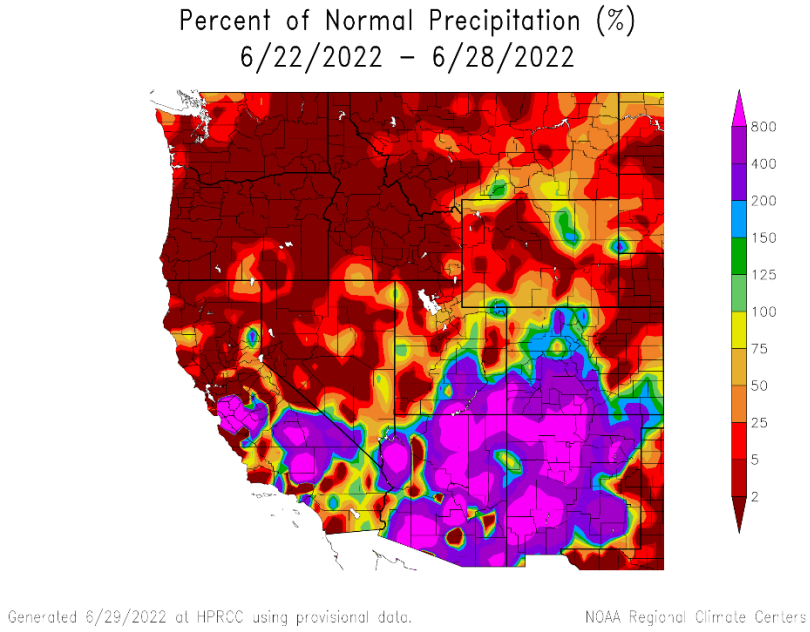
United States Department of Agriculture

Water and Climate Update

June 30, 2022

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.

Southwest June monsoon rainfall causes flash flooding



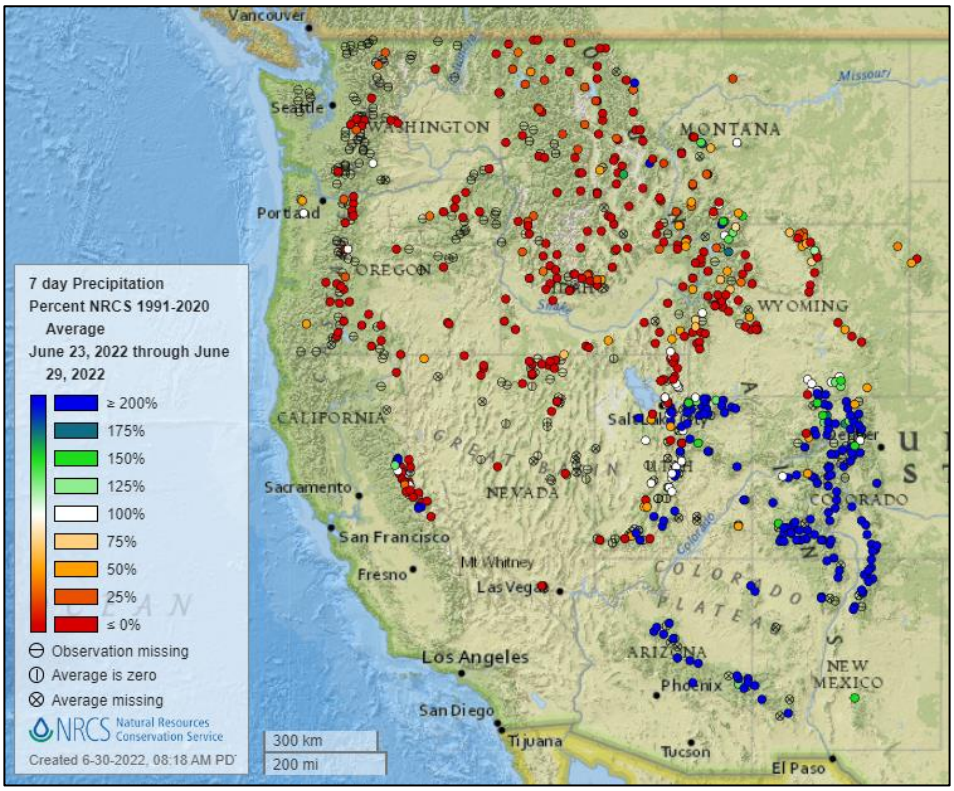
The 2022 monsoon season has delivered heavy rain in the Southwest. Rainfall this past week caused major flash flooding in Flagstaff, Arizona and the Navajo Nation. Areas of downtown Flagstaff, as well as outlying neighborhoods and local roads and highways, experienced flooding from the strong, fast-moving storm cells. The rainfall provided welcome relief from area wildfires but caused concern over flooding and muddy debris flows in the burned areas. In southern Utah, search and rescue crews evacuated 60 people from Capitol Reef National Park trapped by washed-out roads from flooding.

Related:

Powerful monsoon storm brings widespread flooding to Flagstaff and Navajo Nation – KANU (AZ)
Monsoon storm leaves Flagstaff community cleaning up a mess – 12News (AZ)
Monsoon storms causing flash flooding in Flagstaff, over 1,000 without power – AZFamily (AZ)
First Alert Weather: Parts of Flagstaff no longer under 'shelter-in-place' order due to monsoon – KPHO (AZ)
Some Capitol Reef National Park roads remain closed due to flash floods – KSTU (UT)
June rains top monthly normals in Southwest Colorado – The Durango Herald (CO)
Disruptive storms to rumble over Western US into Independence Day – Yahoo!News

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]

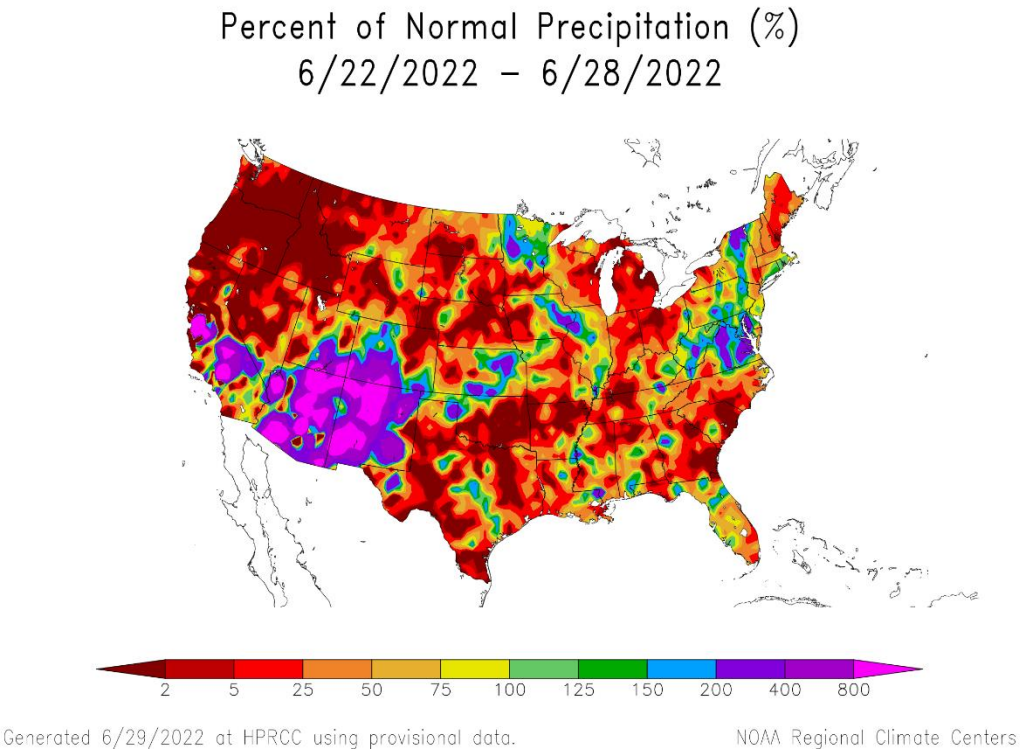
See also:
[Alaska 7-day total precipitation values (inches) map]

