

#### **United States Department of Agriculture**

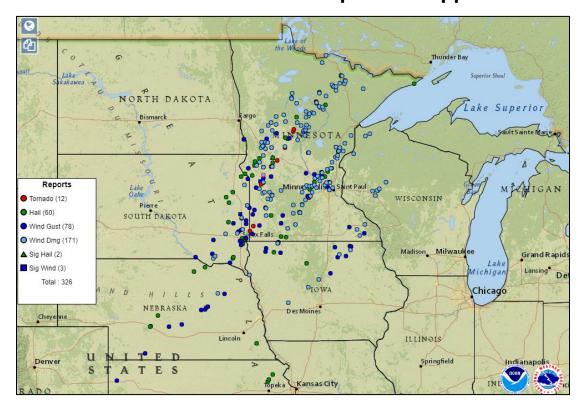
#### **Water and Climate Update**

June 02, 2022

The Natural Resources Conservation Service produces this weekly report using data and products from the <u>National 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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Precipitation4	Other Climatic and Water Supply Indicators1
Temperature8	More Information

#### Severe storms and tornadoes impact the upper Midwest



A line of severe storms spawned tornadoes in the upper Midwest on May 31. Storm reports for the day included 12 tornadoes sighted in Minnesota. A combination of four EF-1 and EF-2 tornadoes were on the ground for a total of more than 100 miles. An EF-2 tornado with winds of 120 mph and nearly a half-mile wide caused extensive damage to the town of Forada, Minnesota.

#### Related:

Tornadoes leave trail of destruction in Midwest – ABC

NWS Says 4 Tornadoes Hit Minnesota During Memorial Day Storms – CBS Minnesota

Severe storm outbreak, tornadoes forecast for north-central U.S. – Washington Post

NWS releases maps of Memorial Day tornado tracks in Minnesota – Bring Me the News on MSN

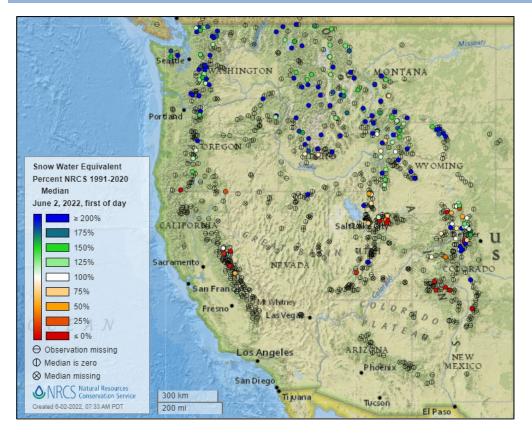
Severe Weather Expected Sunday Night & Memorial Day - Tornadoes, Damaging Winds, And Large

Hail Possible – Star Tribune (MN)

Possible tornado destroys half of Minnesota city: "I've never seen nothing like this" – CBS News

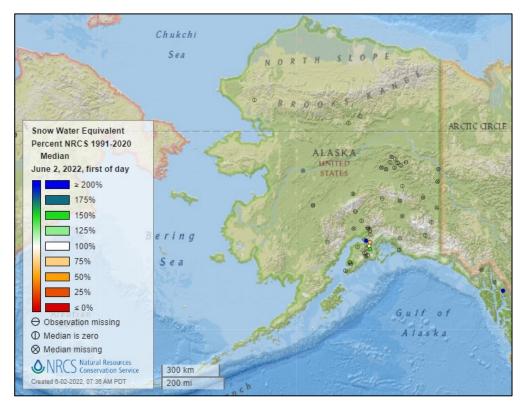
Severe weather to close out May in central US — Yahoo News

