



# Water and Climate Update

April 27, 2023

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.

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Precipitation .....	4	Other Climatic and Water Supply Indicators .....	14
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## Western U.S. prepares for flooding as record snowpack melts



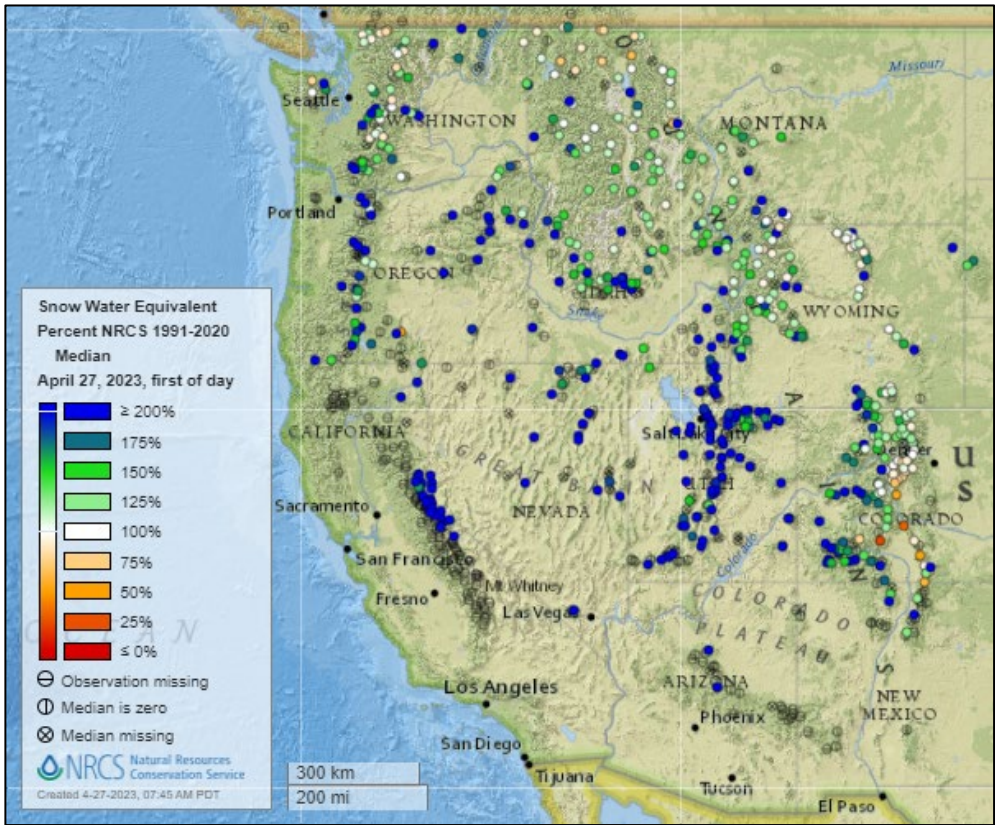
*Photo by Fred Greaves / California Department of Water Resources*

Water managers across the West are scrambling to mitigate flood impacts and make the best use of water resources now that record levels of mountain snowpack are beginning to melt. Several counties in California’s Central Valley are bracing for floods as they deal with a heatwave forecasted through April 30. Aging flood infrastructure in the area will be tested as the above-freezing daily temperatures forecasted in the Sierra Nevada are expected to rapidly melt a portion of the historic mountain snowpack. A large section of Yosemite National Park will be closed beginning April 28 in anticipation of flood activity from the snow melt.

**Related:**

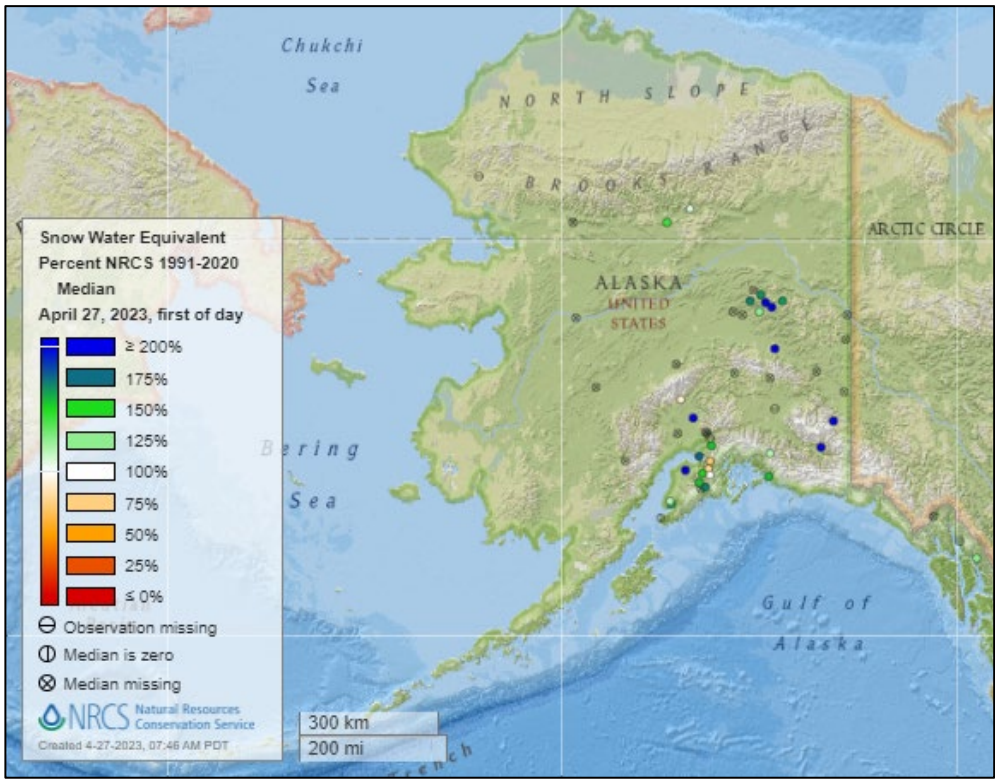
- [Yosemite National Park will be closed for days due to flooding from melting snow](#) – NPR
- [‘Do people have to die?’ Why these Californians fear catastrophic floods.](#) – The Washington Post
- [Flood watch issued for Tahoe, Yosemite National Park; Soaring temperatures accelerating snow melt](#) – CBS Bay Area (CA)
- [Navajo Nation flooding forces Chinle residents to leave homes as crews rebuild berms](#) – AZCentral (AZ)
- [“The big melt is now here”: California braces for floods](#) – NBC News
- [As epic snow melts, a California community braces for floods](#) - AP

Snow



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

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

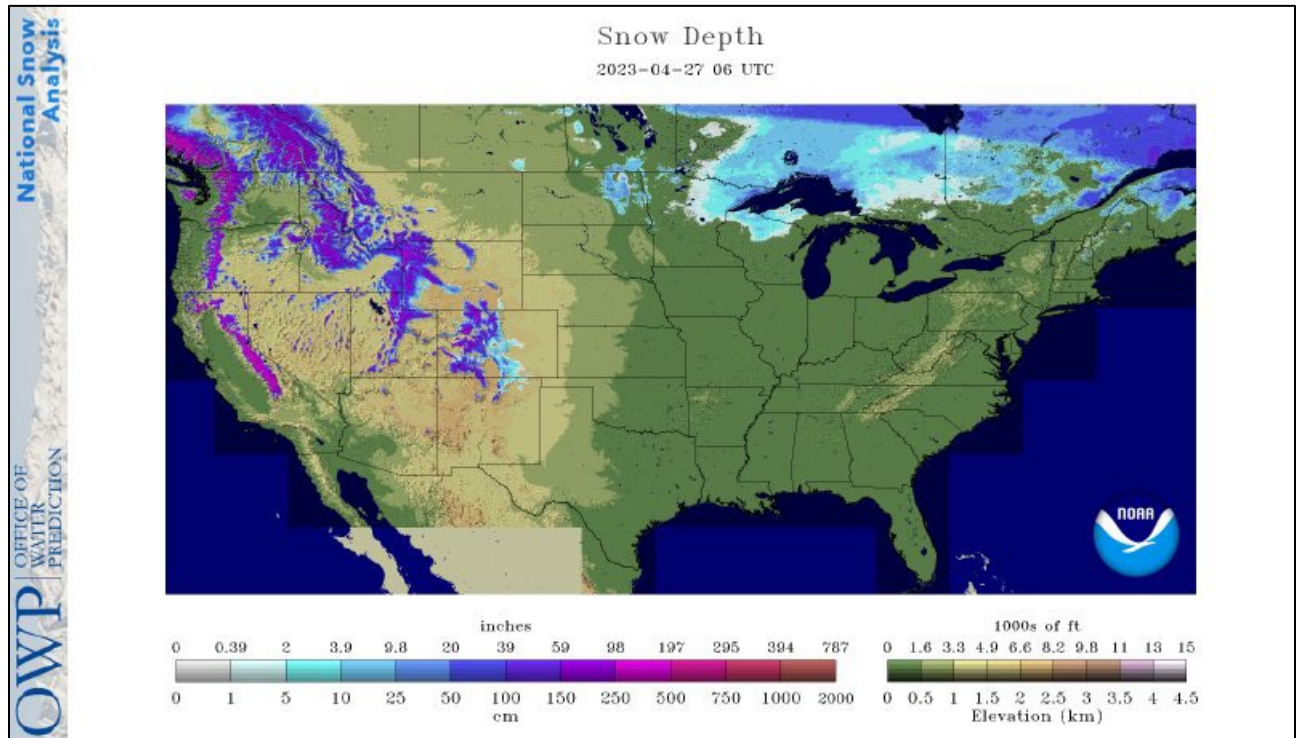


[Alaska snow water equivalent percent of median map](#)