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

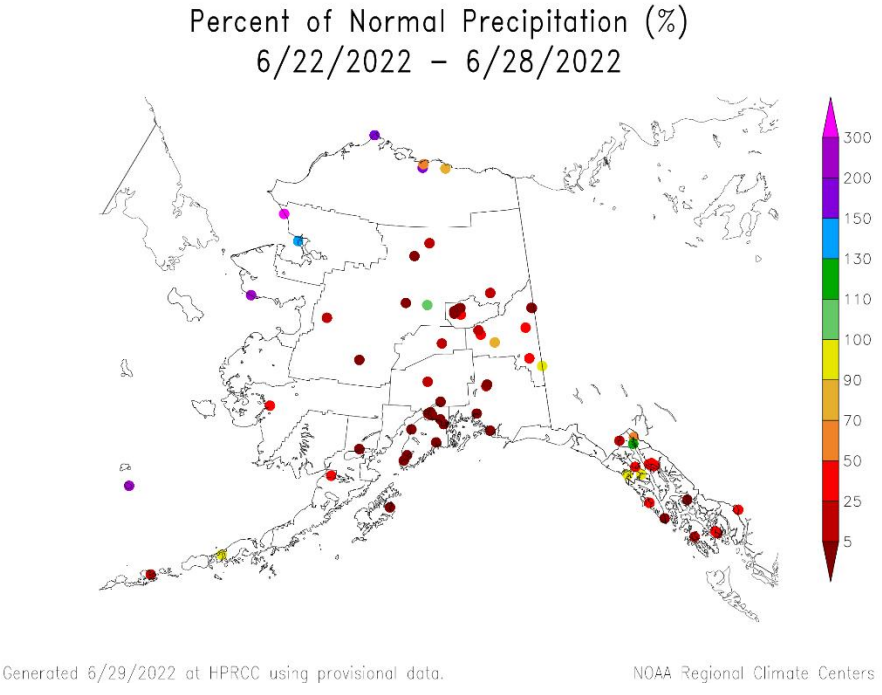


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

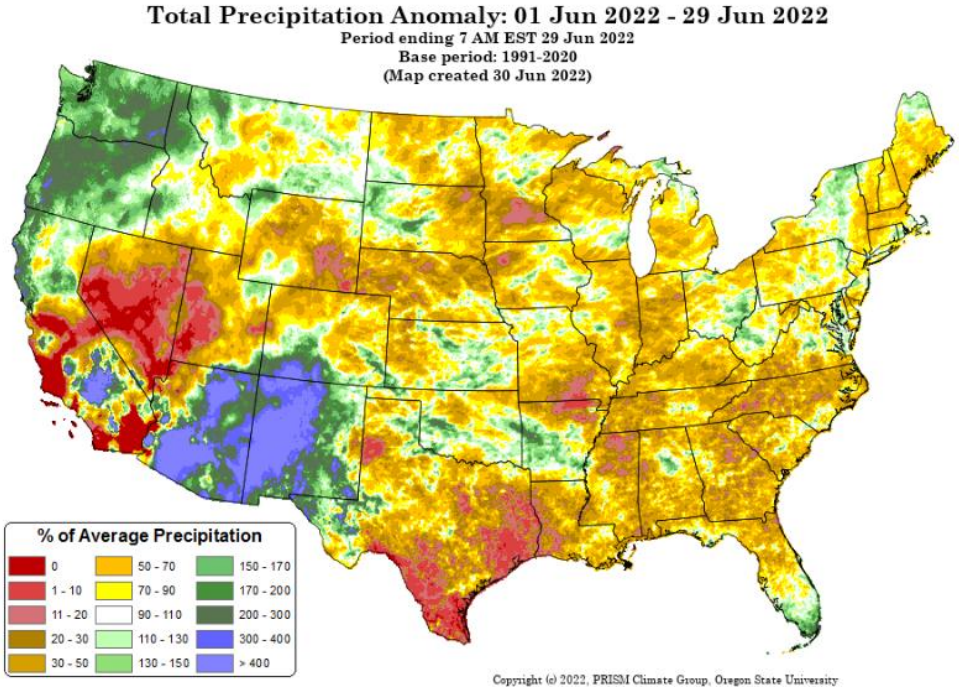
7-day precipitation anomaly map for Alaska.

See also:
7-day total precipitation values (inches) map



Monthly, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

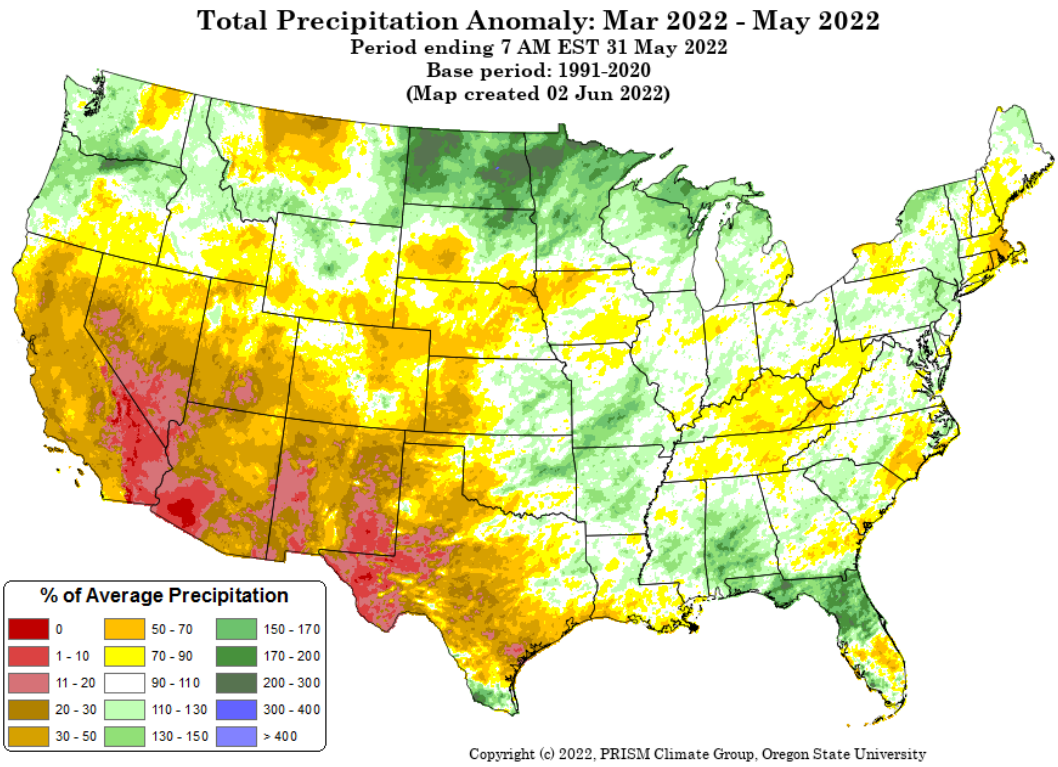


Monthly national total precipitation anomaly map

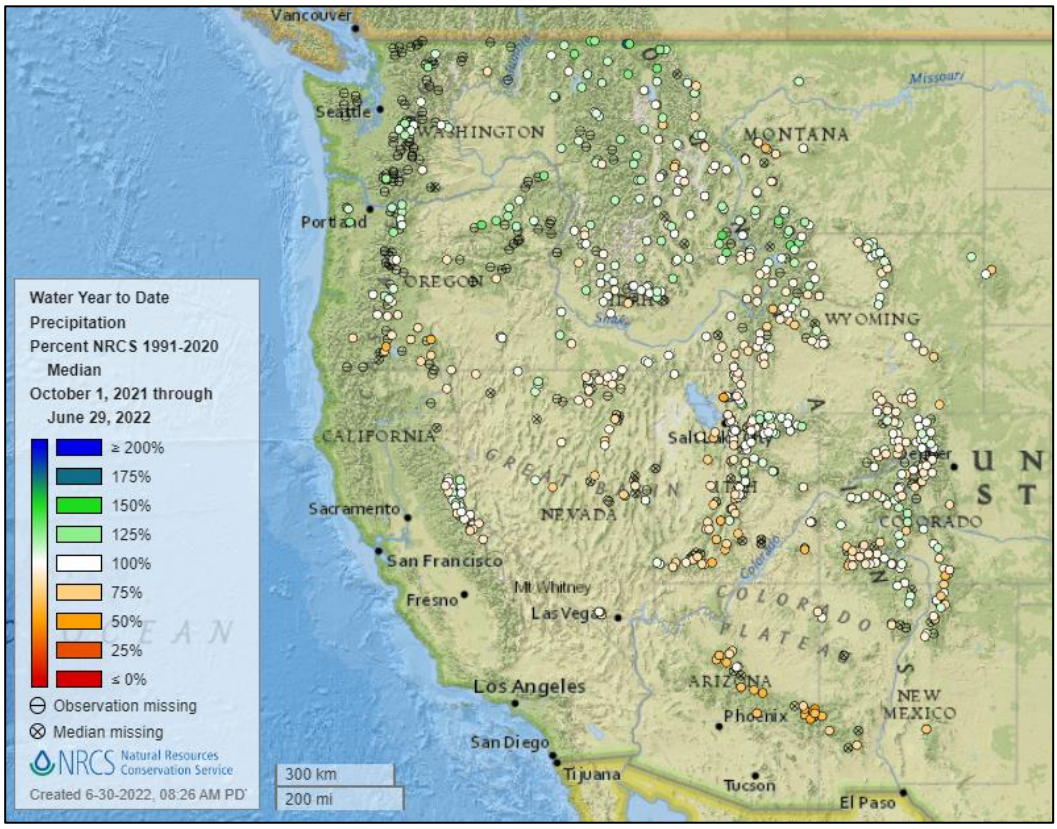
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

