

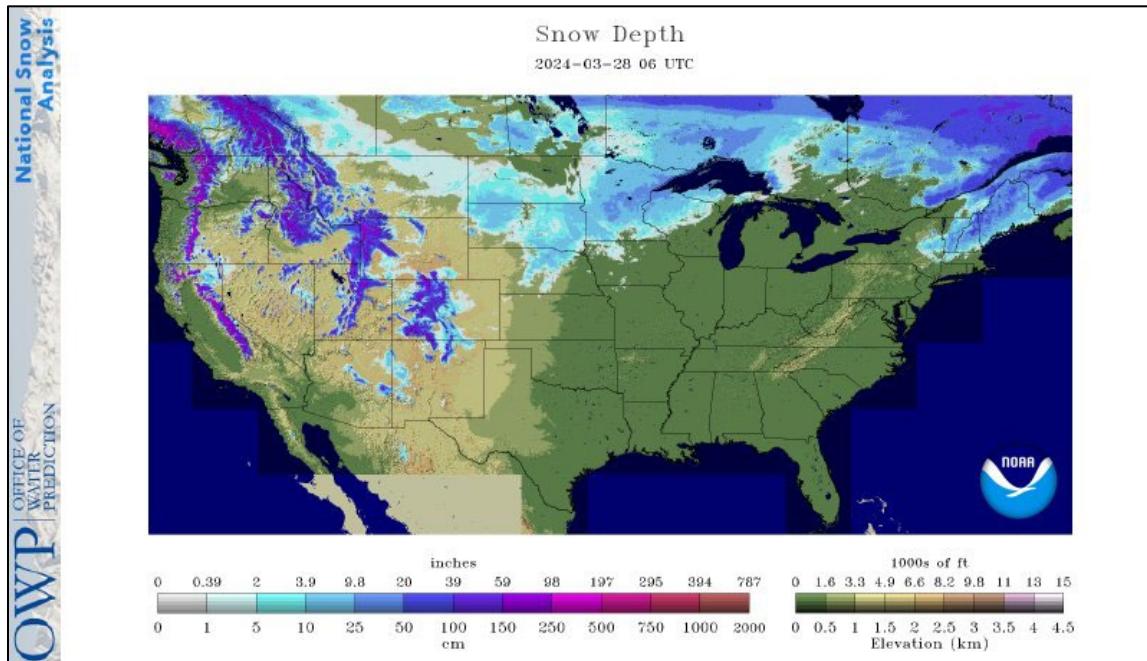
Water and Climate Update

March 28, 2024

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

Spring starts with storms spanning the contiguous U.S.



A strong set of storm systems swept through the U.S. spanning from California to the Northeast, bringing a variety of weather conditions and an array of snow totals between March 23–26. This winter season has seen overall snow deficits for the upper Midwest and Northeast regions, but storm activity during the first week of spring brought some significant snow totals to the area. According to the National Weather Service, the Minneapolis–Saint Paul International Airport received 15.2 inches of snow during the month of March, topping the 11.2 inches it recorded during the entire meteorological winter from December through February.

Related:

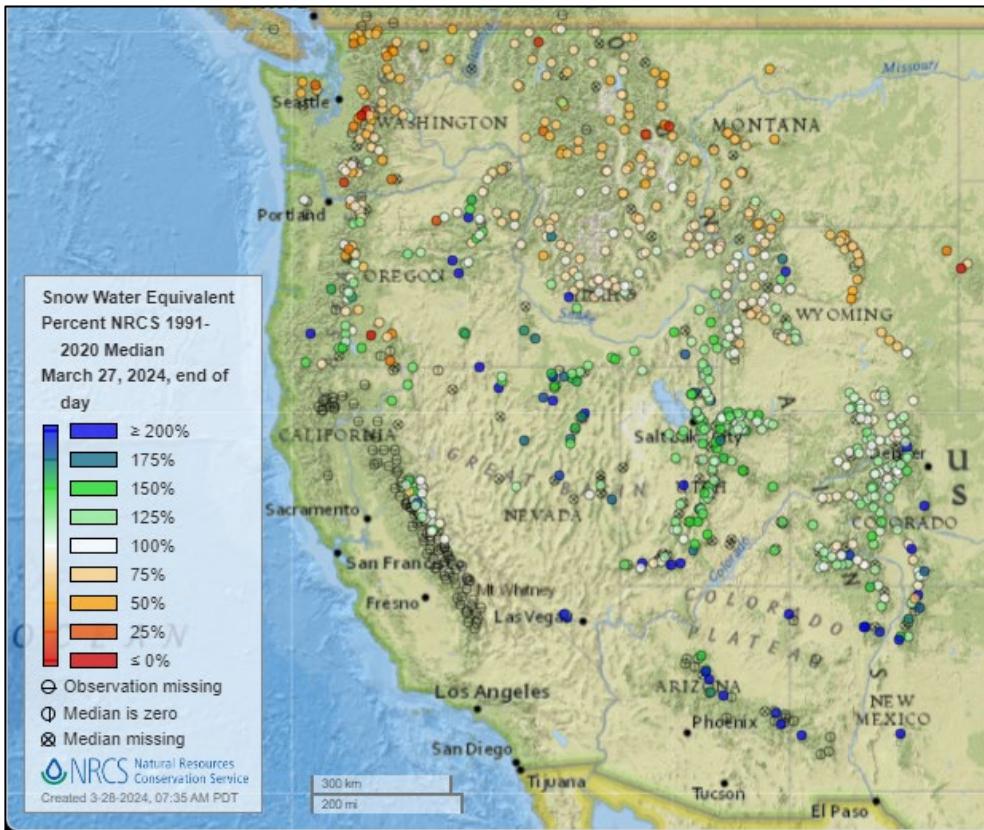
[Deadly spring storm brings blizzard conditions to the Plains and the threat of strong tornadoes to the South – CNN](#)

[Feet of snow buried some Vermont towns over the weekend - how much snow fell and where. – Burlington Free Press](#)

[Major winter storm brings rain and snow from West Coast to Plains – NBC News](#)

[The US just experienced the warmest winter on record. Here's what it missed out on – CNN](#)

Snow



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

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

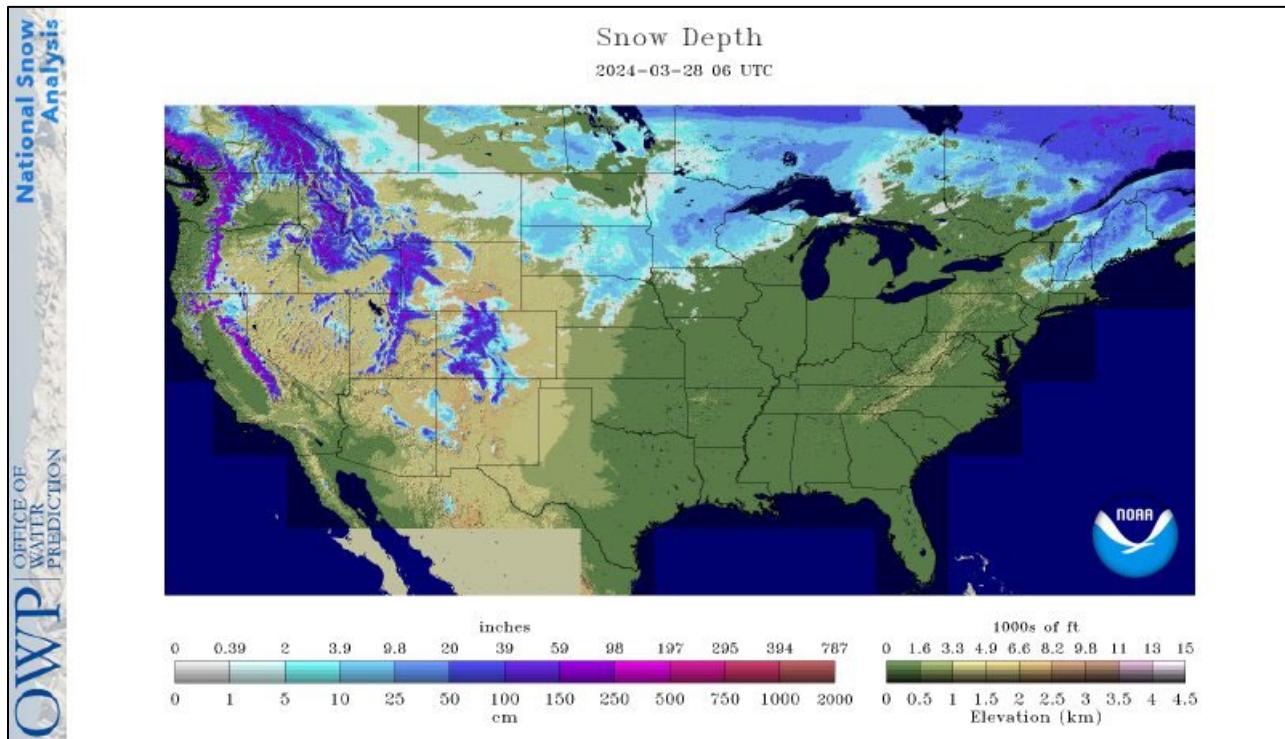


[Alaska snow water equivalent percent of median map](#)

