



# Water and Climate Update

October 31, 2019

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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Temperature.....	6	Short- and Long-Range Outlooks.....	15
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## Strong winds, dry conditions fuel California wildfires



Getty Fire burning near the 405 Freeway in Los Angeles. Photo credit: Kyle Grillot, New York Times.

Extremely critical fire weather conditions will continue across portions of Sonoma and Los Angeles counties through Thursday.

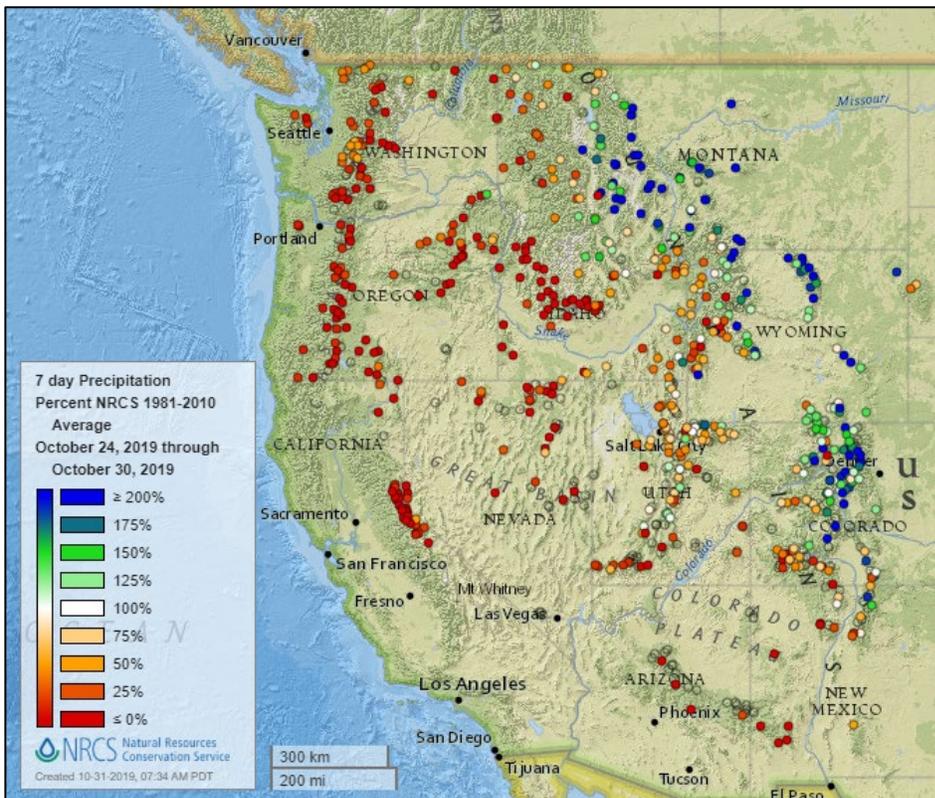
In northern California, the Kincade Fire has burned over 76,000 acres and is currently 45% contained. To the south, hurricane-force Santa Ana winds have combined with very low relative humidity and overall dry conditions to create situations for rapid fire growth. The Getty Fire near Los Angeles has consumed 745 acres and is at 39% containment. In all, over 26 million Californians are currently under some kind of red flag warning and approximately 1 million are without power.

**Related:**

- [Southern California copes with more wildfires even as winds up north subside](#) CBS News
- [Two New California Wildfires Burn Homes in Dan Bernardino, Riverside; Evacuations Underway](#) Weather.com

# Precipitation

## Last 7 Days, NRCS SNOTEL Network



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

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

# Water and Climate Update

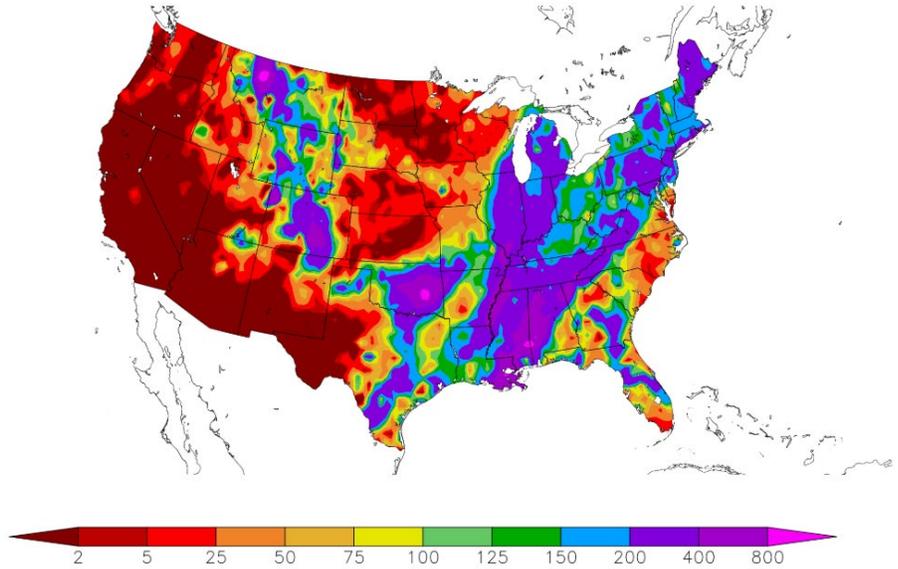
## Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
10/23/2019 – 10/29/2019



Generated 10/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

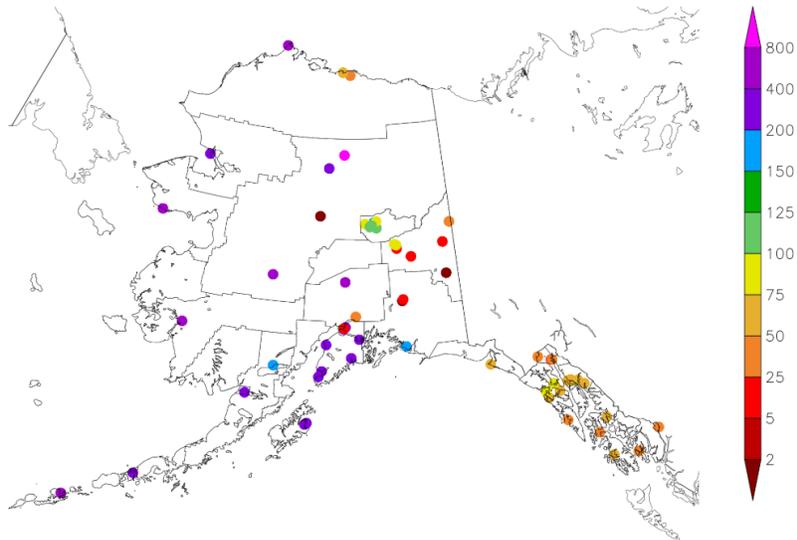
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
10/23/2019 – 10/29/2019