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-to-date precipitation values (inches) map]

[Alaska 2022 water year-to-date precipitation percent of median map]

See also:

[Alaska 2022 water year-to-date precipitation percent of average map]

[Alaska 2022 water year-to-date precipitation values (inches) map]

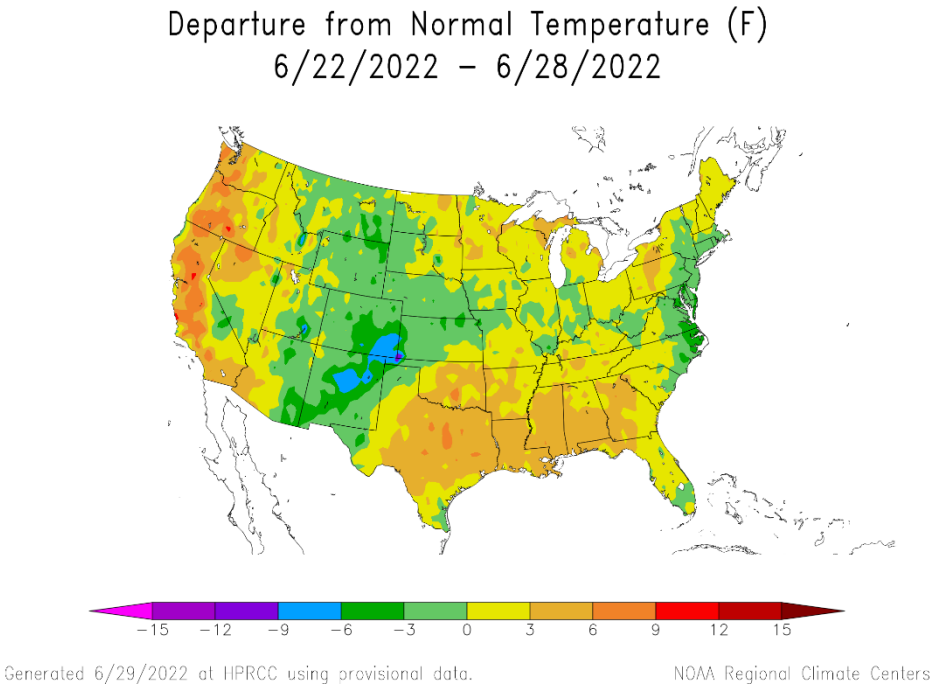
Temperature

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

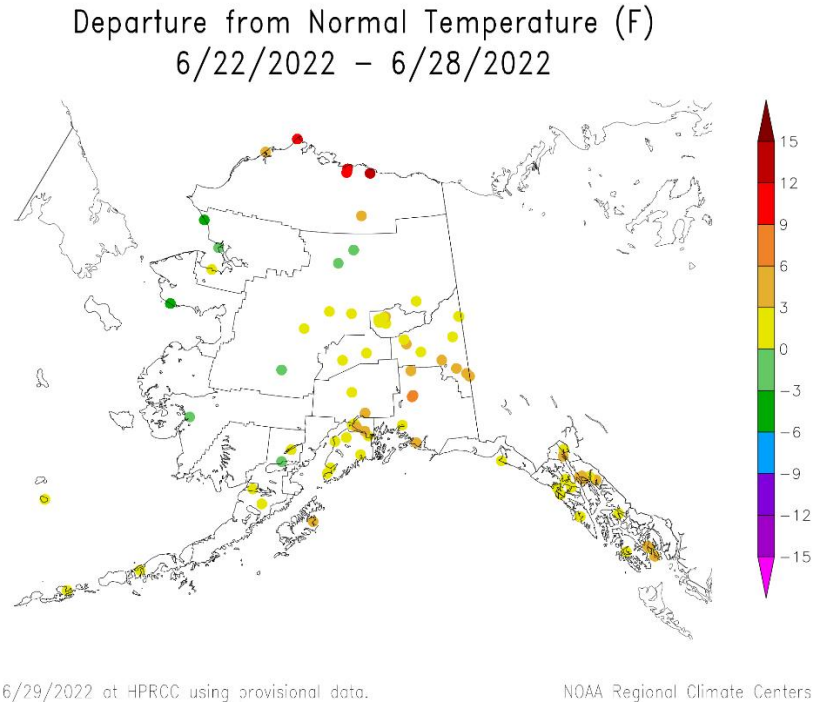


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

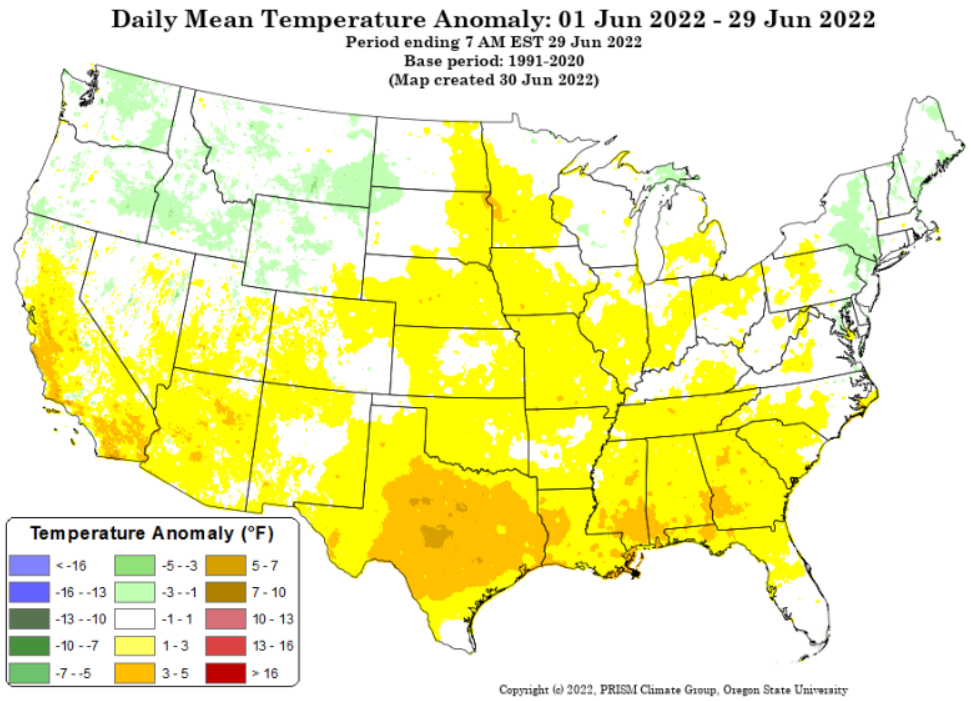
See also: 7-day temperature (° F) map



Monthly, All Available Data Including SNOTEL and NWS Networks

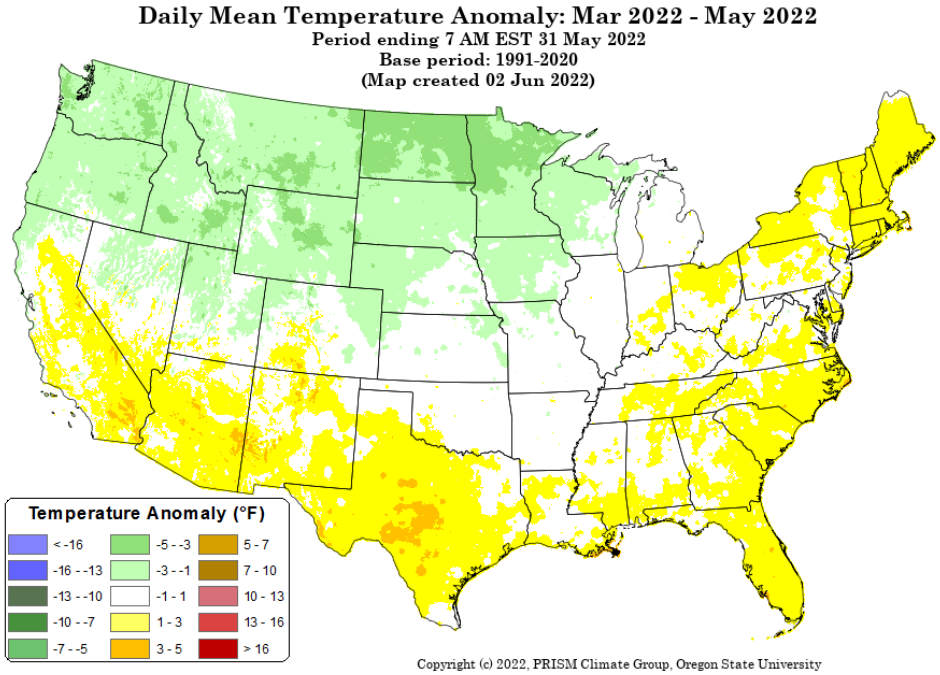
Source: PRISM

[Monthly national daily mean temperature anomaly map]



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

Source: PRISM

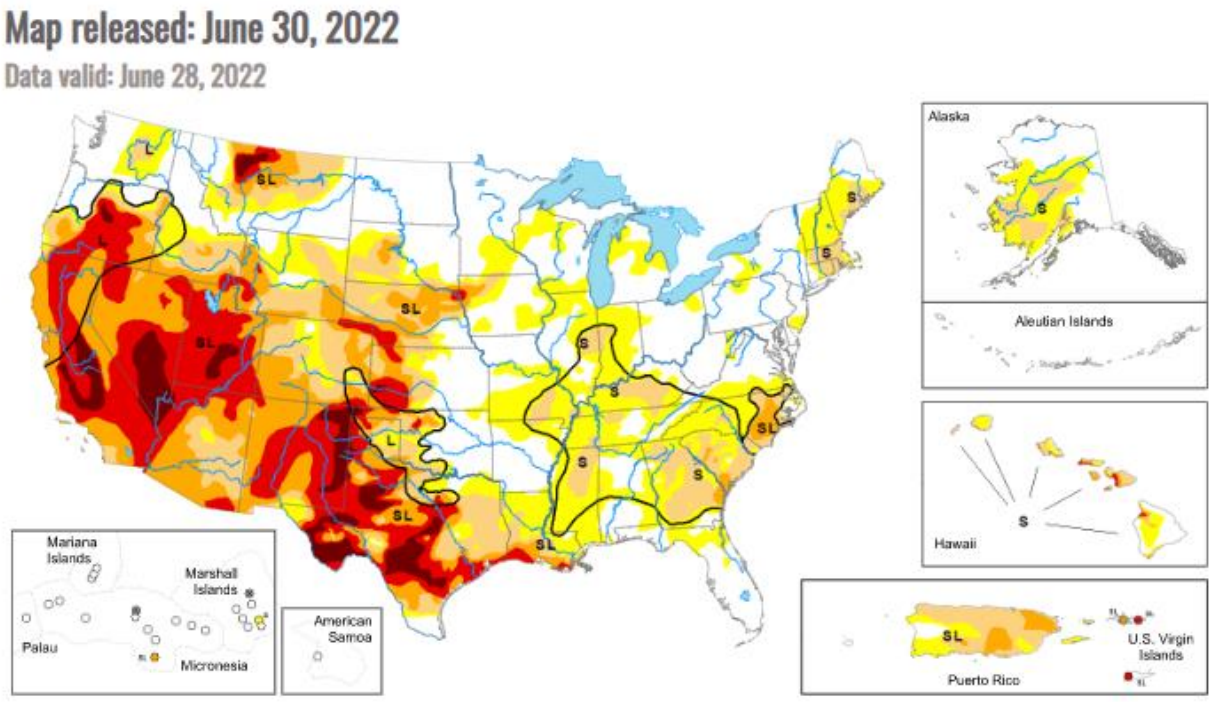


[March through May 2022 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor
Source: National Drought Mitigation Center

U.S. Drought Portal
Source: NOAA



United States and Puerto Rico Author(s):
Curtis Riganti, National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
Richard Tinker, NOAA/NWS/NCEP/CPC

☐ View grayscale version of the map

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, June 28, 2022