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

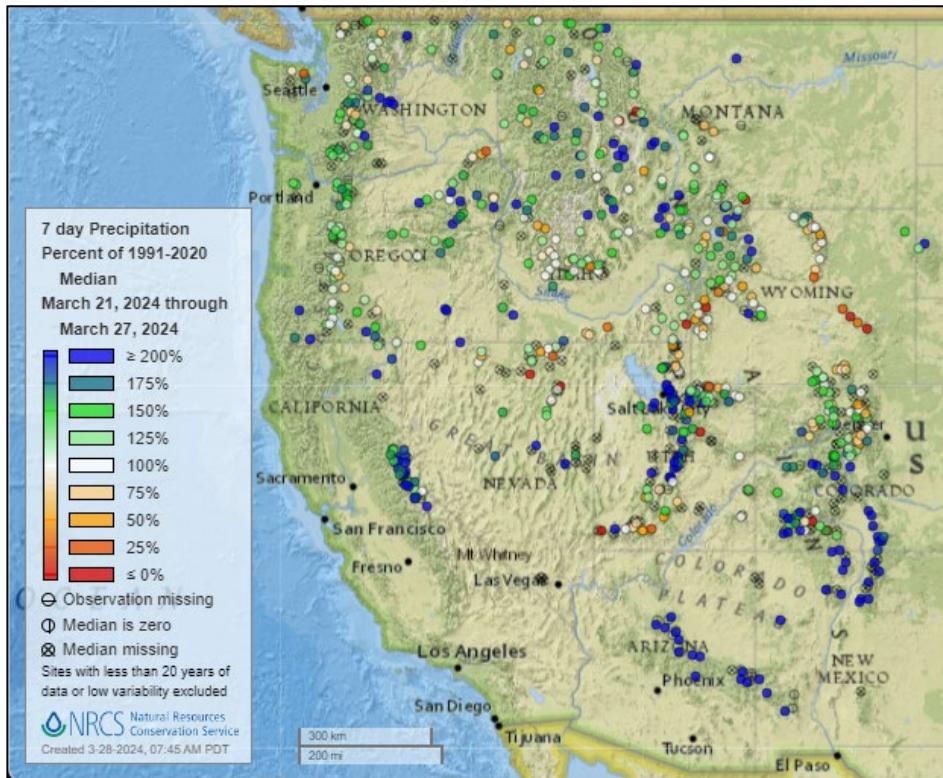
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA NWS National Operational Hydrologic Remote Sensing Center



Precipitation

Last 7 Days, NRCS SNOTEL Network



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

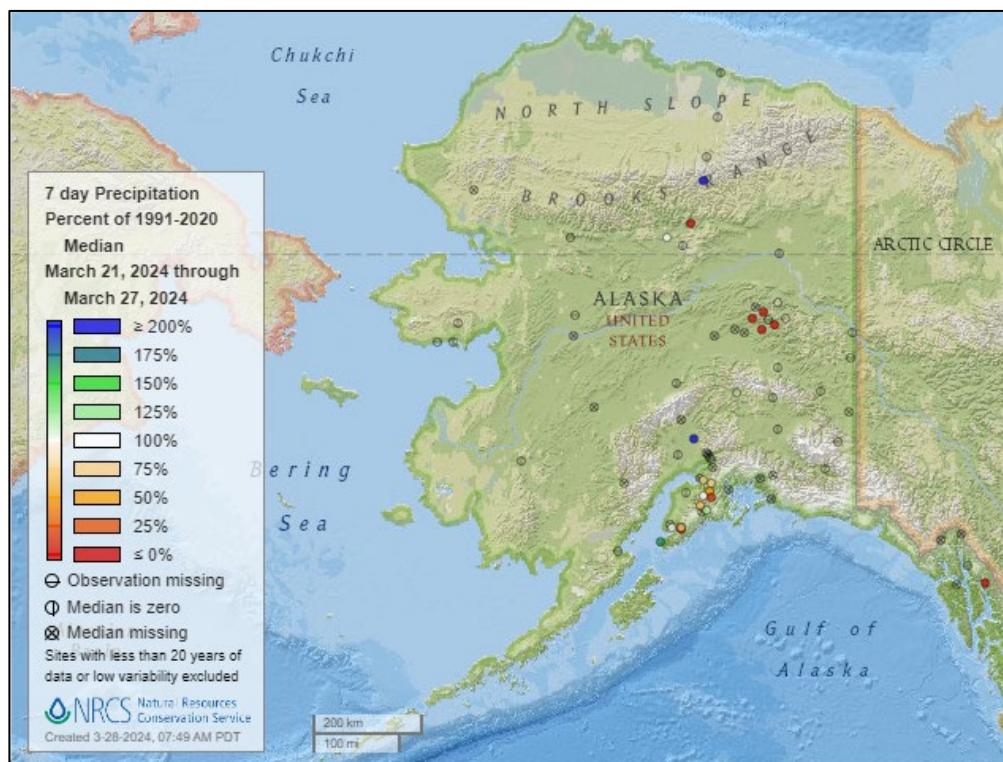
See also:

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

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

See also:

[Alaska 7-day total precipitation values \(inches\) map](#)



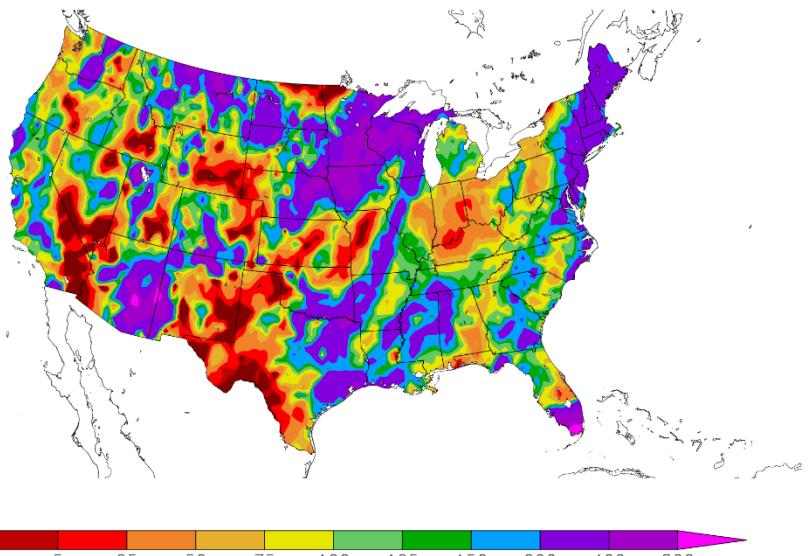
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

Percent of Normal Precipitation (%)
3/21/2024 – 3/27/2024

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



Generated 3/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

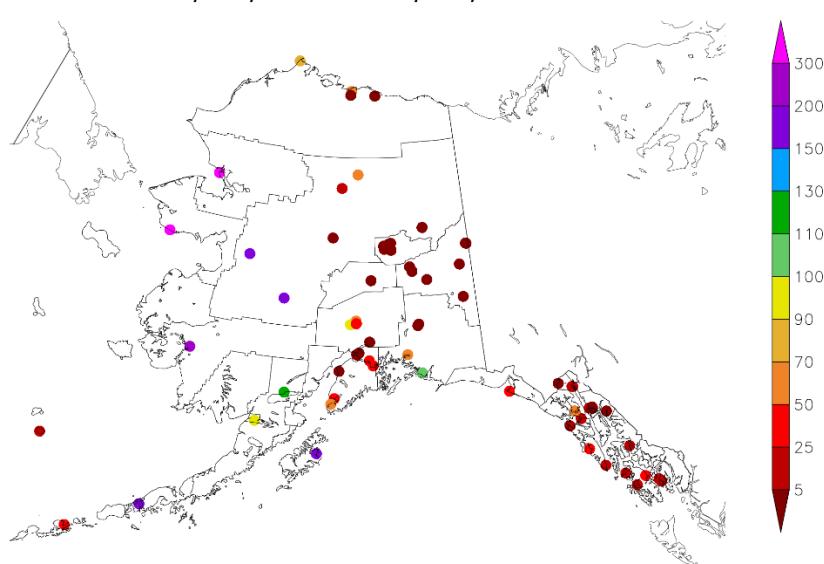
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for Alaska.

Percent of Normal Precipitation (%)
3/21/2024 – 3/27/2024

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



Generated 3/28/2024 at HPRCC using provisional data.