Generated 10/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

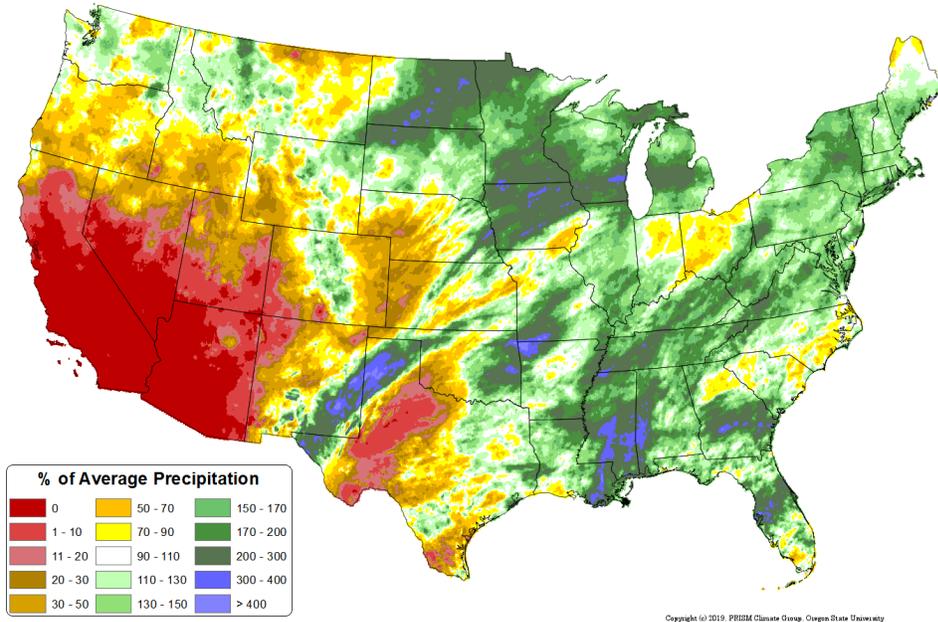
# Water and Climate Update

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2019 - 30 Oct 2019  
Period ending 7 AM EST 30 Oct 2019  
Base period: 1981-2010  
(Map created 31 Oct 2019)

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

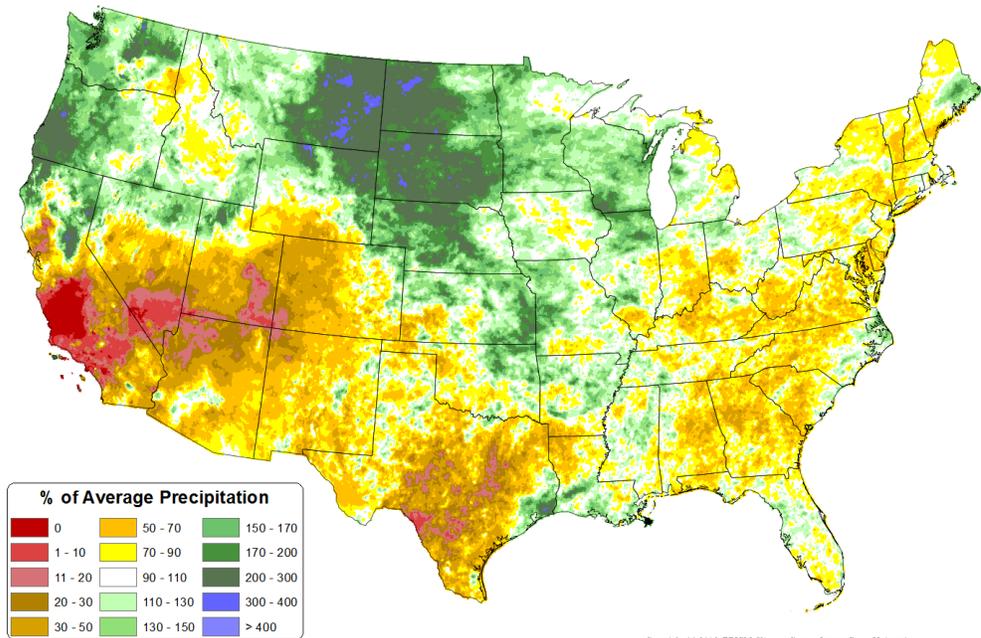


## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

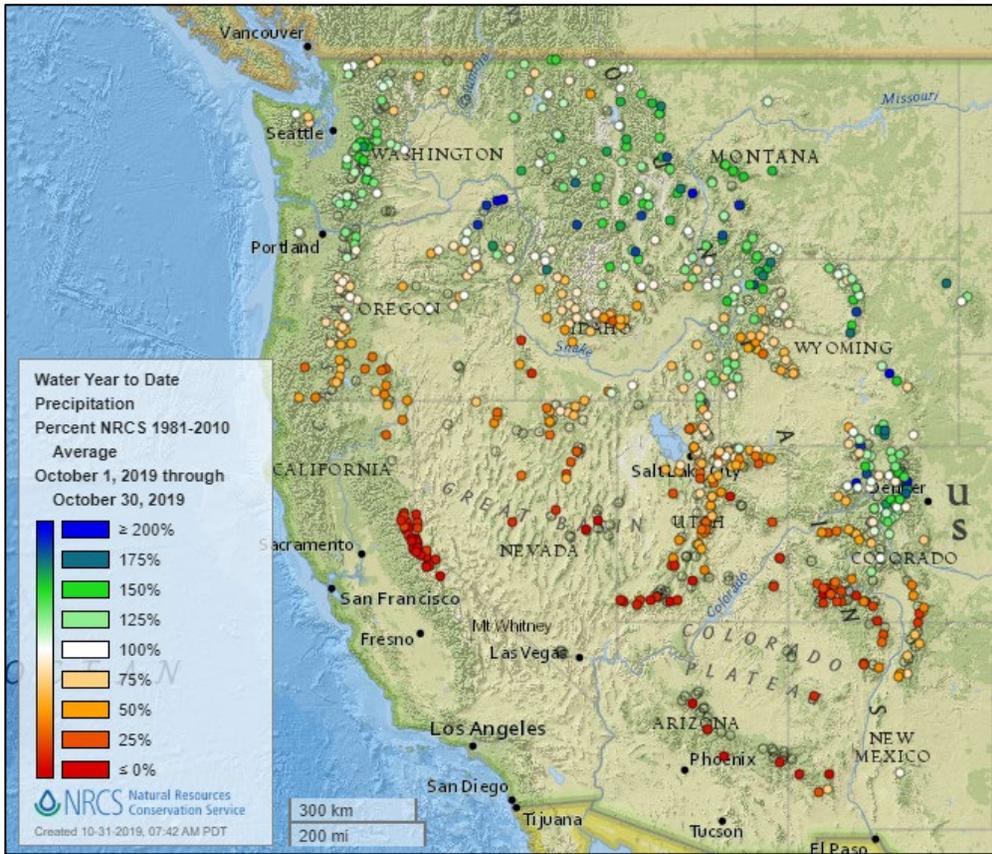
Source: PRISM

[July through September 2019 total precipitation percent of average map](#)