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

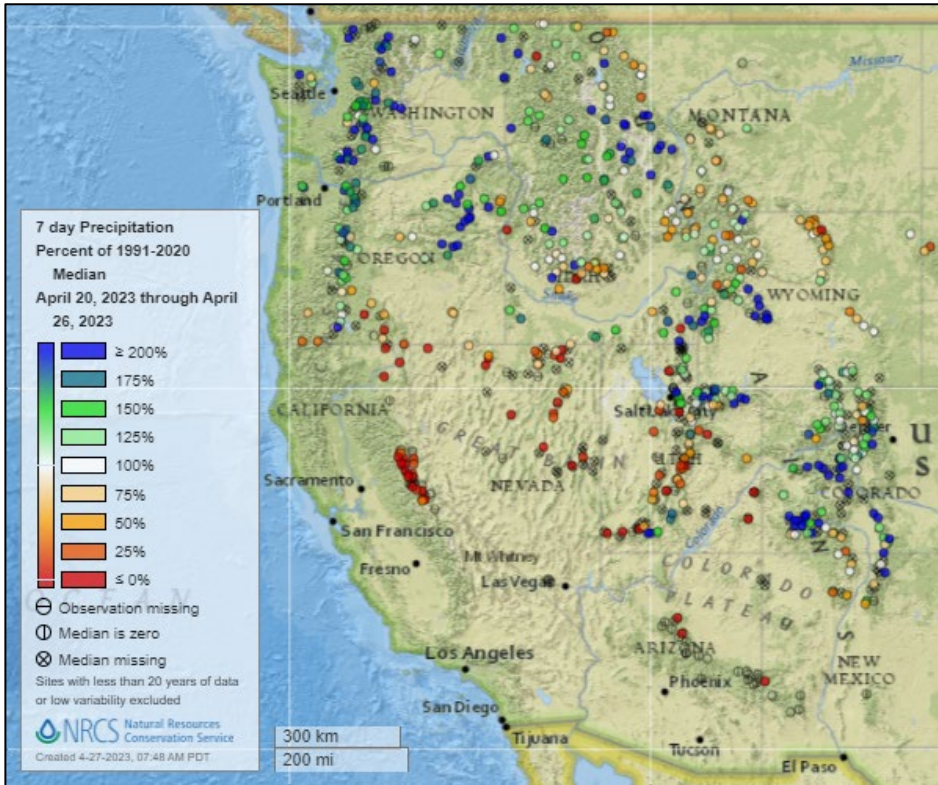
**Current Snow Depth, National Weather Service Snow Analysis**

Source: NOAA NWS National Operational Hydrologic Remote Sensing Center



## Precipitation

### Last 7 Days, NRCS SNOTEL Network

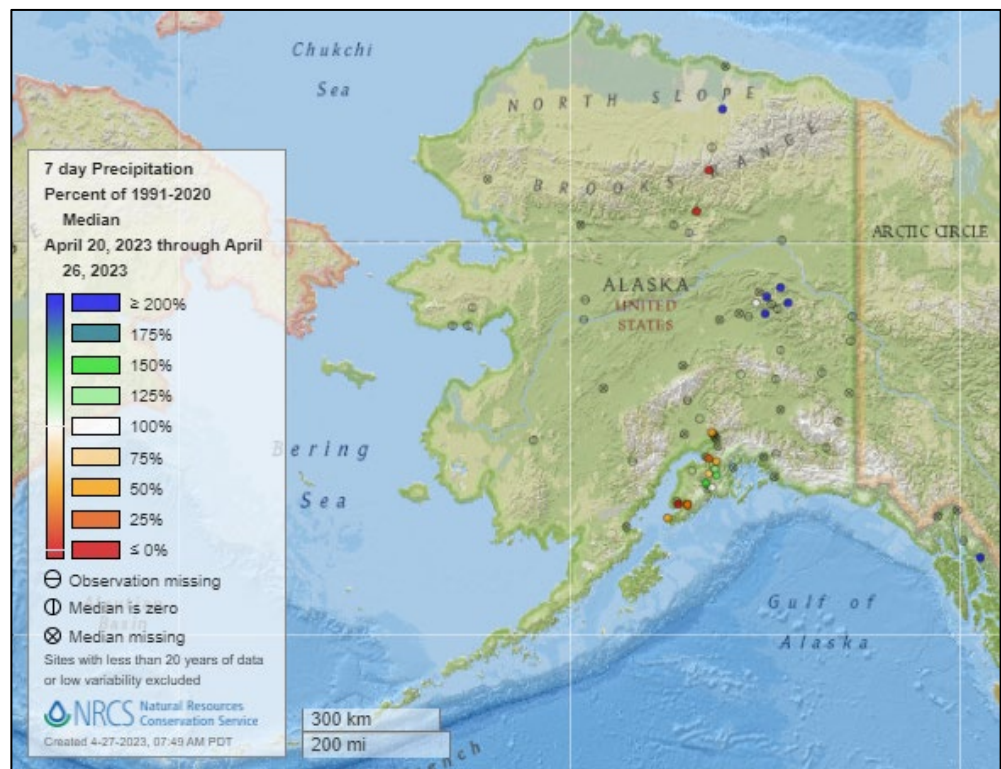


[7-day precipitation percent of median map](#)

**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](#)



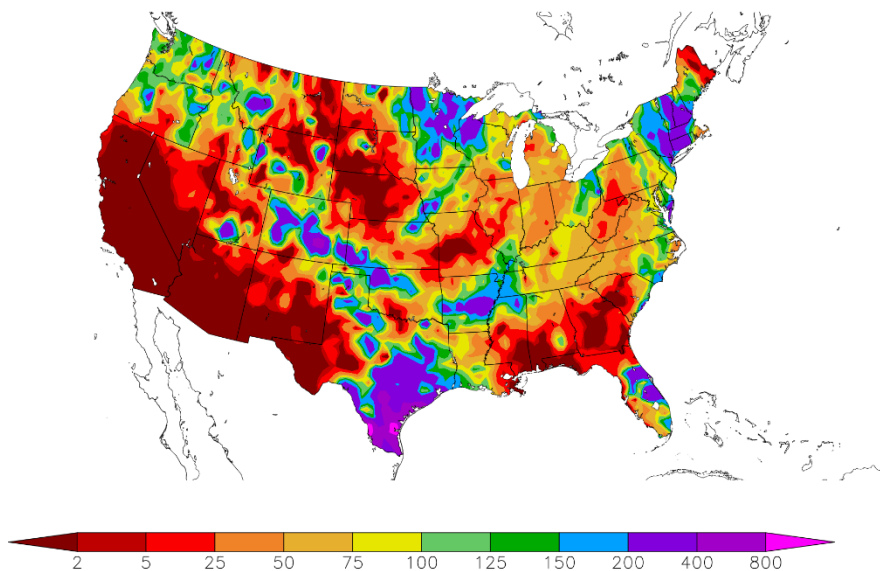
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
4/20/2023 – 4/26/2023



Generated 4/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

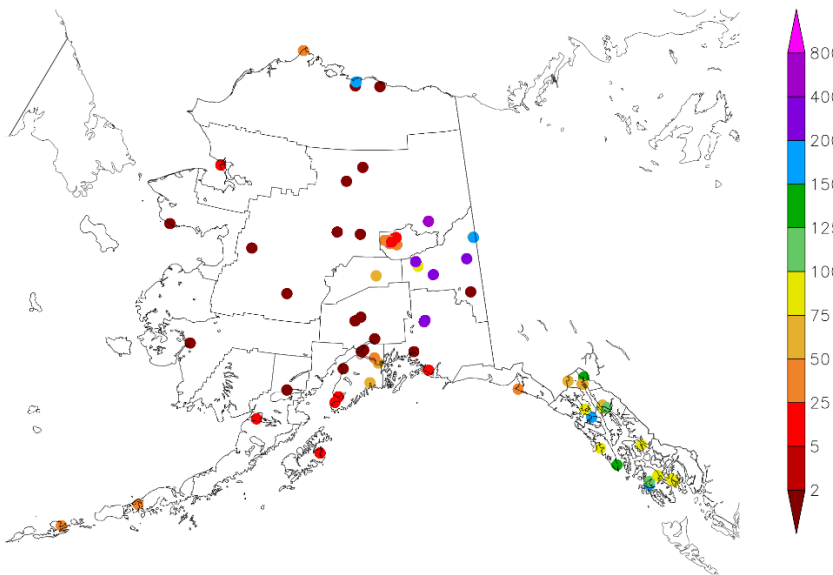
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
4/20/2023 – 4/26/2023



