

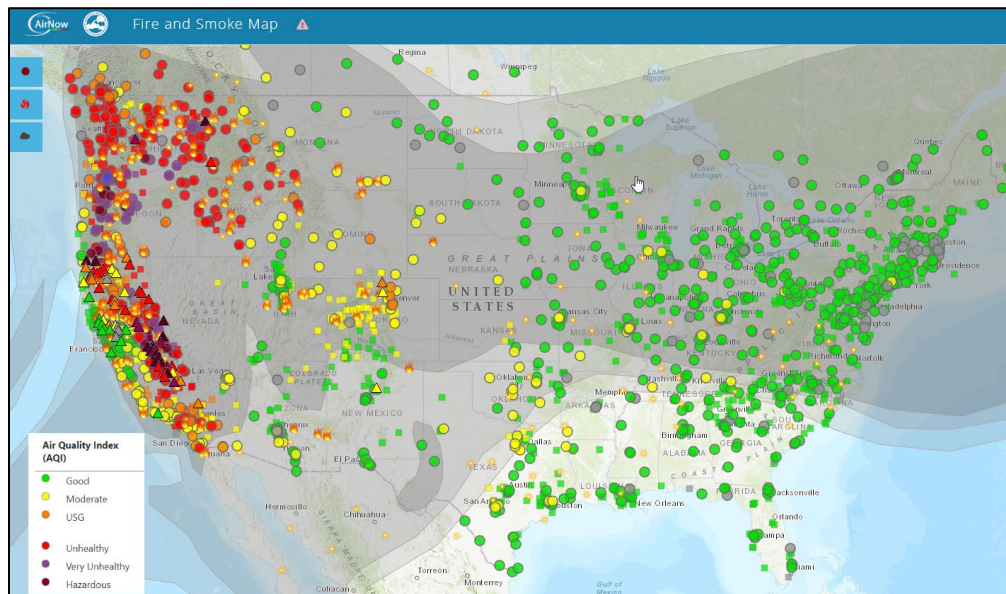
Water and Climate Update

September 17, 2020

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.

Precipitation	1	Other Climatic and Water Supply Indicators	11
Temperature.....	6	More Information	18
Drought	8		

Record wildfires produce hazardous air quality



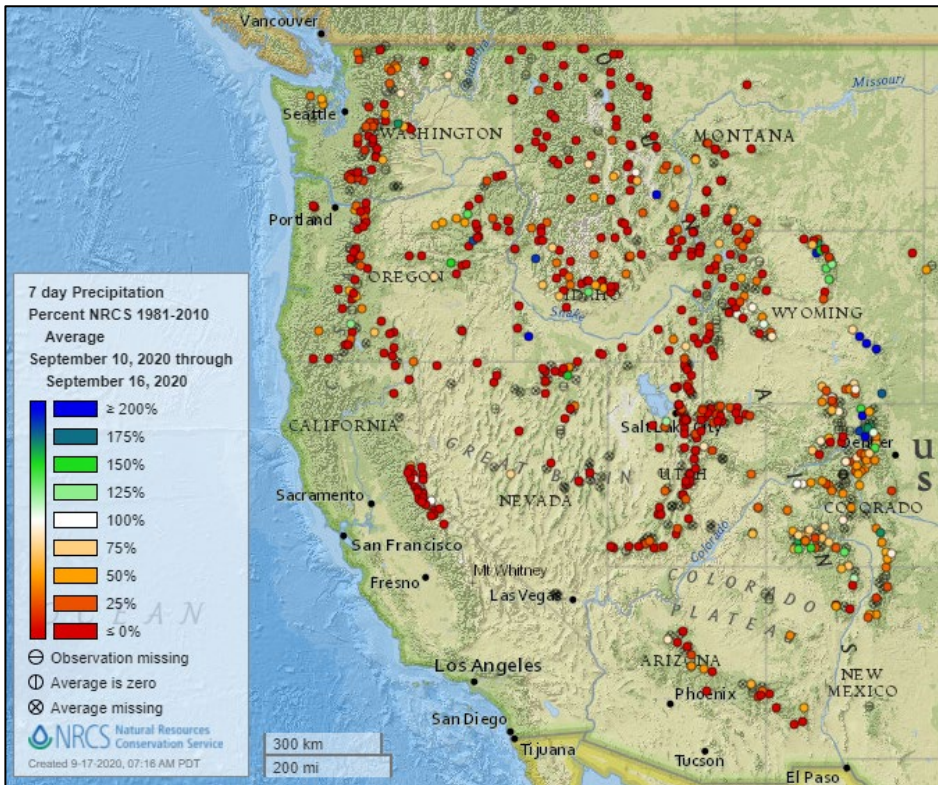
Smoke from record wildfires in Oregon, Washington, and California reached hazardous levels with citizens urged to stay indoors and block smoke from entering. The Air Quality Index (AQI) has surpassed the highest hazardous level in the 300-500 range in some regions and remains high after several days. Most of the wildfires are uncontrolled and continue to pump smoke into the atmosphere. Record-breaking air quality measurements and the ongoing smoke hazard have led to multiple days of warnings from health officials. The smoke has now spread to the East Coast and beyond.

Related:

[The West Coast is suffering from some of the worst air in the world — these apps show how bad it is](#) - CNBC
[Smoke from western wildfires pollutes air and threatens health of residents](#) – UPI.com
[HHS declares public health emergency in Oregon due to wildfire smoke](#) – UPI.com
[Crews battle wildfires in U.S. West as smoke travels the world](#) - Reuters
[Oregon's air is so hazardous it's breaking records](#) – OPB
['Lost the Space Needle': Wildfire Smoke Makes Seattle's Air Quality Among Worst in the World](#) – The Daily Telegraph

Precipitation

Last 7 Days, NRCS SNOTEL Network

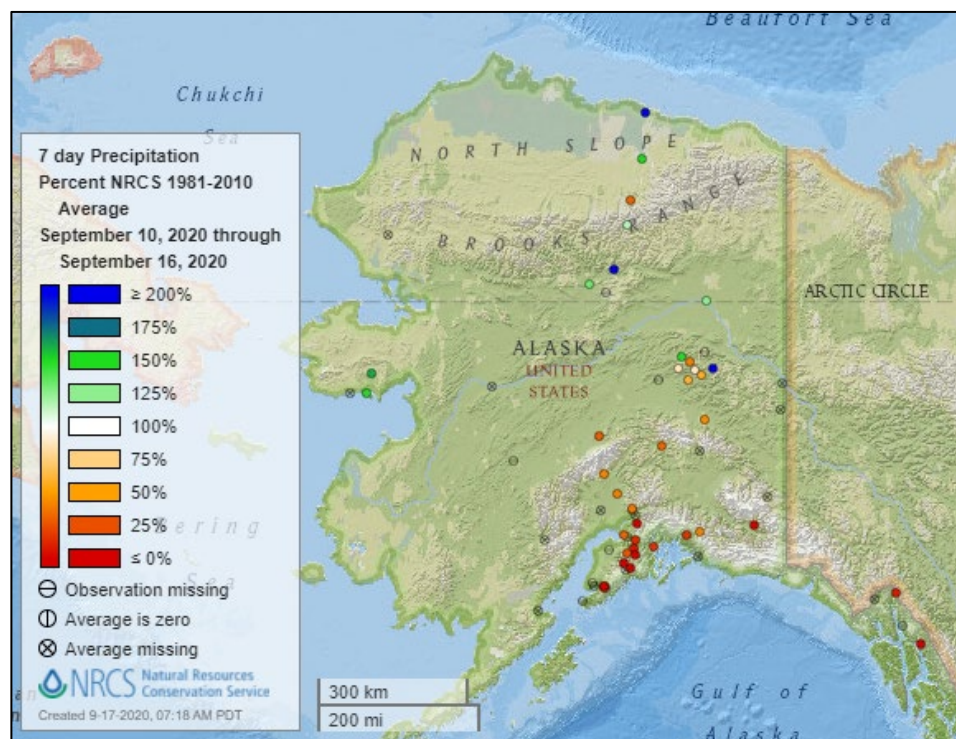


[7-day precipitation percent of average map](#)

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](#)



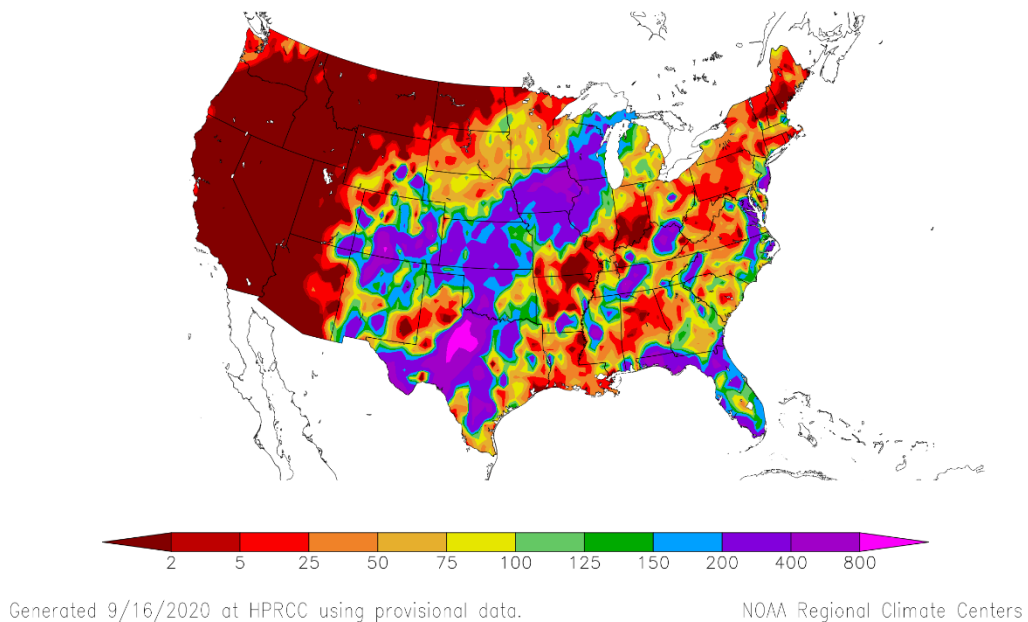
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
9/9/2020 – 9/15/2020