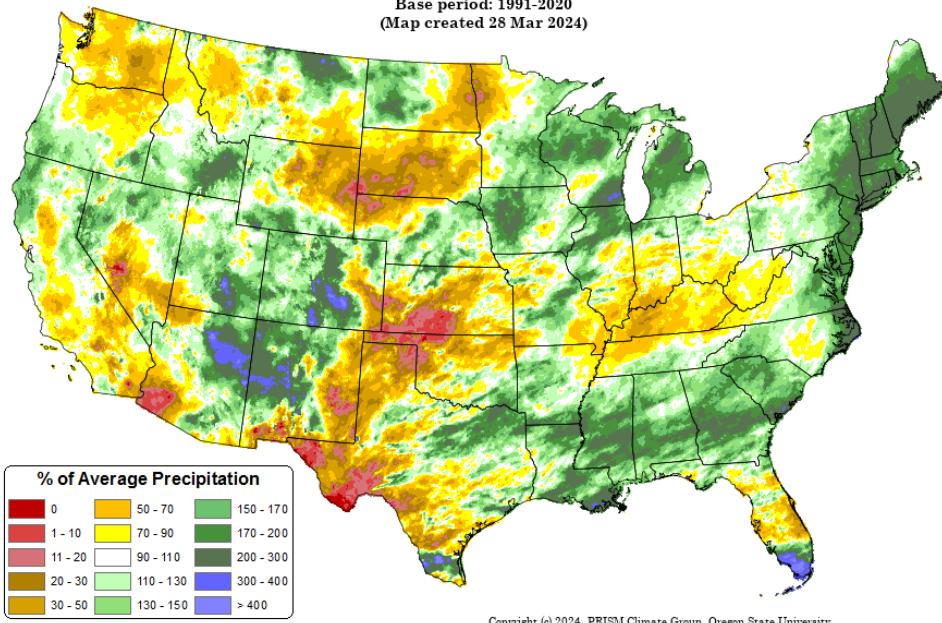
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Mar 2024 - 27 Mar 2024

Period ending 7 AM EST 27 Mar 2024
Base period: 1991-2020
(Map created 28 Mar 2024)



[Month-to-date national total precipitation anomaly map](#)

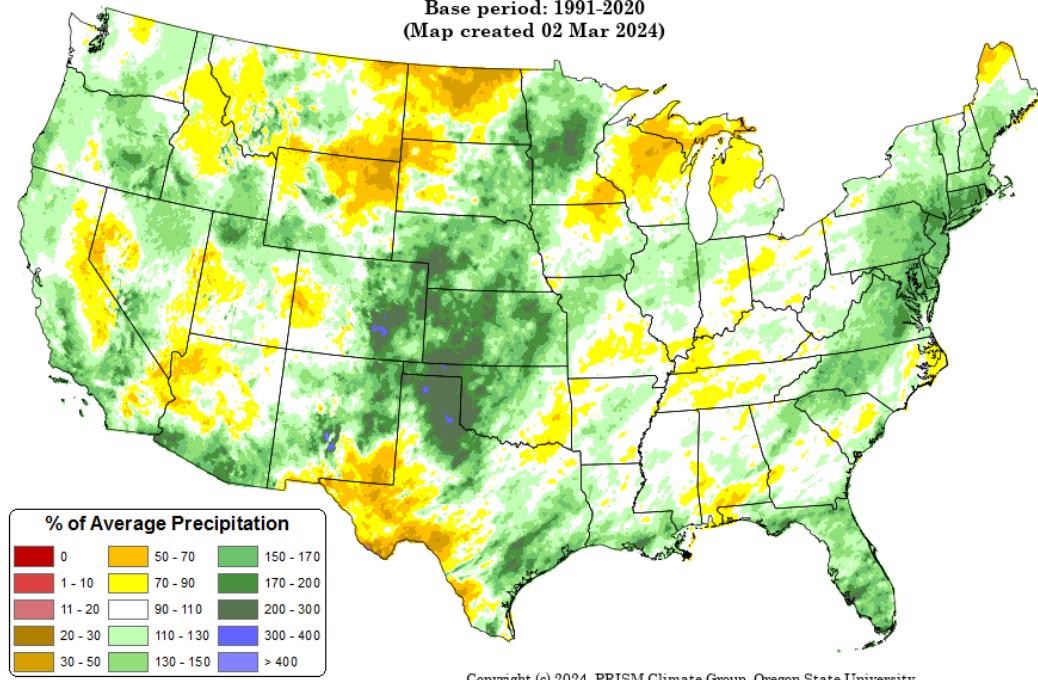
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

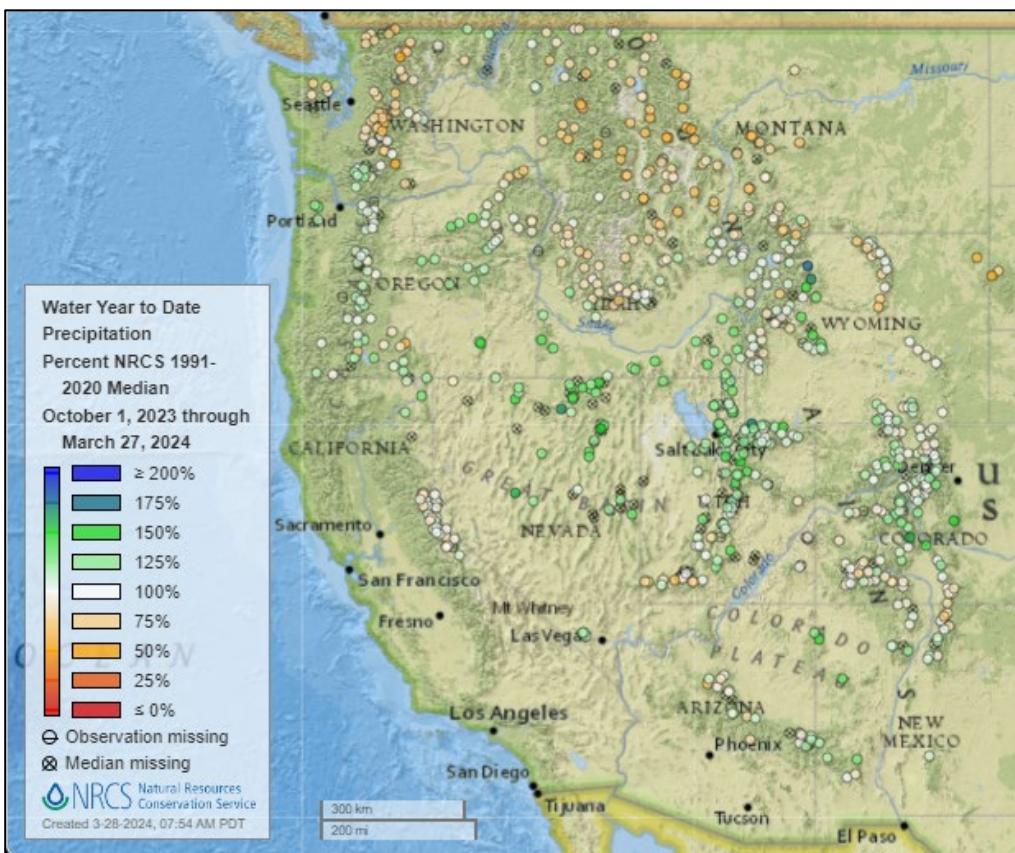
[December 2023 through February 2024 precipitation anomaly map](#)

Total Precipitation Anomaly: Dec 2023 - Feb 2024

Period ending 7 AM EST 29 Feb 2024
Base period: 1991-2020
(Map created 02 Mar 2024)



Water Year-to-Date, NRCS SNOTEL Network

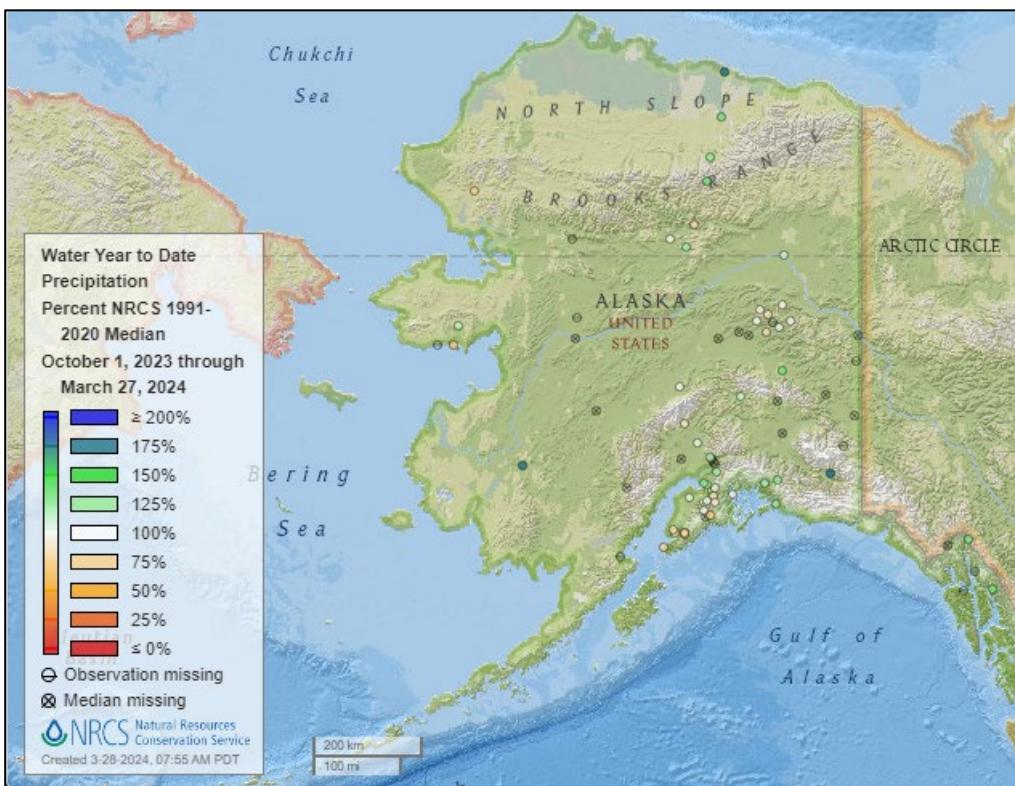


[2024 water year-to-date precipitation percent of median map](#)