Generated 4/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

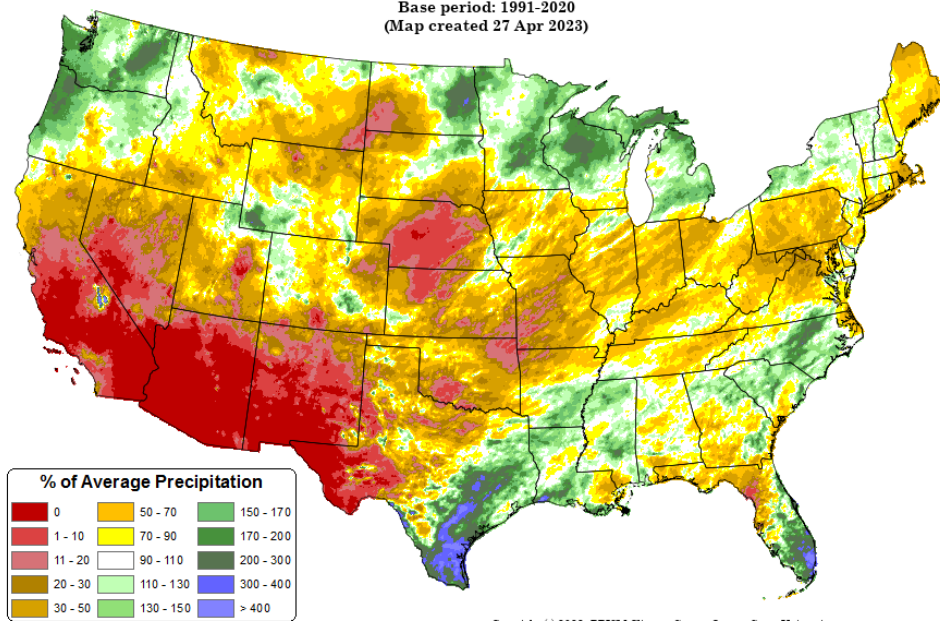
#### Total Precipitation Anomaly: 01 Apr 2023 - 26 Apr 2023

Period ending 7 AM EST 26 Apr 2023

Base period: 1991-2020

(Map created 27 Apr 2023)

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



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

Source: PRISM

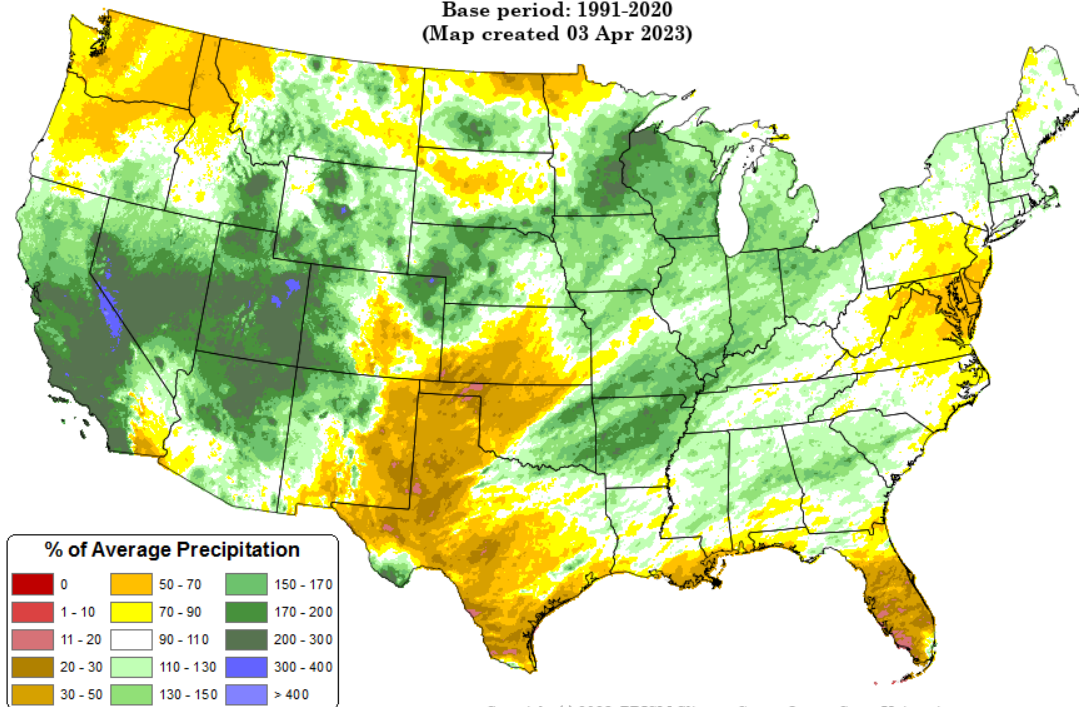
[January through March 2023 precipitation anomaly map](#)

#### Total Precipitation Anomaly: Jan 2023 - Mar 2023

Period ending 7 AM EST 31 Mar 2023

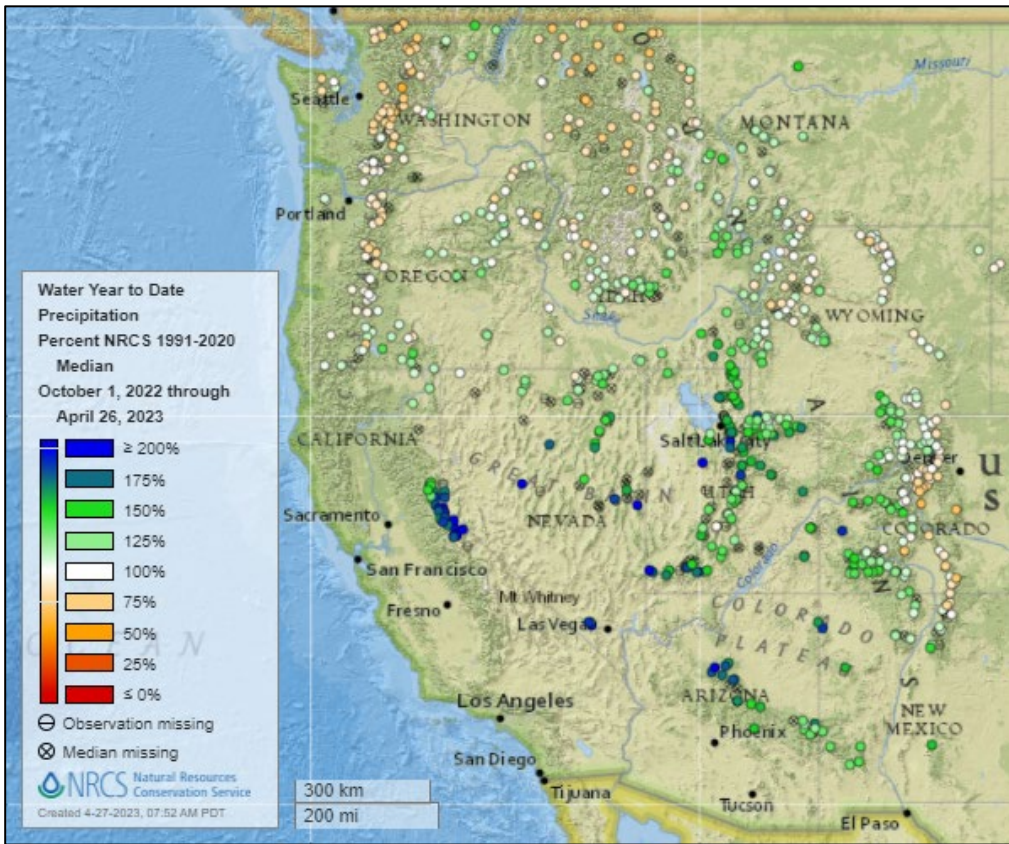
Base period: 1991-2020

(Map created 03 Apr 2023)



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Water Year-to-Date, NRCS SNOTEL Network

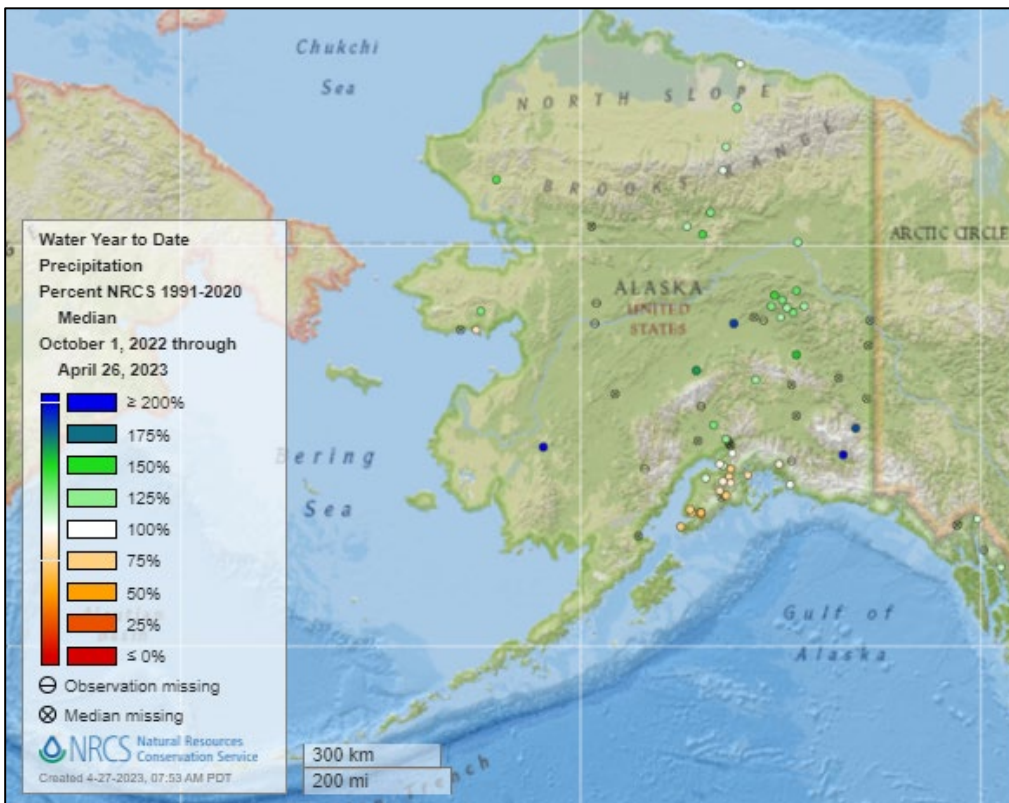


[2023 water year-to-date precipitation percent of median map](#)