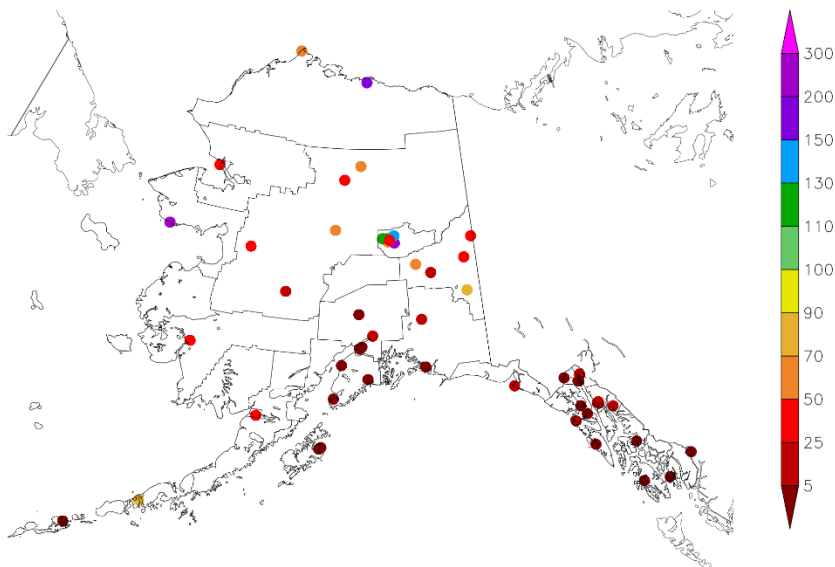
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

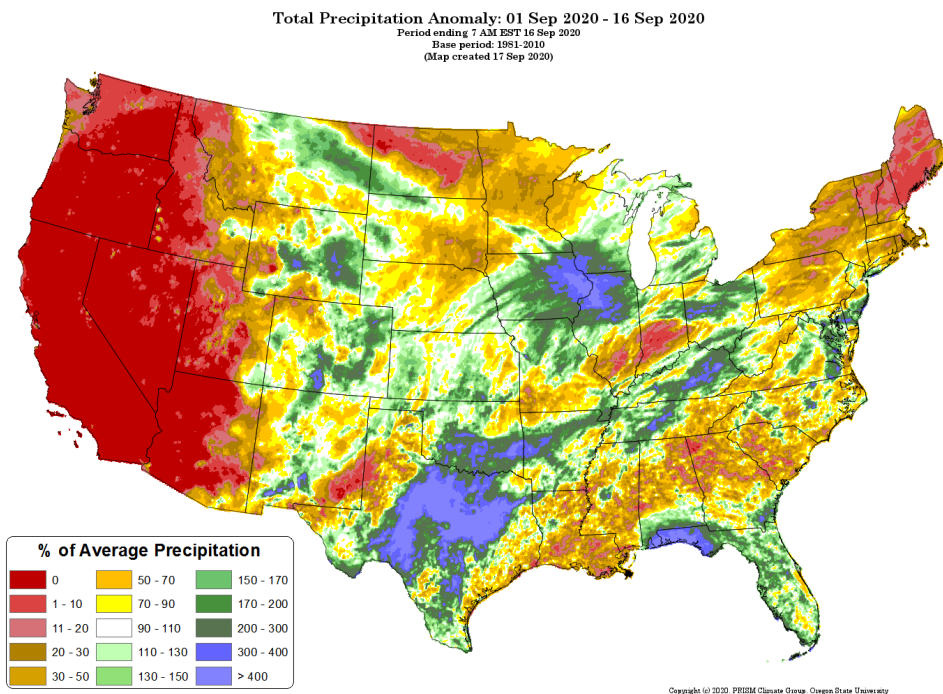
See also: [7-day total precipitation values \(inches\) map](#)

Percent of Normal Precipitation (%)
9/9/2020 – 9/15/2020



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

Source: PRISM

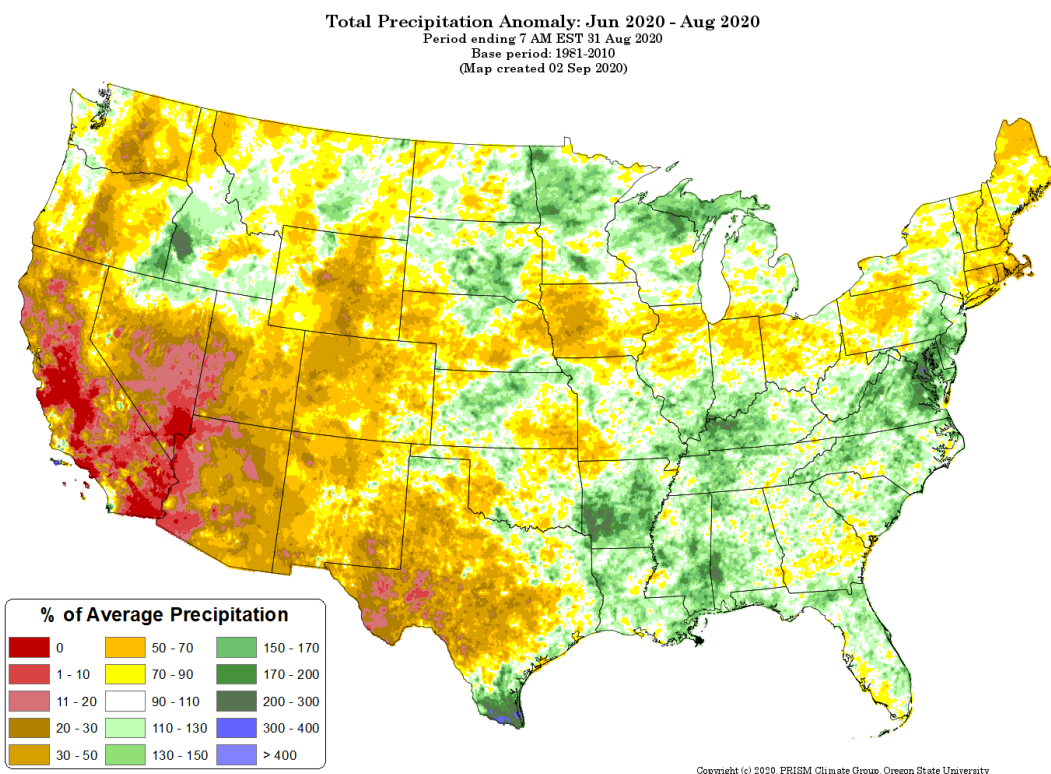


[Month-to-date national total precipitation percent of average map](#)

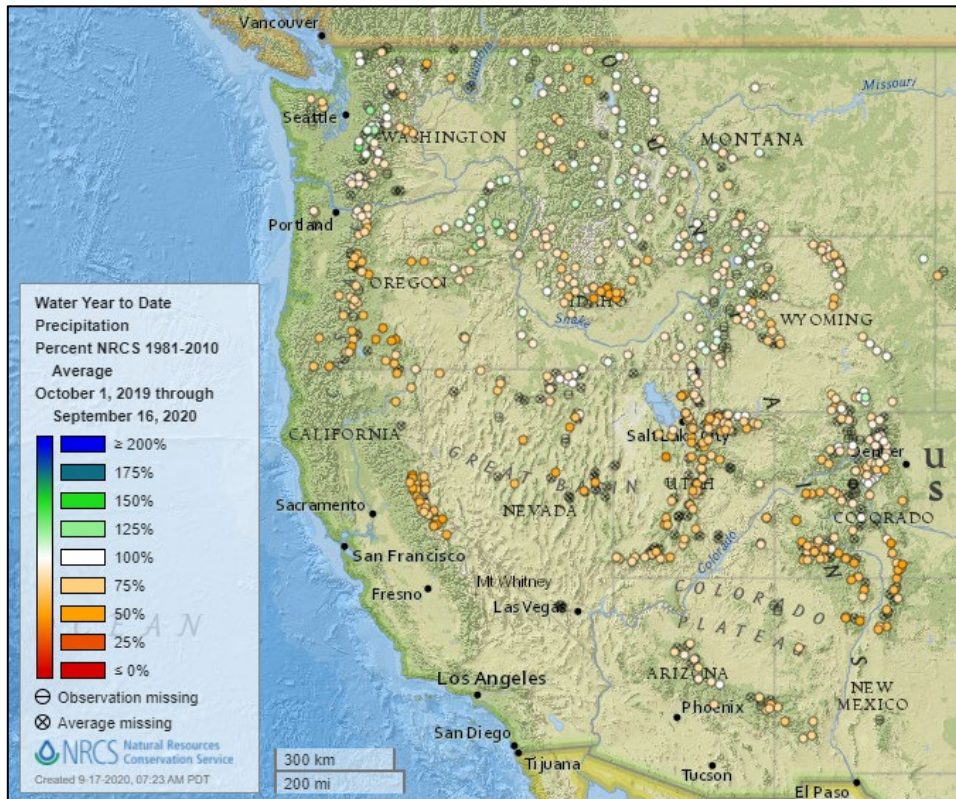
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[June through August precipitation percent of average map](#)

