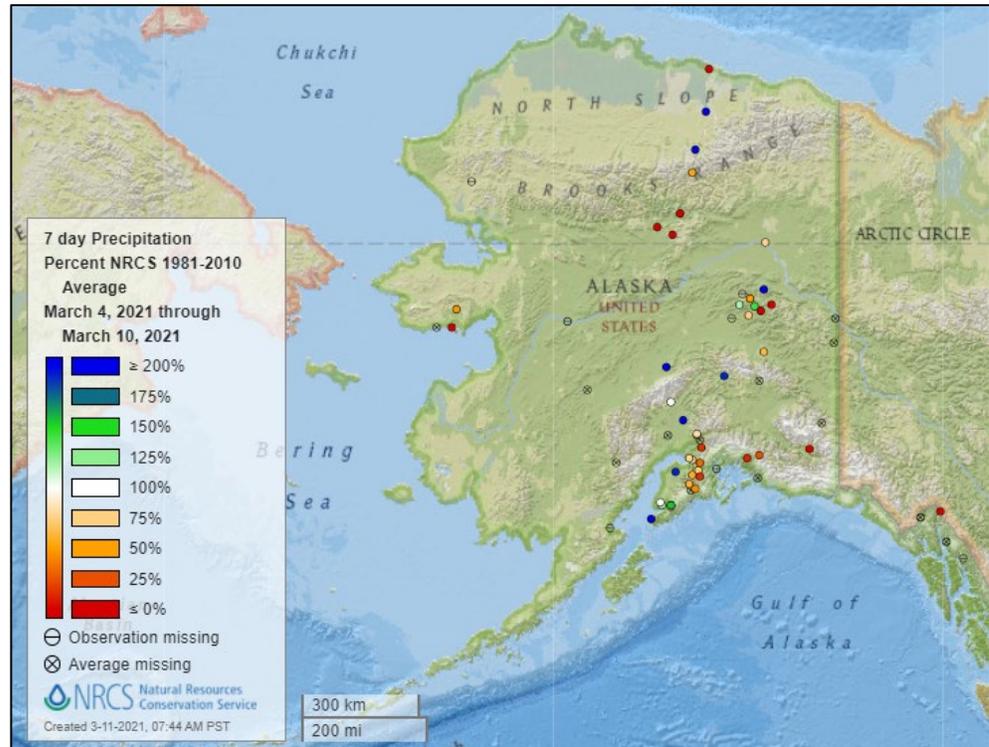


[7-day precipitation percent of average map](#)

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](#)



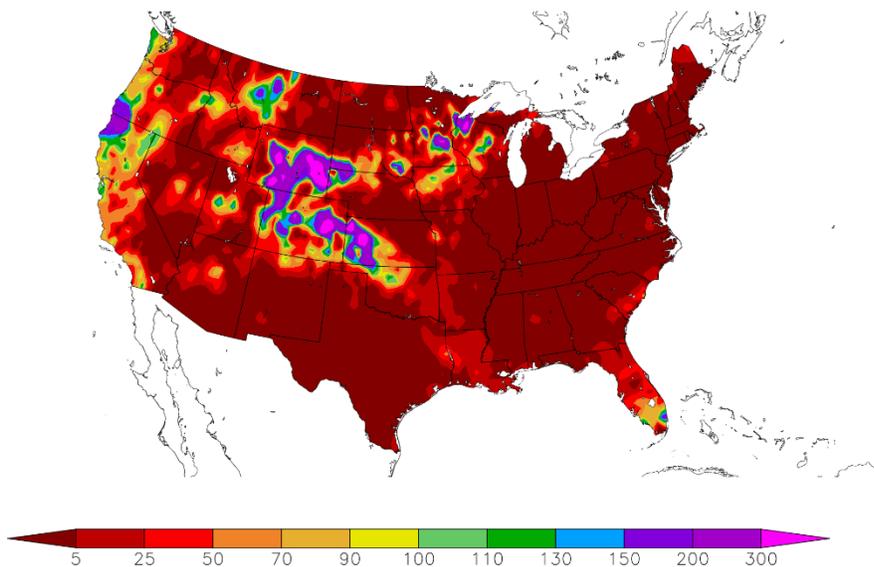
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
3/4/2021 – 3/10/2021



Generated 3/11/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

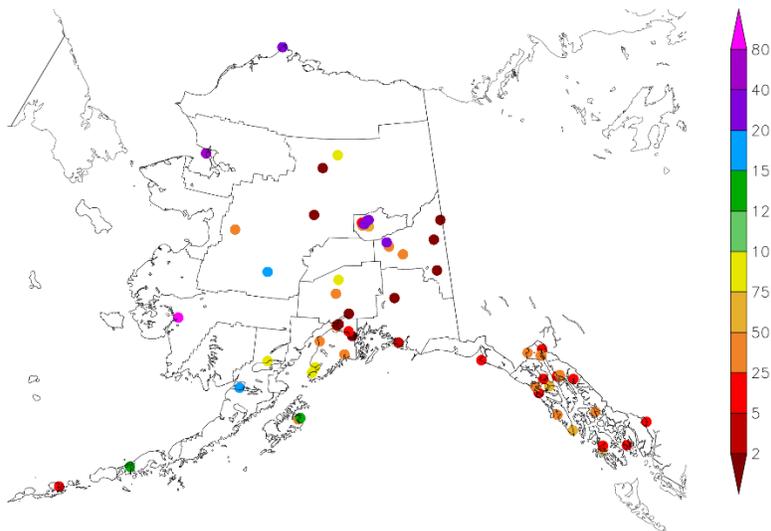
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
3/4/2021 – 3/10/2021



Generated 3/11/2021 at HPRCC using provisional data.

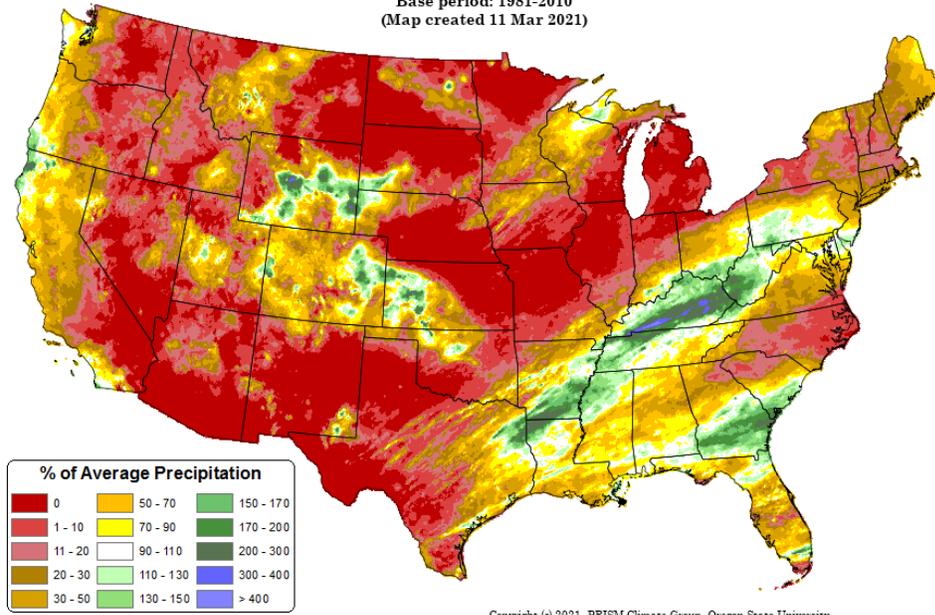
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Mar 2021 - 10 Mar 2021
Period ending 7 AM EST 10 Mar 2021
Base period: 1981-2010
(Map created 11 Mar 2021)