**See also:**

[2023 water year-to-date precipitation average map](#)

[2023 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2023 water year-to-date precipitation percent of median map](#)

**See also:**

[Alaska 2023 water year-to-date precipitation average map](#)

[Alaska 2023 water year-to-date precipitation values \(inches\) map](#)

## Temperature

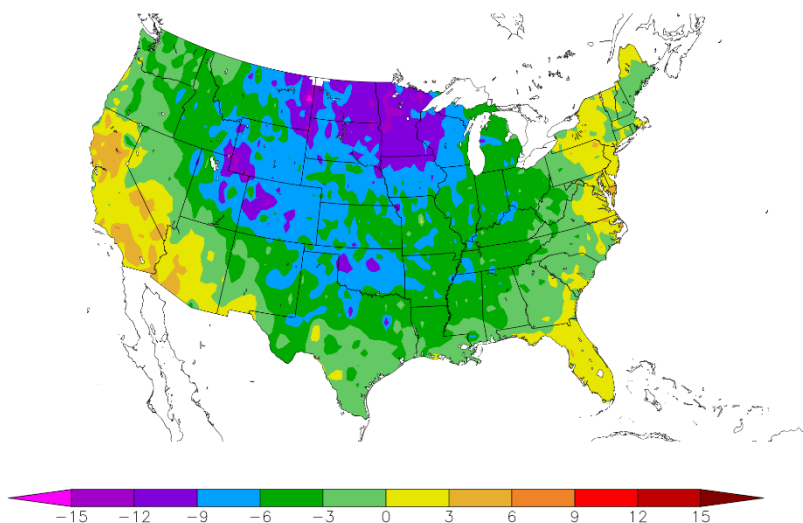
### Last 7 Days, National Weather Service (NWS) Networks

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)  
4/20/2023 – 4/26/2023



Generated 4/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

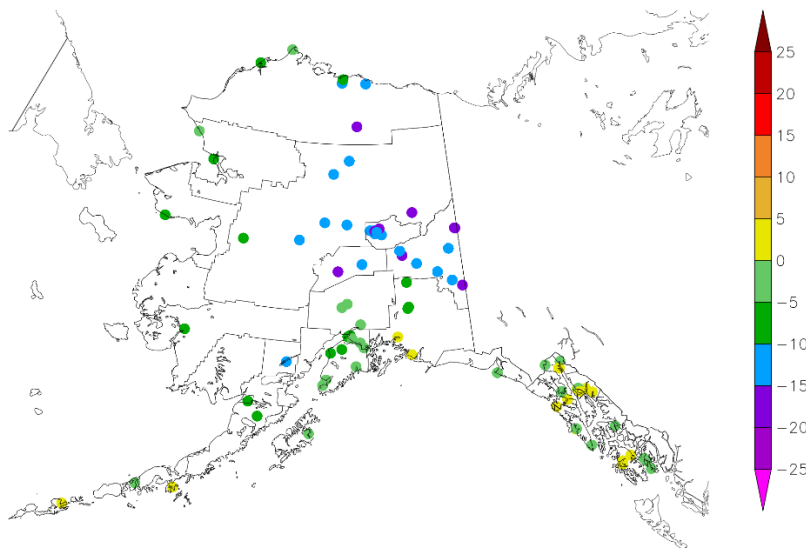
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
4/20/2023 – 4/26/2023



Generated 4/27/2023 at HPRCC using provisional data.

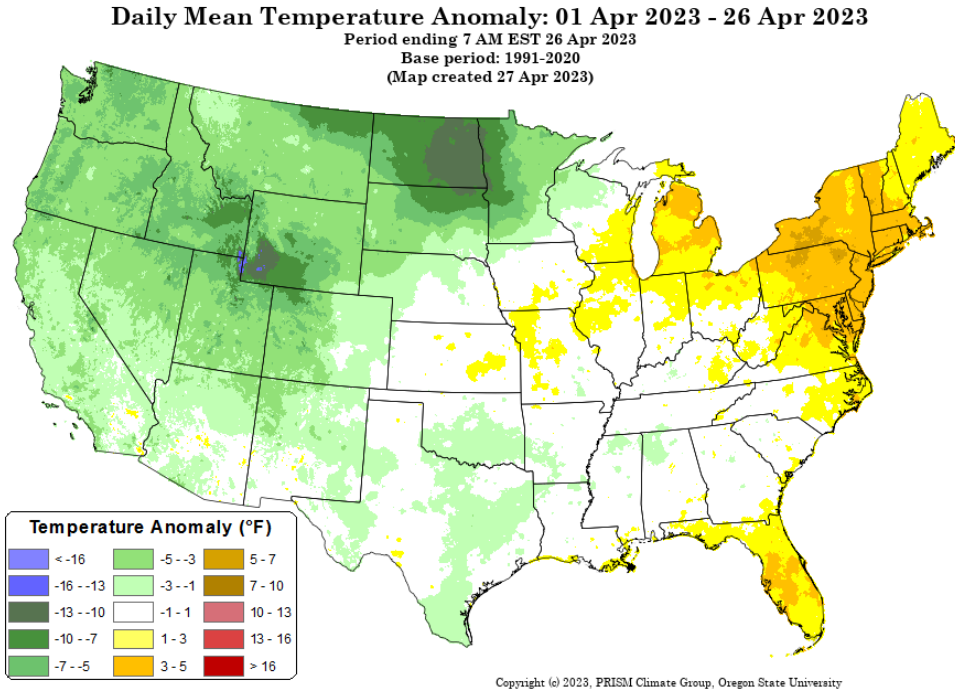
NOAA Regional Climate Centers



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

Source: PRISM

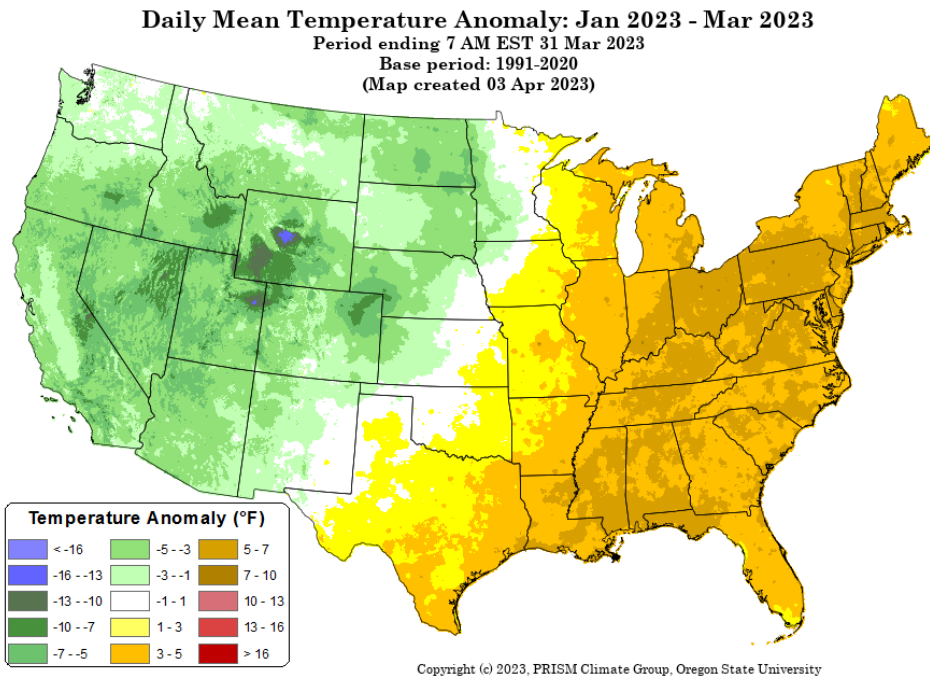
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[January through March 2023 daily mean temperature anomaly map](#)