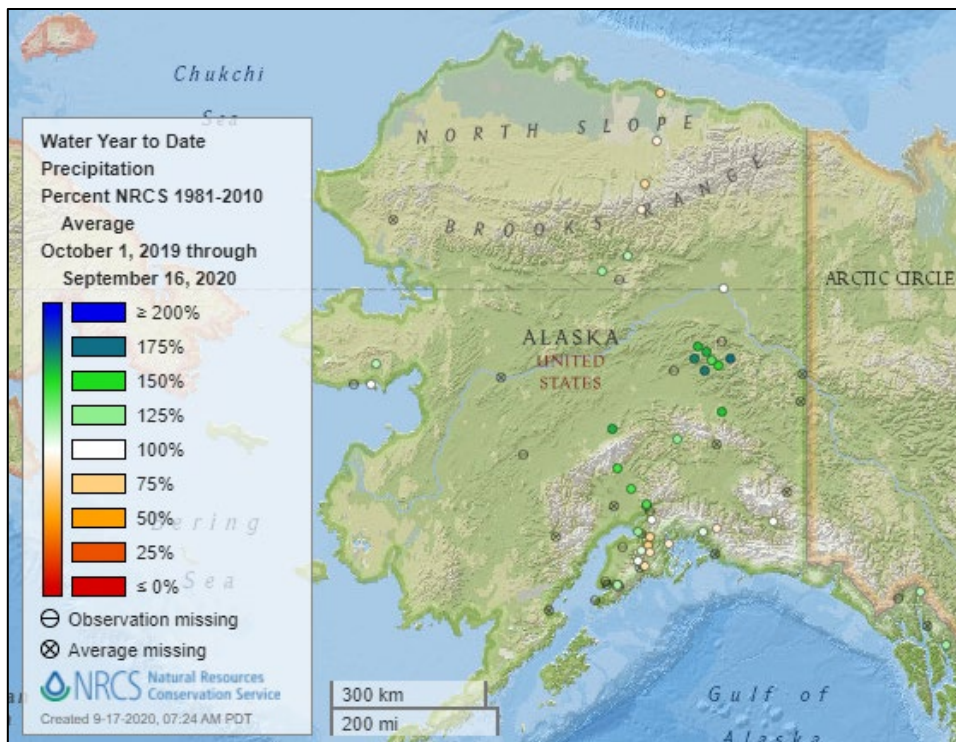


Water Year-to-Date, NRCS SNOTEL Network



[2020 water year-to-date precipitation percent of average map](#)

See also:
[2020 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2020 water year-to-date precipitation percent of average map](#)

See also: [Alaska 2020 water year-to-date precipitation values \(inches\) map](#)

Temperature

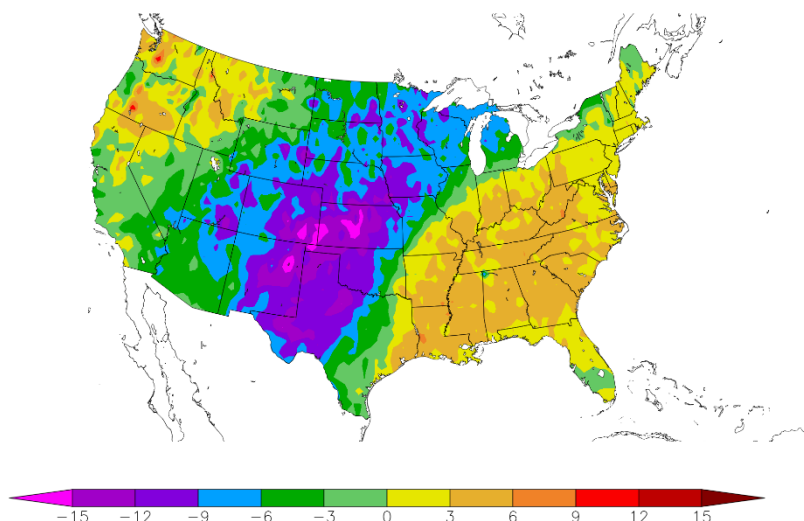
Last 7 Days, National Weather Service (NWS) Networks

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)
9/9/2020 – 9/15/2020



Generated 9/16/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

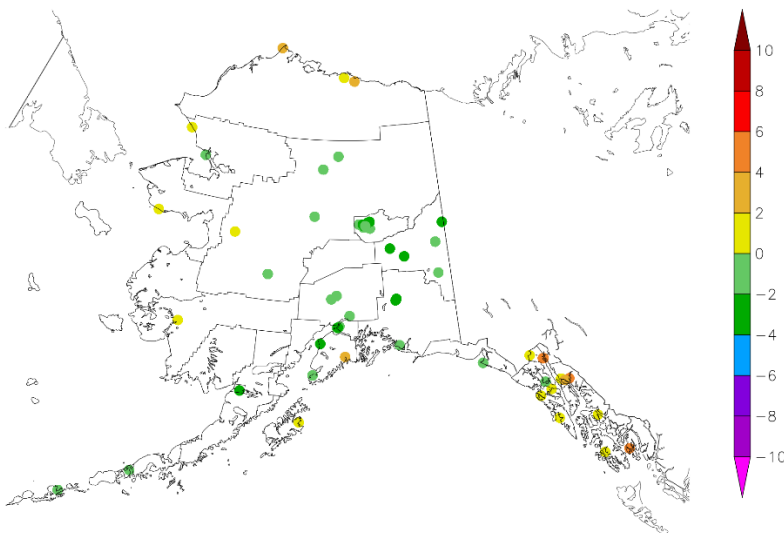
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
9/9/2020 – 9/15/2020



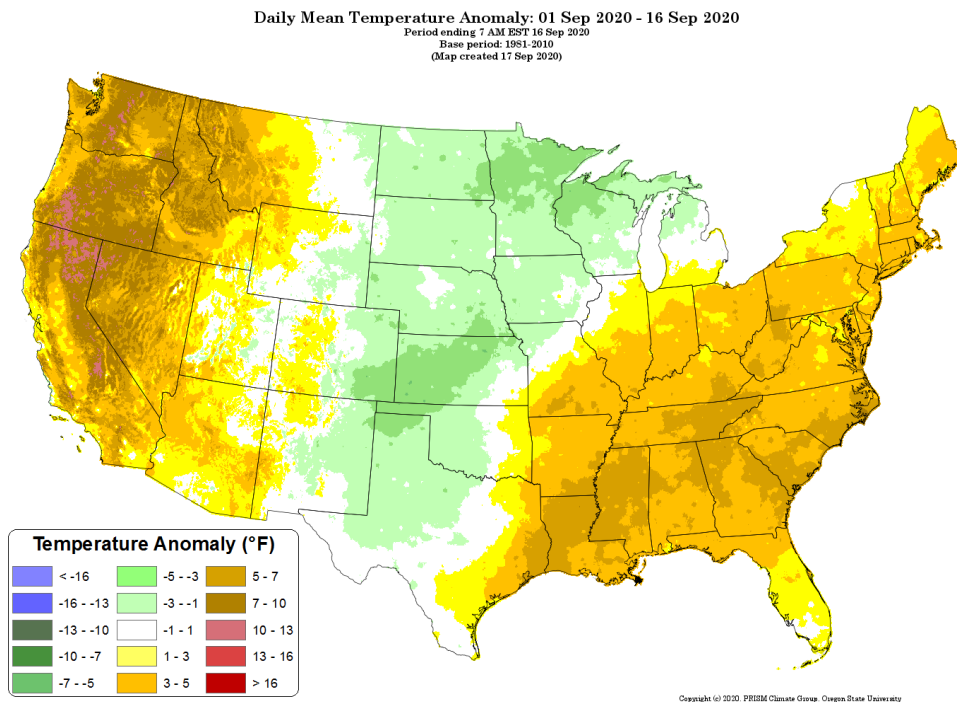
Generated 9/16/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