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

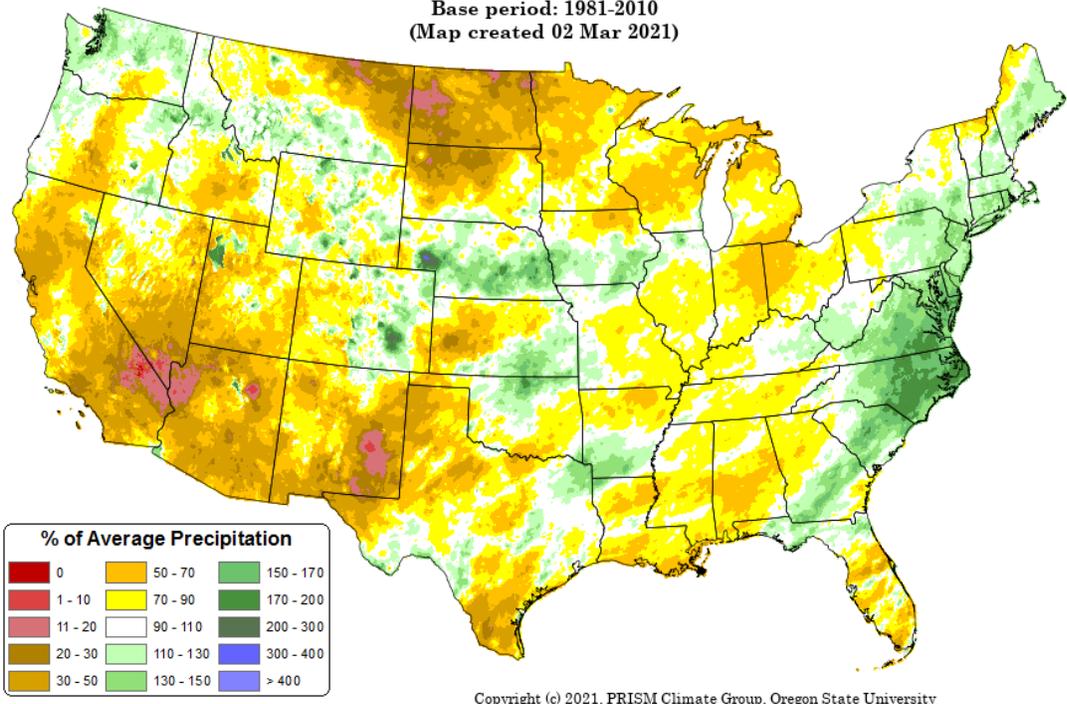


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

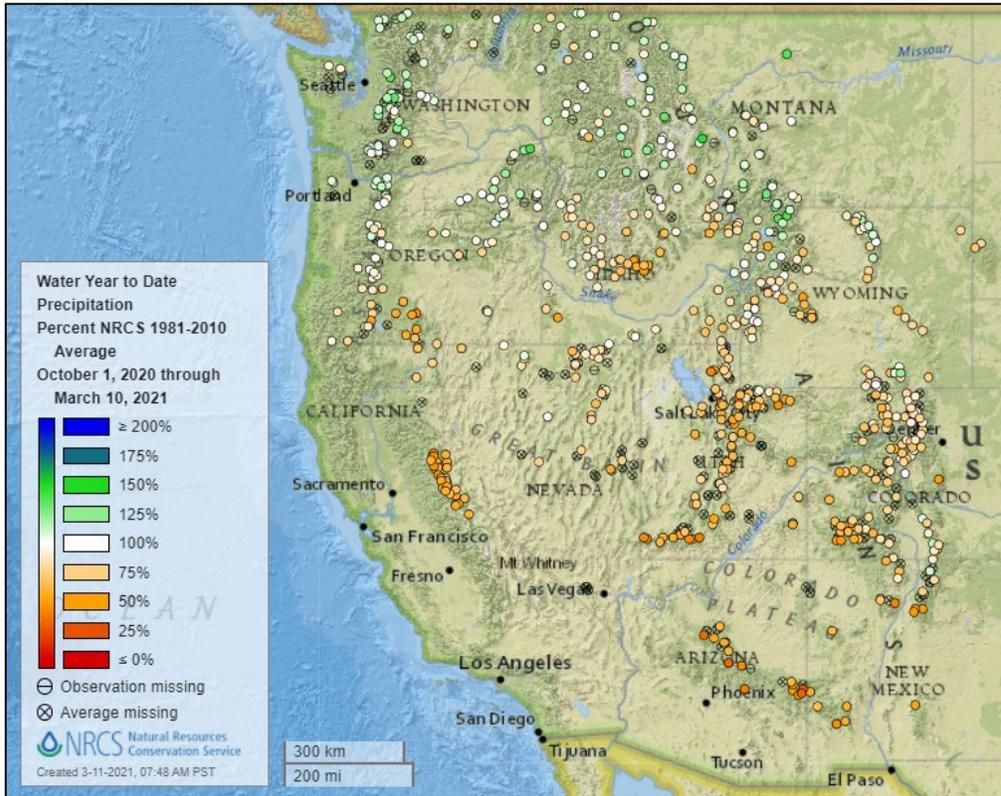
Source: PRISM

[December through February precipitation percent of average map](#)

Total Precipitation Anomaly: Dec 2020 - Feb 2021
Period ending 7 AM EST 28 Feb 2021
Base period: 1981-2010
(Map created 02 Mar 2021)