#### **Snow**



Snow water equivalent percent of median map

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

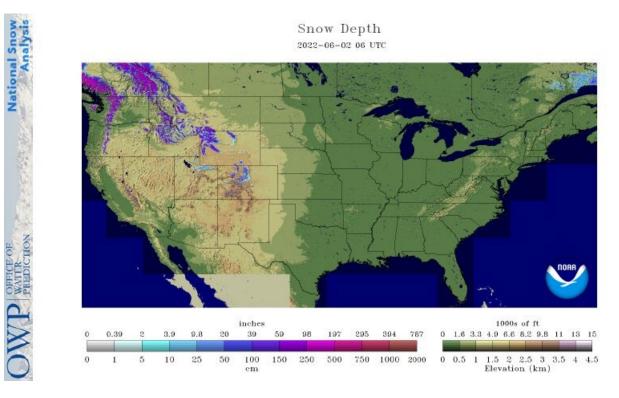


Alaska snow water equivalent percent of median map

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

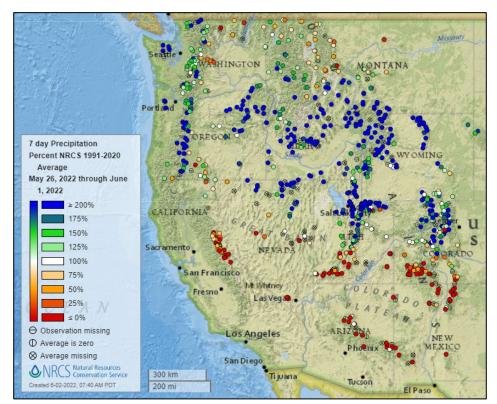
#### **<u>Current Snow Depth</u>**, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



#### **Precipitation**

#### Last 7 Days, NRCS SNOTEL Network



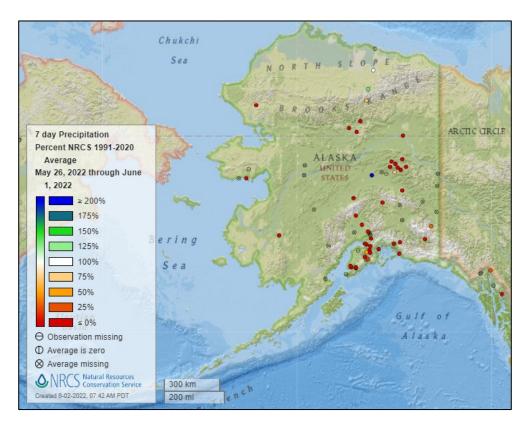
7-day precipitation percent of average map

#### 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

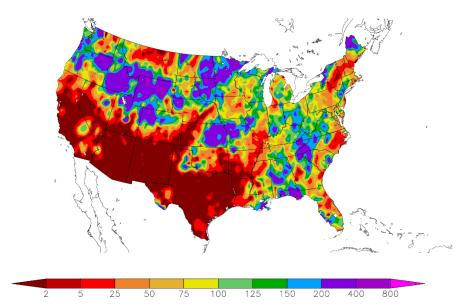


#### Last 7 Days, National Weather Service (NWS) Networks

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 (%) 5/26/2022 - 6/1/2022



Generated 6/2/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

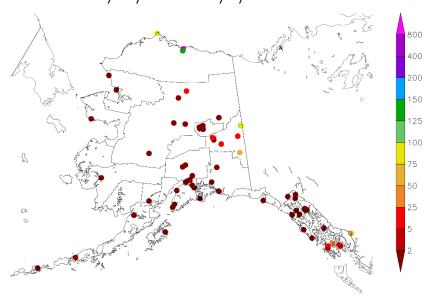
Source: Regional Climate Centers

7-day precipitation anomaly map for Alaska.