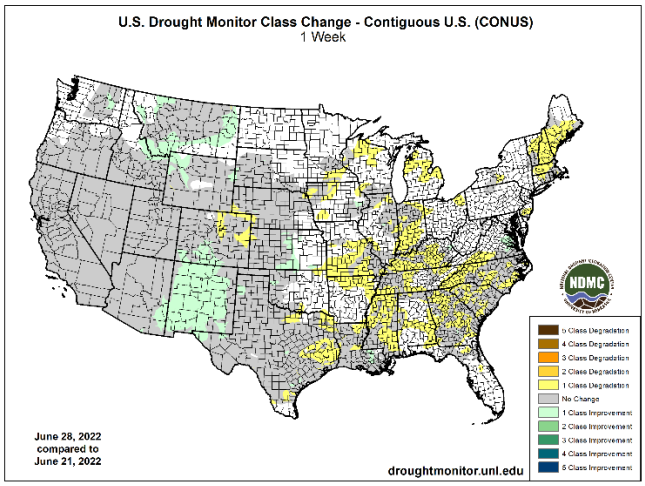
Source: National Drought Mitigation Center

“Widespread moderate drought and abnormal dryness continued to form and expand across a large swath of the eastern U.S. this week, with a few areas of severe drought forming or expanding as well. Spotty rain and storms occurred across the East, but in areas that missed out on heavy rainfall, high temperatures, browning lawns, and curling corn signaled that rapid drying was taking place in many areas. An early start to the North American Monsoon, particularly in New Mexico and southern Colorado, led to widespread improvement of extreme and exceptional drought in those states. Extreme drought formed or expanded in parts of the central Great Plains this week, where warm, dry weather continued. Moderate short-term drought also began to expand in parts of New England this week. Short-term moderate and severe drought expanded in coverage in Alaska and Puerto Rico, and drought conditions continued to expand in parts of Hawaii. Finally, despite some improvements to conditions in parts of the West, severe, extreme, and some exceptional drought remains widespread there.”

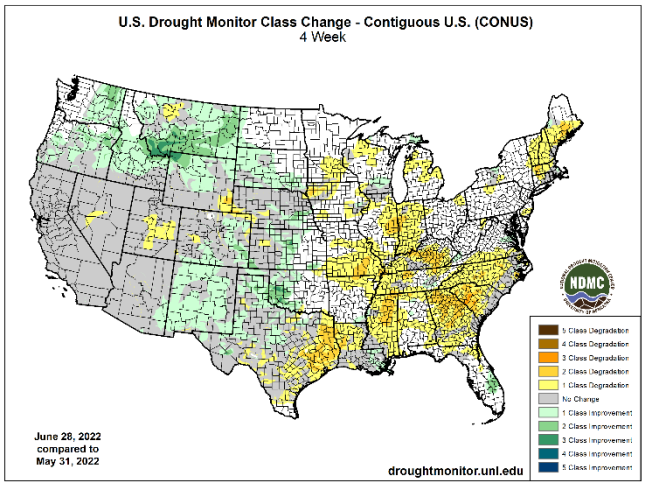
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