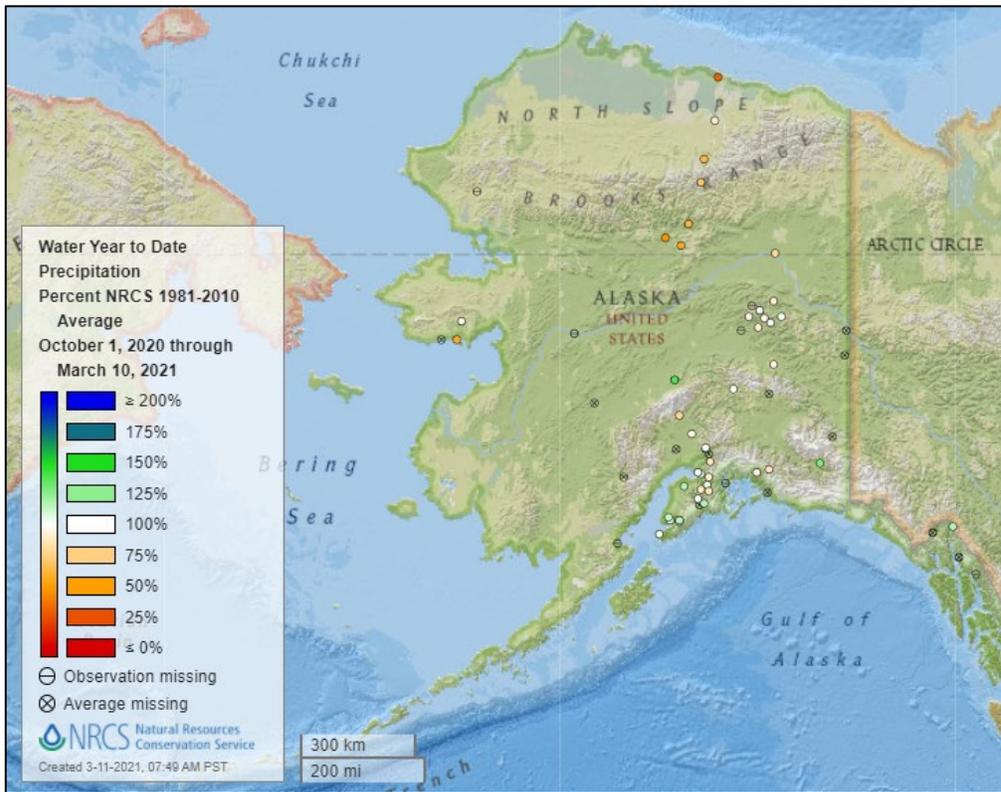


Water Year-to-Date, NRCS SNOTEL Network



[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

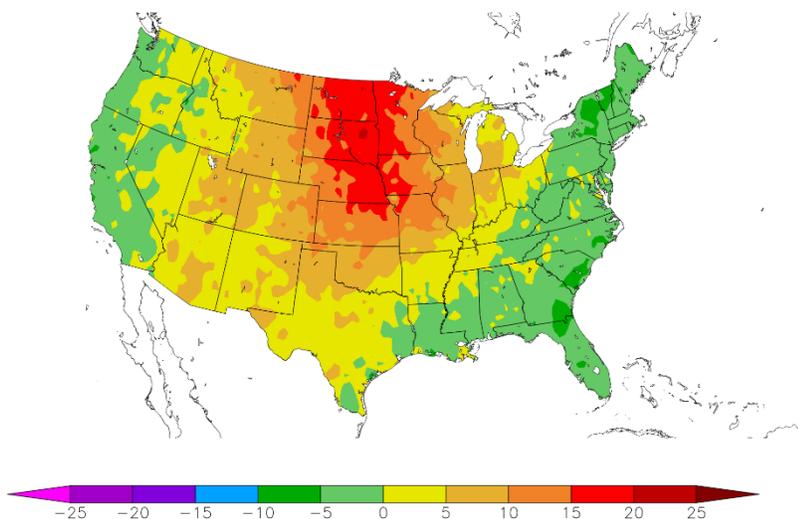
Last 7 Days, National Weather Service (NWS) Networks

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)
3/4/2021 – 3/10/2021



Generated 3/11/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

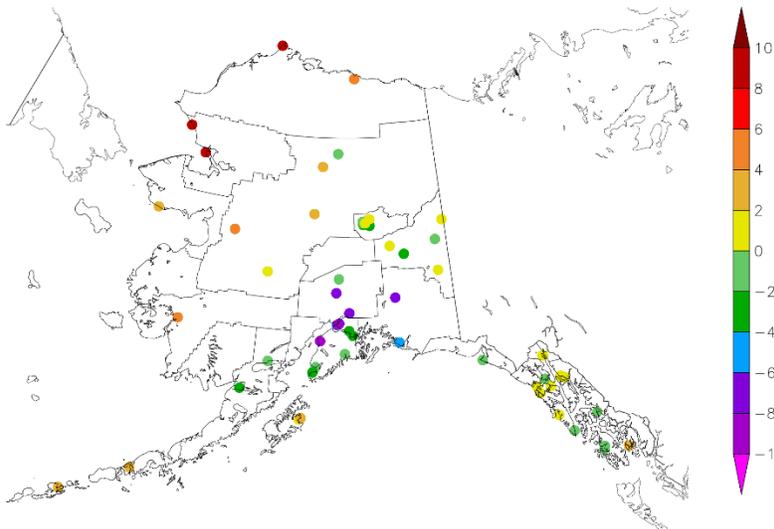
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
3/4/2021 – 3/10/2021



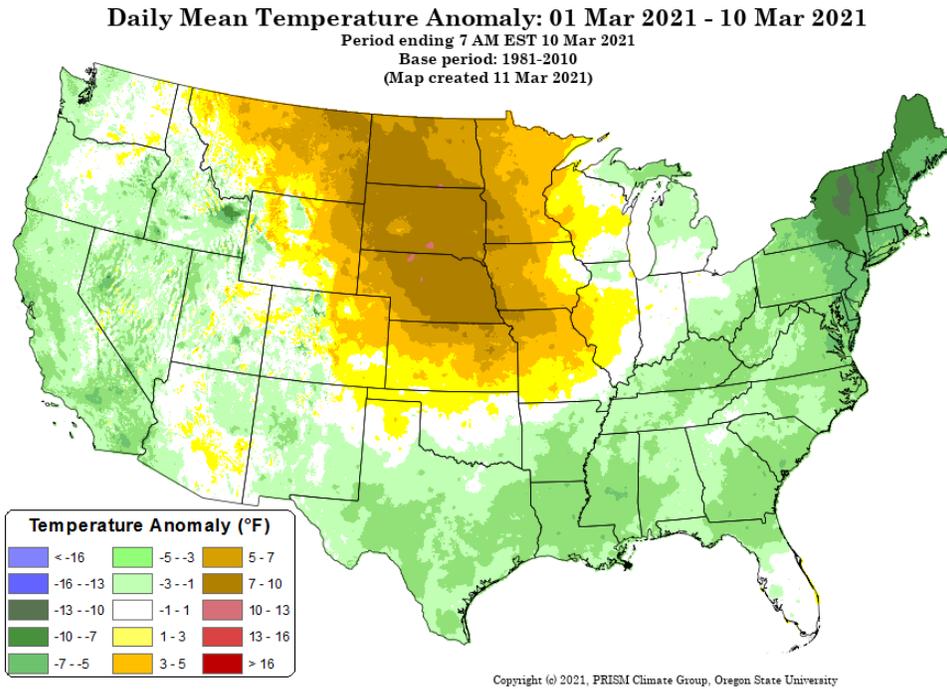
Generated 3/11/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

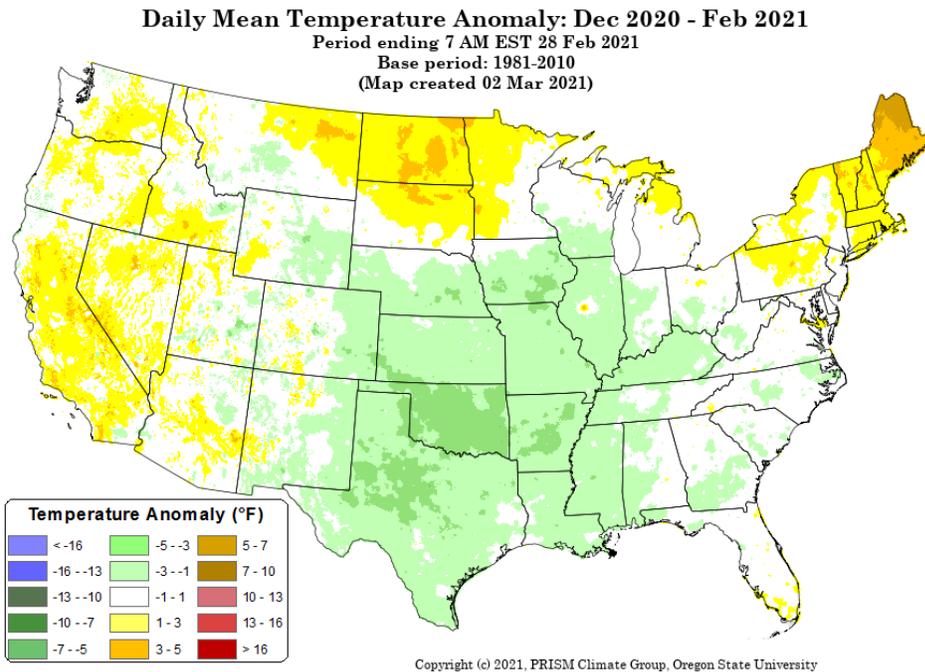
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[December 2020 through February 2021 daily mean temperature anomaly map](#)