#### See also:

7-day total precipitation values (inches) map

Percent of Normal Precipitation (%) 5/26/2022 - 6/1/2022

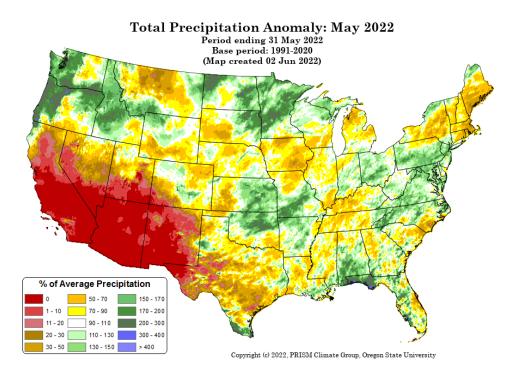


Generated 6/2/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

#### Monthly, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

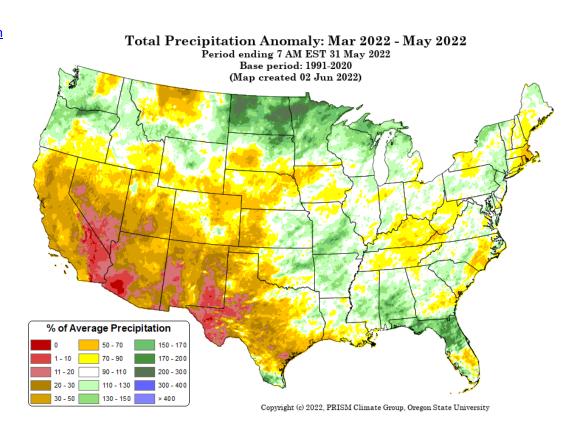


Monthly national total precipitation anomaly map

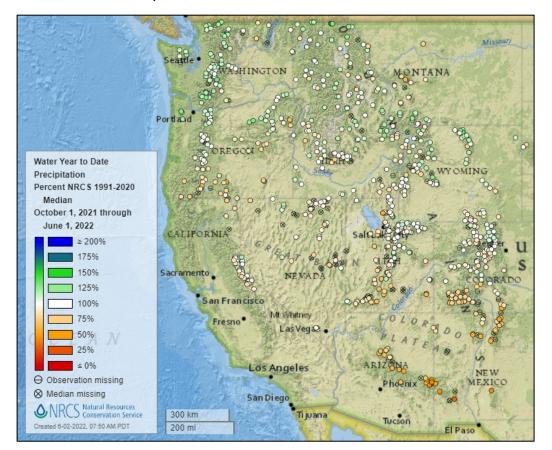
#### Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

March through May 2022 precipitation anomaly map



#### Water Year-to-Date, NRCS SNOTEL Network

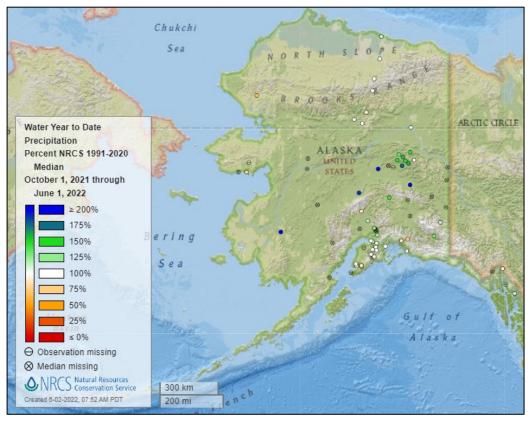


2022 water year-to-date precipitation percent of median map

#### See also:

2022 water year-to-date precipitation percent of average map

2022 water year-todate precipitation values (inches) map



Alaska
2022
water yearto-date
precipitation
percent of
median
map

#### See also:

Alaska 2022
water year-todate
precipitation
percent of
average map

Alaska 2022 water year-todate precipitation values (inches) map

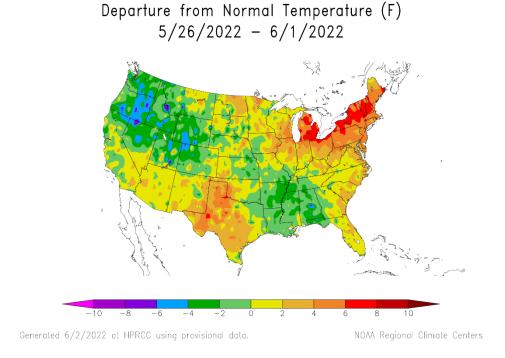
#### **Temperature**

#### 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



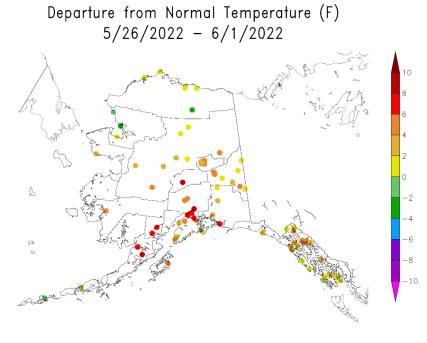
#### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

#### See also:

7-day temperature (° F) map



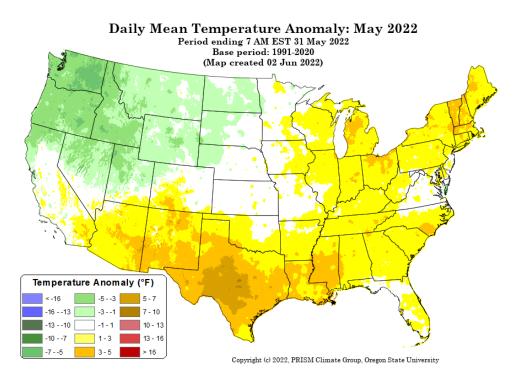
Generated 6/2/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