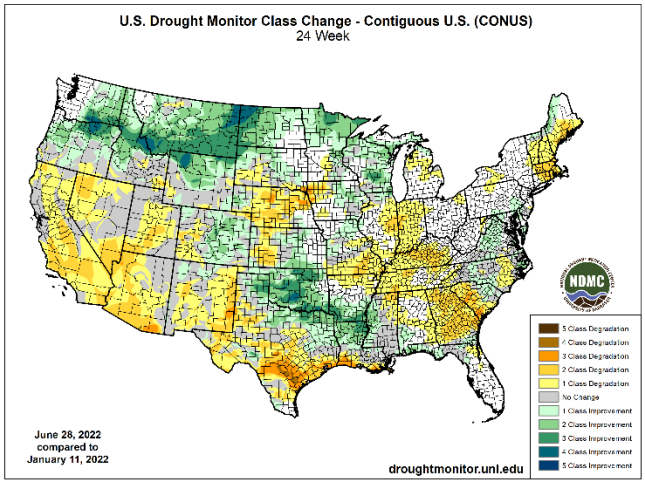
1 Week



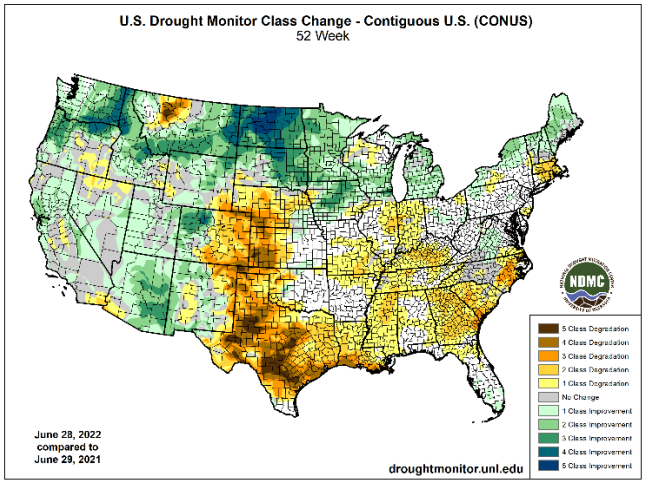
1 Month



6 Months



1 Year



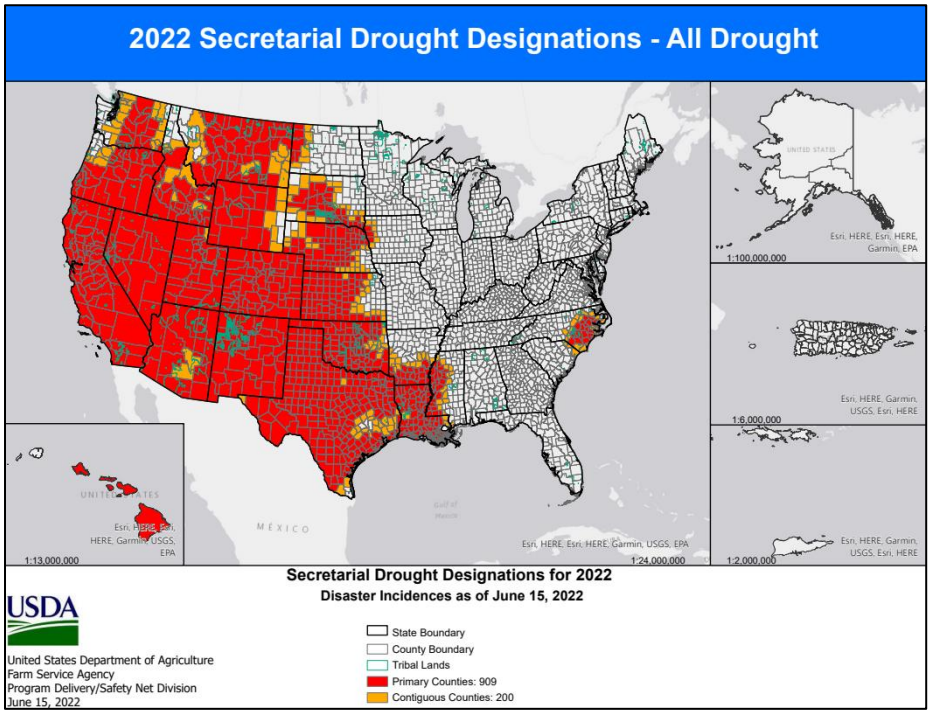
Changes in drought conditions over the last 12 months for the contiguous U.S.

Highlighted Drought Resources

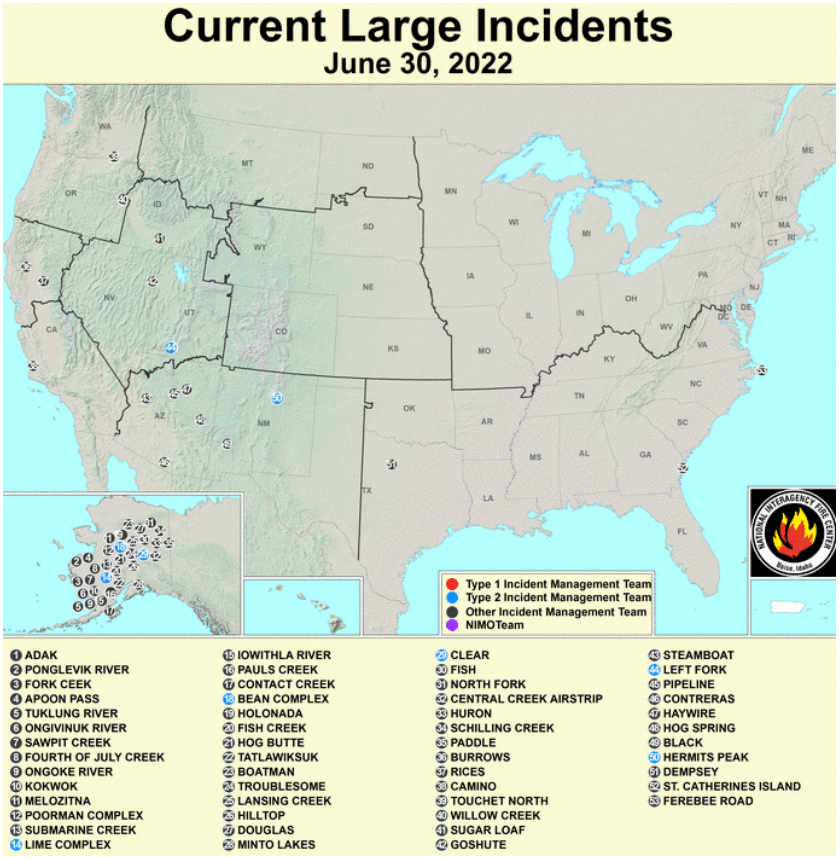
- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