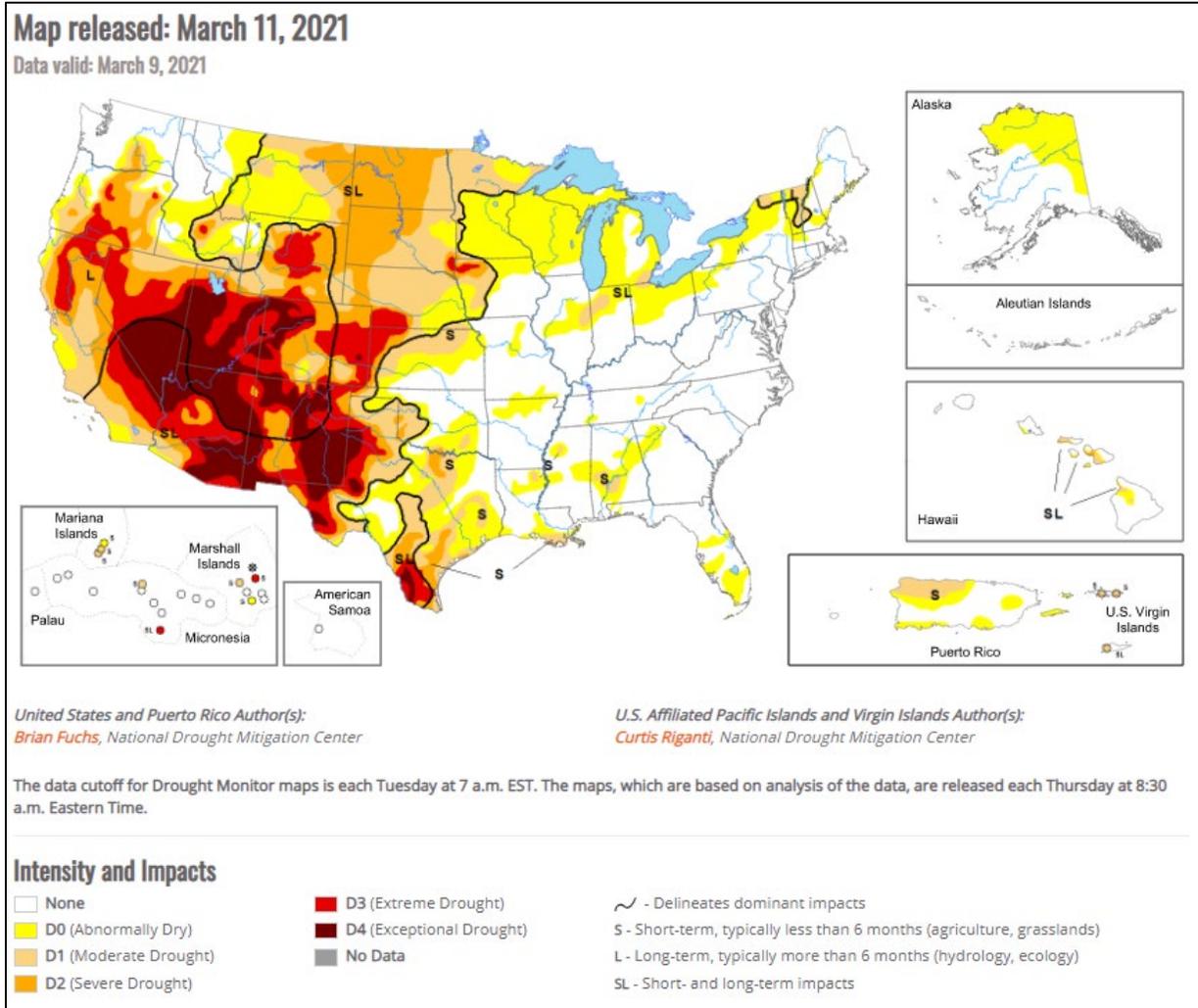
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), March 11, 2021

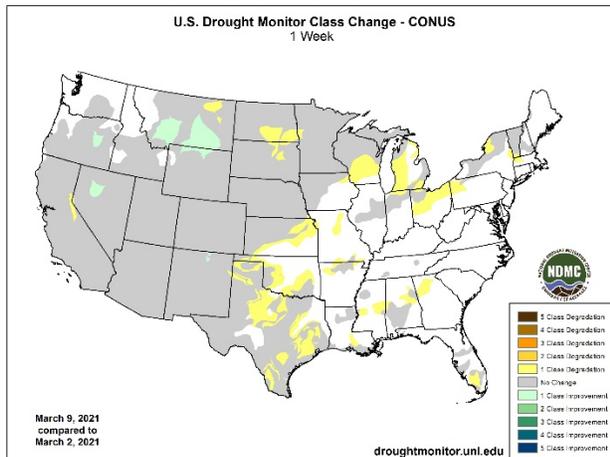
Source: National Drought Mitigation Center

“During the current period, most of the country was dry. There was some precipitation along the Gulf Coast and into the Southeast, with the greatest amounts over southern Georgia. Some storms impacted the Pacific Northwest as well, with coastal areas recording the most precipitation, especially on the coastal regions of far northwest California, southwest Oregon, and northwest Washington. Some scattered showers were recorded over the central Plains and New England, but generally these were not associated with significant precipitation. Temperatures were warmer than normal over much of the northern Plains and into the central Plains and Midwest with temperatures greater than 15 degrees above normal in the Dakotas. This took care of any remaining snows through the region and started the spring thaw on soils. Cooler than normal temperatures were recorded over much of the East and into the South where temperatures were 3-6 degrees below normal for the week. Cooler than normal conditions dominated much of New England with temperatures 9-12 degrees below normal.”

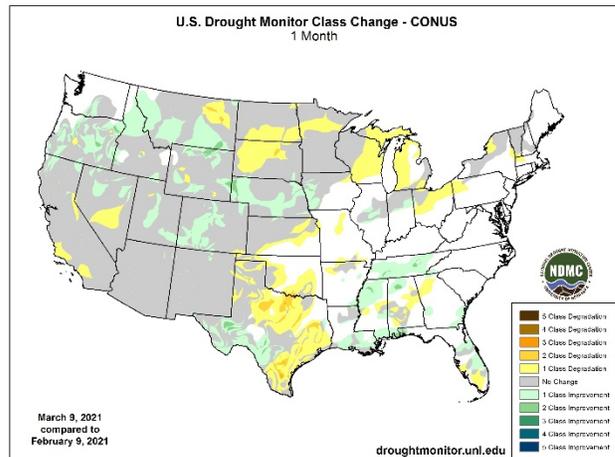
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