See also:

[2024 water year-to-date precipitation percent of average map](#)

[2024 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2024 water year-to-date precipitation percent of median map](#)

See also:

[Alaska 2024 water year-to-date precipitation percent of average map](#)

[Alaska 2024 water year-to-date precipitation values \(inches\) map](#)

Temperature

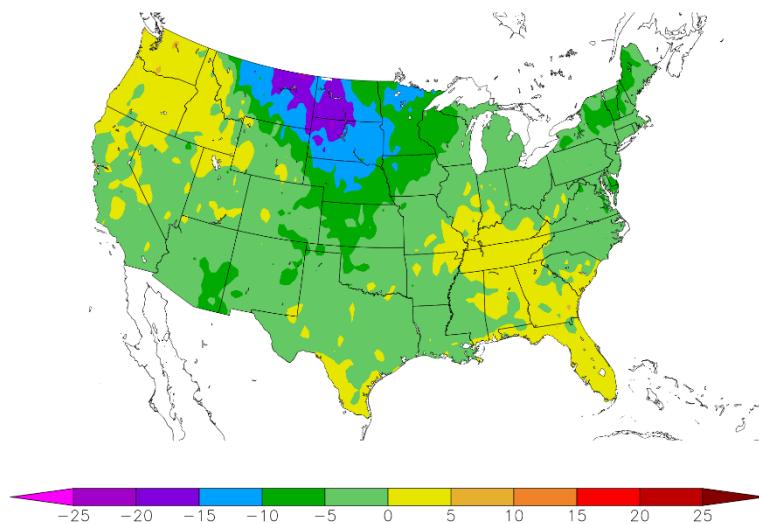
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

Departure from Normal Temperature (F)
3/21/2024 – 3/27/2024

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



Generated 3/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

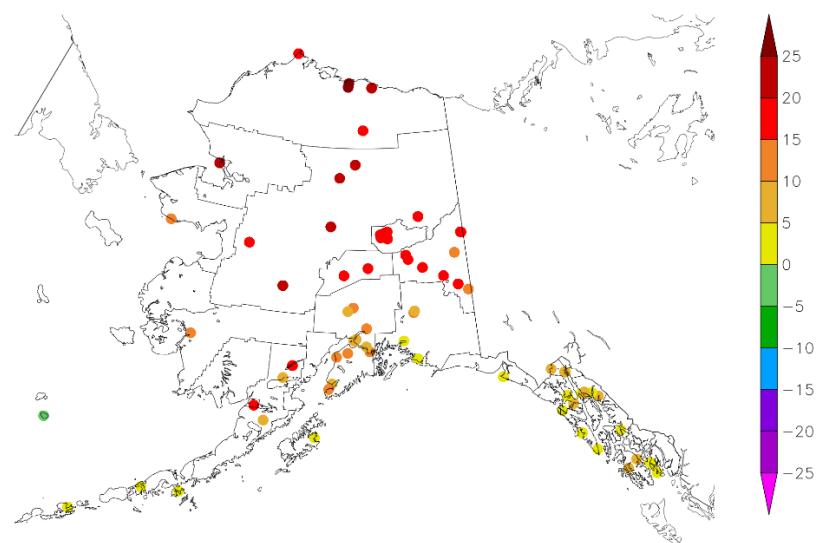
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

Departure from Normal Temperature (F)
3/21/2024 – 3/27/2024

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



Generated 3/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water and Climate Update

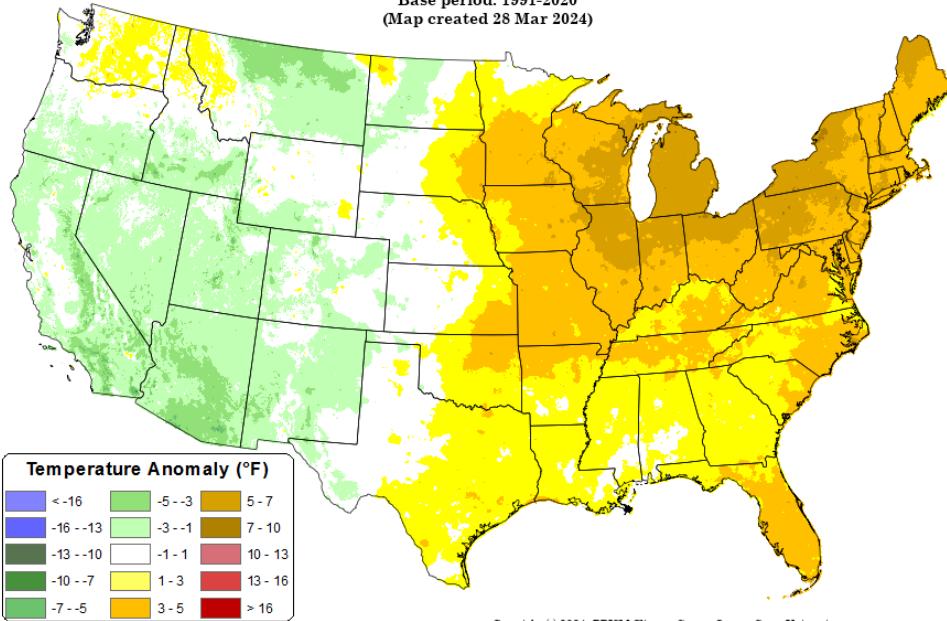
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

Daily Mean Temperature Anomaly: 01 Mar 2024 - 27 Mar 2024

Period ending 7 AM EST 27 Mar 2024
Base period: 1991-2020
(Map created 28 Mar 2024)

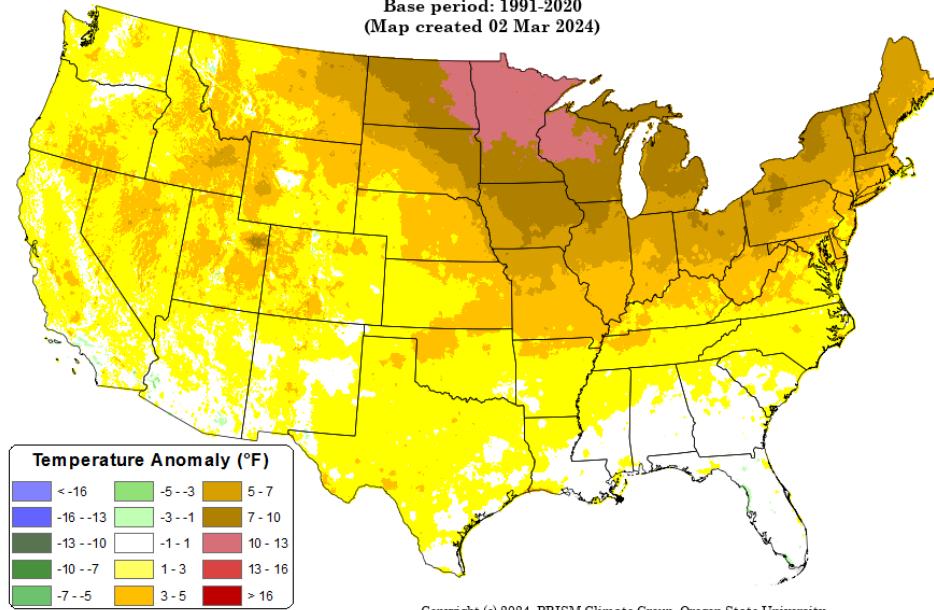


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Daily Mean Temperature Anomaly: Dec 2023 - Feb 2024

Period ending 7 AM EST 29 Feb 2024
Base period: 1991-2020
(Map created 02 Mar 2024)



[December 2023
through February 2024
daily mean
temperature anomaly
map](#)