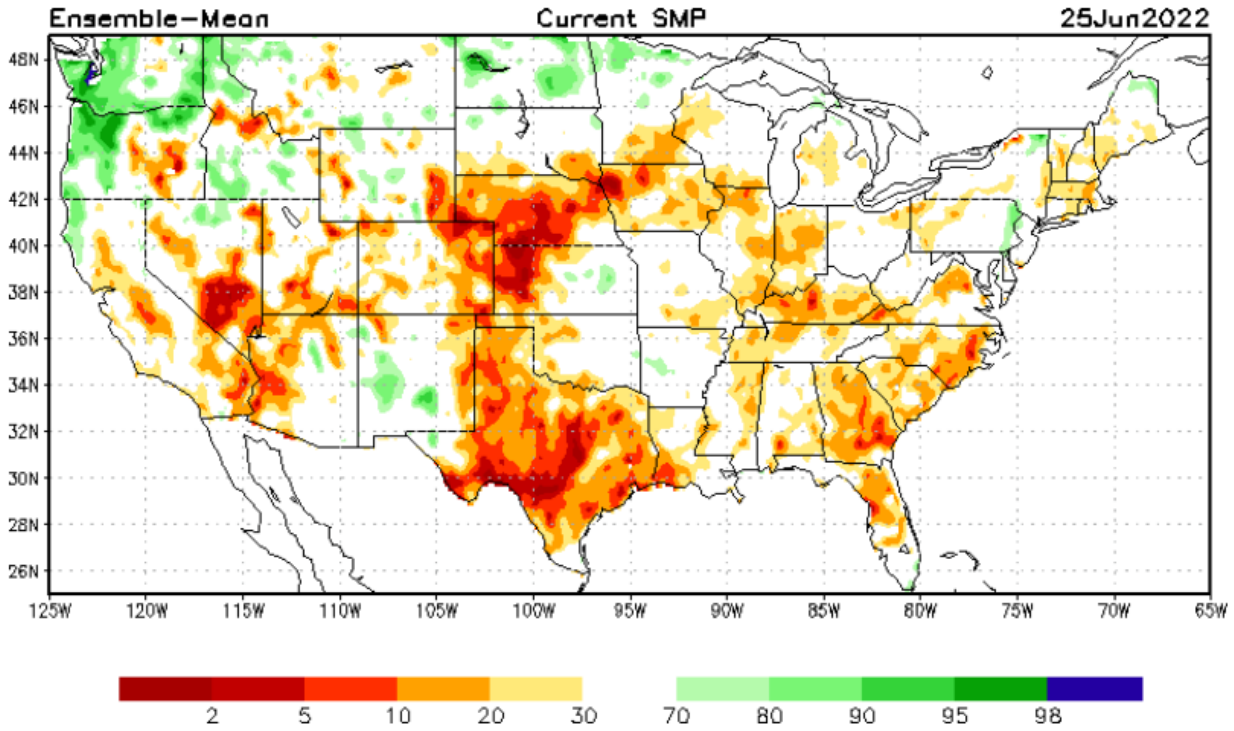
Highlighted Wildfire Resources

- 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

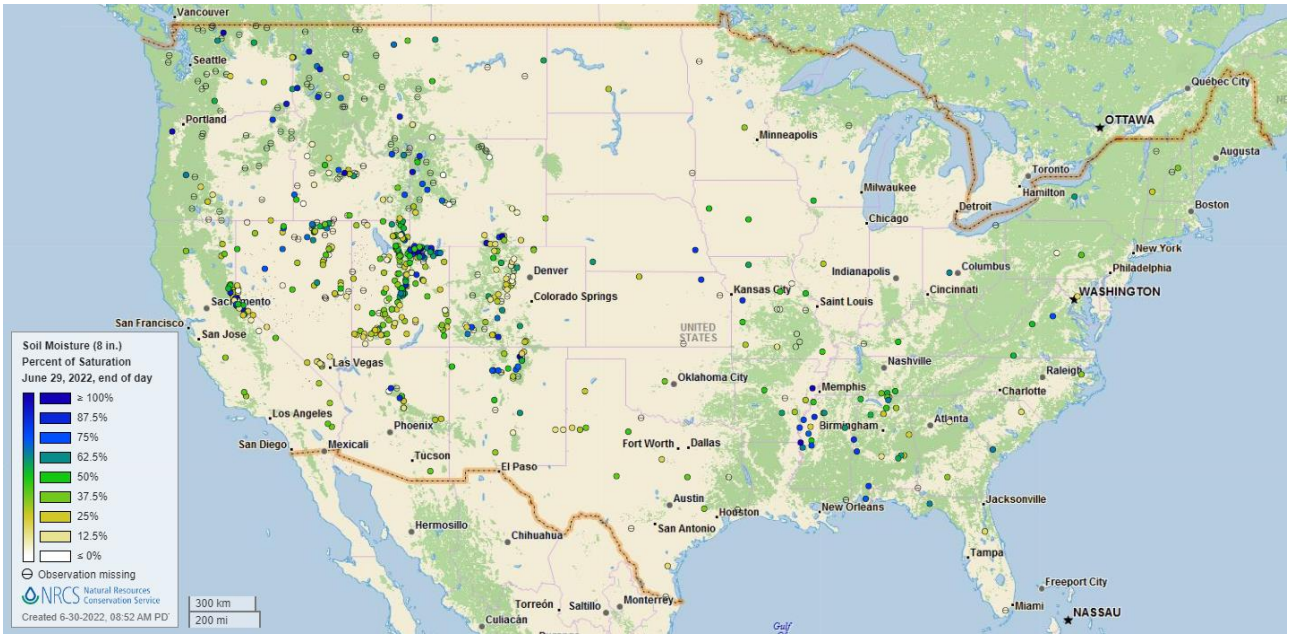


Modeled soil moisture percentiles as of June 25, 2022

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)

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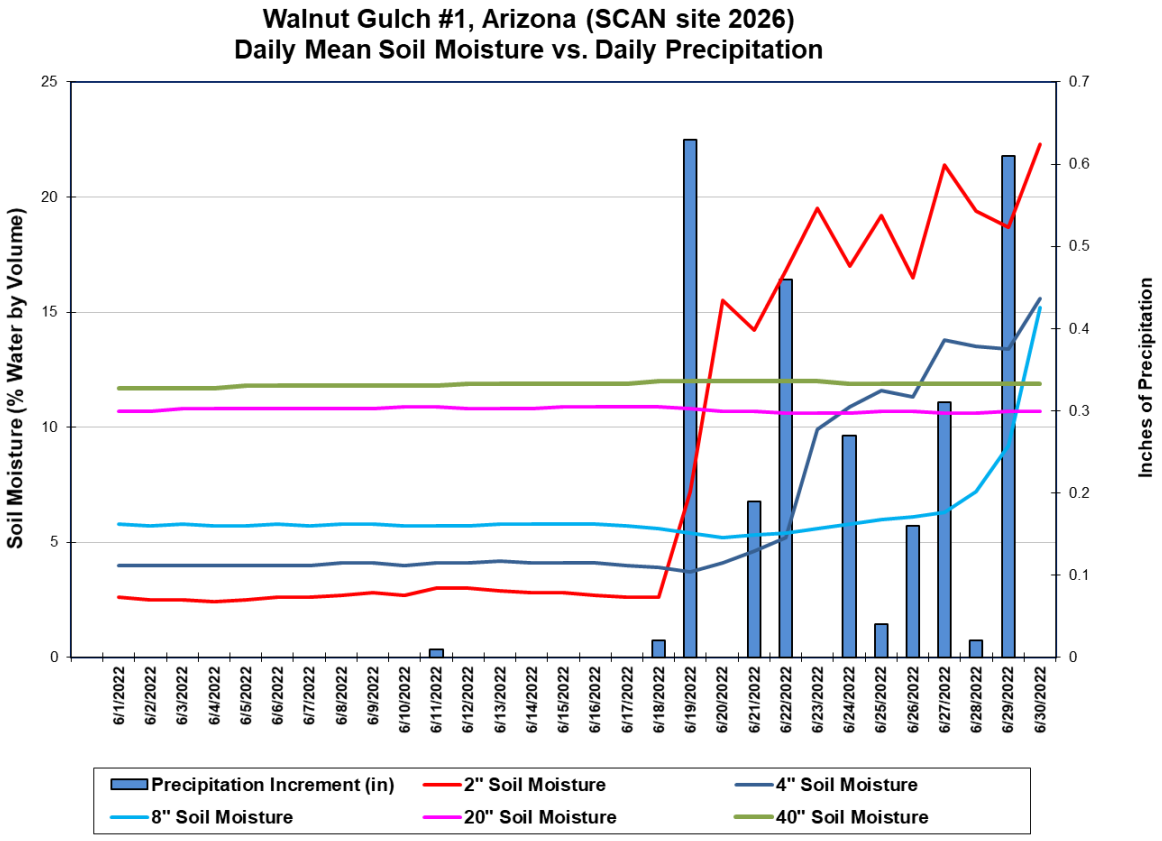