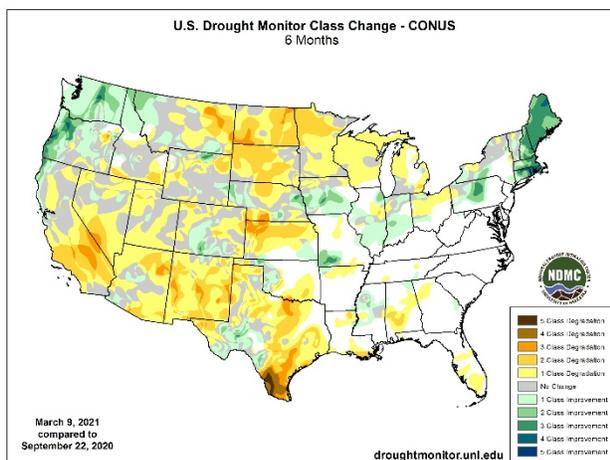
1 Week



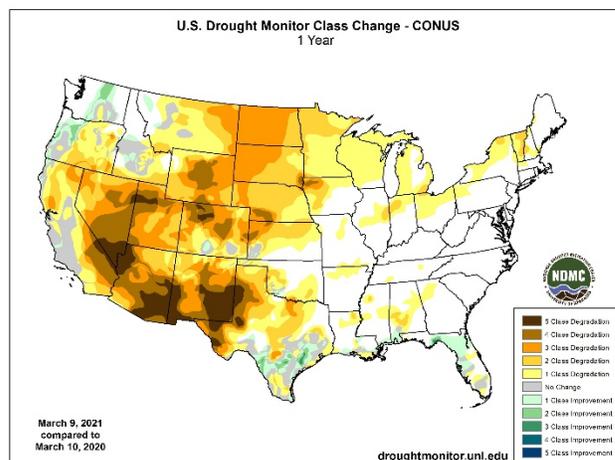
1 Month



6 Months



1 Year



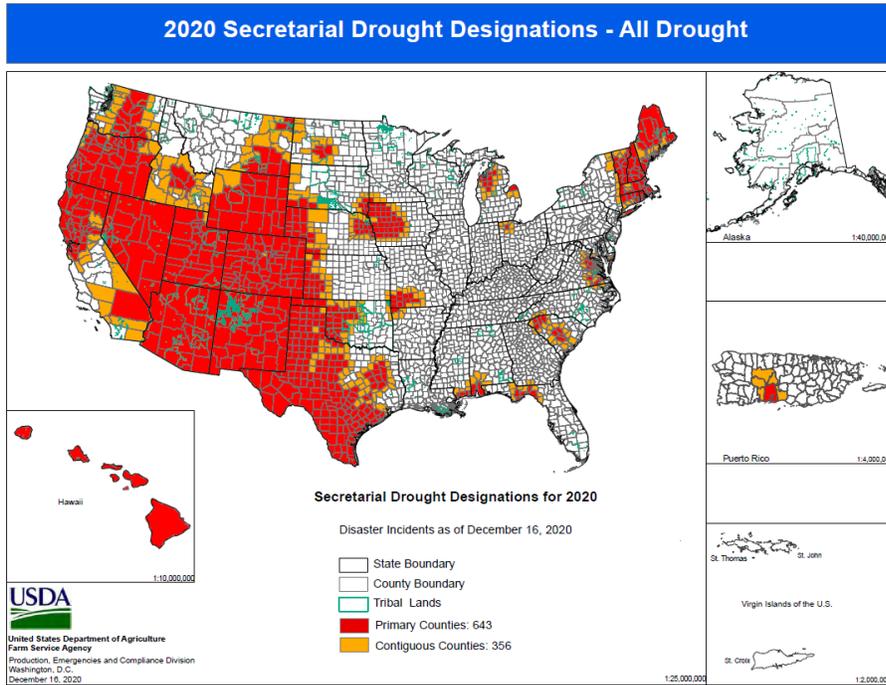
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

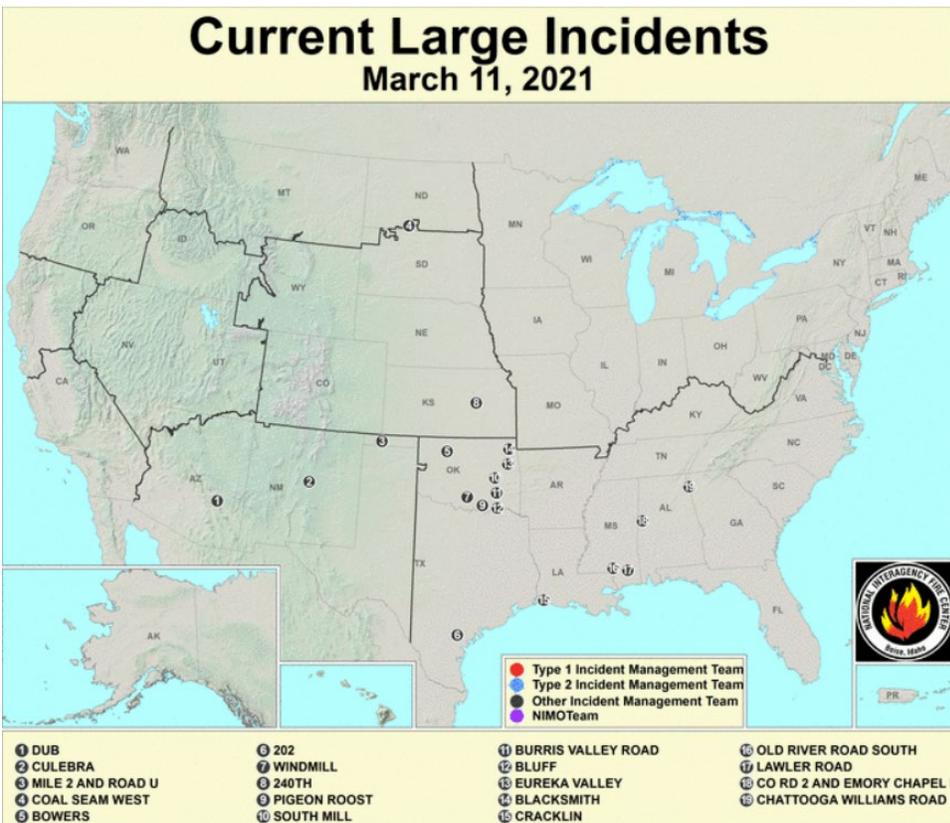
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