Drought

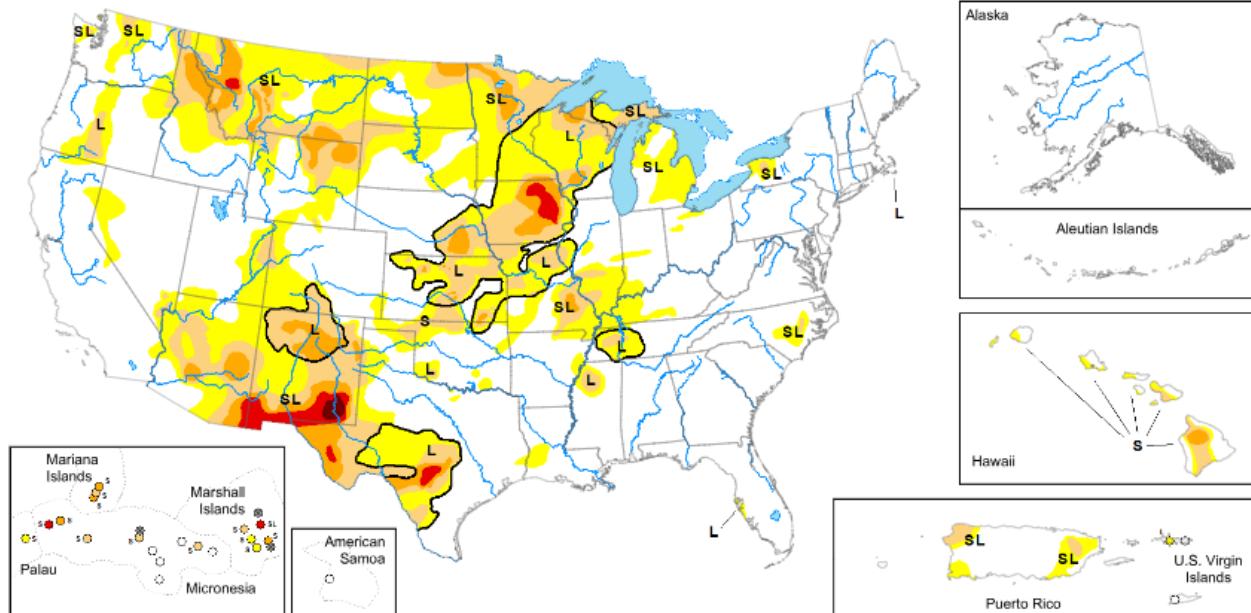
[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

Map released: March 28, 2024

Data valid: March 26, 2024

View grayscale version of the map



United States and Puerto Rico Author(s):

[Brad Rippey](#), U.S. Department of Agriculture

More maps and statistics:

[U.S. States and Puerto Rico](#)

[Continental U.S.](#)

[Regions ▾](#)

Pacific Islands and Virgin Islands Author(s):

[Richard Heim](#), NOAA/NCEI

The data cutoff for Drought Monitor maps is each Tuesday at 8 a.m. EDT. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

Intensity and Impacts

None
D0 (Abnormally Dry)

D1 (Moderate Drought)
D2 (Severe Drought)

D3 (Extreme Drought)
D4 (Exceptional Drought)

No Data

~ - Delineates dominant impacts

S - Short-term impacts, typically less than 6 months (agriculture, grasslands)

L - Long-term impacts, typically greater than 6 months (hydrology, ecology)

SL - Short- and long-term impacts

[Current National Drought Summary, March 26, 2024](#)

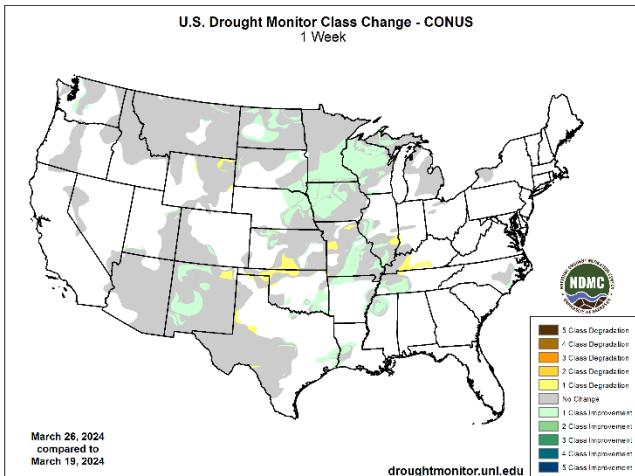
Source: National Drought Mitigation Center

"A winter-like storm system crossing the central Plains and upper Midwest resulted in a variety of weather hazards, including blizzard conditions, high winds, heavy rain, and locally severe thunderstorms. That storm was preceded by a weaker system, which produced a stripe of snow from northern Montana into portions of the Great Lakes States. Combined, the two storms produced 40 to 50% of the season-to-date snowfall in 4 to 5 days at several upper Midwestern locations, including Eau Claire, Wisconsin, and Minneapolis-St. Paul, Minnesota. Though the winter-like storm eventually weakened and drifted northward into Canada, impacts lingered. For example, the wettest day ever observed during March was noted on the 23rd in mid-Atlantic locations such as Philadelphia, Pennsylvania, and New York's LaGuardia and JFK Airports. Elsewhere, the West received widespread but generally light precipitation."

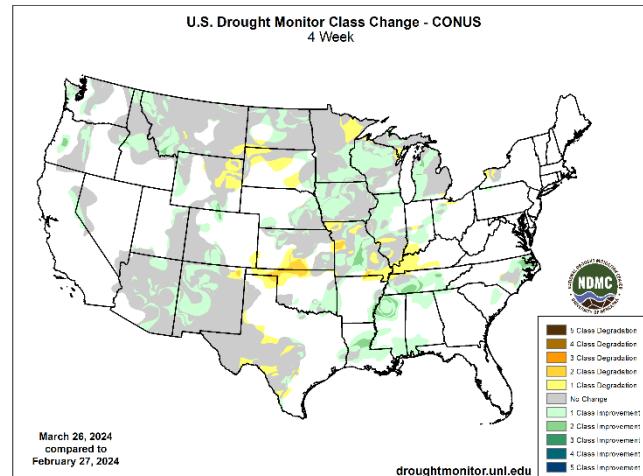
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

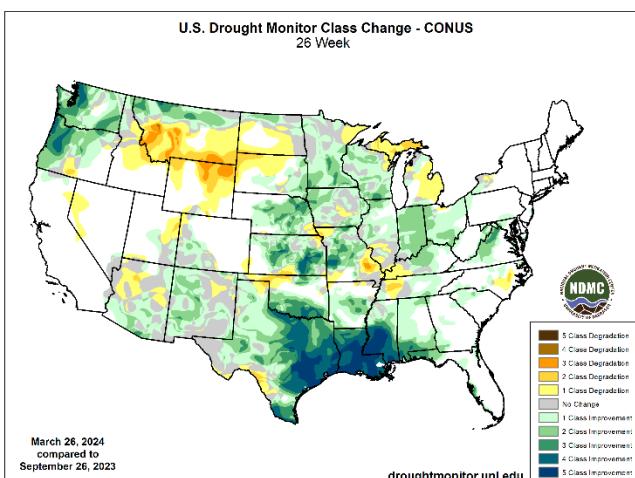
1 Week



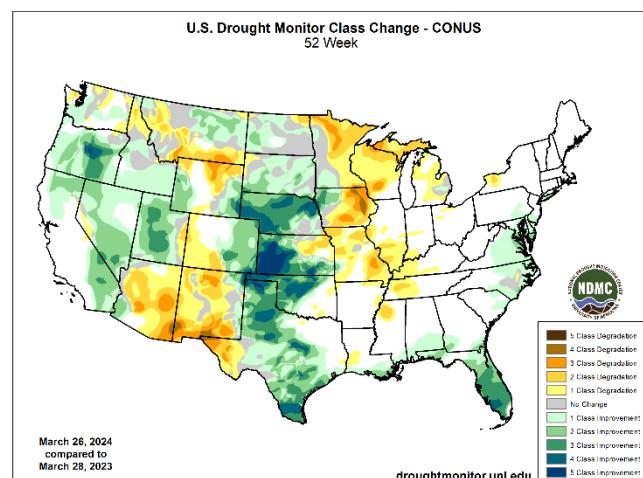
1 Month



6 Months



1 Year



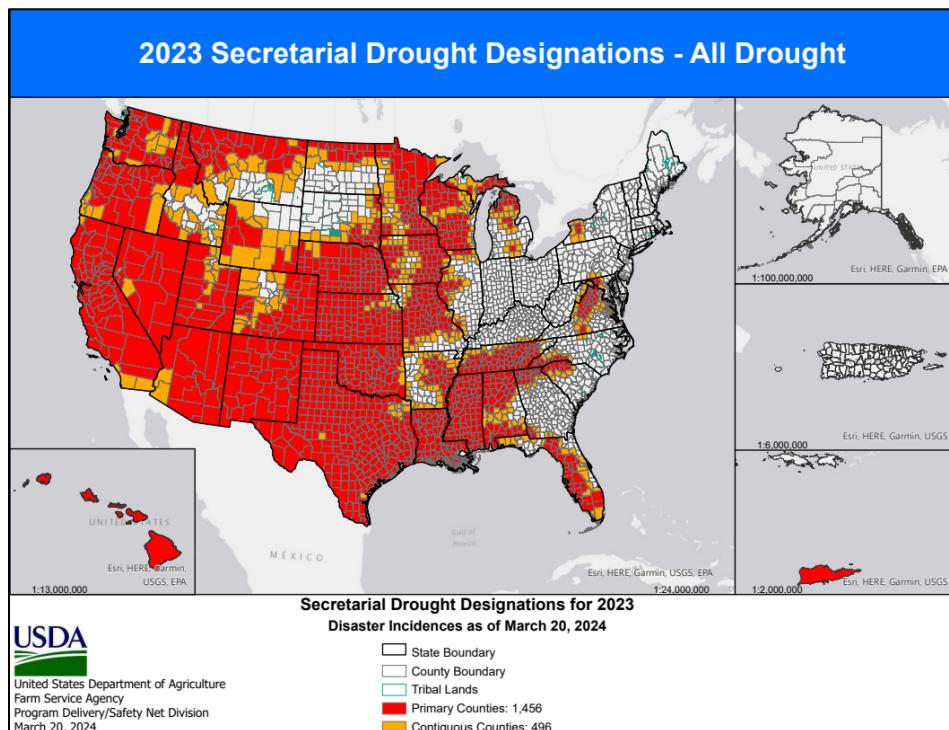
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: Fire Information for Resource Management System US/Canada