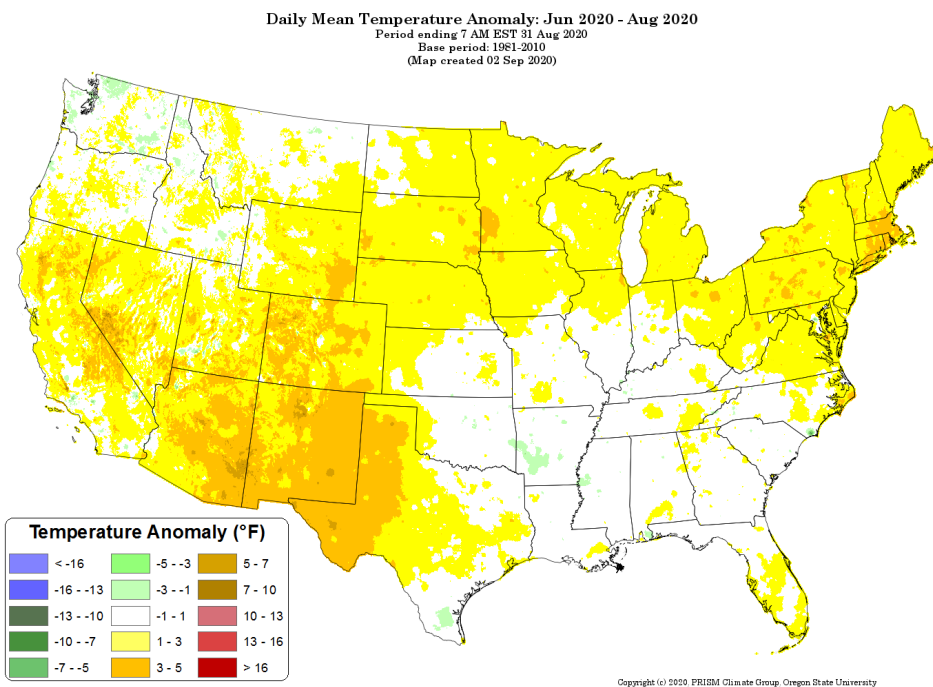
Source: PRISM

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



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

Source: PRISM



[June through August
2020 daily mean
temperature anomaly
map](#)

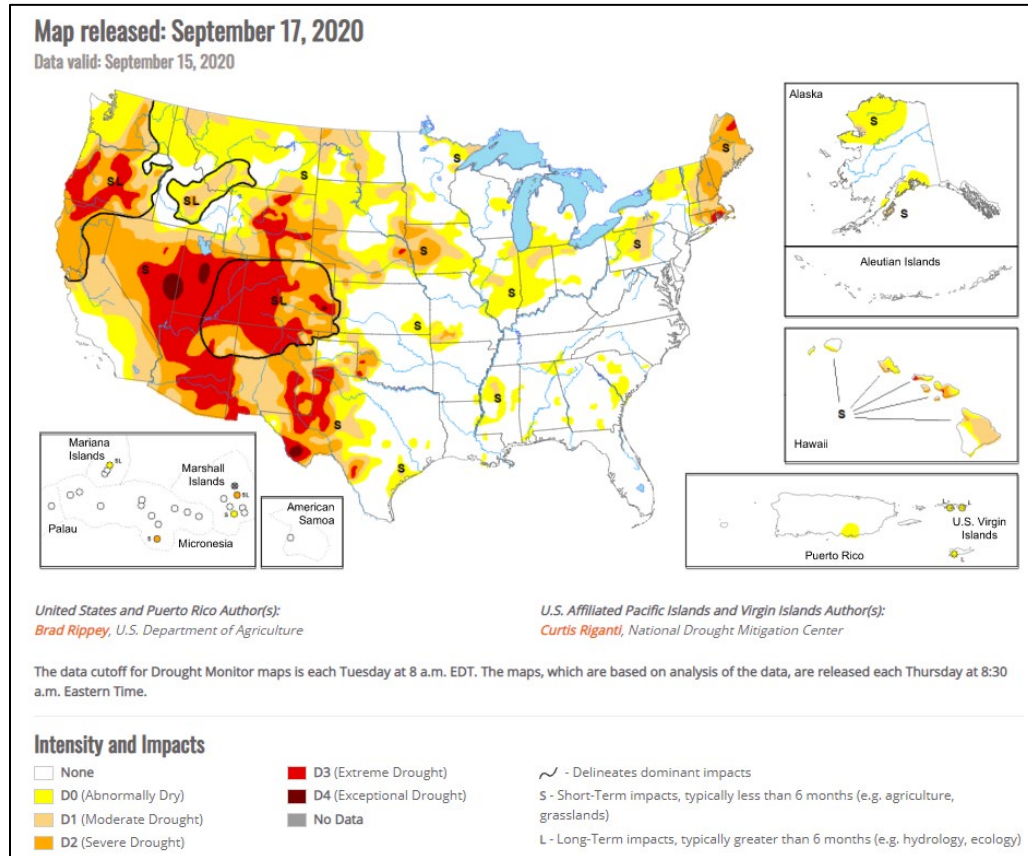
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), September 17, 2020

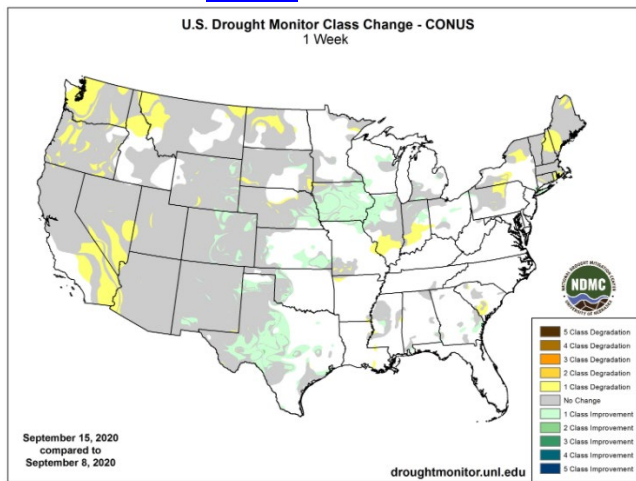
Source: National Drought Mitigation Center

“Dozens of dangerous and sometimes deadly wildfires continued to burn across the West, with the greatest concentration of blazes affecting the parched Pacific Coast States. By mid-September, 16 active fires in California, Oregon, and Washington had scorched at least 100,000 acres of vegetation, along with two in Colorado. At least a dozen active wildfires had destroyed more than 100 structures, while some three dozen fatalities have been reported, with several individuals still unaccounted for. Farther east, periods of heavy rain (and high-elevation snow) occurred across portions of the Rockies, Plains, and Midwest, boosting topsoil moisture and benefiting drought-stressed rangeland and pastures. However, excessive rain fell in some areas, including parts of Texas, sparking local flooding. In conjunction with the heavy precipitation, a sharp, early-season cold snap delivered record-setting low temperatures across the Plains, Rockies, and upper Midwest, while summer-like heat lingered along and near the Pacific Coast. Meanwhile, heavy showers associated with Tropical Storm Sally—later a hurricane—spread across Florida’s peninsula during the weekend of September 12-13. Excessive rain fell in southern portions of the state, including the Florida Keys. Later, as a Category 2 hurricane, Sally made landfall on September 16 near Gulf Shores, Alabama, around 4:45 am CDT, with sustained winds near 105 mph. Sally dumped historic and catastrophic amounts of rain in southern Alabama and western Florida. In addition, high winds caused extensive damage and power outages along and near the Gulf Coast, while a significant coastal storm surge occurred along and to the east of the landfall location. Once inland, Sally exhibited rapid weakening but continued to spark heavy rainfall and flash flooding.”

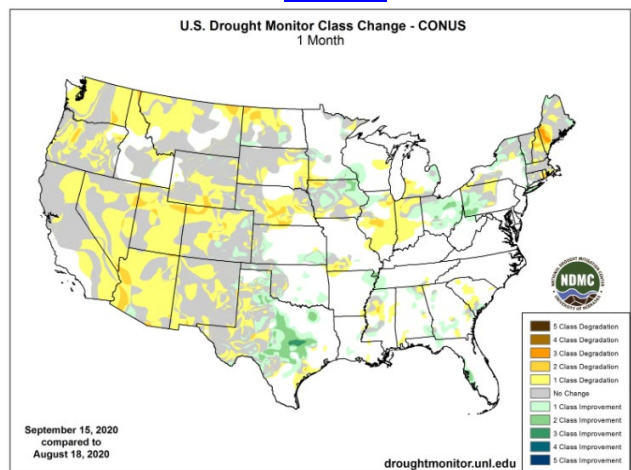
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