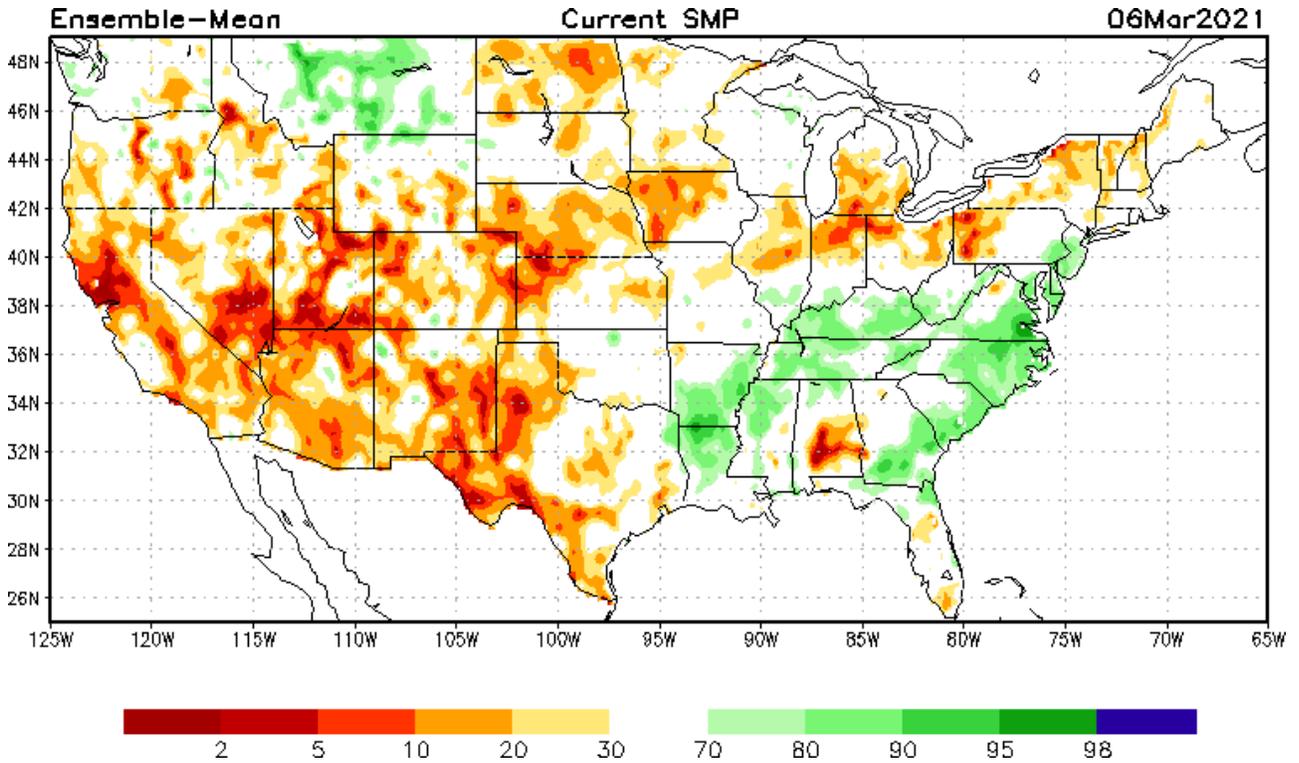
**Highlighted
Wildfire
Resources**

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

Other Climatic and Water Supply Indicators

Soil Moisture

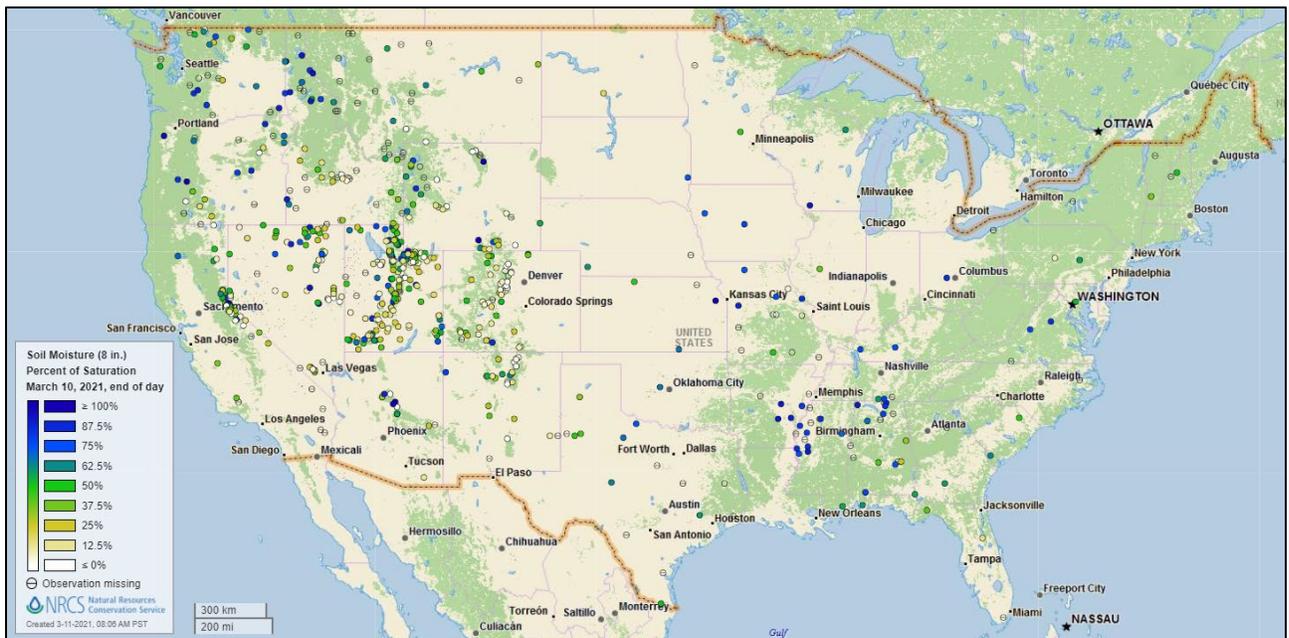
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of March 06, 2021

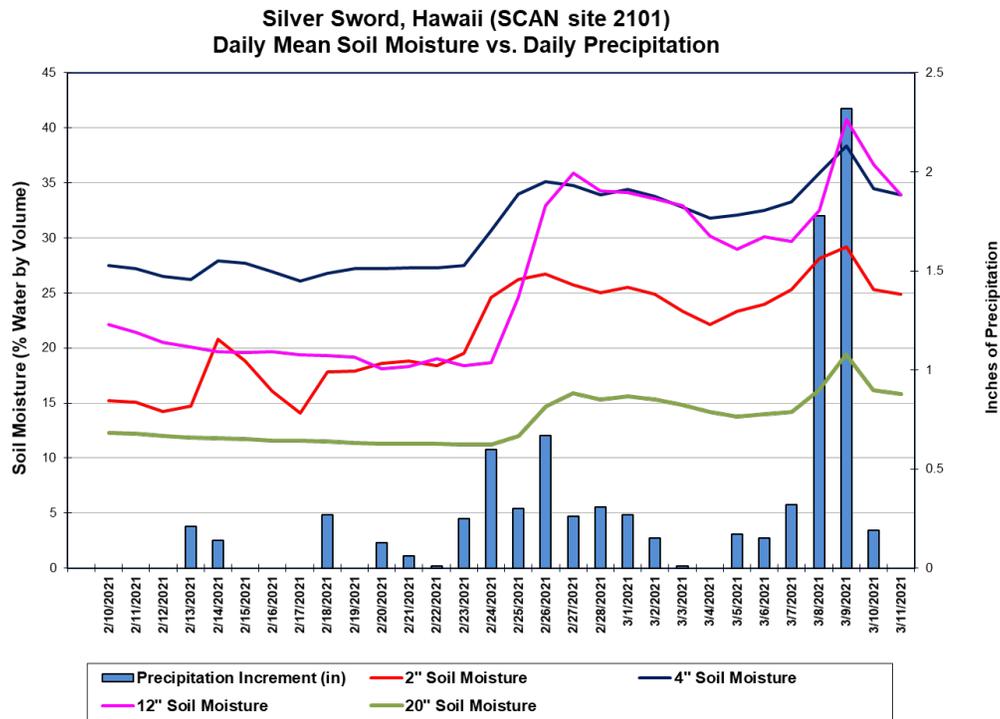
Soil Moisture Percent of Saturation

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 [Silver Sword](#) SCAN site in Hawaii. Precipitation totaling 4.42 inches fell from March 06 through March 09 and increased the soil moisture at all sensor depths. Accumulated precipitation for the 30-day period was 8.57 inches.