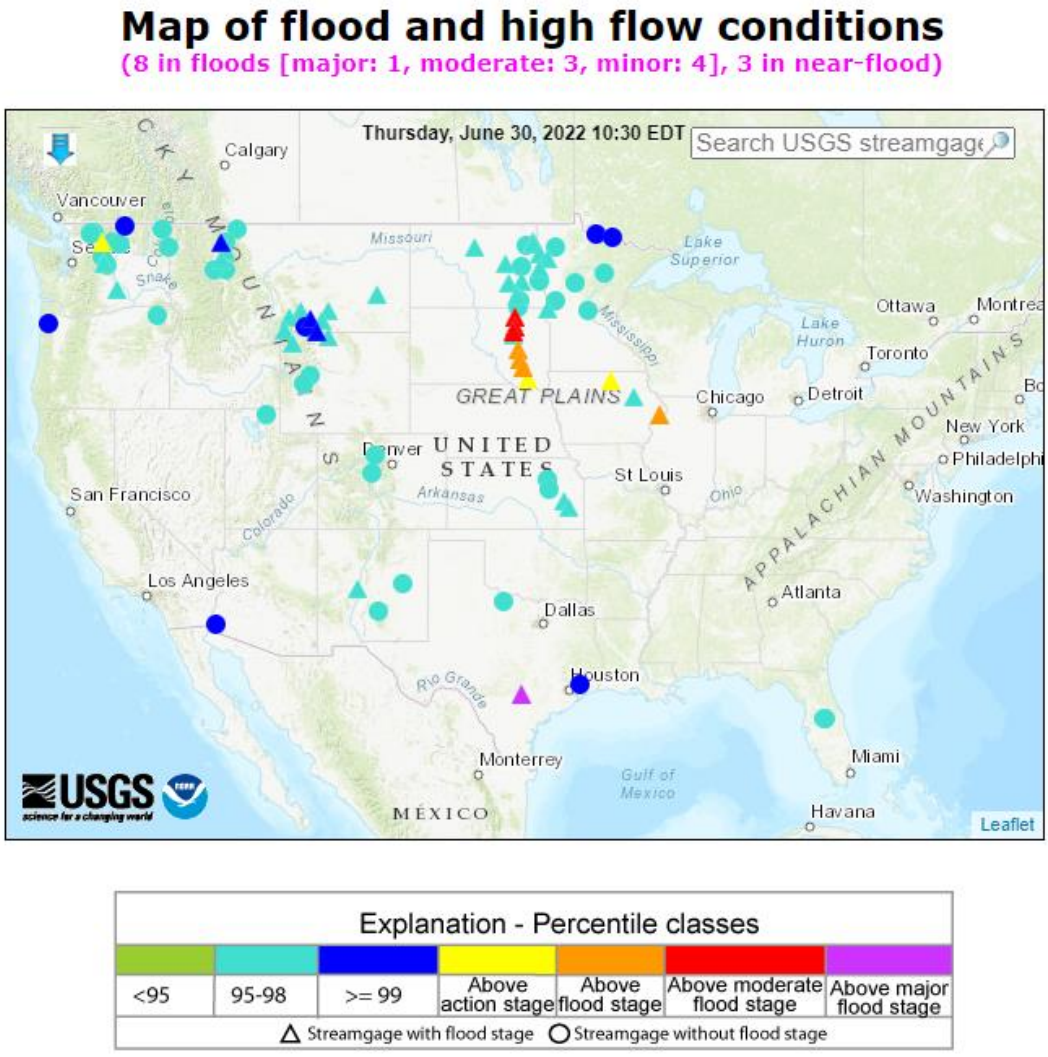
This chart shows the precipitation and soil moisture for the last 30 days at the Walnut Gulch #1 SCAN site in Arizona. The monsoon rains, which started on June 18, have increased the soil moisture at the -2-, -4-, and -8-inch sensors. The deeper sensors have not reported any change. The total precipitation for the period was 2.72 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]



[WaterWatch: Streamflow, drought, flood, and runoff conditions]

Reservoir Storage

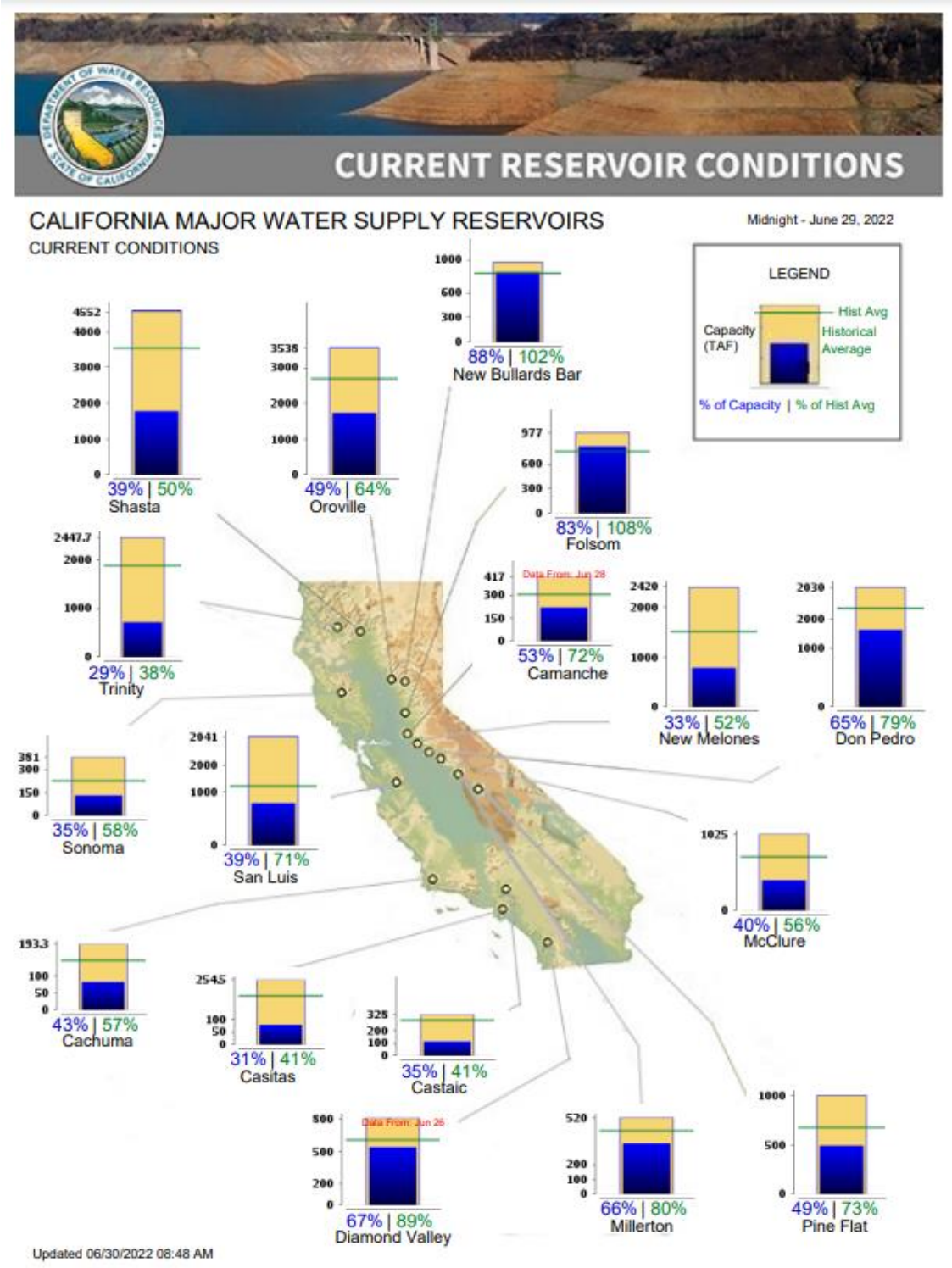
Hydromet Teacup Reservoir Depictions

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]