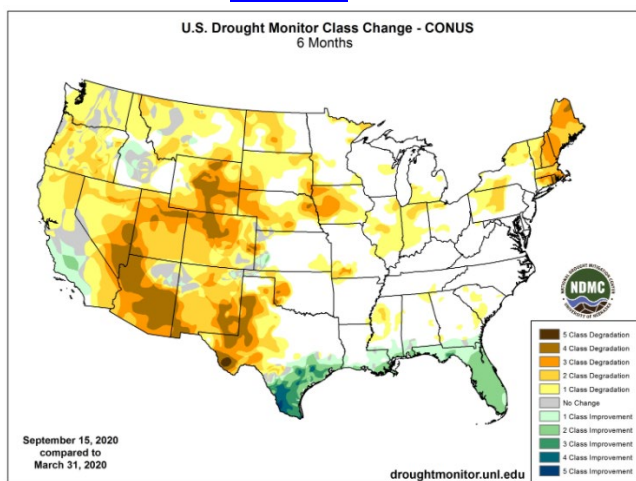
1 Week



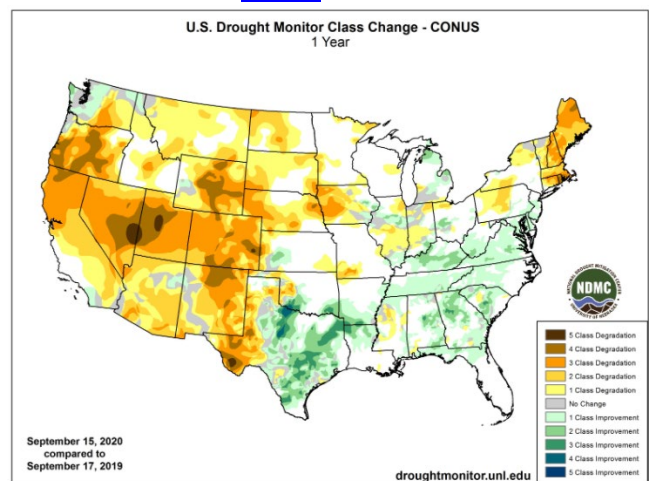
1 Month



6 Months



1 Year



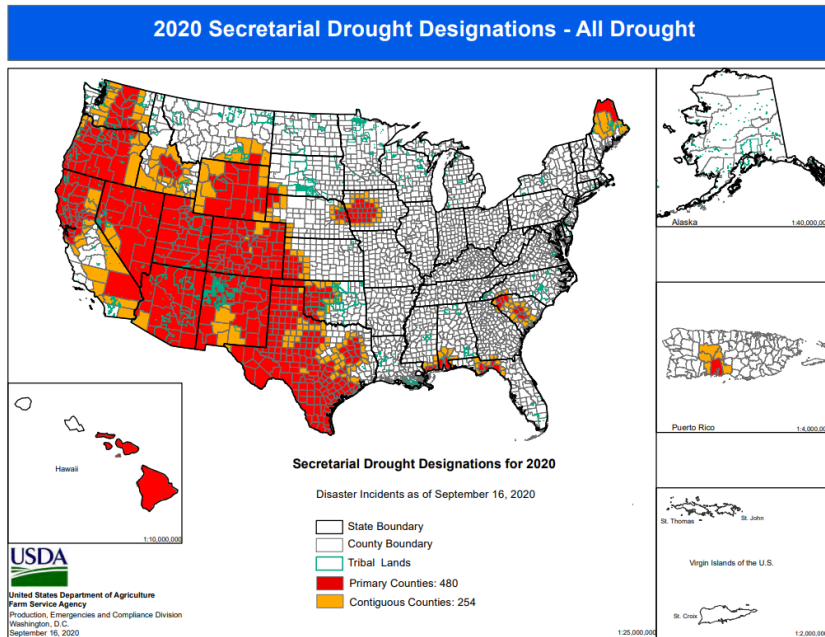
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

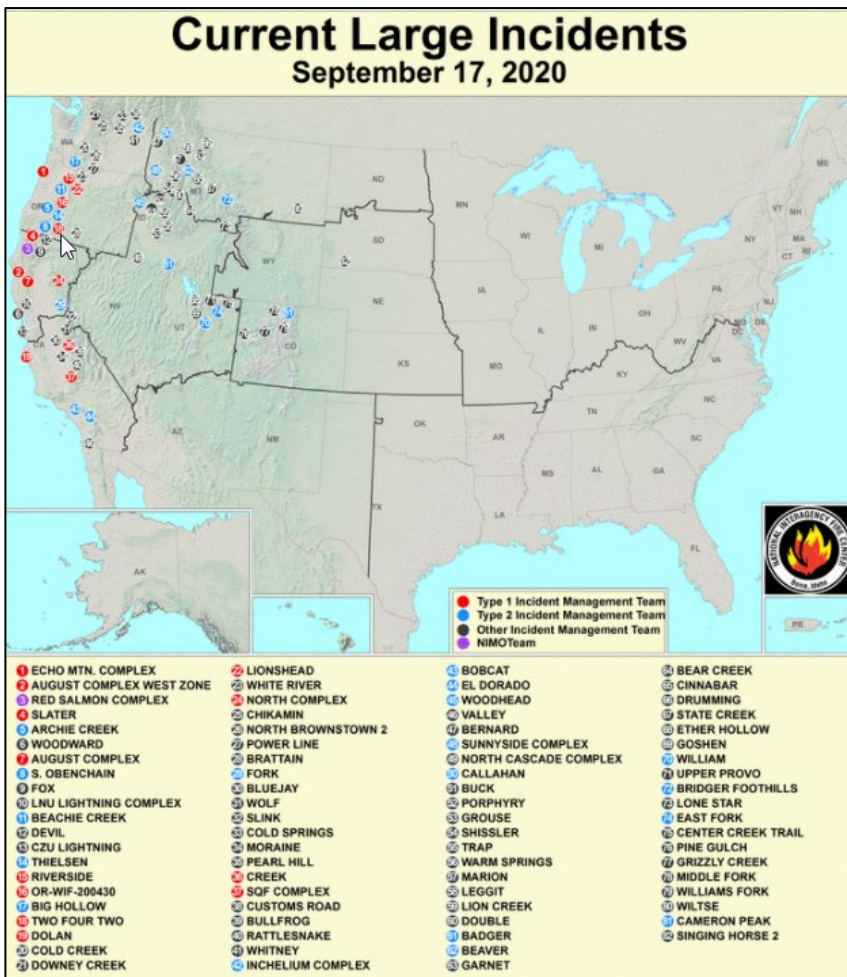
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

Secretarial [Drought Designations](#)

Source: USDA Farm Service Agency



Wildfires: [USDA Forest Service Active Fire Mapping](#)



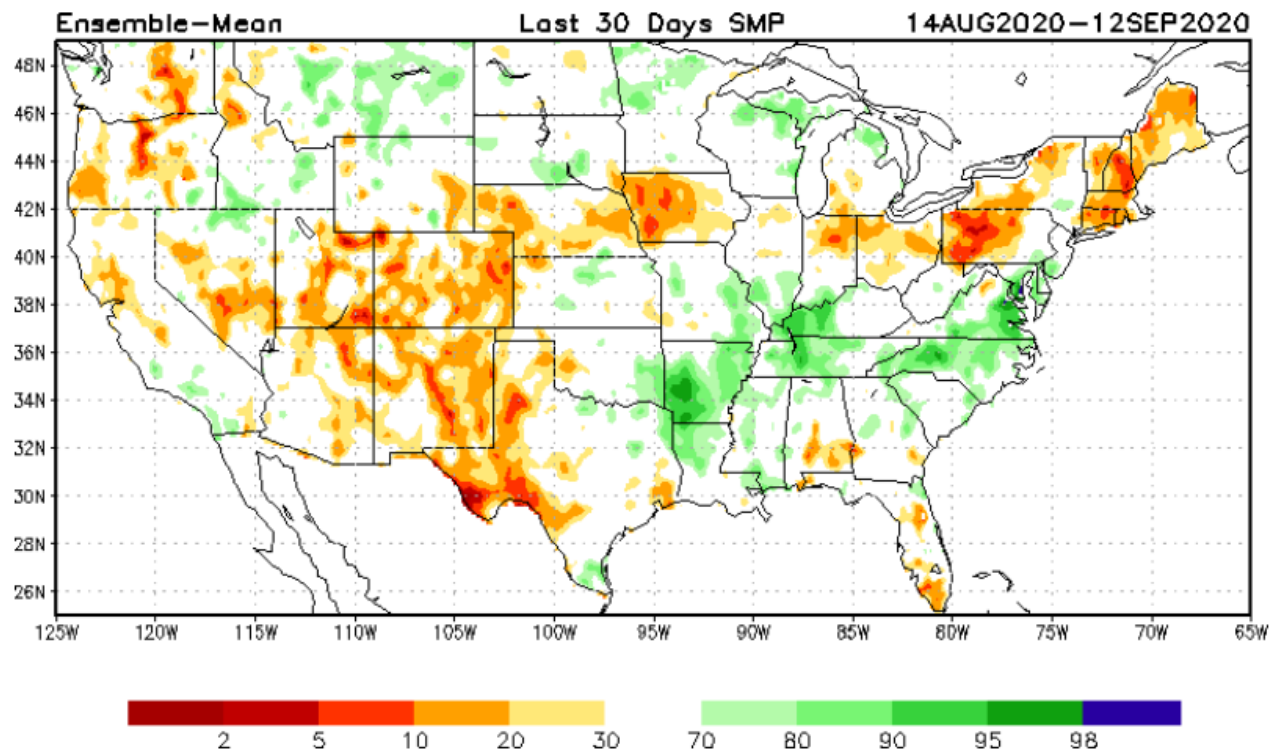
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