Source: NASA/USDA Forest Service



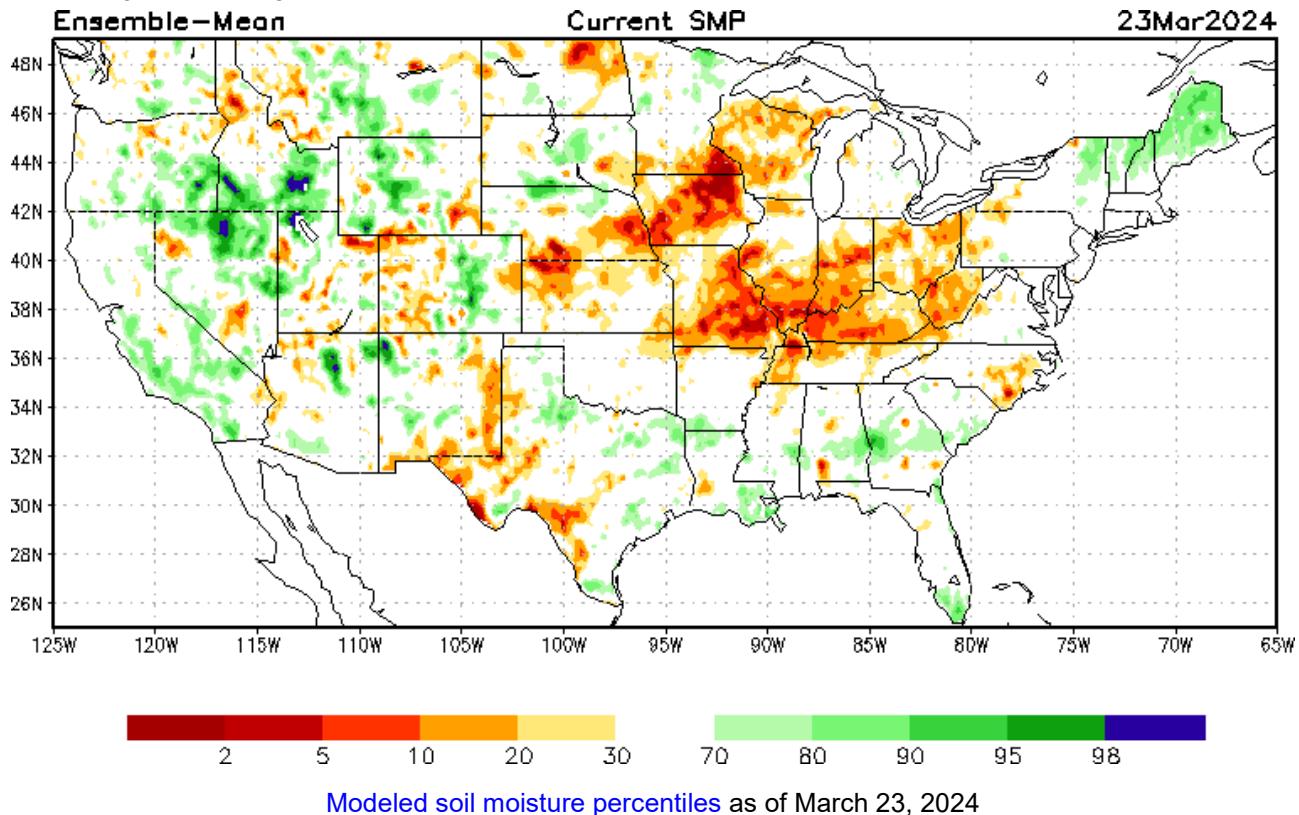
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

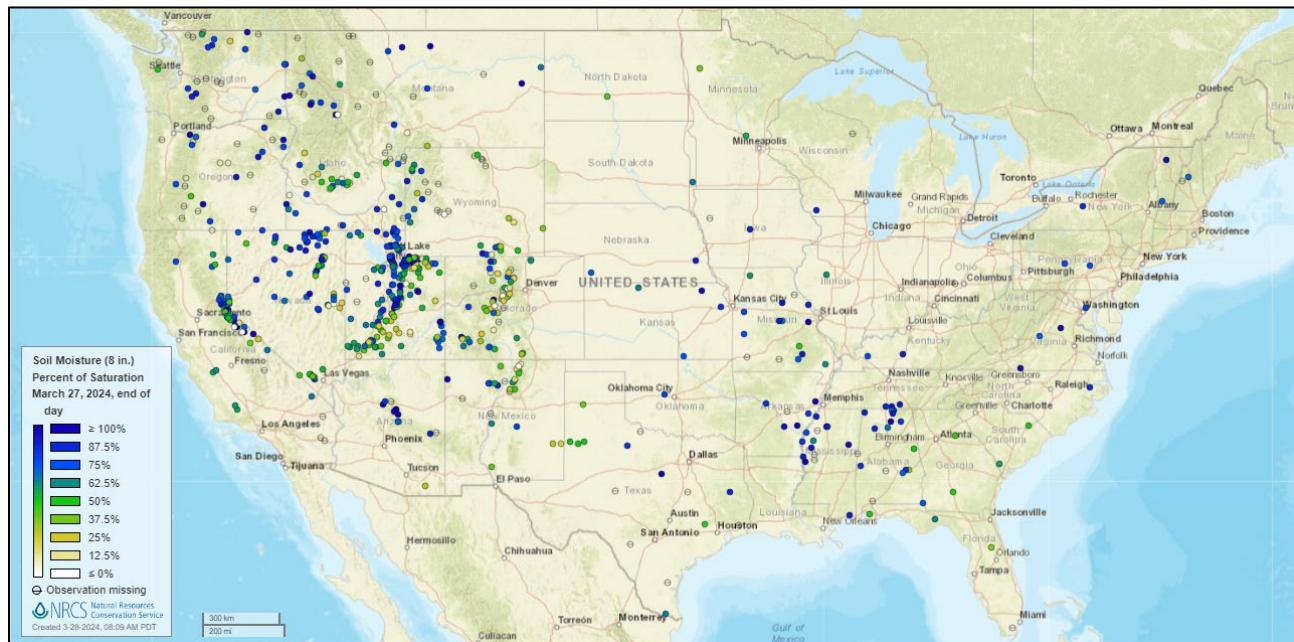
Soil Moisture

Source: NOAA National Centers for Environmental Prediction



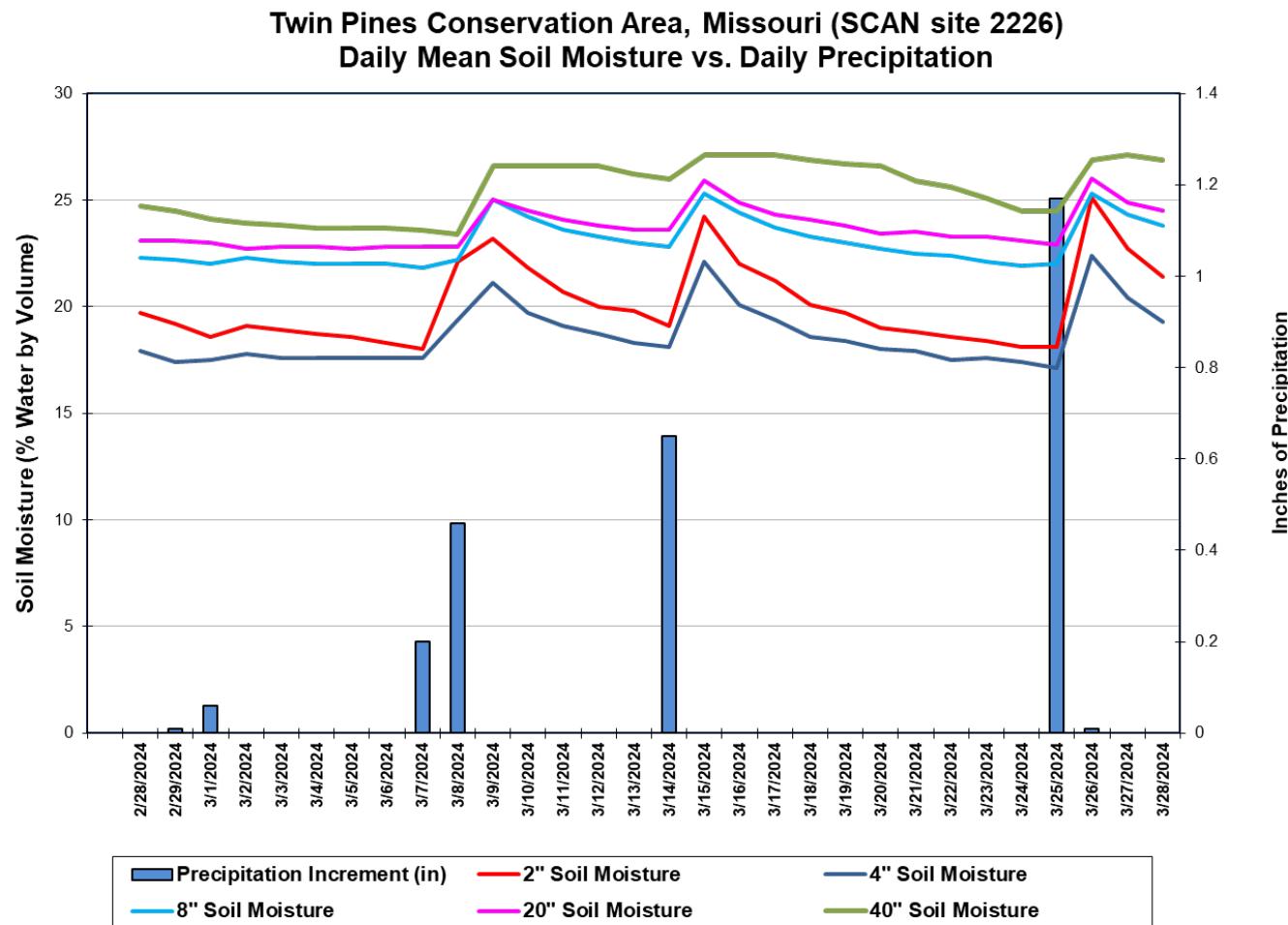
Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and [Soil Climate Analysis Network \(SCAN\)](#)
[U.S. soil moisture map at 8-inch depth:](#)