Total Precipitation Anomaly: Jul 2019 - Sep 2019  
Period ending 7 AM EST 30 Sep 2019  
Base period: 1981-2010  
(Map created 02 Oct 2019)



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](#)

## Temperature

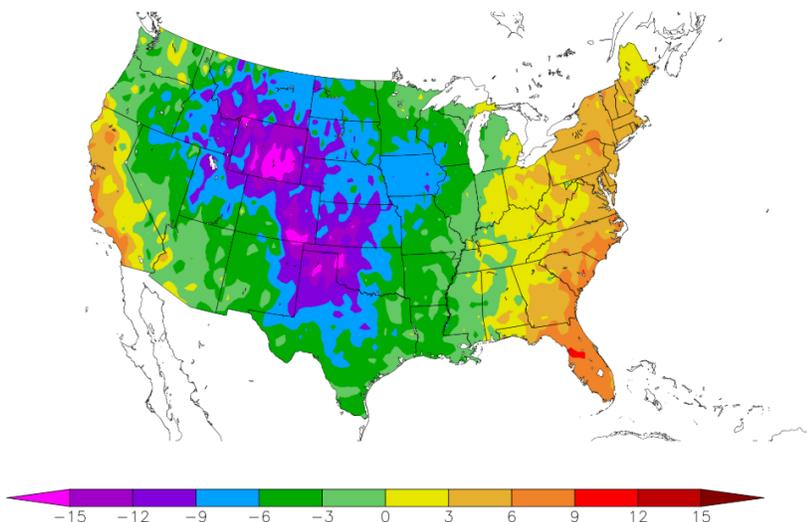
### Last 7 Days, National Weather Service (NWS) Networks

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)  
10/23/2019 – 10/29/2019



Generated 10/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

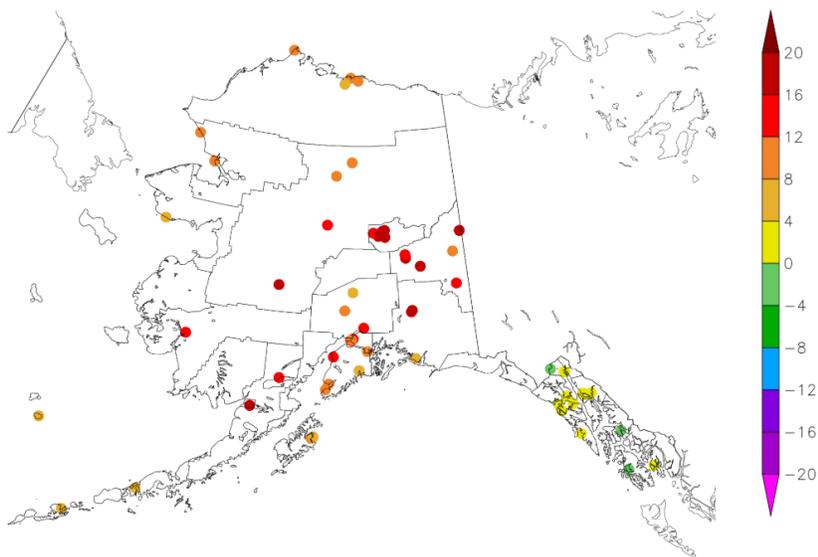
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
10/23/2019 – 10/29/2019



Generated 10/30/2019 at HPRCC using provisional data.

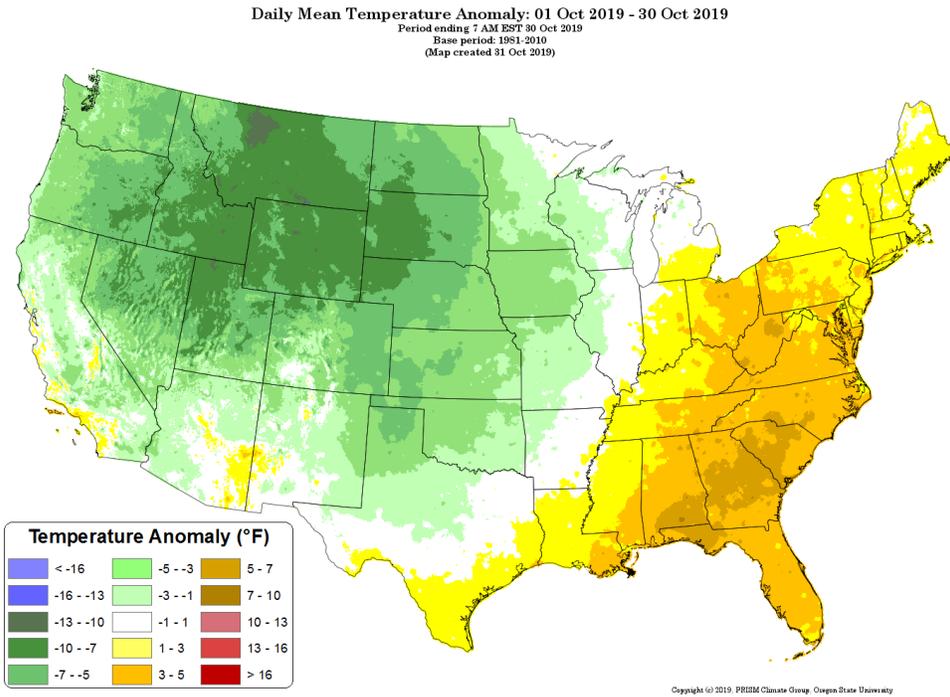
NOAA Regional Climate Centers

# Water and Climate Update

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

Source: PRISM

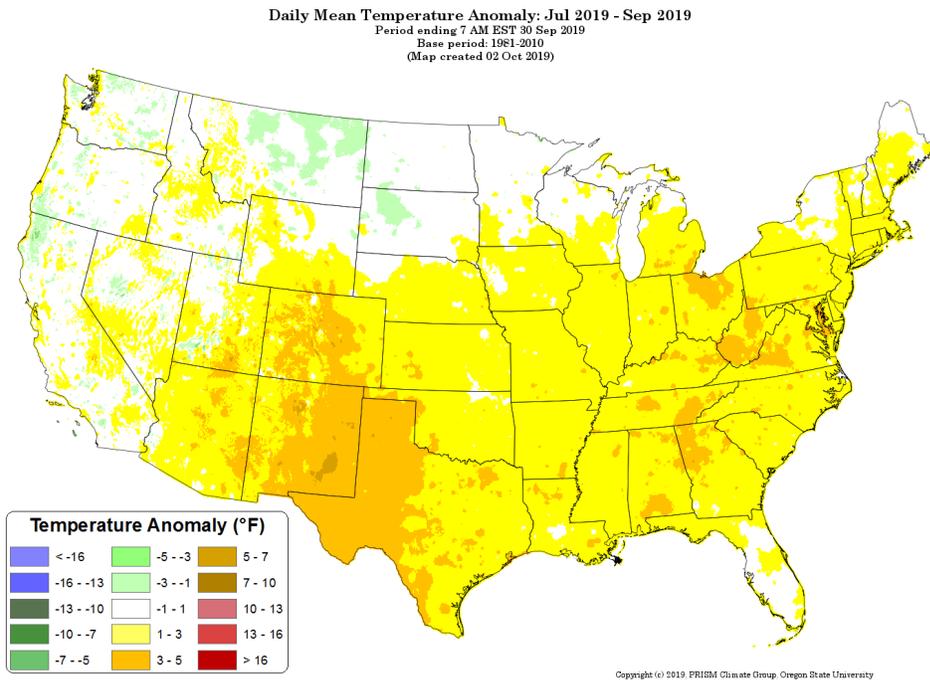
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[July through September 2019 daily mean temperature anomaly map](#)