Soil Moisture

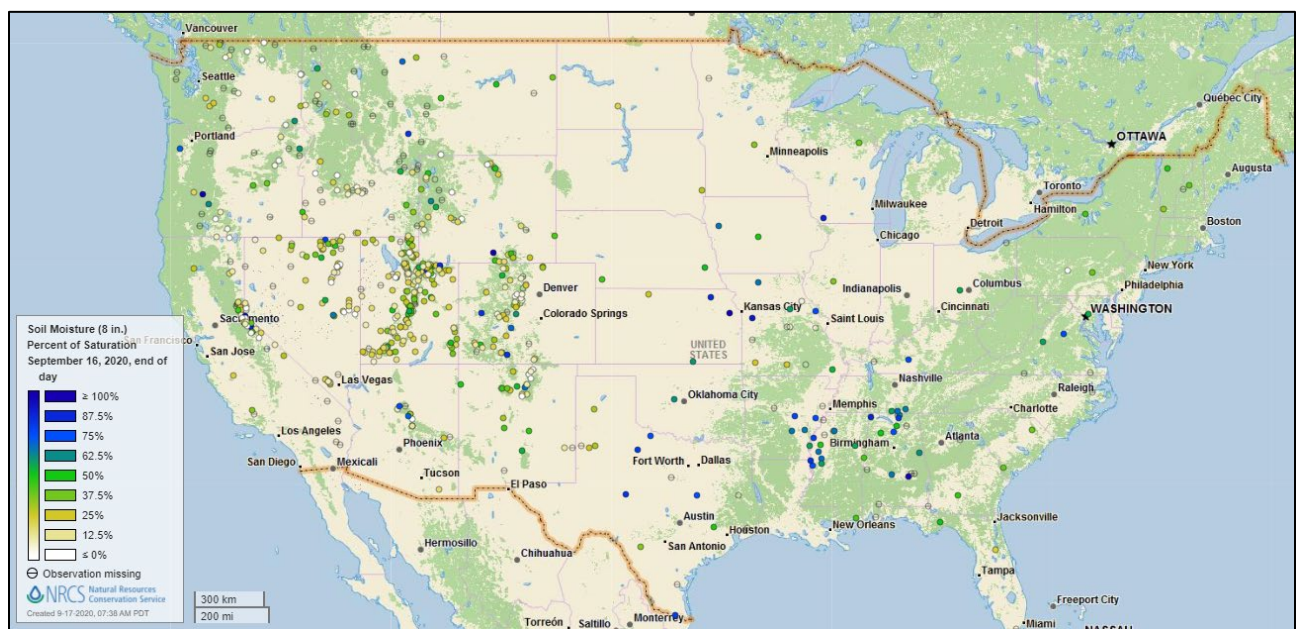
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of September 12, 2020

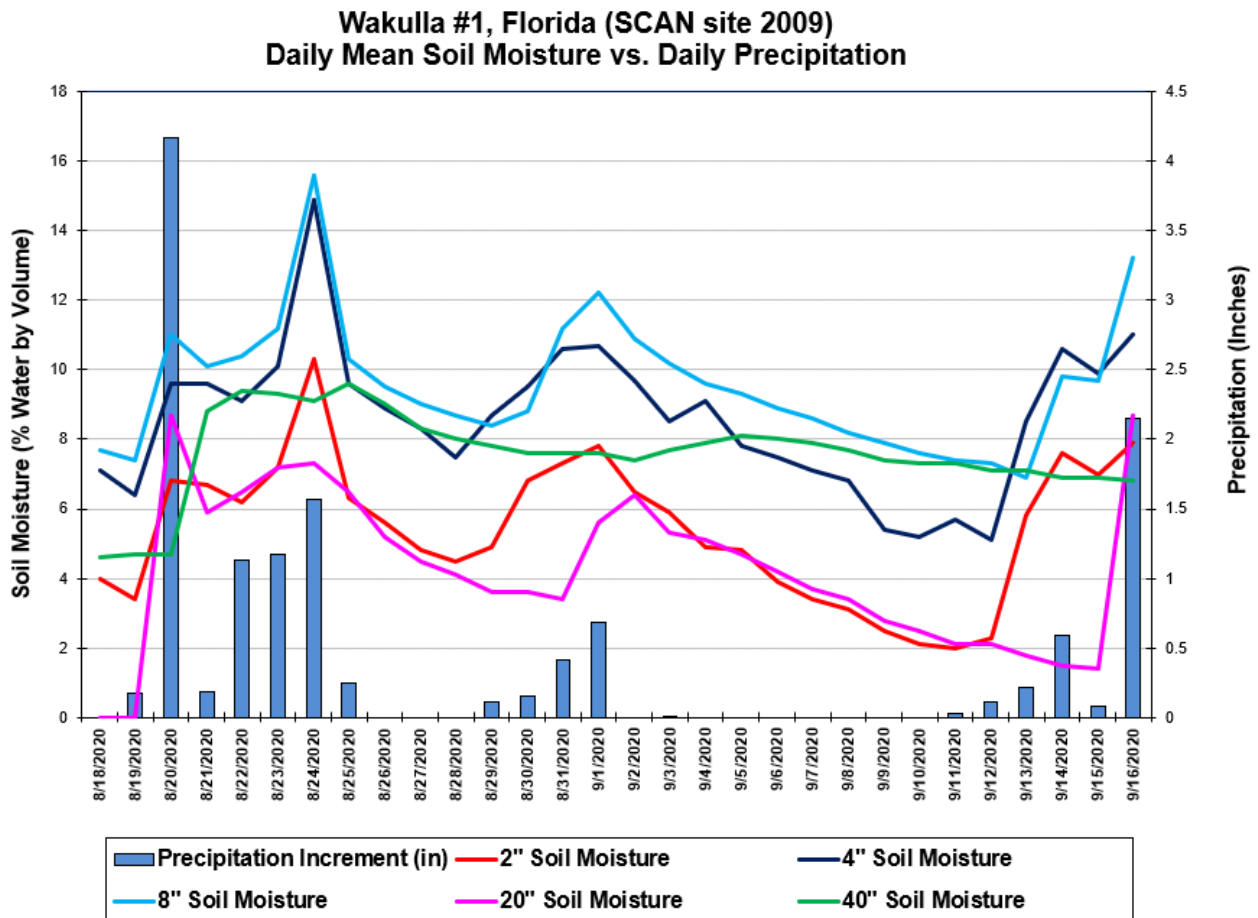
Soil Moisture Percent of Saturation

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



Soil Moisture

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



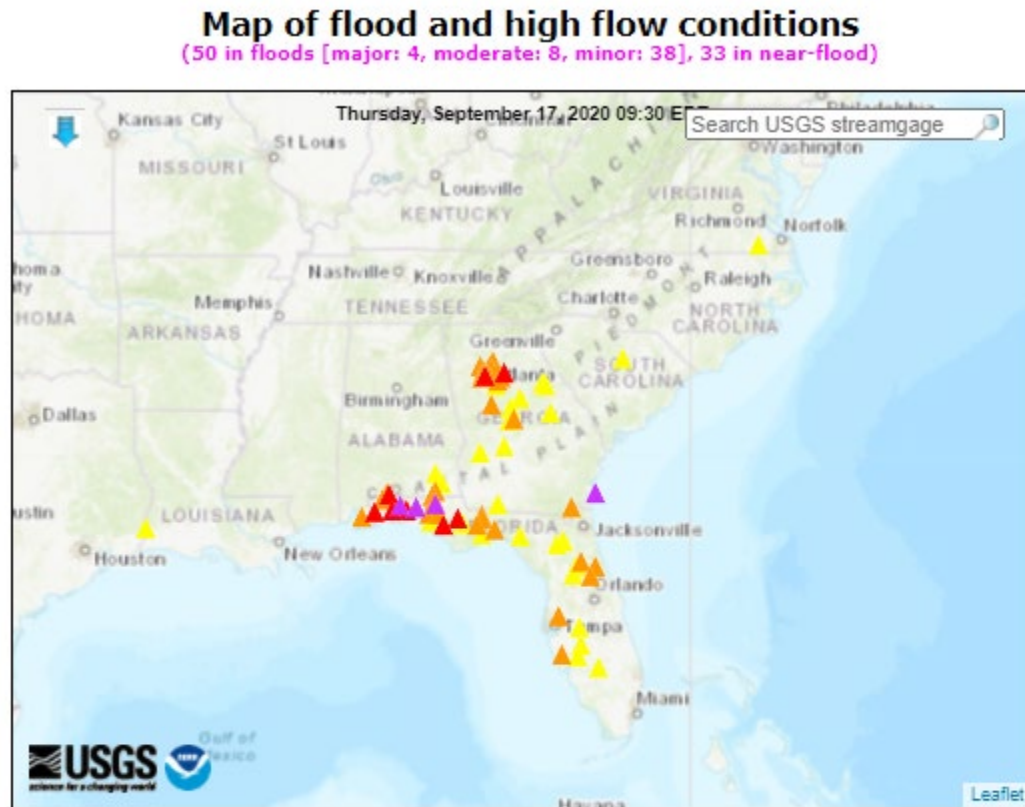
This chart shows the precipitation and soil moisture at the [Wakulla #1](#) SCAN site in Florida. This site has received significant precipitation in the last 30 days. The impact of Hurricane Laura is shown in late August, followed by the recent precipitation associated with Tropical Storm Sally. Accumulated precipitation for the period was 16.98\".