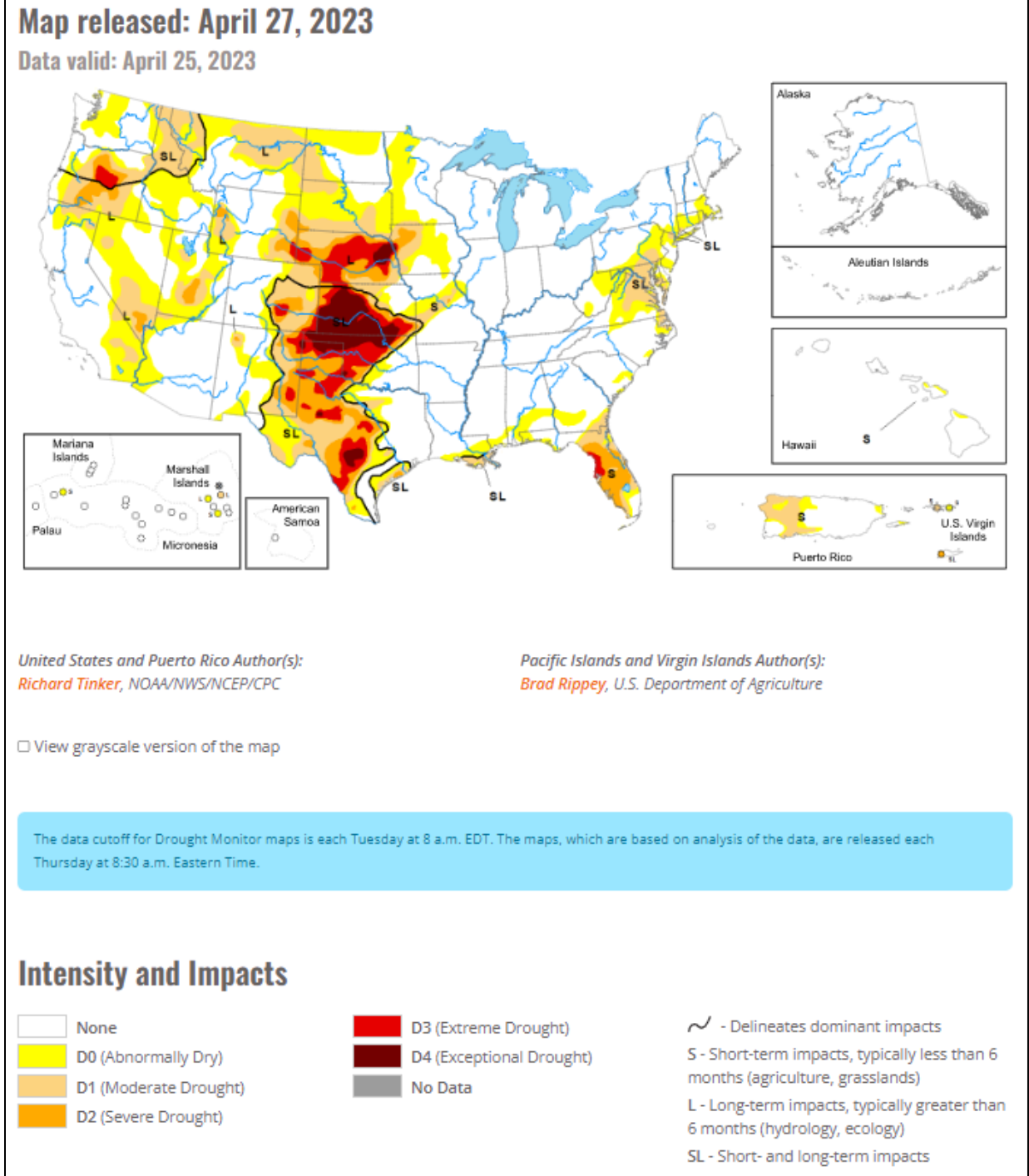
# Drought

## [U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

## [U.S. Drought Portal](#)

Source: NOAA



### Current [National Drought Summary](#), April 25, 2023

Source: National Drought Mitigation Center

“Heavy precipitation fell on areas of dryness in the Northeast, the southern and northern Plains, the northern Rockies, northern Intermountain West, and Pacific Northwest, and more-scattered areas in the mid-Atlantic Region and Florida. Enough rain fell on some extant areas of dryness and drought here to improve drought designations, including parts of the D3 and D4 areas in central to southern Texas. In contrast, the D3 to D4 areas in the rest of the Plains and the northwestern Florida Peninsula and recorded little or no precipitation, keeping extreme to exceptional drought in place with a few areas of deterioration, especially in central Nebraska and the northwestern Florida Peninsula.”

### National Drought Summary – Looking Ahead

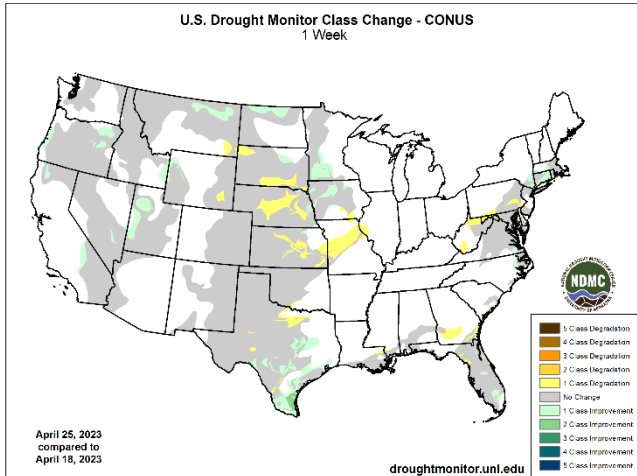
“During the next five days (April 26 – May 1, 2023) moderate to heavy precipitation (over 1.5 inches) is expected along the southern tier of the Nation from Texas and the lower Mississippi Valley through central and northern Florida, and along the Eastern Seaboard from Georgia through New England. Parts of the Upper Peninsula in Michigan are also forecast to receive 1.5 or more inches. Very heavy precipitation (3 to 5 inches) are expected in part of northeastern Texas, the central Gulf Coast Region, and southern Georgia. In contrast, little or nothing is anticipated from the High Plains westward, over the central and northern Great Plains, parts of the middle Mississippi Valley, and the southern Great Lakes Region. Moderate to locally heavy precipitation was observed from the Colorado Rockies through the south-central Great Plains and adjacent areas shortly after the Drought Monitor valid period (8 am EDT Tuesday, April 25) ended, with over 1.5 inches observed in scattered areas of central Arkansas, near the Oklahoma/Kansas border, west-central Kansas, higher elevations in the Rockies, and isolated sites across northern Texas. This precipitation will be considered for the Drought Monitor valid May 2, 2023 (next week). Other areas in dryness or drought should see one-tenth to locally one inch. Below-normal temperatures are expected over the southern Great Plains and most of the eastern half of the contiguous states outside the immediate coast in the South Atlantic Region. Meanwhile, warmer than normal weather is anticipated from most of the Plains through interior sections of the West Coast States. Cooler than normal conditions are expected along most of the immediate Pacific Coastline.

The Climate Prediction Center’s 6-10 day outlook (valid May 2 – 6, 2023) Identifies enhanced chances for above-normal precipitation in most of New England, the lower Mississippi Valley, Texas, the southern half of the High Plains, and from the Rockies to the Pacific Coast (except northwestern Washington). Odds for significantly above-normal precipitation exceed 50 percent in the Great Basin, most of California, and some adjacent areas. In contrast, subnormal totals are favored in the Southeast, the lower mid-Atlantic Region, and from the central and southern Appalachians northwestward through most of the Ohio Valley, Great Lakes Region, northern half of the Mississippi Valley, the northern Plains, and the Upper Midwest. Enhanced chances for cooler than normal weather cover California and adjacent areas in the Southwest and Great Basin, and in most locations from the Mississippi Valley to the East Coast. Meanwhile, unusually warm weather is expected from the northern Rockies and Intermountain West through most of the Rockies and the southern half of the High Plains.”

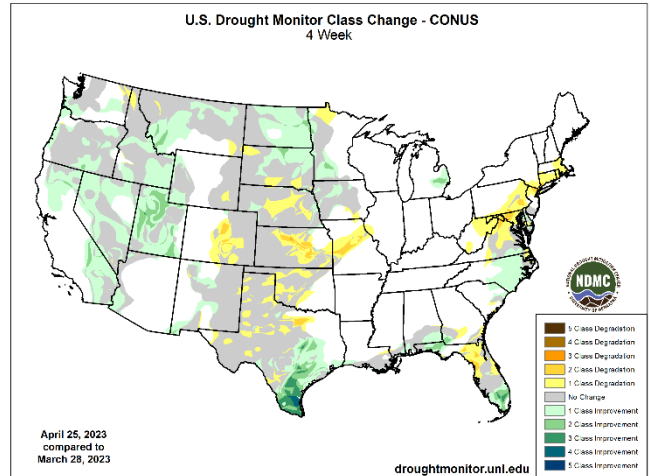
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