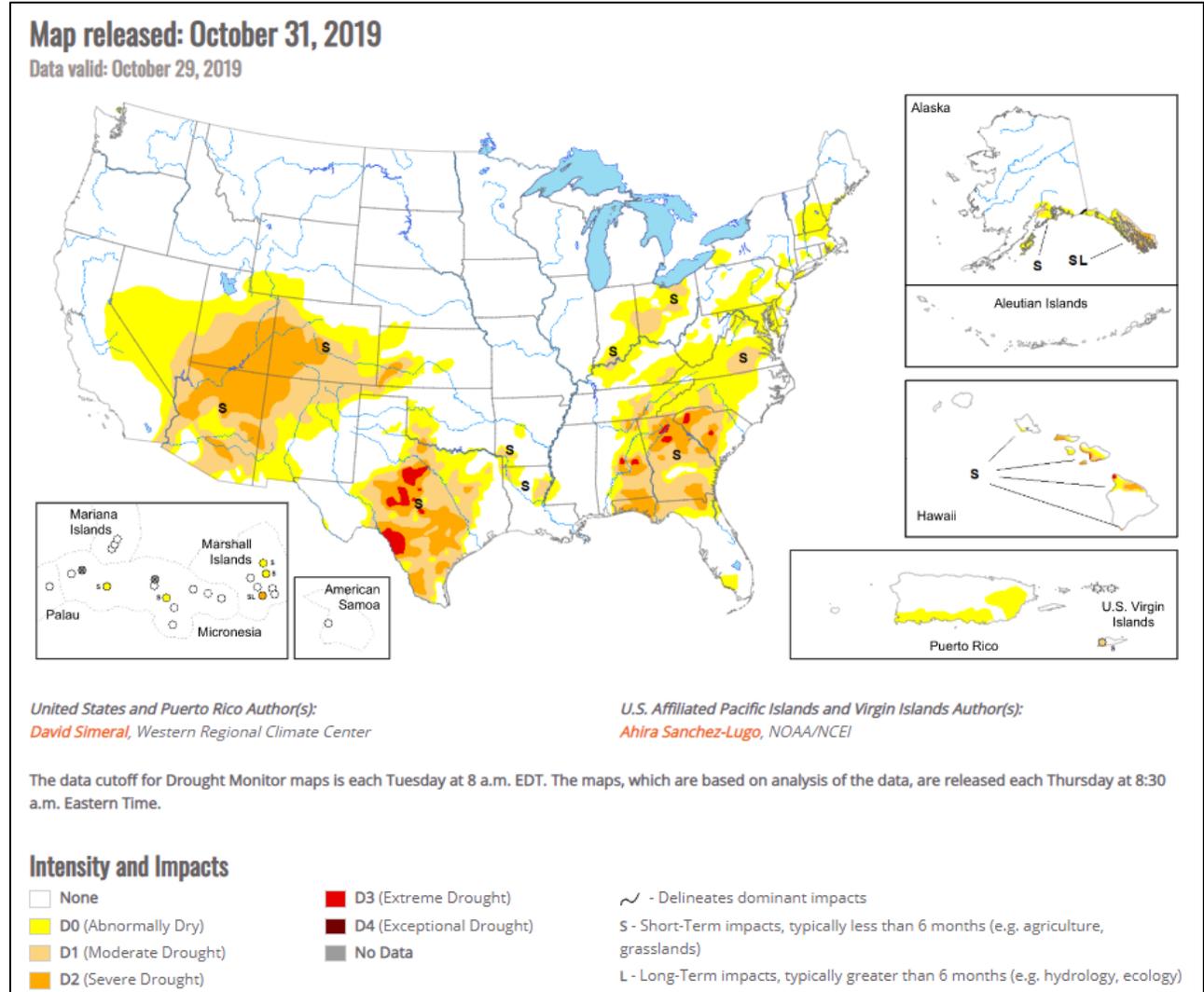
## Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



### Current [National Drought Summary](#), October 31, 2019

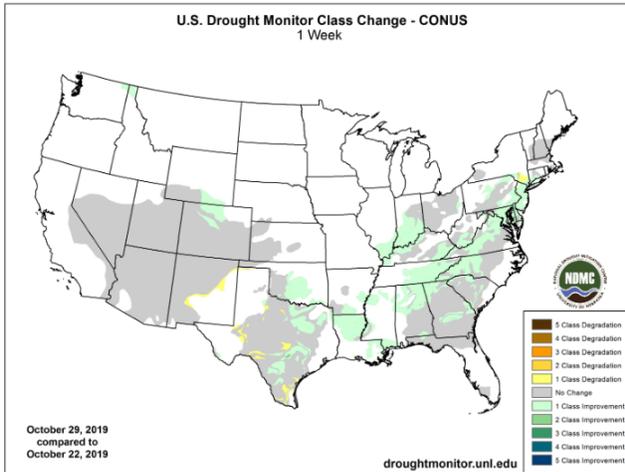
Source: National Drought Mitigation Center

“This U.S. Drought Monitor week saw widespread improvements in drought-stricken areas across portions of the South, Southeast, and Mid-Atlantic, as moderate-to-heavy rainfall accumulations were observed associated with storm systems fueled by residual moisture from Tropical Storm Olga. Across these areas, precipitation accumulations ranged from 2-to-10 inches leading to improvements on the map in Louisiana, Mississippi, Tennessee, Alabama, Georgia, South Carolina, North Carolina, and Virginia. In California, numerous wildfires are burning across northern and southern portions of the state, including the Kincaide Fire (the state’s largest active fire) in Sonoma County that has burned approximately 76,000 acres. In southern California, firefighting efforts have been hampered by strong Santa Ana winds that are causing extreme fire behavior.”