#### Monthly, All Available Data Including SNOTEL and NWS Networks

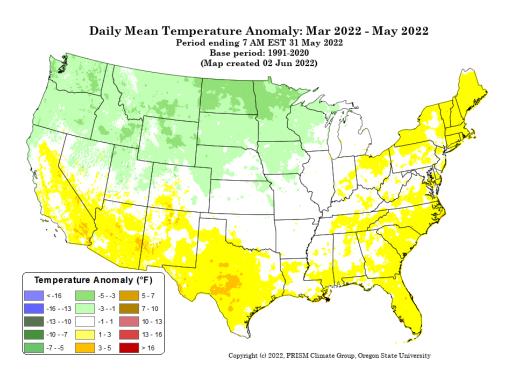
Source: PRISM





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

Source: PRISM



March through May 2022 daily mean temperature anomaly map

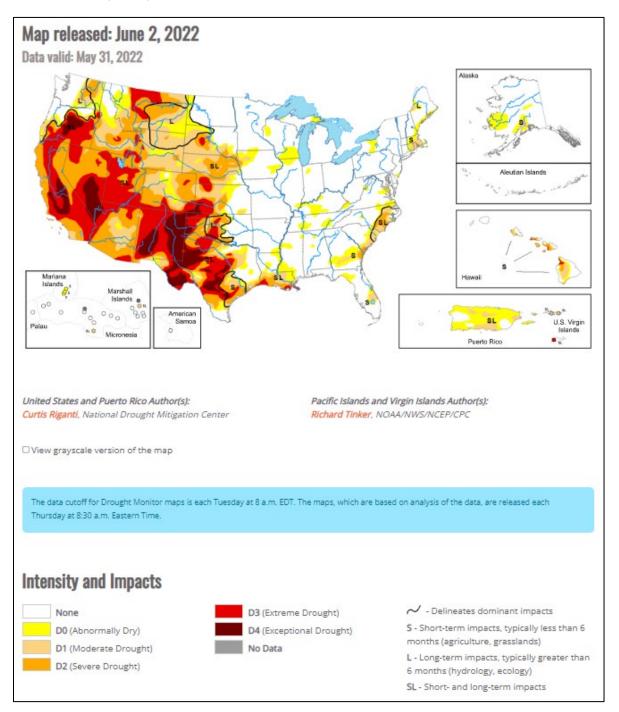
#### Drought

#### **U.S. Drought Monitor**

Source: National Drought Mitigation Center

#### **U.S. Drought Portal**

Source: NOAA



#### **Water and Climate Update**

#### **Current National Drought Summary, May 31, 2022**

Source: National Drought Mitigation Center

"Heavy precipitation fell across much of the contiguous U.S. over the past week, particularly in the Great Plains, Northwest (especially the northern Rocky Mountains), and the Southeast. Much of this fell as rain, though some mountain snows occurred as well. Meanwhile, the Southwest remained dry, along with northern Montana and most of the Texas Panhandle. Improvements to drought conditions were widespread in the Great Plains, with parts of central Kansas seeing two-category improvements to conditions. Despite the widespread precipitation, drought remained in most of the western Great Plains and western U.S., though it lessened in severity in some areas. A mix of worsening and improving drought conditions occurred in the Southeast and Mid-Atlantic states. Long-term drought improved in northern Maine along the Canadian border, while short-term drought expanded in coverage in southern New England. Short-term abnormal dryness and moderate drought developed in south-central and southwest Alaska. Heavy rains in Puerto Rico led to localized improvements there."