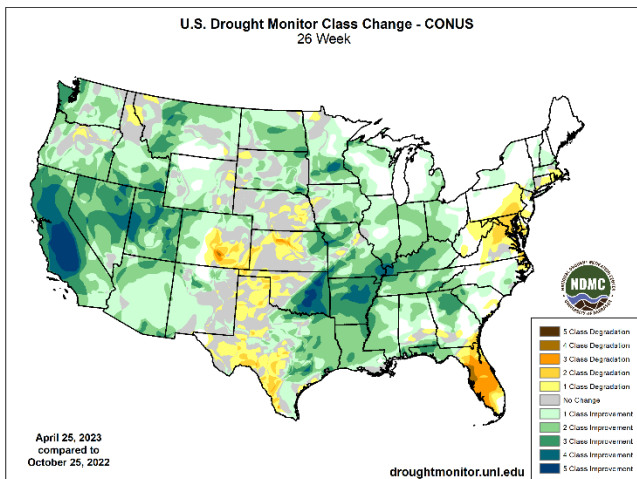
### 1 Week



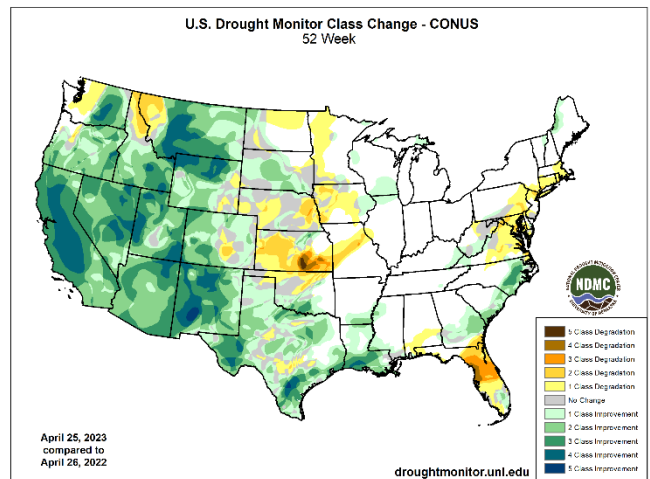
### 1 Month



### 6 Months



### 1 Year



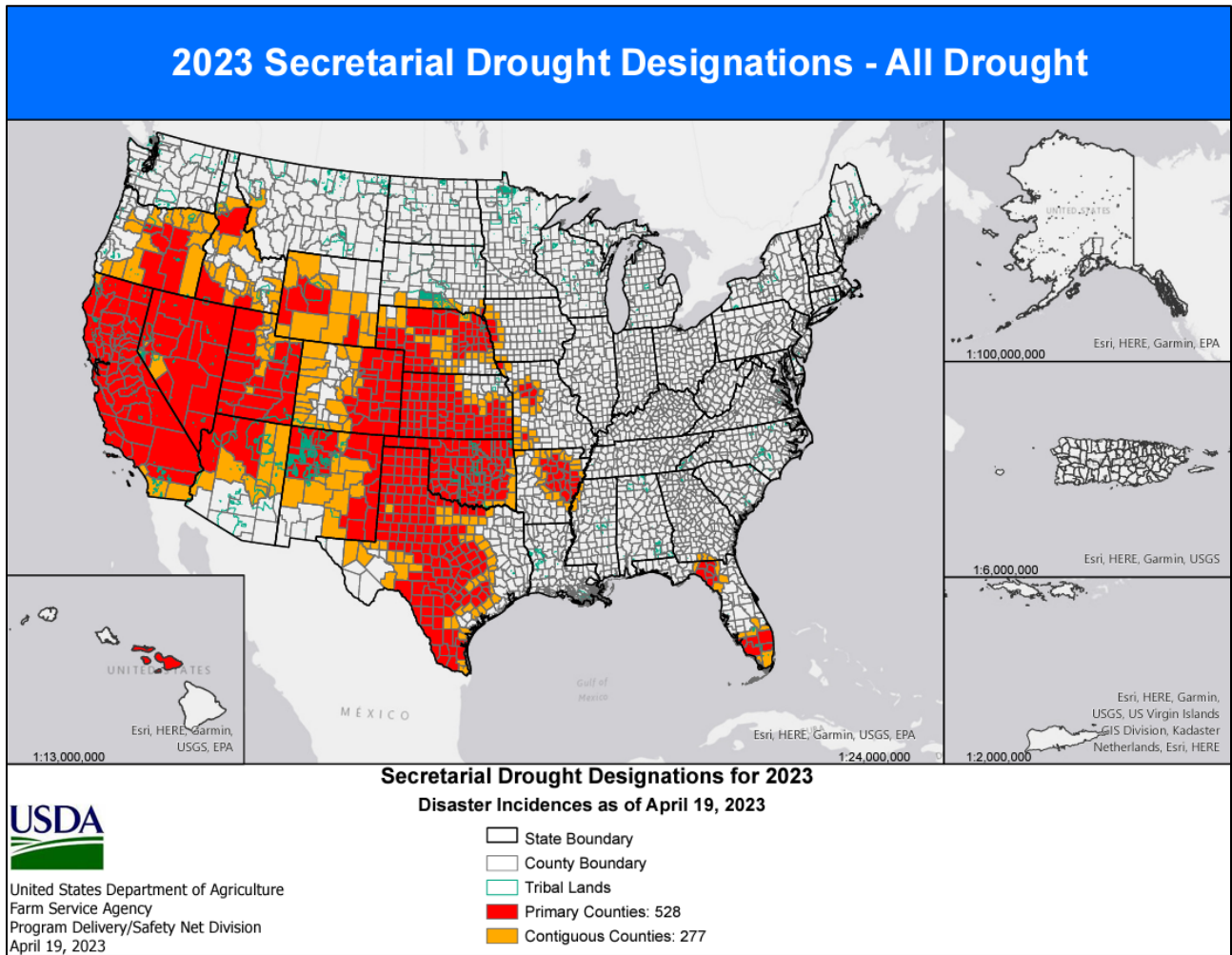
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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**