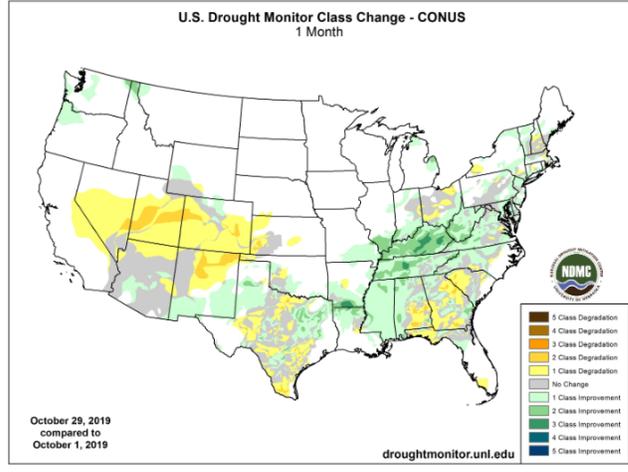
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

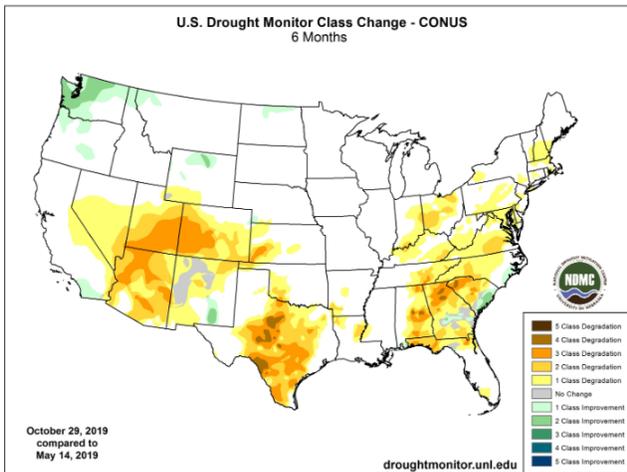
### 1 Week



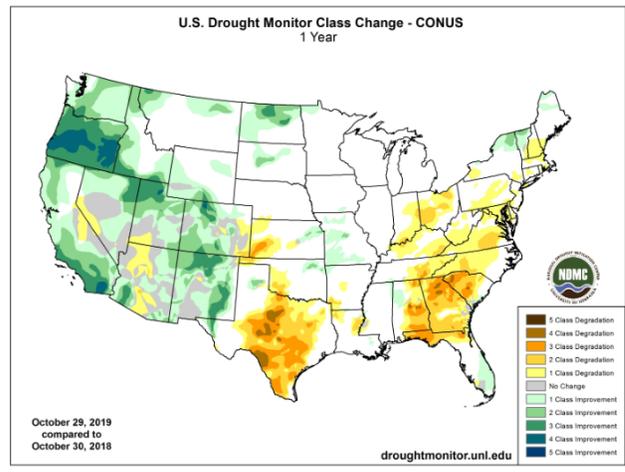
### 1 Month



### 6 Months



### 1 Year



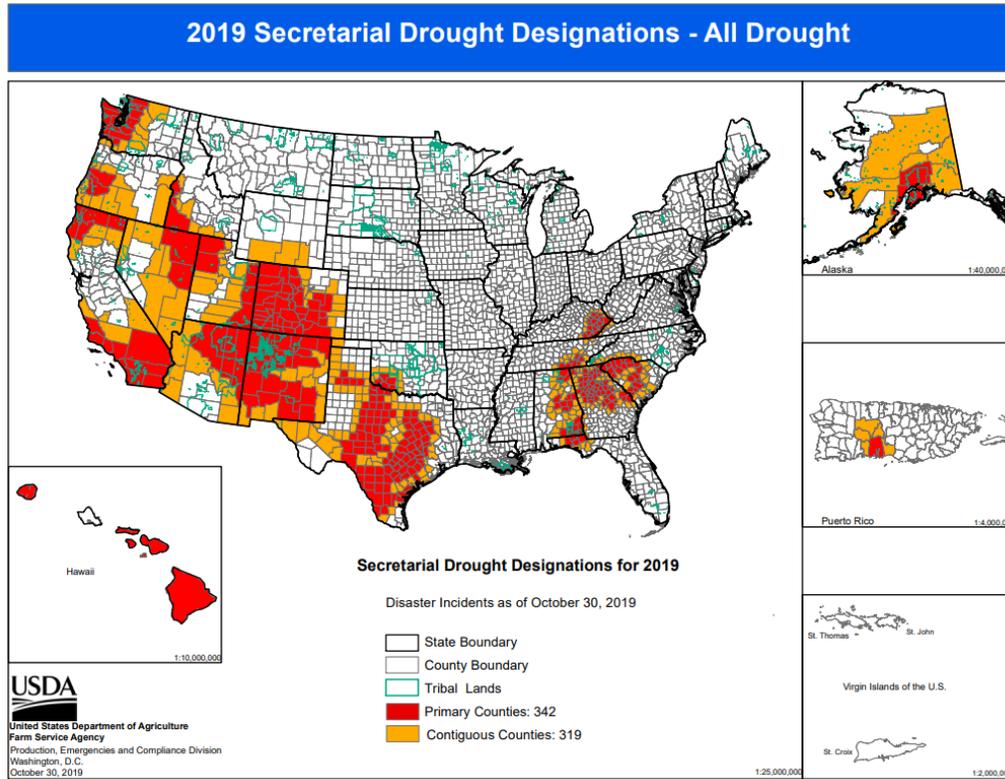
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## Highlighted Drought Resources

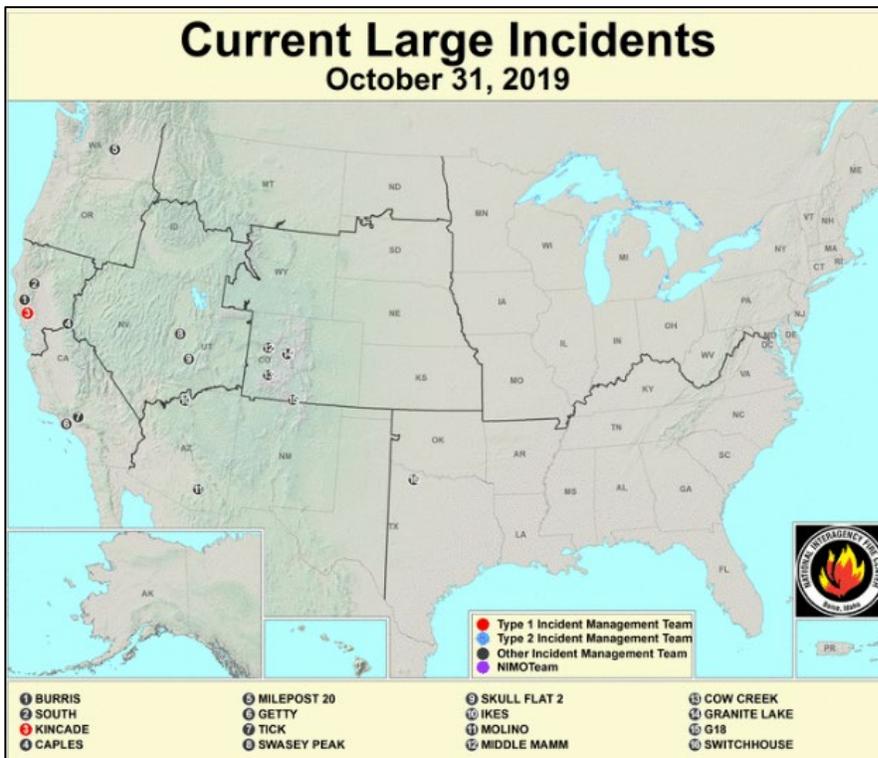
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