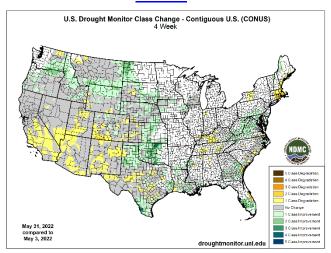
#### **Changes in Drought Monitor Categories over Time**

Source: National Drought Mitigation Center

#### 1 Week

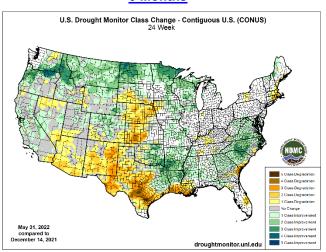
# U.S. Drought Monitor Class Change - Contiguous U.S. (CONUS) 1 Week May 31, 2022 compared to May 24, 2022

#### 1 Month

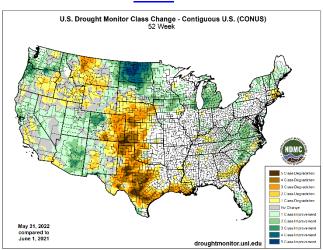


#### **6 Months**

droughtmonitor.unl.edu



#### 1 Year



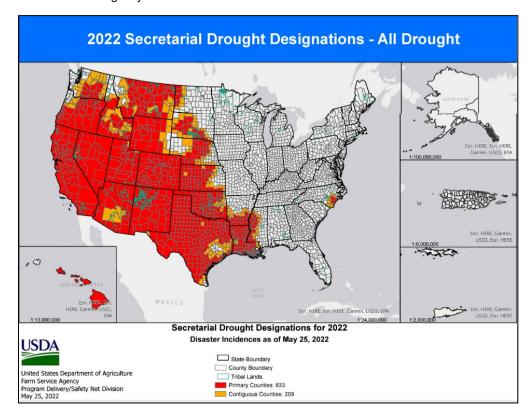
Changes in drought conditions over the last 12 months for the contiguous U.S.

#### **Highlighted Drought Resources**

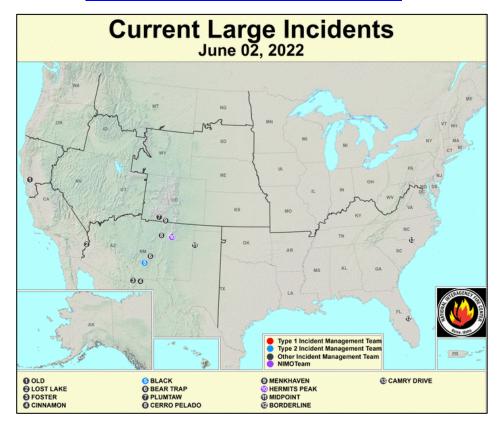
- **Drought Impact Reporter**
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- **USDA** Disaster and Drought Information