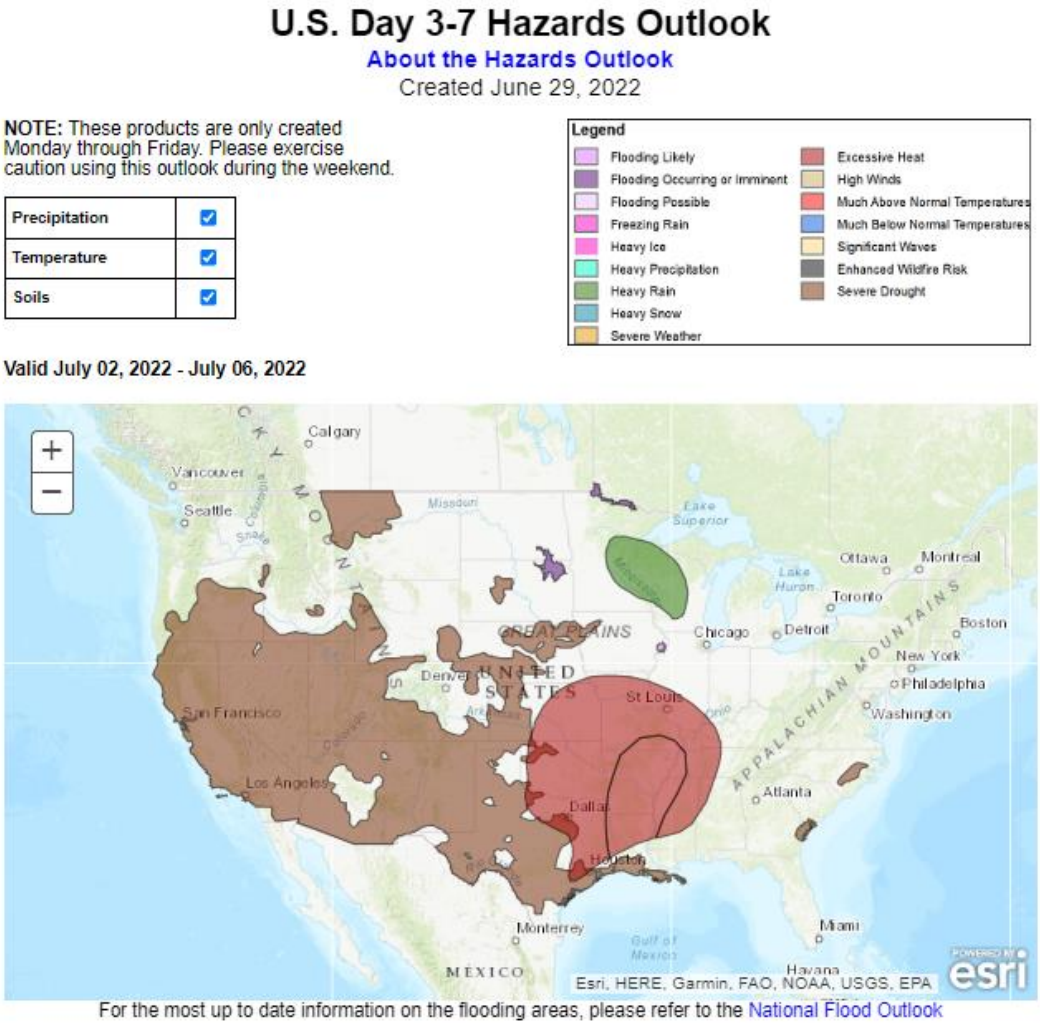
Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, Wednesday, June 29, 2022: "A low-pressure system drifting toward the western Gulf Coast region should enhance rainfall in coastal Texas, where rainfall could total 1 to 3 inches or more. The system has the potential to become a tropical depression or tropical storm before making landfall. Meanwhile, a cold front crossing the Plains, Midwest, and Northeast will generate scattered showers and thunderstorms, although most areas will receive 5-day rainfall totals of an inch or less. Farther west, a resurgent Southwestern monsoon circulation could lead to heavy showers in the Four Corners States, with some locations receiving 1 to 2 inches or more. Showers will also dot the lower Southeast, where 1- to 3-inch totals will be common. Elsewhere, mostly dry weather will prevail during the next 5 days across the southern Plains and the Far West. After Wednesday, extreme heat will remain mostly at bay during the next several days, although 100-degree heat may begin to advance northward early next week across the nation's mid-section. The NWS 6- to 10-day outlook for July 4 – 8 calls for the likelihood of above-normal temperatures nationwide, except for cooler-than-normal conditions in the Northeast and Far West. Meanwhile, near- or above normal rainfall across most of the country should contrast with drier-than-normal conditions in parts of the south-central U.S. and the Intermountain West."

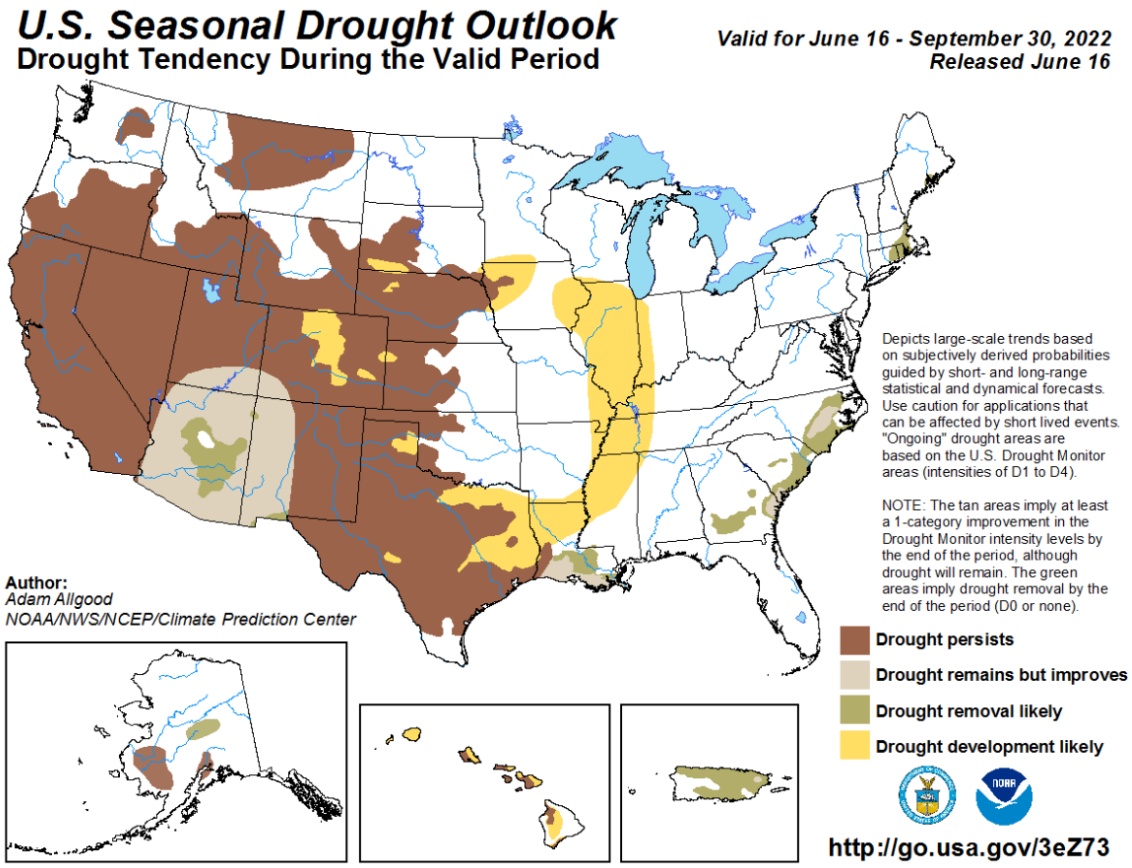
Weather Hazards Outlook: July 02 – 06, 2022

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: June 16 – September 30, 2022

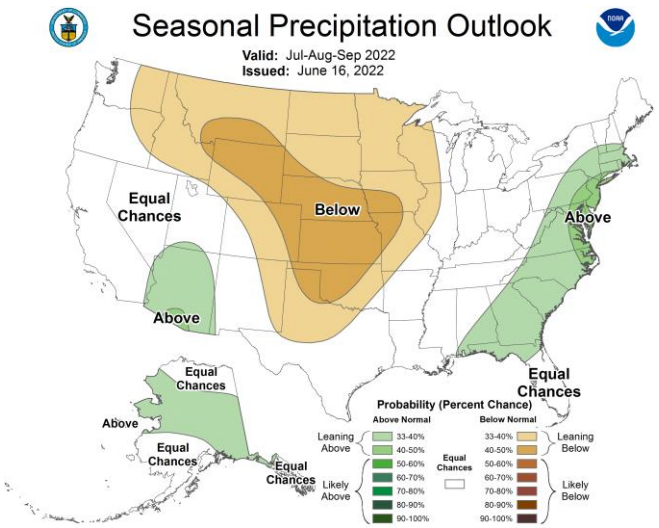
Source: National Weather Service



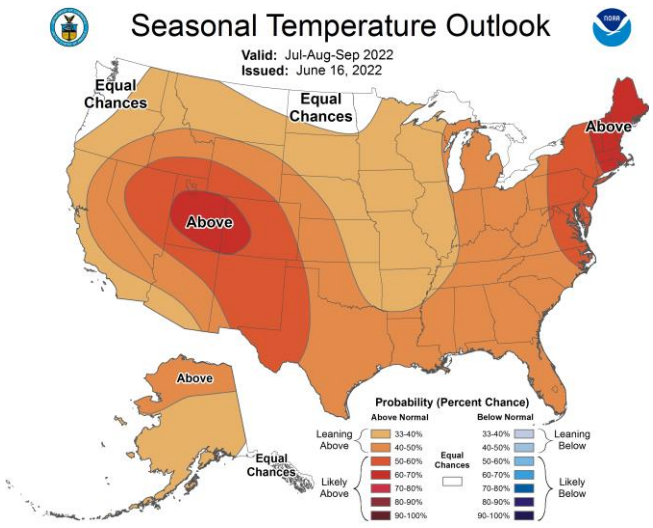
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



July-August-September 2022 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.