**Secretarial Drought Designations**

Source: USDA Farm Service Agency



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



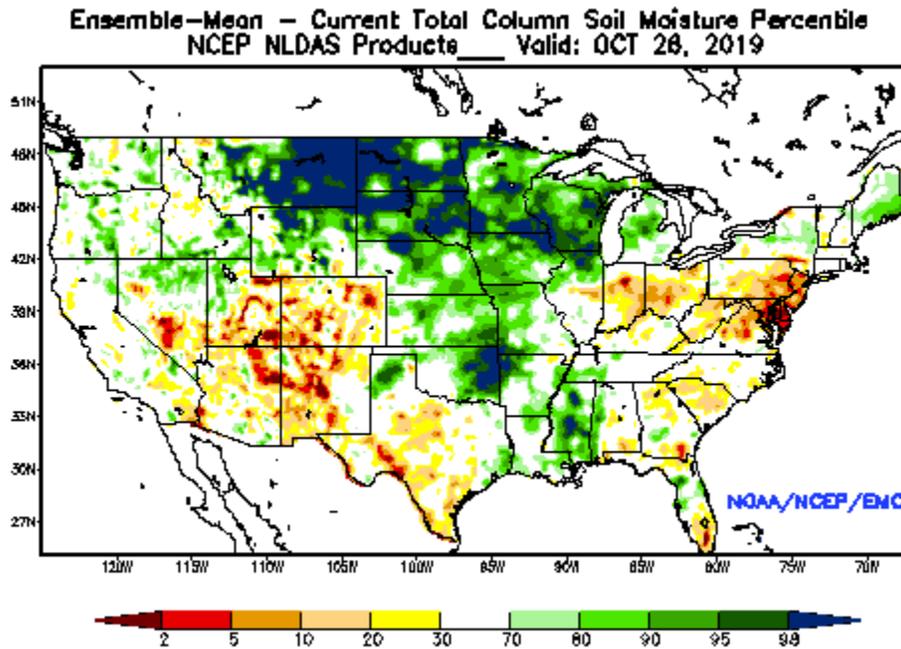
**Highlighted Wildfire Resources**

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

## Other Climatic and Water Supply Indicators

### Soil Moisture

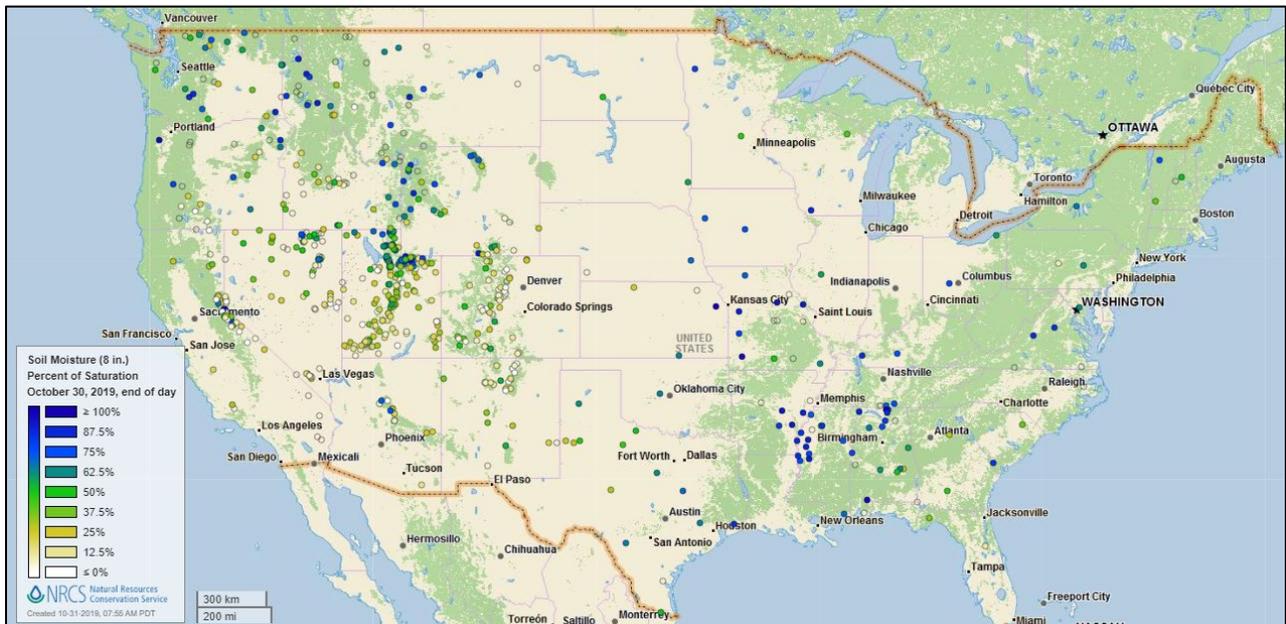
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of October 26, 2019