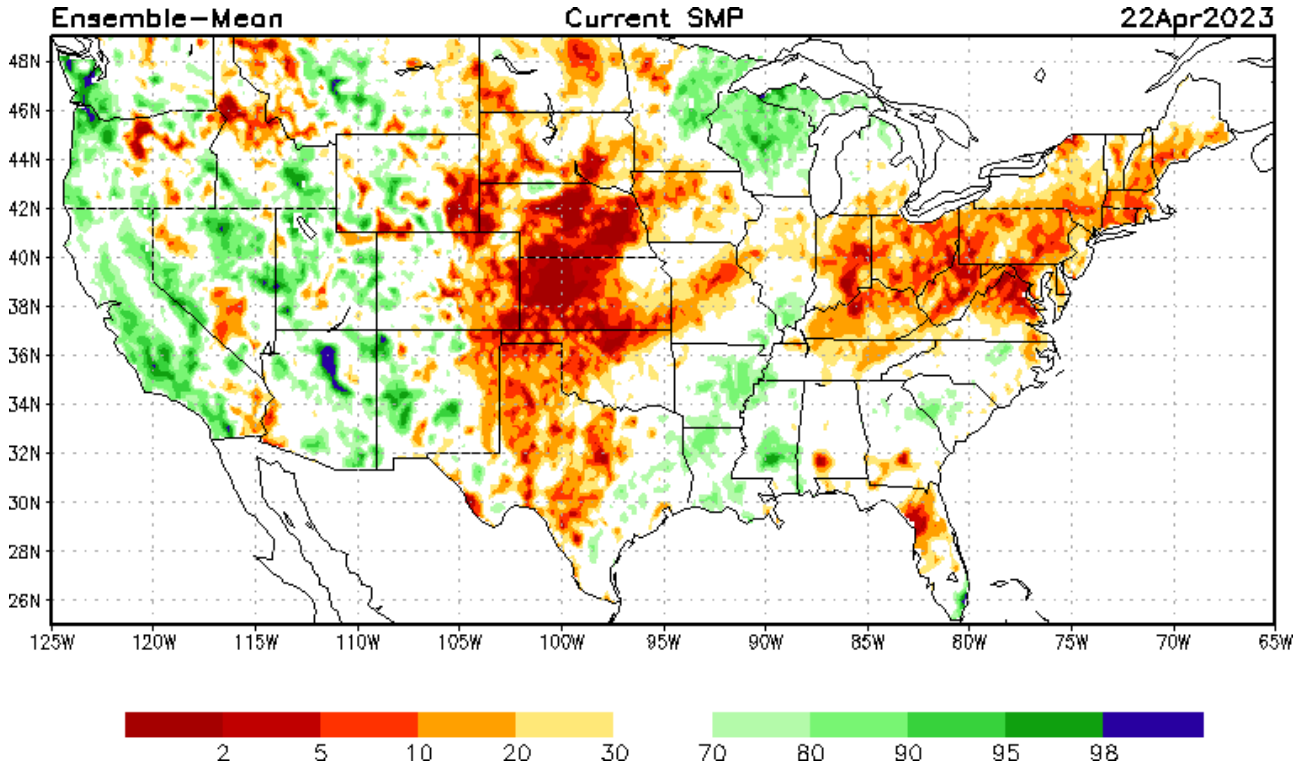
Source: USDA Farm Service Agency



## Other Climatic and Water Supply Indicators

### Soil Moisture

Source: NOAA National Centers for Environmental Prediction

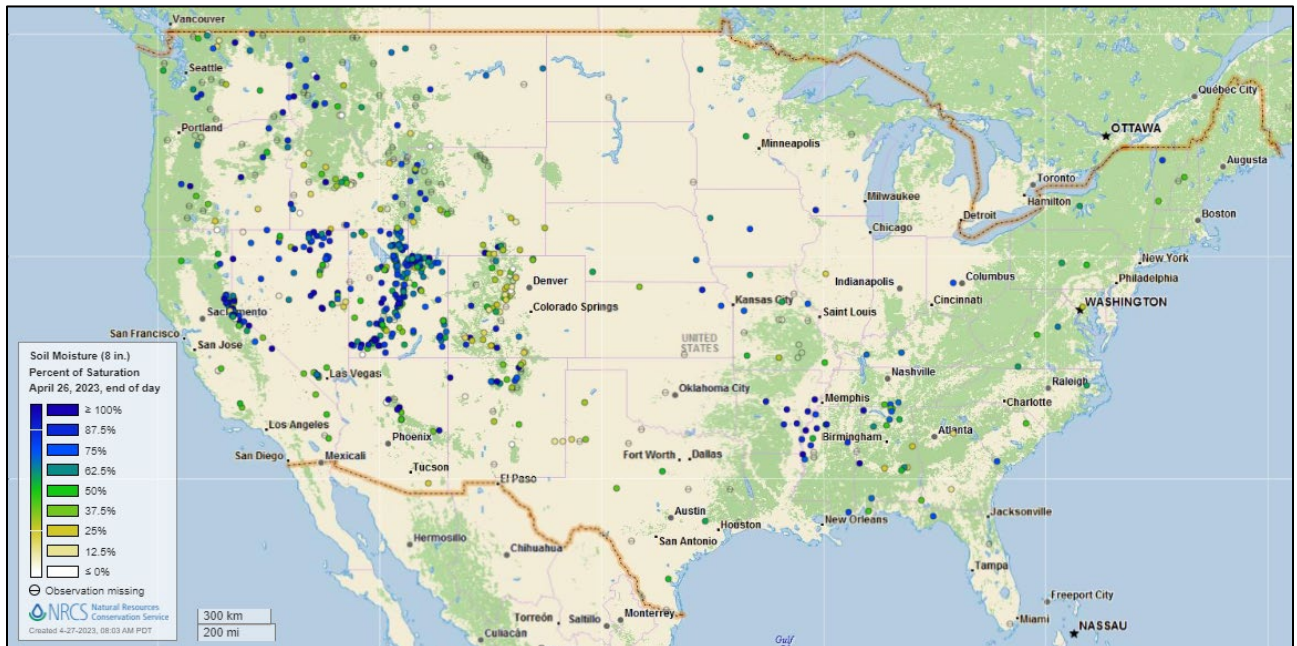


[Modeled soil moisture percentiles](#) as of April 22, 2023

### Soil Moisture Percent of Saturation

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

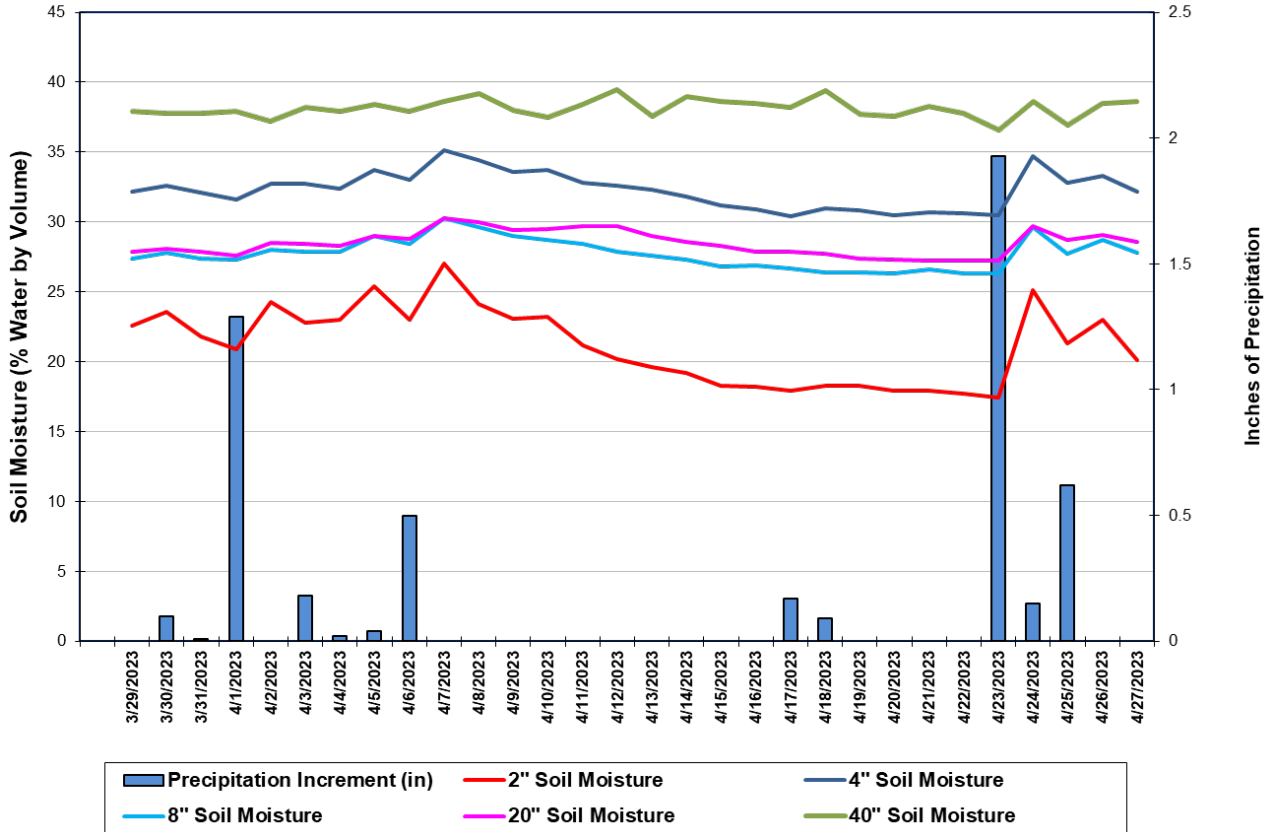
[U.S. soil moisture map at 8-inch depth:](#)



**Soil Moisture**

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

**Hubbard Brook, New Hampshire (SCAN site 2069)  
Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the precipitation and soil moisture for the last 30 days at the [Hubbard Brook](#) SCAN site in New Hampshire. After receiving nearly two inches of precipitation on April 23, all soil sensors indicate a temporary increase in soil moisture levels. Total precipitation for the 30-day period was 5.1 inches.

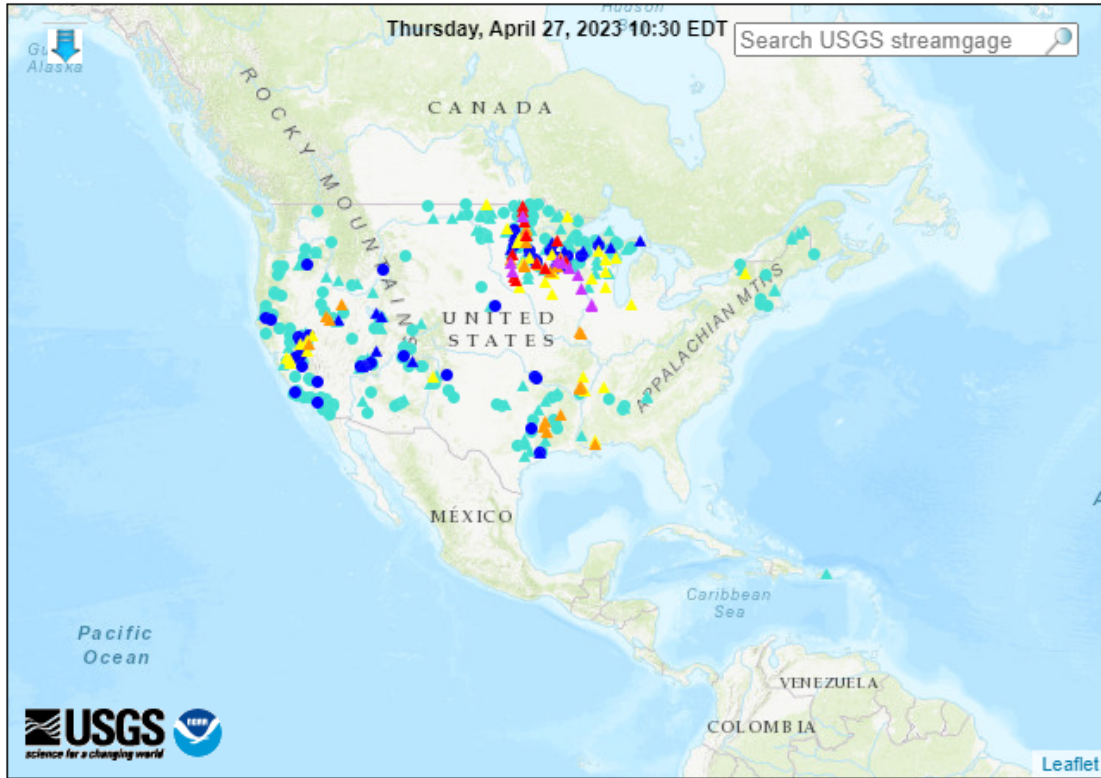
**Soil Moisture Data Portals**

- [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 (49 in floods [major: 10, moderate: 13, minor: 26], 33 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