Soil Moisture Data Portals

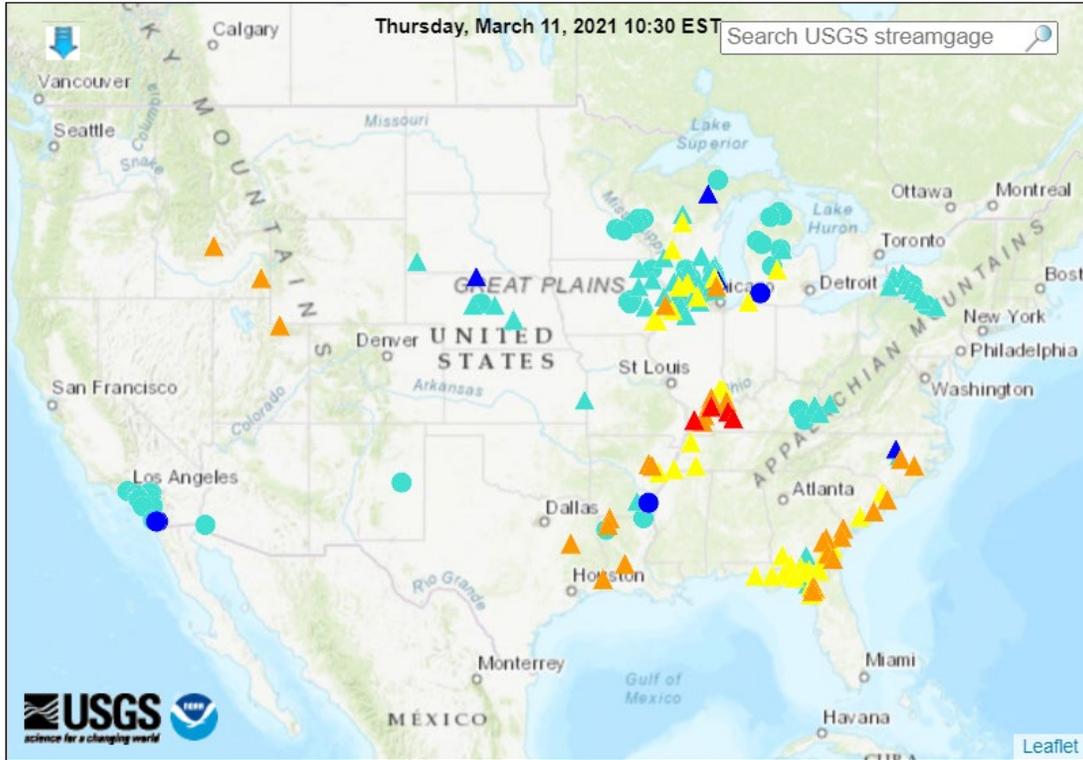
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(35 in floods [moderate: 4, minor: 31], 34 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

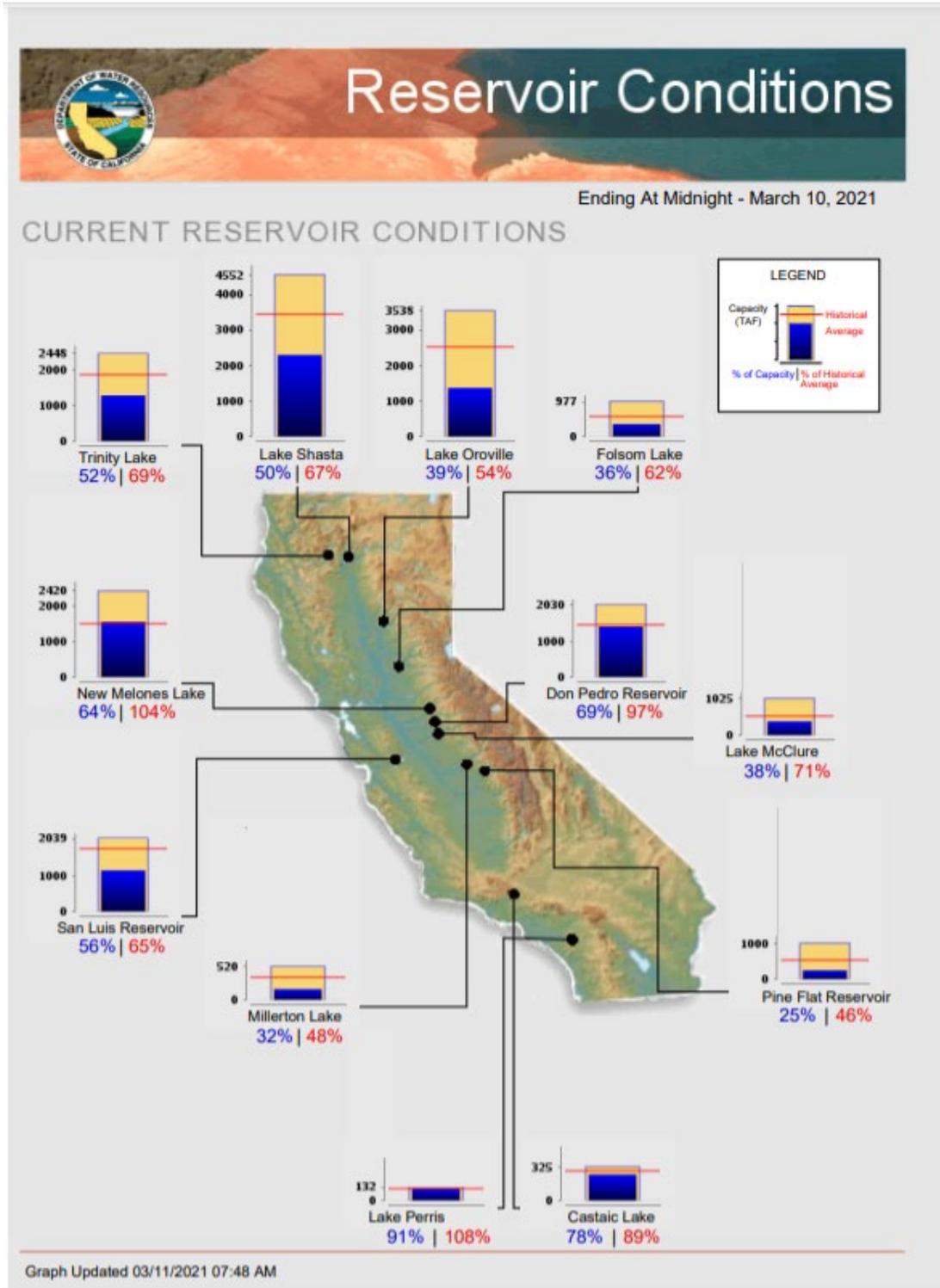
Hydromet Teacup Reservoir Depictions

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, March 11, 2021: “A storm system moving into eastern Canada will help to spark locally heavy rain later today in the Ohio Valley and environs. Meanwhile, a developing storm over the western U.S. will drift eastward, reaching the central and southern Plains during the weekend. Initially, the Western storm will produce rain and snow showers from California into the Southwest. By Saturday, however, snow will intensify across the central Rockies and adjacent High Plains, with totals of 2 to 4 feet or more possible at some high-elevation sites. Meanwhile, heavy showers and locally severe thunderstorms will develop across the southern Plains by late Friday and sweep across the lower Mississippi Valley on Sunday. Elsewhere, 5-day rainfall totals could reach 2 to 6 inches from the central Plains into the lower Ohio Valley. Lowland flooding may develop on the Ozark Plateau and worsen in the lower Ohio Valley. The NWS 6- to 10-day outlook for March 16 – 20 calls for the likelihood of near- or below-normal temperatures nationwide, except for warmer-than-normal weather in the Great Lakes region and the Atlantic Coast States. Meanwhile, near- or below-normal precipitation across much of the western and central U.S. should contrast with wetter-than-normal condition in the East. Wet weather may also prevail in the Pacific Northwest and central sections of the Rockies and High Plains.”