Soil Moisture

Source: NRCS [Soil Climate Analysis Network \(SCAN\)](#)



This chart shows the precipitation and soil moisture for the last 30 days at the [Twin Pines Conservation Area](#) SCAN site in Missouri. Soil sensors at all depths indicate an increase in soil moisture immediately following three separate precipitation events throughout the period. Total precipitation for the 30-day period was 2.56 inches.

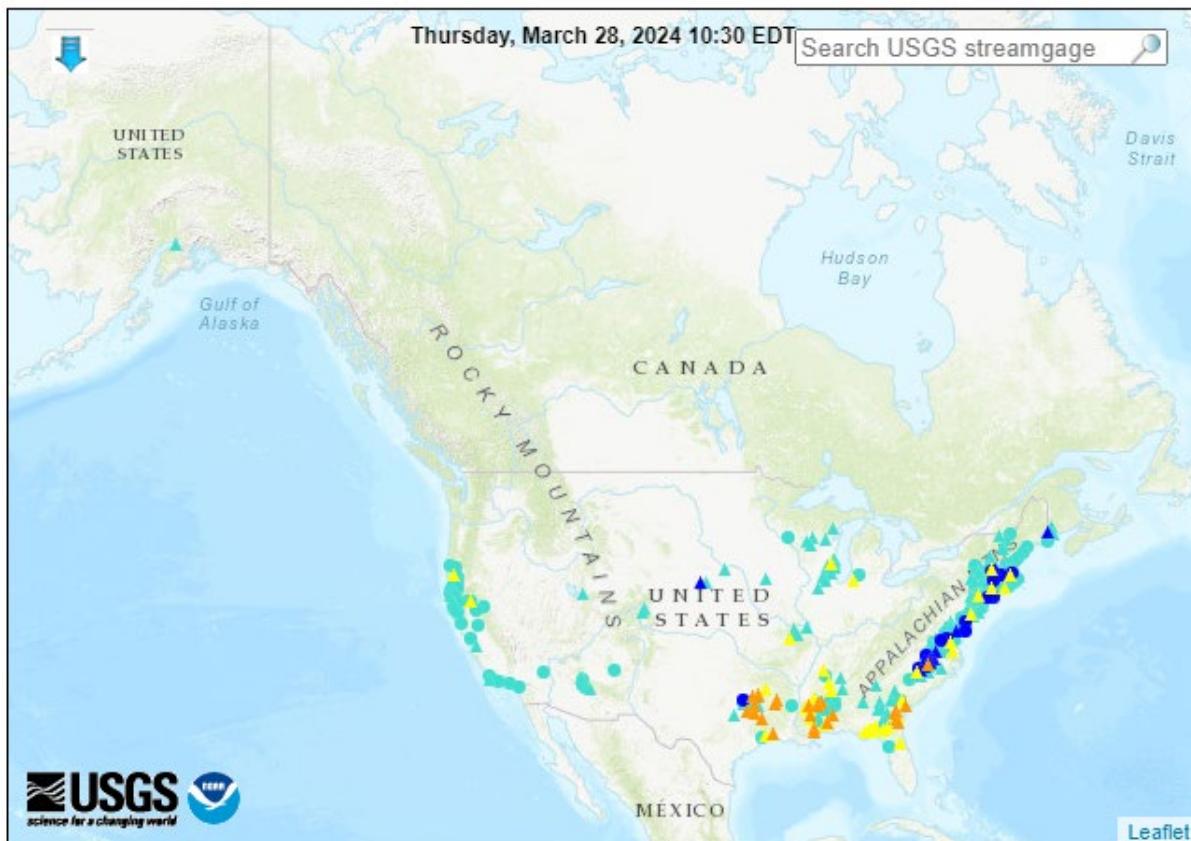
Soil Moisture Data Portals

- [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 [WaterWatch Streamflow Map](#)

Map of flood and high flow conditions (25 in floods [minor: 25], 38 in near-flood)



Explanation - Percentile classes							
<95	95-98	>= 99	Above action stage	Flood 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

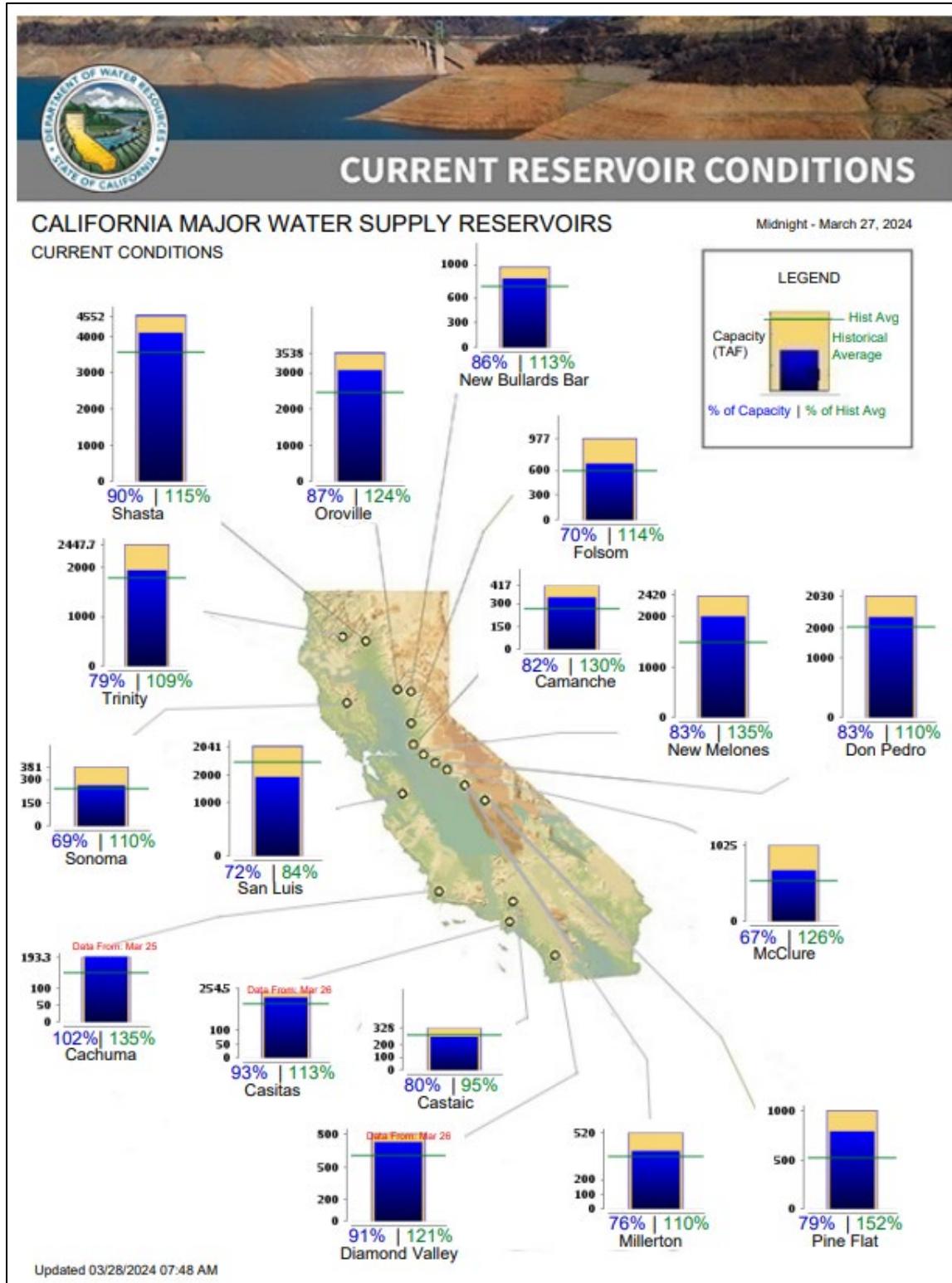
Hydromet Teacup Reservoir Depictions

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 28, 2024: "For the remainder of today, rain along the Atlantic Coast will gradually end, except in New England. Interior sections of New England may experience a rain-to-snow transition on Friday. Meanwhile, the focus for significant Western precipitation will shift into California by Friday, with heavy snow expected in higher elevations of the Sierra Nevada. During the weekend, precipitation will overspread other areas of the western U.S., including the Great Basin, Intermountain West, and Southwest. Additionally, precipitation will quickly translate eastward from Wyoming, South Dakota, and Nebraska eastward to the middle Atlantic States, with wet snow possible from the Rockies into the upper Midwest. The NWS 6- to 10-day outlook for April 2 – 6 calls for the likelihood of near- or below-normal temperatures nationwide, except for warmer-than-normal weather in California, the Great Basin, northern New England, and southern Florida. Meanwhile, near- or above-normal precipitation across much of the country should contrast with drier-than-normal conditions in coastal sections of Oregon and northern California, as well as a broad area covering much of the eastern Plains, mid-South, and Midwest."