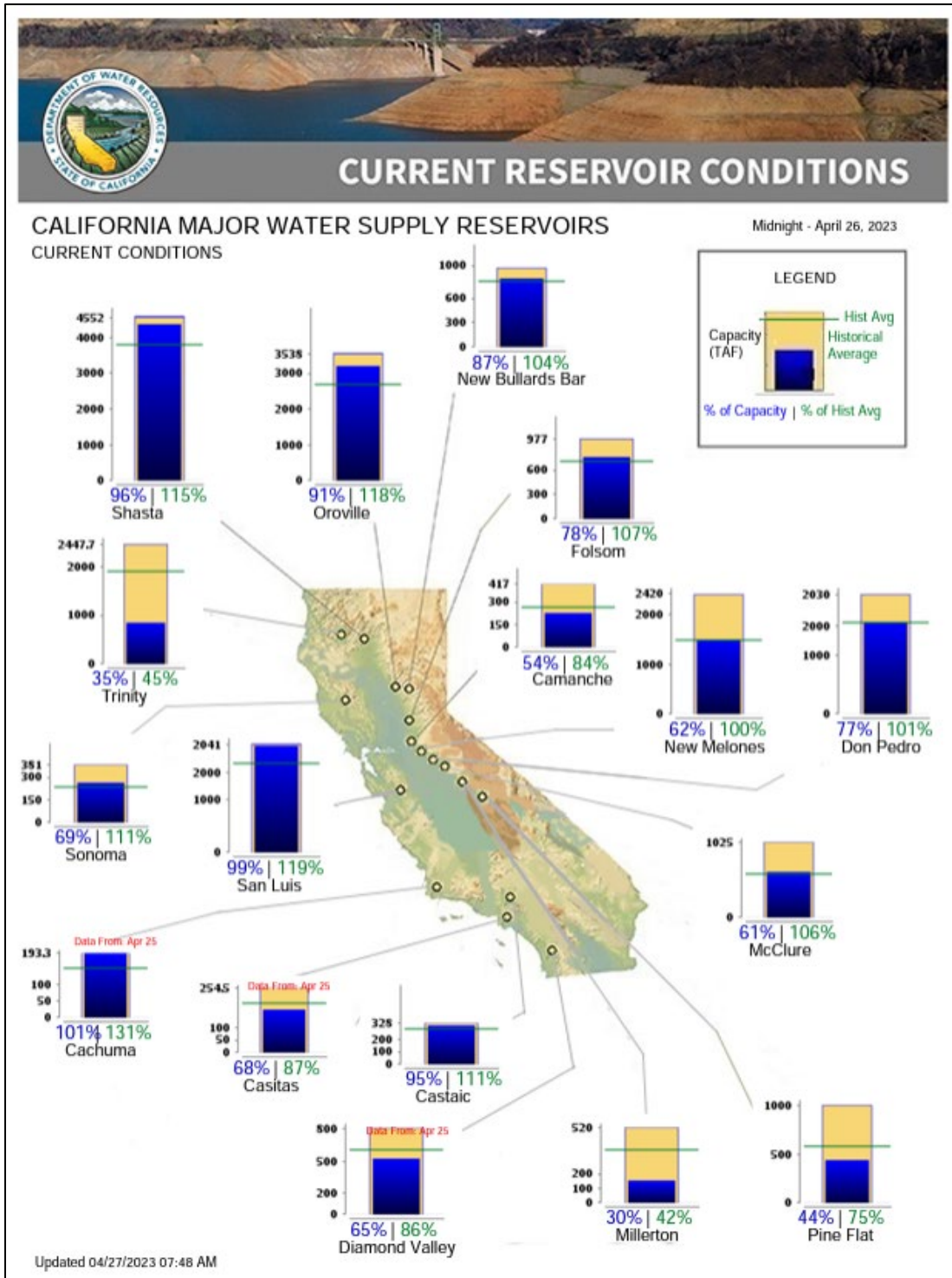
Source: U.S. Bureau of Reclamation

- [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](#)

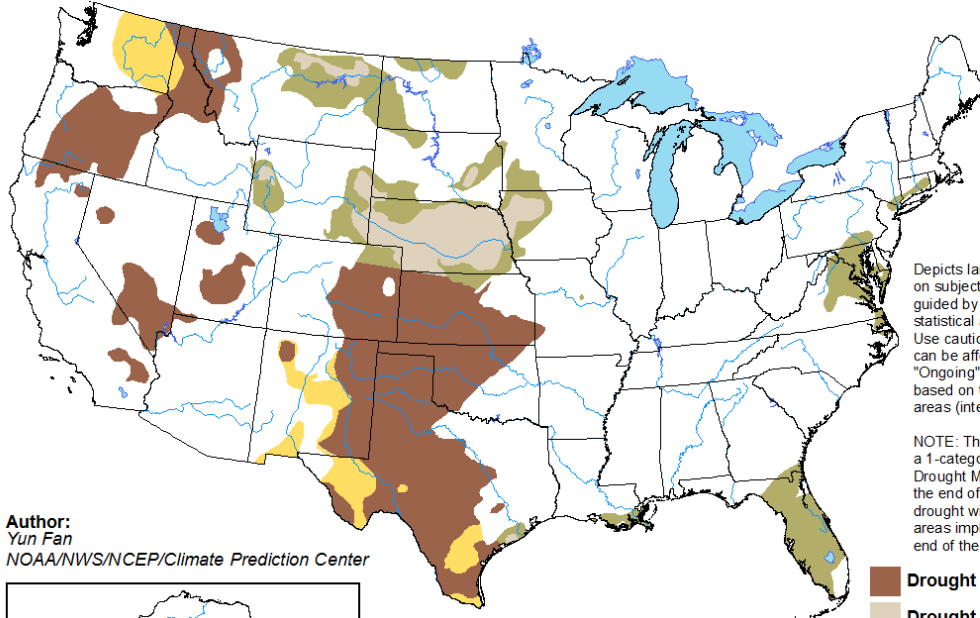


**Seasonal Drought Outlook: [April 20 – July 31, 2023](#)**

Source: National Weather Service

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

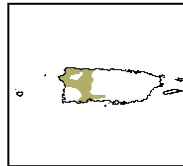
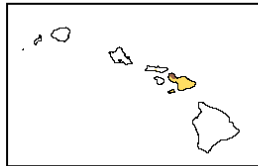
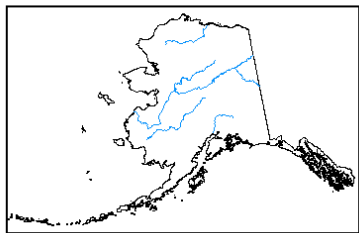
Valid for April 20 - July 31, 2023  
Released April 20



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).

Author:  
Yun Fan  
NOAA/NWS/NCEP/Climate Prediction Center



- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



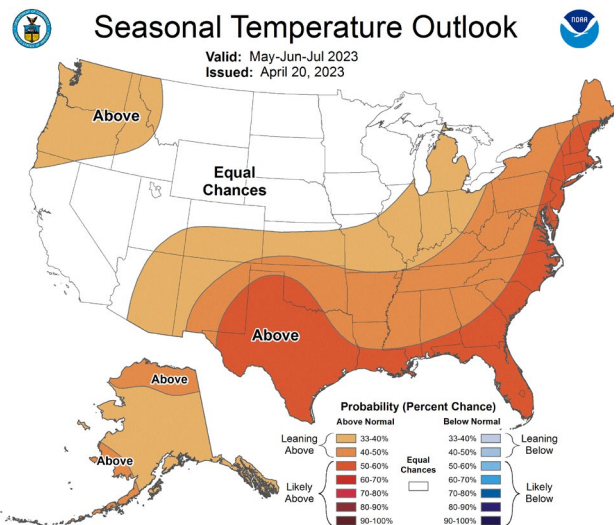
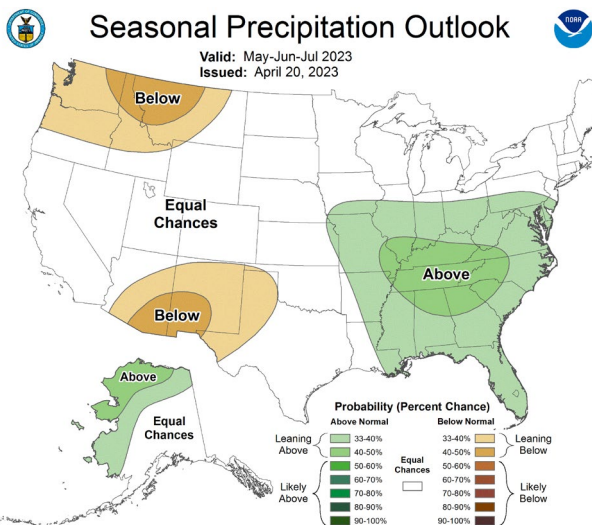
<http://go.usa.gov/3eZ73>

**Climate Prediction Center Three-month Outlook**

Source: National Weather Service

Precipitation

Temperature



[May-June-July 2023 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](#).