### Soil Moisture Percent of Saturation

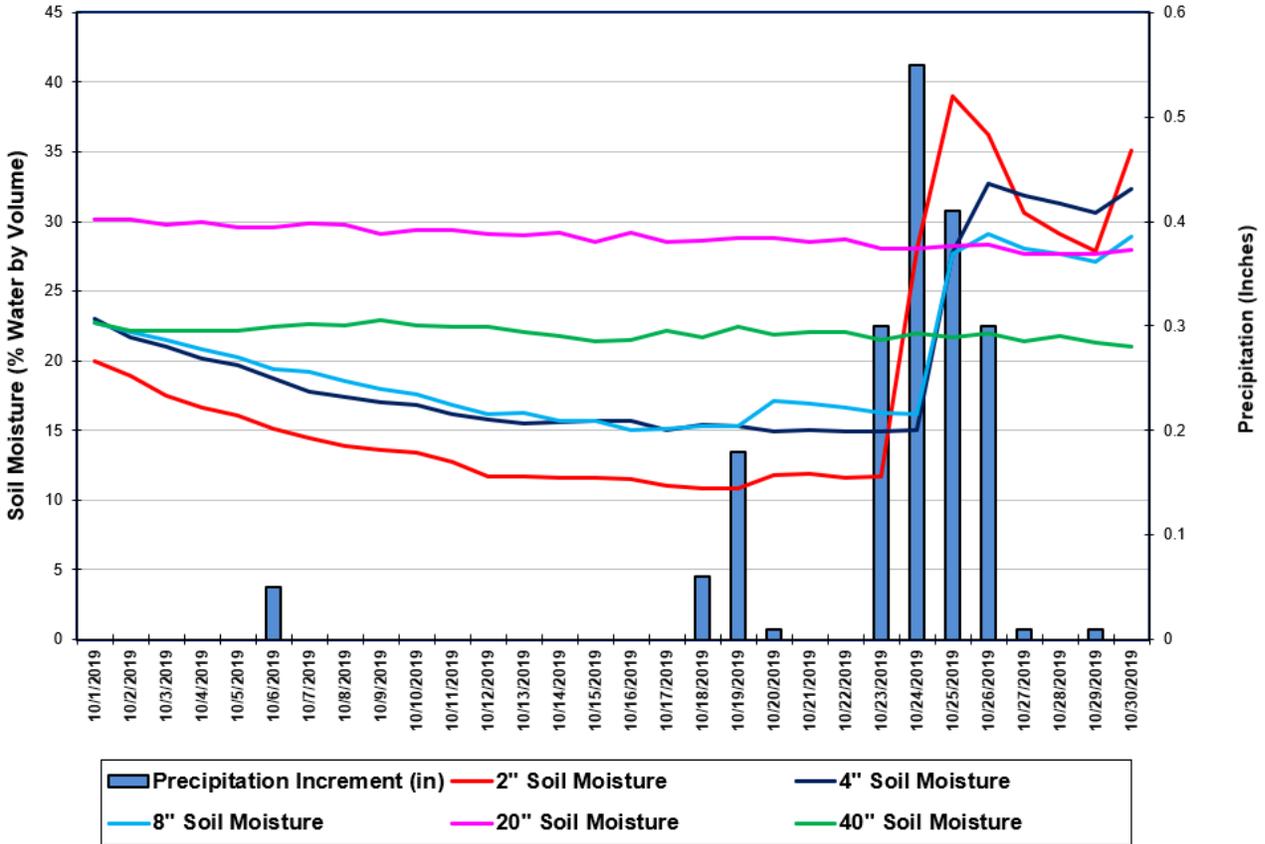
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



**Soil Moisture Data**

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

**Fort Reno #1, OK (SCAN site 2022)**  
**Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the soil moisture and precipitation for the last 30 days at the [Fort Reno #1 SCAN site](#) in Oklahoma. Several rainfall events on October 23-26 resulted in accumulated precipitation of 1.56". This increased the soil moisture at the -2", -4", and -8" sensor depths.