Weather Hazards Outlook: [March 13 – 17, 2021](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

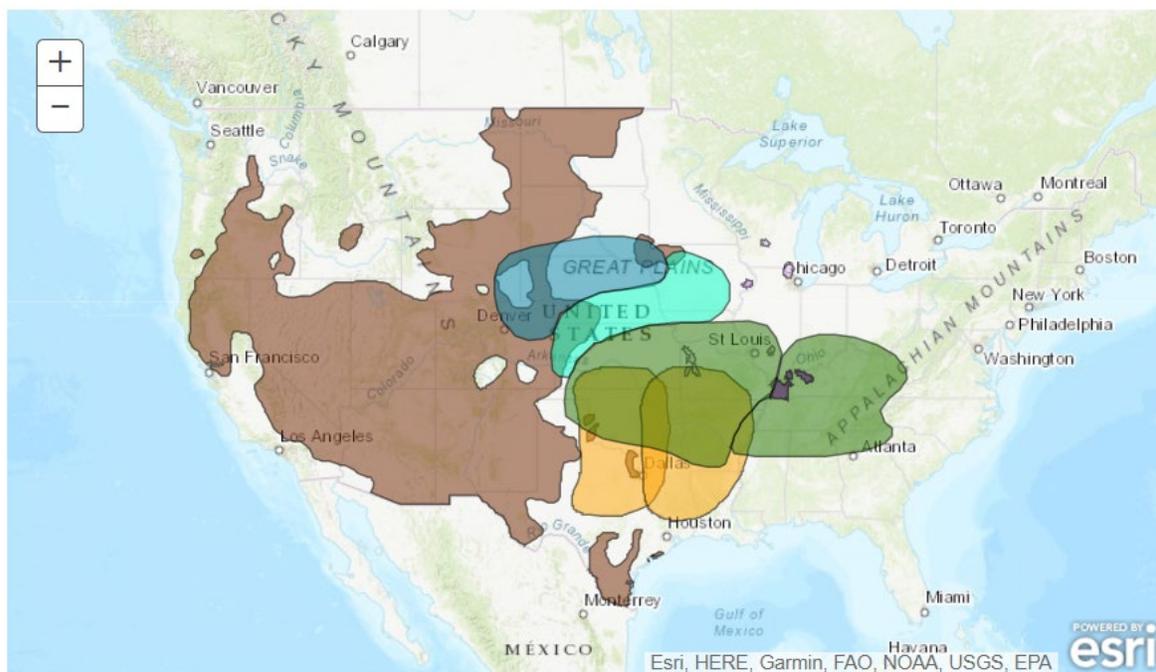
Created March 10, 2021

NOTE: These products are only created Monday through Friday. Please exercise caution using this outlook during the weekend.

Precipitation	<input checked="" type="checkbox"/>
Temperature	<input checked="" type="checkbox"/>
Soils	<input checked="" type="checkbox"/>

Legend			
	Flooding Likely		Excessive Heat
	Flooding Occurring or Imminent		High Winds
	Flooding Possible		Much Above Normal Temperatures
	Freezing Rain		Much Below Normal Temperatures
	Heavy Ice		Significant Waves
	Heavy Precipitation		Enhanced Wildfire Risk
	Heavy Rain		Severe Drought
	Heavy Snow		Severe Weather
	Severe Weather		

Valid March 13, 2021 - March 17, 2021

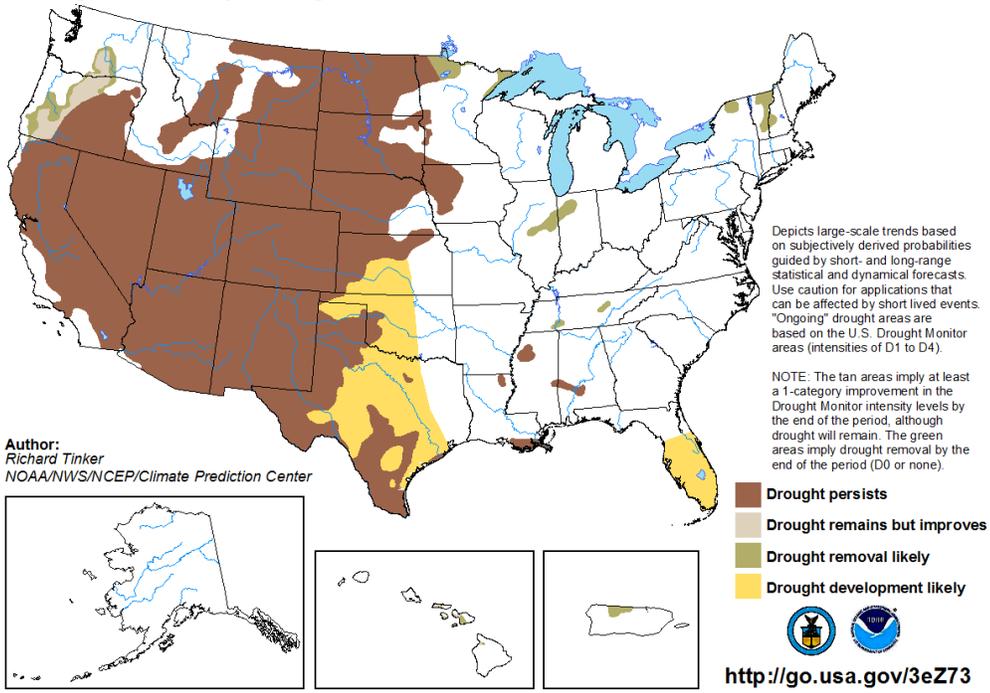


Seasonal Drought Outlook: [February 18 – May 31, 2021](#)

Source: National Weather Service

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

Valid for February 18 - May 31, 2021
Released February 18

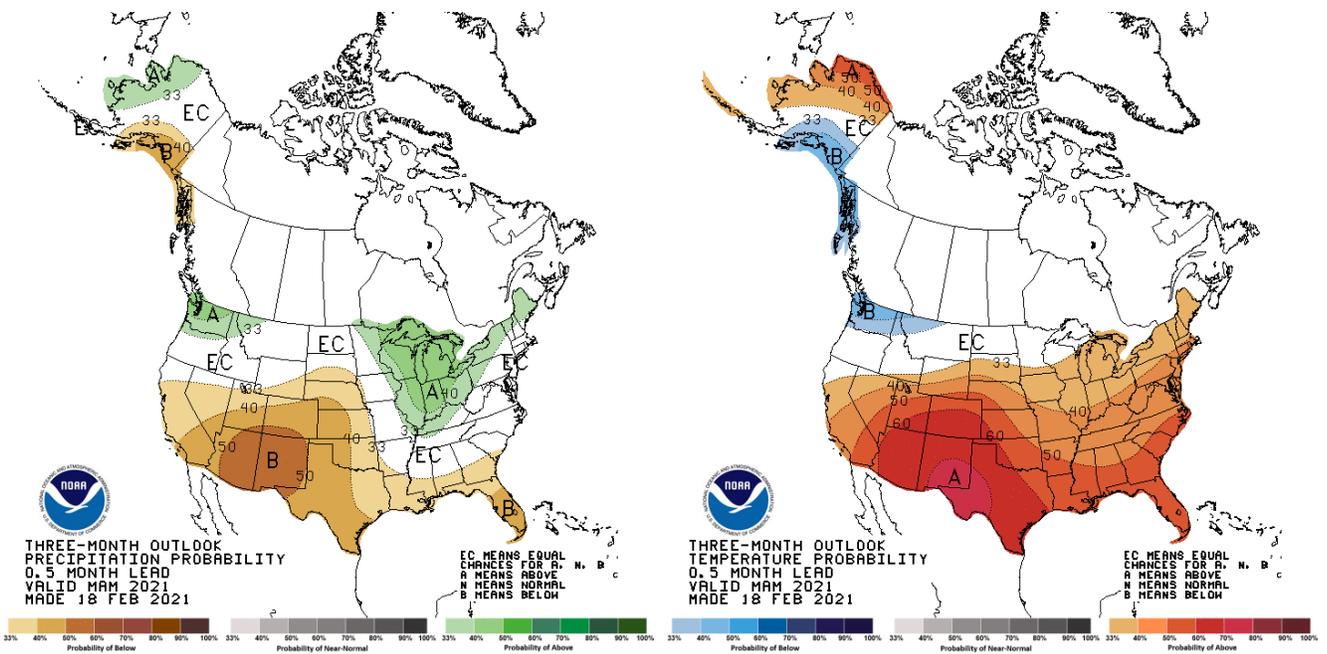


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[March-April-May \(MAM\) 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](#).