#### **USDA Secretarial <u>Drought Designations</u>**

Source: USDA Farm Service Agency



#### Wildfires: USDA Forest Service Active Fire Mapping

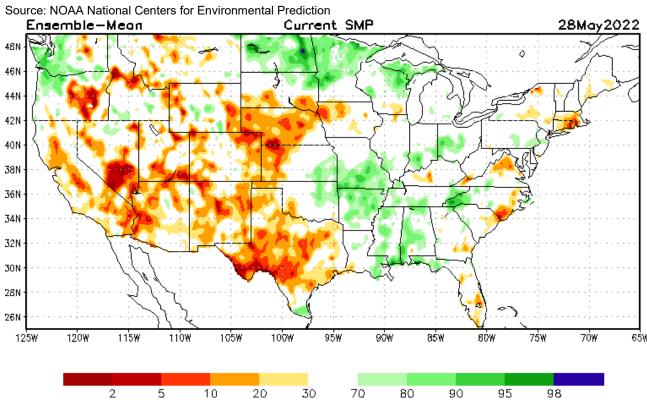


### Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

#### **Other Climatic and Water Supply Indicators**

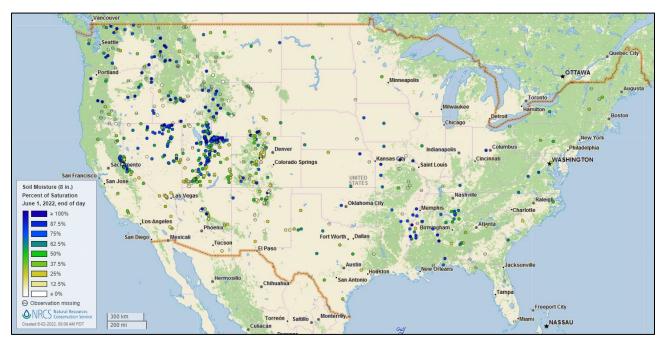
#### **Soil Moisture**



Modeled soil moisture percentiles as of May 28, 2022

#### **Soil Moisture Percent of Saturation**

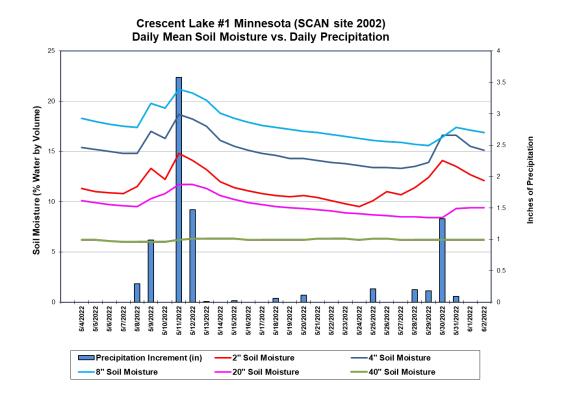
Source: NRCS SNOTEL and <u>Soil Climate Analysis Network</u> (SCAN) <u>U.S. soil moisture map at 8-inch depth:</u>



#### **Soil Moisture**

Source: NRCS Soil Climate Analysis Network (SCAN)

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This chart shows the precipitation and soil moisture for the last 30 days at the <u>Crescent Lake #1</u> SCAN site in Minnesota. The precipitation received during May 11-12 of 5.05 inches caused an increase of soil moisture at all sensor depths. The total precipitation for the period was 8.54 inches.

#### **Soil Moisture Data Portals**

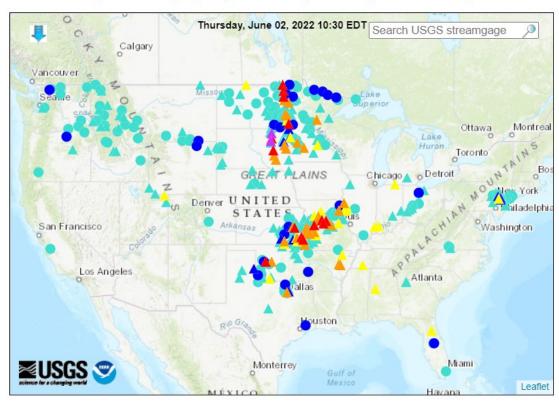
- USCRN Soil Moisture
- National Soil Moisture Network
- NOAA Climate Prediction Center Soil Moisture
- NASA Grace

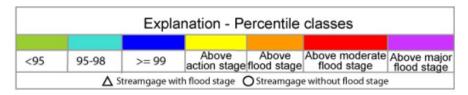
#### Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey WaterWatch Streamflow Map

#### Map of flood and high flow conditions

(51 in floods [major: 2, moderate: 14, minor: 35], 28 in near-flood)





WaterWatch: Streamflow, drought, flood, and runoff conditions

#### **Reservoir Storage**

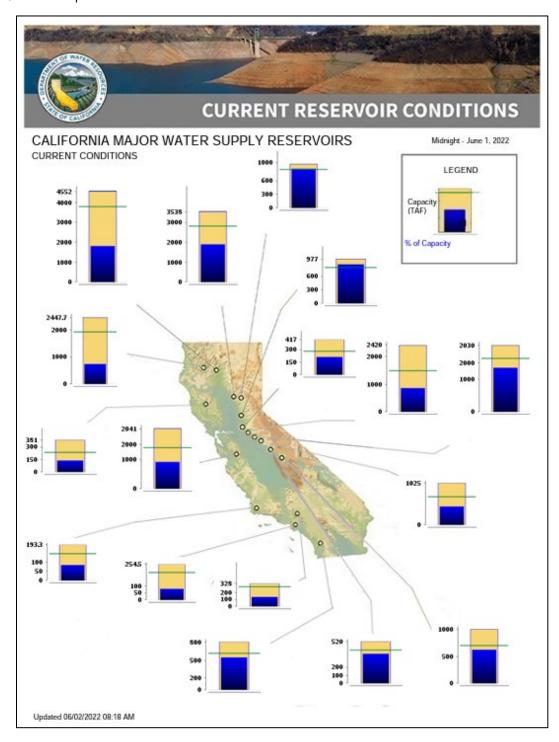
#### **Hydromet Teacup Reservoir Depictions**