Soil Moisture Data Portals

- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey



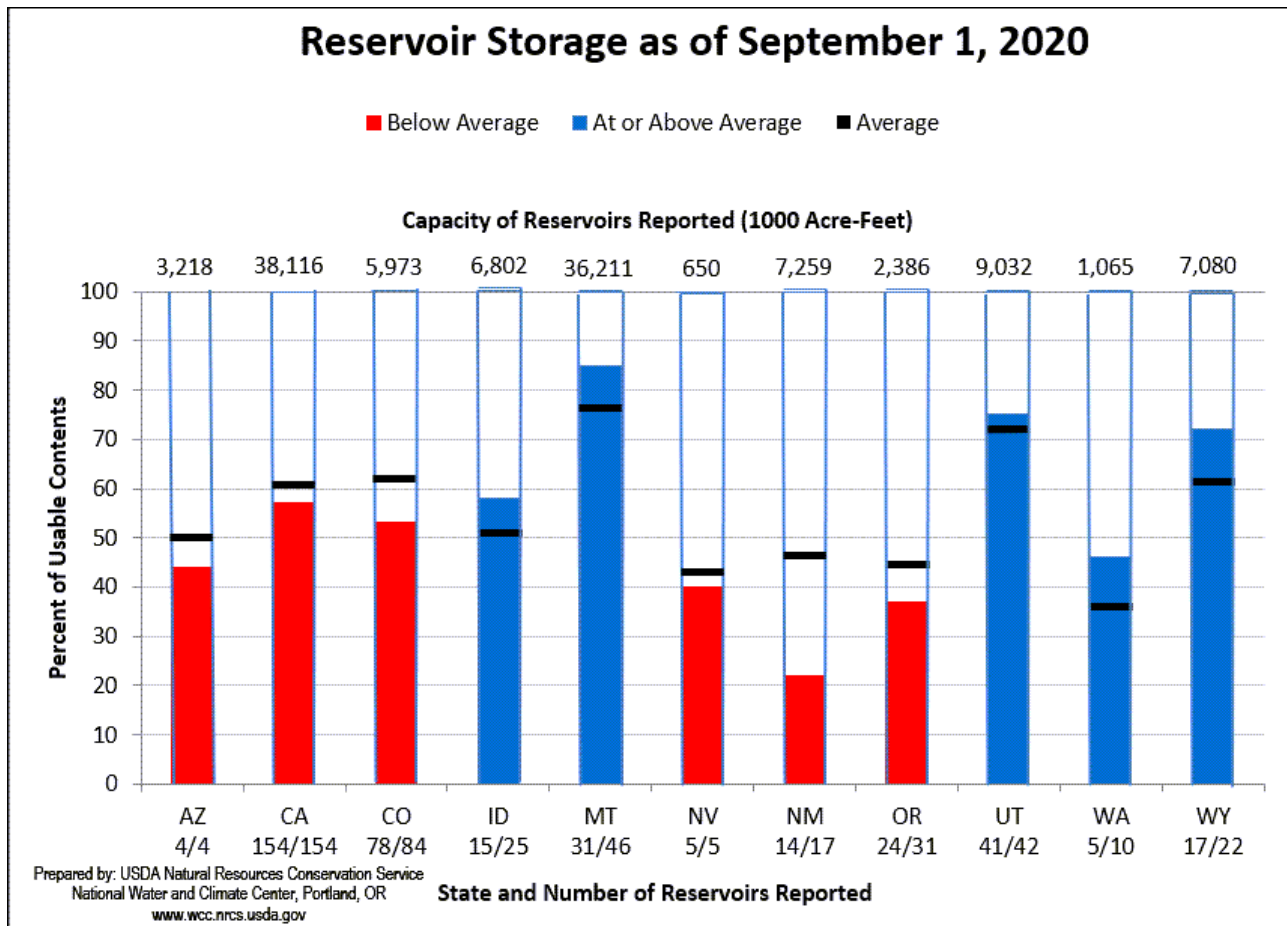
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage			○ Streamgage without flood stage			

[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



September 1, 2020 Reservoir Storage: [Chart](#) | [Dataset](#)

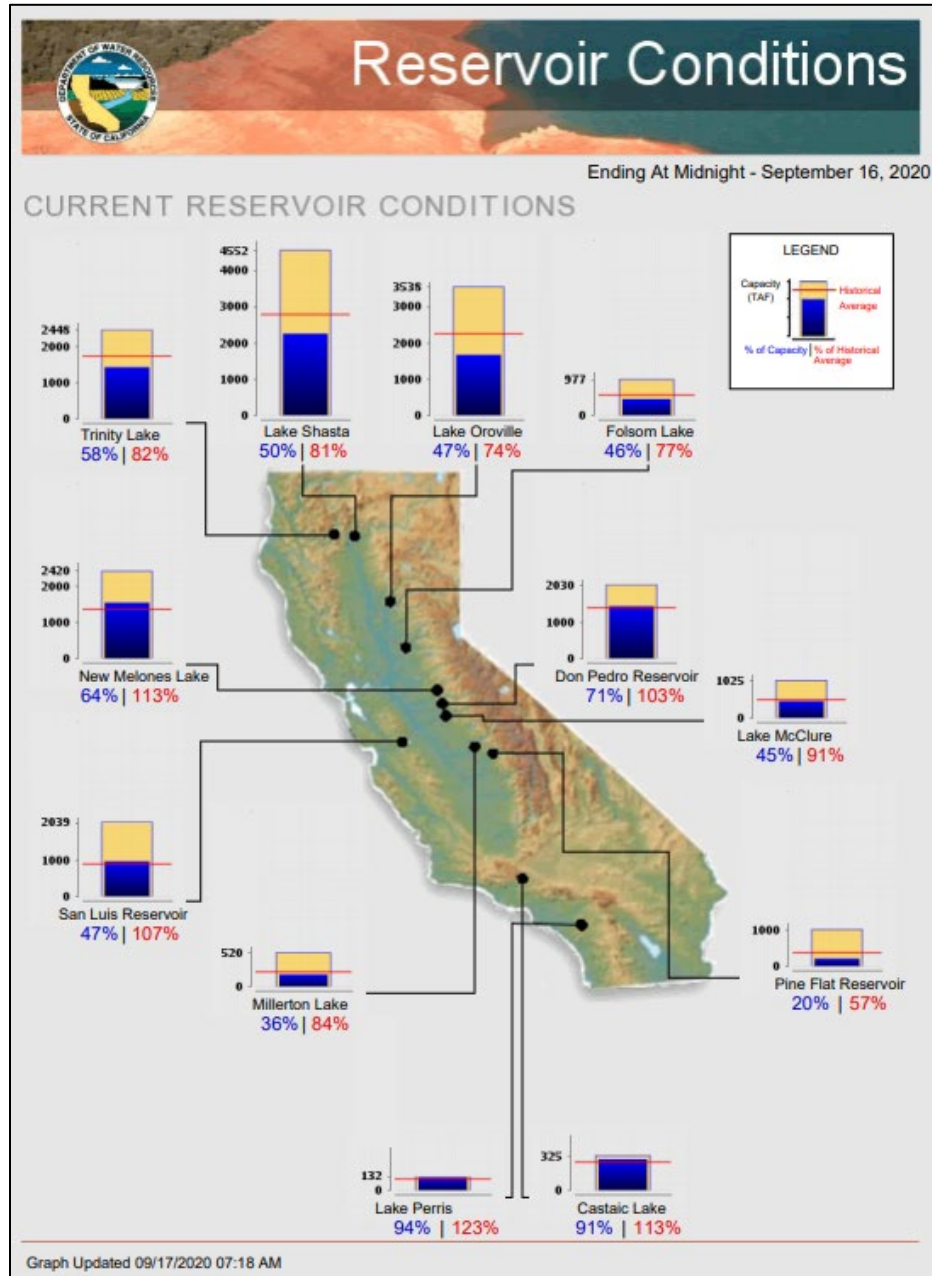
Hydromet Teacup Reservoir Depictions

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](#)