Weather Hazards Outlook: [March 30 – April 03, 2024](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

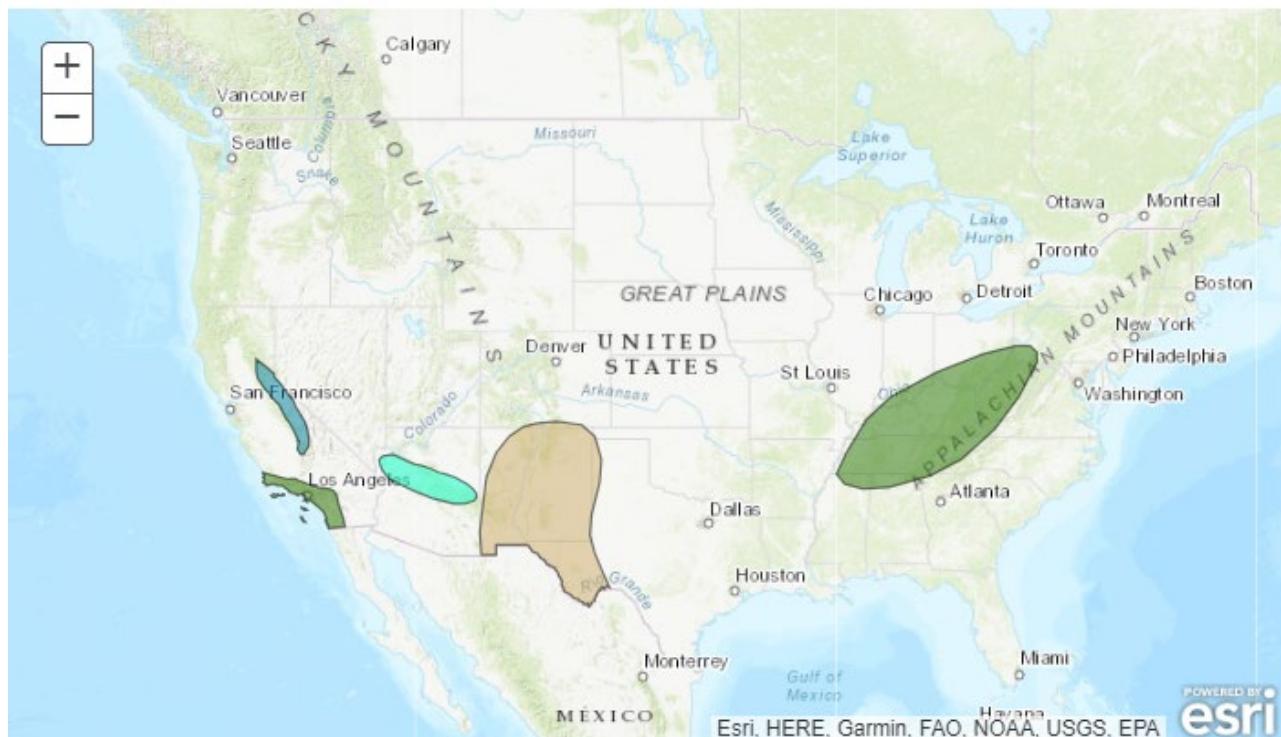
Created March 27, 2024

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"/>
Wildfires	<input checked="" type="checkbox"/>
Soils	<input type="checkbox"/>

Valid March 30, 2024 - April 03, 2024

Legend	
Flooding Likely	Hazardous Heat
Flooding Occurring or Imminent	Hazardous Cold
Flooding Possible	Frost/Freeze
Freezing Rain	High Winds
Heavy Precipitation	Significant Waves
Heavy Rain	Critical Wildfire Risk
Heavy Snow	Severe Weather

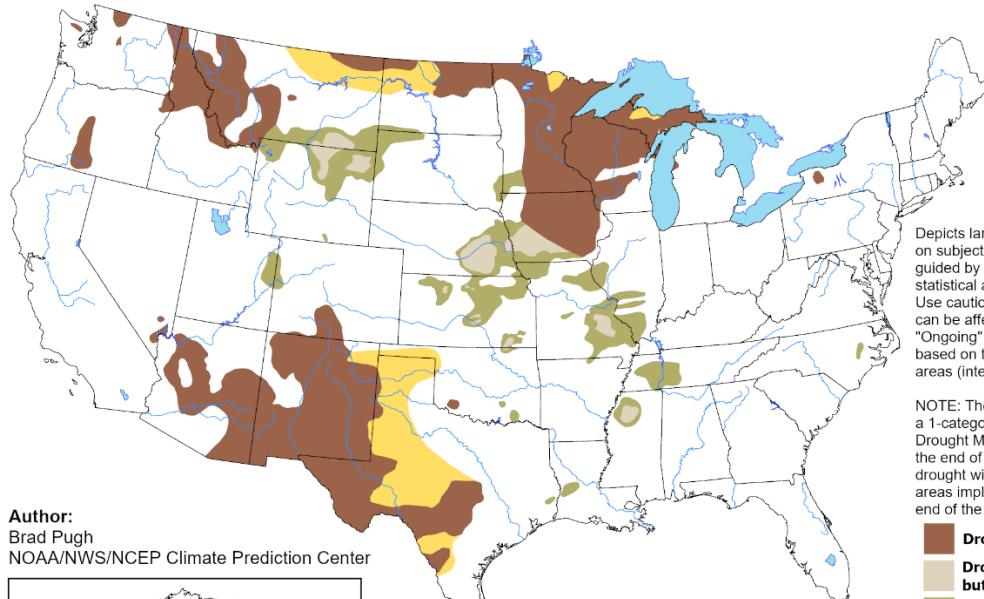


Seasonal Drought Outlook: March 21 – June 30, 2024

Source: National Weather Service

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

Valid for March 21 - June 30, 2024
Released March 21, 2024



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- █ Drought persists
- █ Drought remains, but improves
- █ Drought removal likely
- █ Drought development likely
- █ No drought

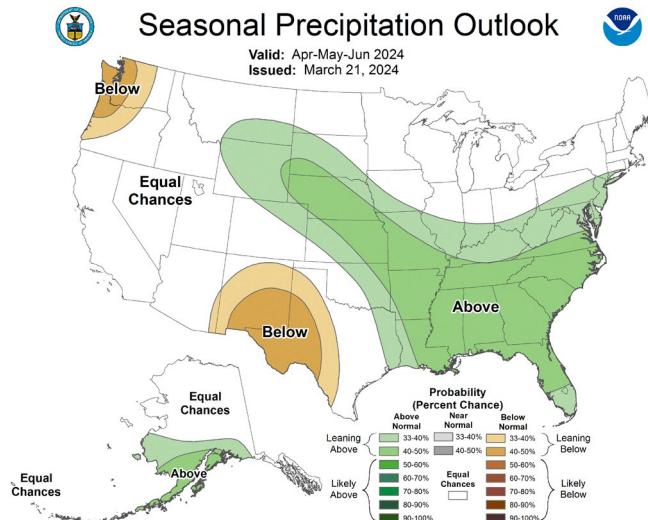


<https://go.usa.gov/3eZ73>

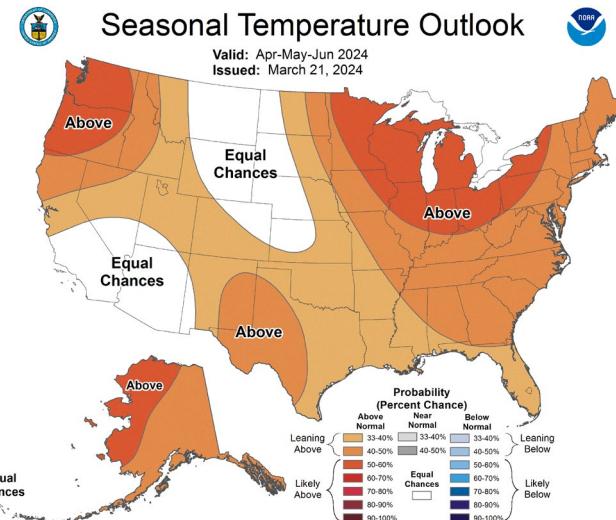
Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation



Temperature



[April-May-June 2024 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](#).