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, June 02, 2022: "Drought-easing showers and thunderstorms will remain active into the weekend on the southern Plains, as moisture pooled near the tail end of a cold front interacts with a new storm system arriving in the Northwest. Five-day rainfall totals could reach 1 to 2 inches or more across the Plains and Northwest, while dry weather will persist from central and southern California to western sections of Colorado and New Mexico. Meanwhile, late-week showers and thunderstorms will traverse the northern and middle Atlantic States. During the weekend and early next week, extreme heat will develop across the southcentral U.S., including Texas, while chilly conditions will persist across the North. Elsewhere, widespread showers will return across the Midwest during the weekend, while downpours (locally 5 to 10 inches or more) across southern Florida could result in flooding, regardless of further tropical development. The NWS 6- to 10-day outlook for June 7 – 11 calls for below-normal temperatures across the northern and central Plains and the Midwest, while hotter-than-normal weather will span the South and much of the Far West. Meanwhile, near- or above-normal rainfall across most of the country should contrast with drierthan-normal conditions in the Great Basin and Intermountain West."

#### Weather Hazards Outlook: June 04 – 08, 2022

Source: NOAA Weather Prediction Center

#### U.S. Day 3-7 Hazards Outlook

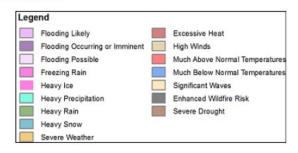
#### **About the Hazards Outlook**

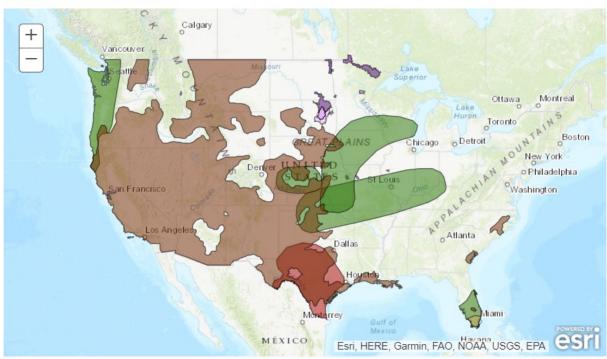
Created June 01, 2022

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

Precipitation	<b>~</b>
Temperature	<b>~</b>
Soils	<b>~</b>

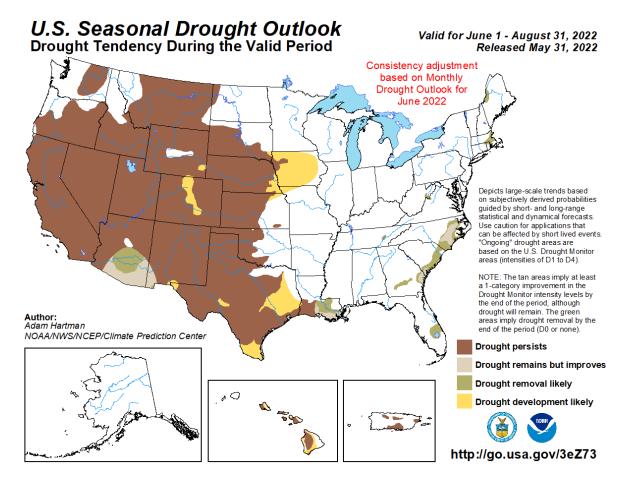
Valid June 04, 2022 - June 08, 2022





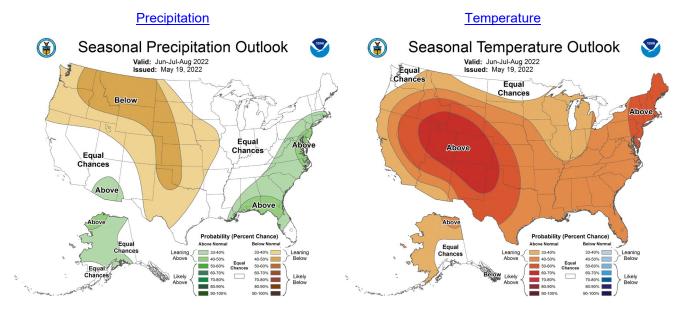
#### Seasonal Drought Outlook: <u>June 01 – August 31, 2022</u>

Source: National Weather Service



#### **Climate Prediction Center 3-Month Outlook**

Source: National Weather Service



June-July-August 2022 precipitation and temperature outlook summaries

#### **Water and Climate Update**

#### **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>.