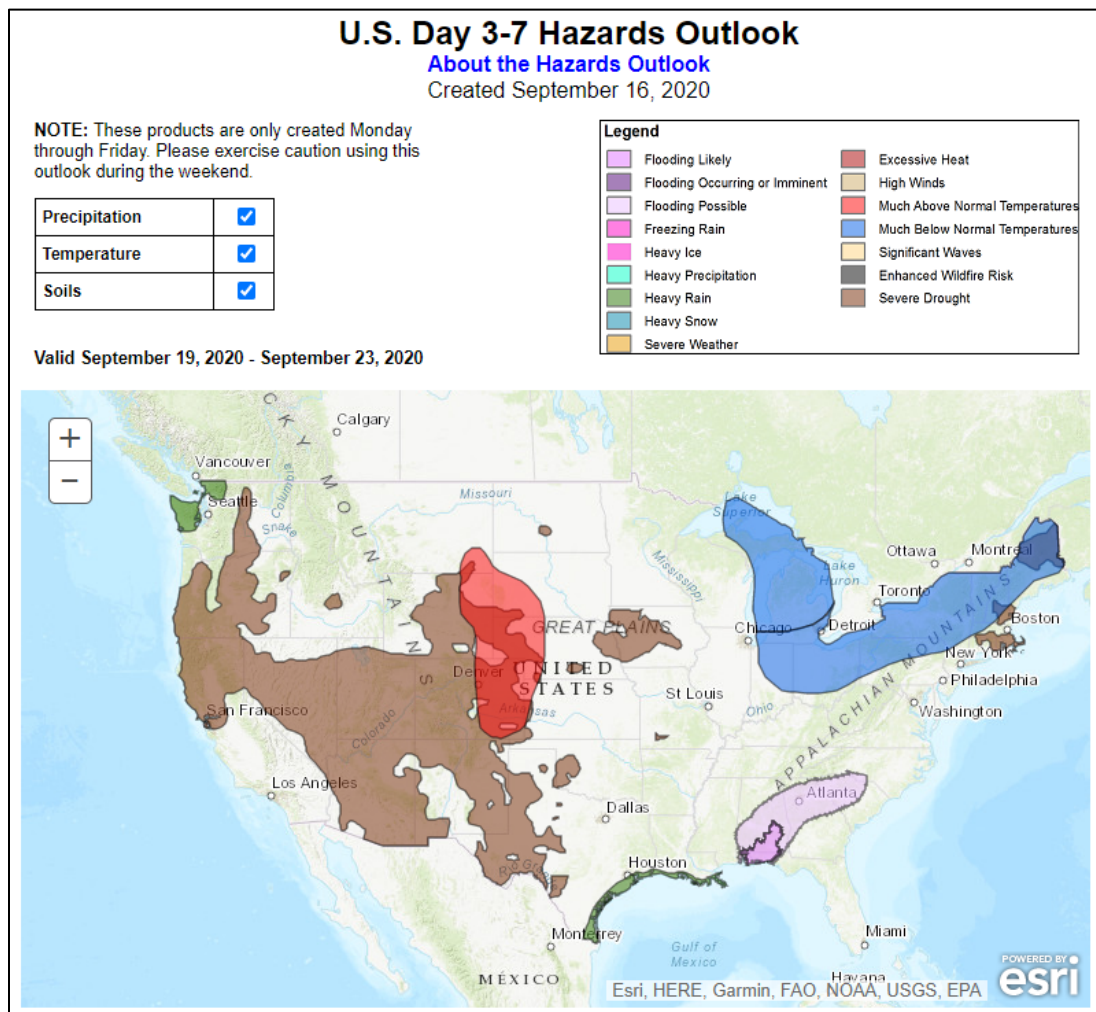
Agricultural Weather Highlights

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

National Outlook, Thursday, September 17, 2020: “For the remainder of today and into Friday, the remnants of Sally will cross Georgia and the Carolinas, delivering as much as 4 to 8 inches of additional rainfall. Farther south, impacts from Sally will subside as recovery operations commence, although river flooding and power outages may continue for several days in the hardest-hit areas. Many other parts of the country, including large sections of the Plains, Midwest, Southwest, and mid-South, will experience dry weather during the next 5 days. In the Northwest, scattered showers may aid wildfire containment efforts, although windy weather in advance of the precipitation may initially cause fire-expansion concerns. Meanwhile, an area of disturbed weather over the southwestern Gulf of Mexico will be monitored for signs of tropical development and could eventually result in heavy rain along the U.S. Gulf Coast. Elsewhere, general warmth in the northwestern half of the country should contrast with cool conditions in the South, East, and lower Midwest. Frost and freezes may be a concern during the weekend and early next week from the Great Lakes region into the Northeast. The NWS 6- to 10-day outlook for September 22 – 26 calls for cooler-than-normal conditions in most areas along and east of a line from central Texas to Lake Ontario, while above-normal temperatures will dominate the Plains, West, and upper Midwest. Meanwhile, wetter-than-normal weather in the Four Corners region, Deep South Texas, and the Pacific Northwest should contrast with near- or below-normal precipitation across the remainder of the country.”

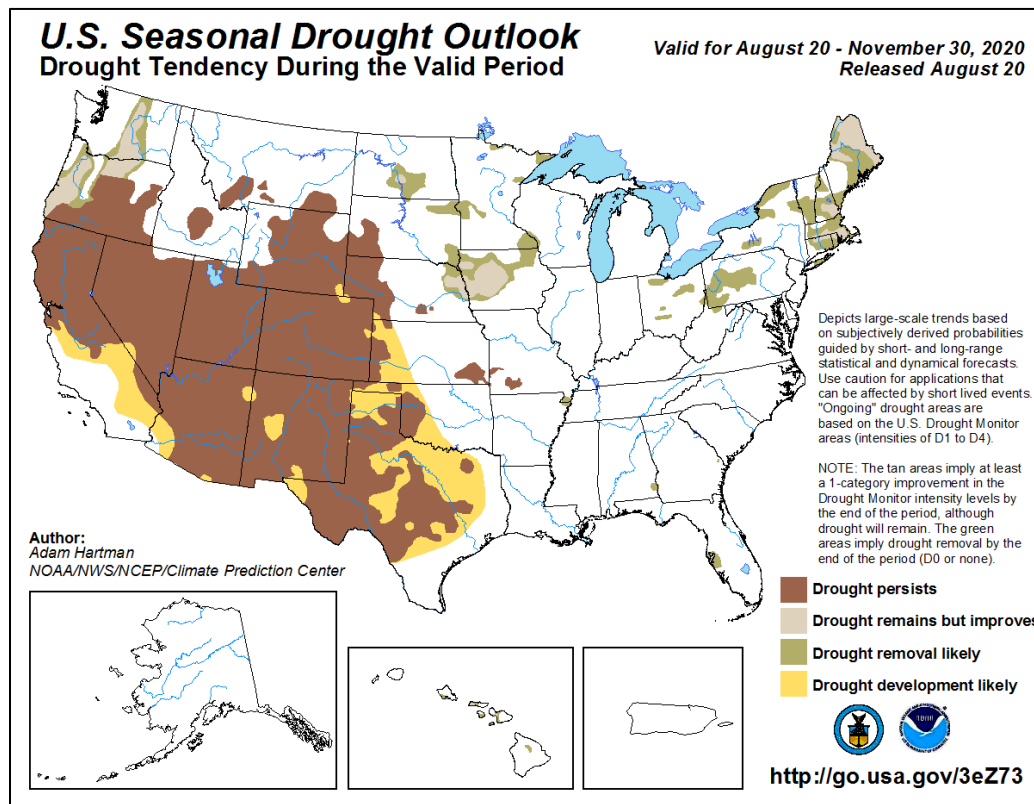
Weather Hazards Outlook: [September 19 – 23, 2020](#)

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: [August 20 – November 30, 2020](#)

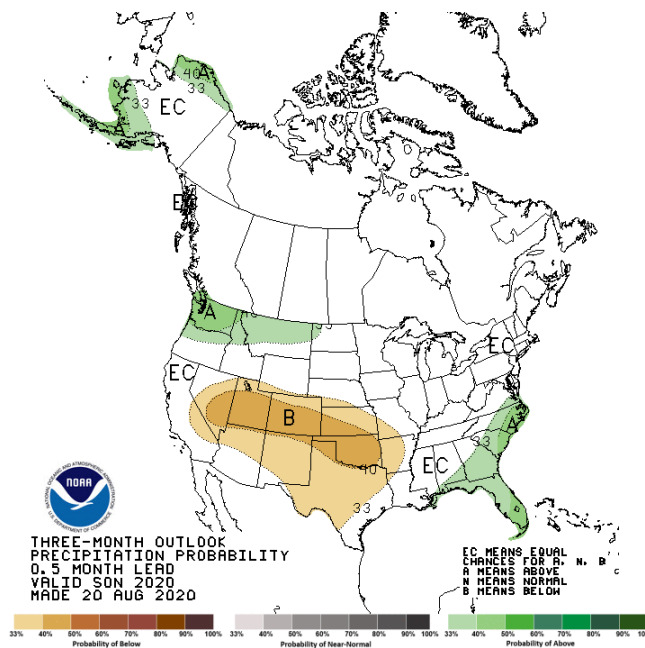
Source: National Weather Service



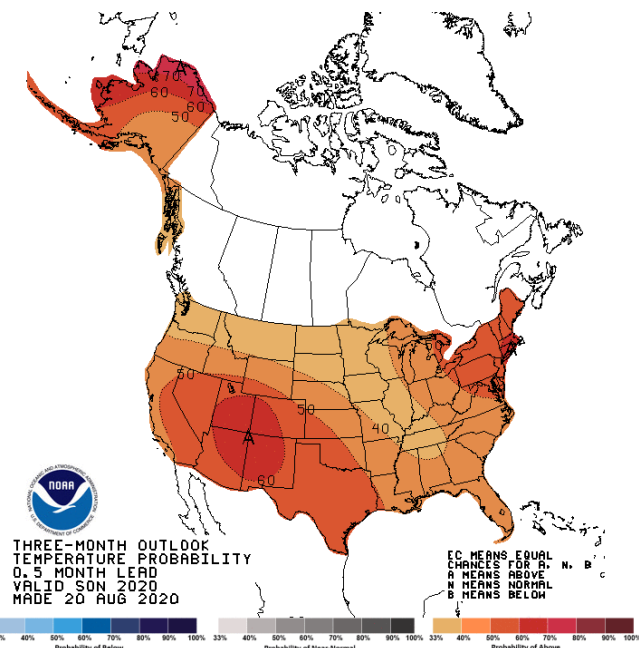
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation](#)



[Temperature](#)



[September-October-November \(SON\) 2020 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](#).