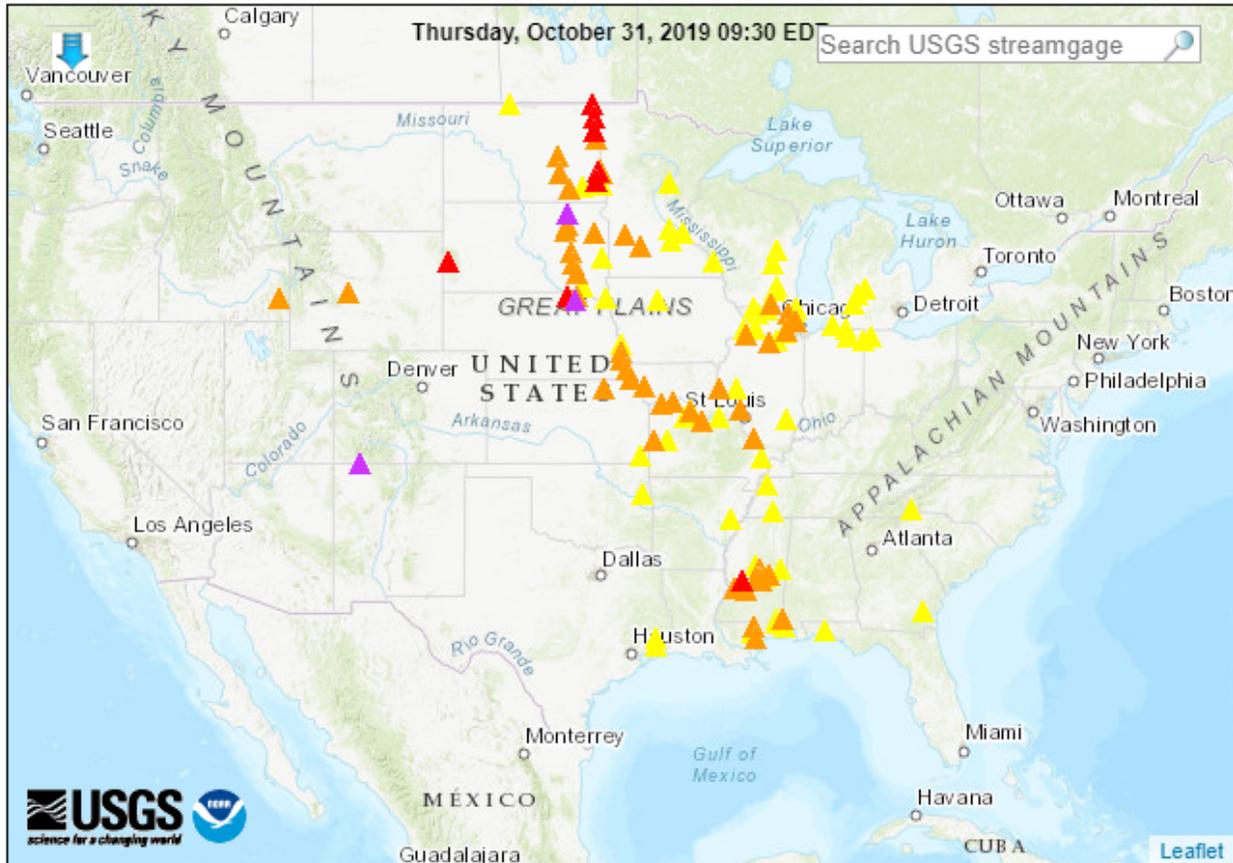
**Soil Moisture Data Portals**

- [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

**Map of flood and high flow conditions**  
 (59 in floods [major: 3, moderate: 8, minor: 48], 58 in near-flood)



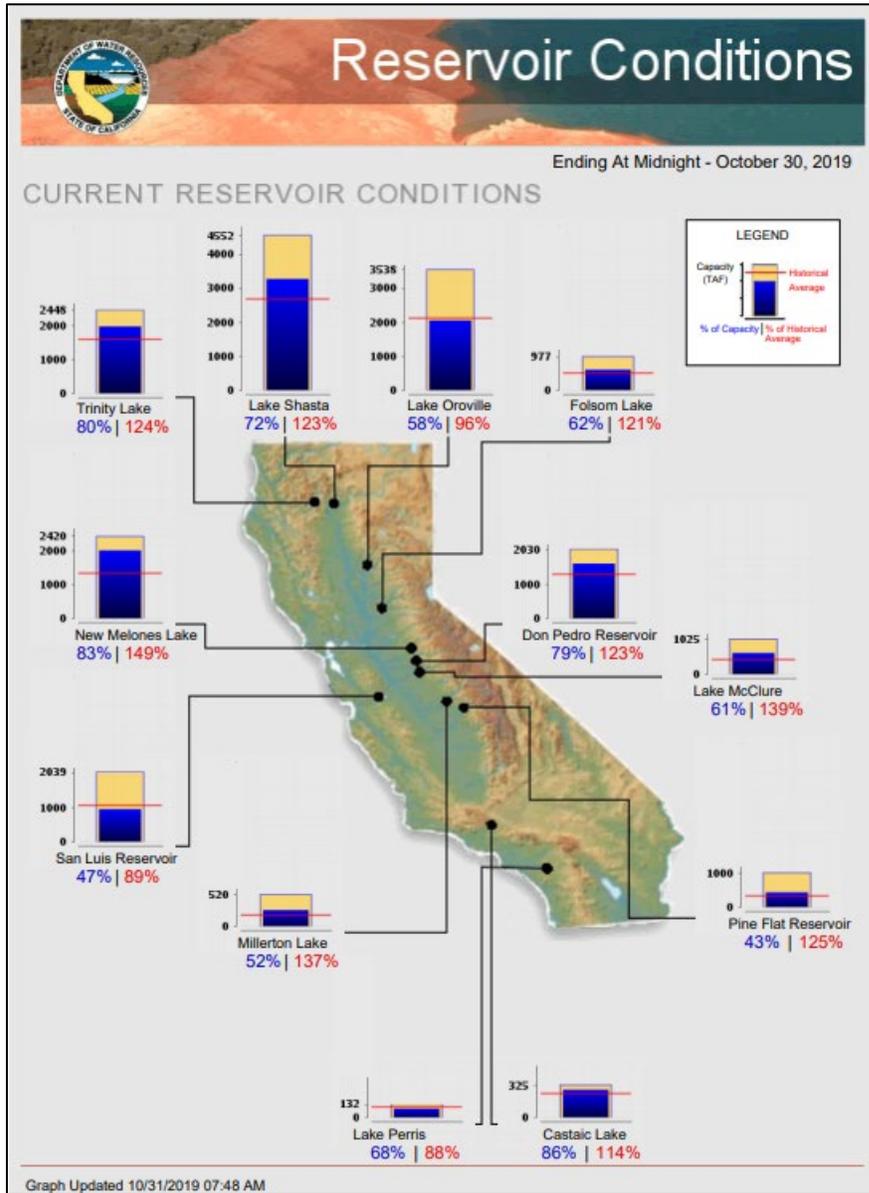
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			△ Streamgage with flood stage	○ Streamgage without flood stage		

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

## Reservoir Storage

### Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

### Hydromet Tea Cup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- [Upper Colorado](#)
- [Pacific Northwest/Snake/Columbia](#)
- [Sevier River Water, Utah](#)
- [Upper Missouri, Kansas, Oklahoma, Texas](#)

## Short- and Long-Range Outlooks

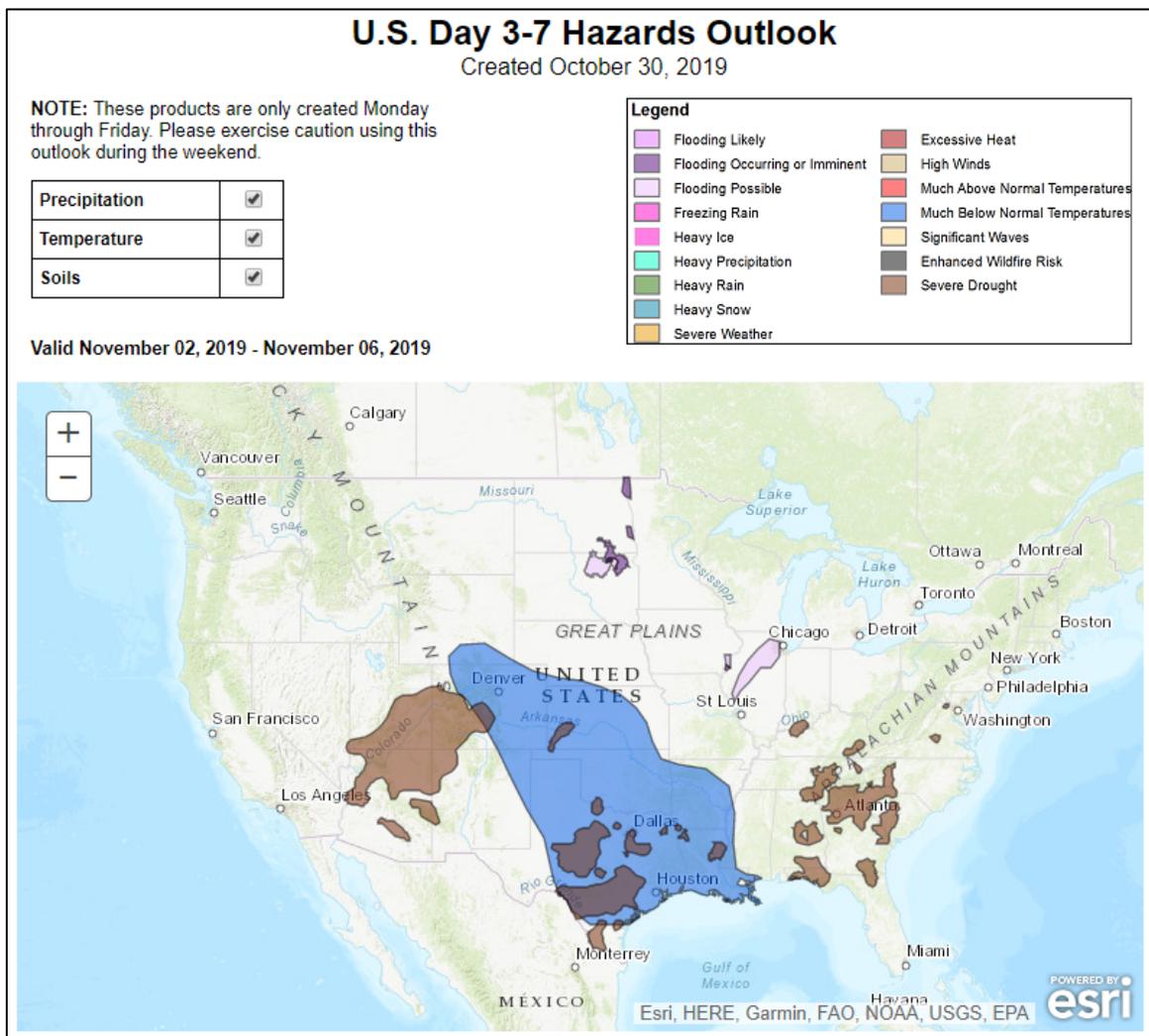
### Agricultural Weather Highlights

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

**National Outlook, Thursday, October 31, 2019:** “A potent storm system currently centered over the Ohio Valley will drift northeastward, reaching northern New England by Friday. Snow in the Great Lakes region will end later today, while heavy showers and locally severe thunderstorms will sweep toward the Atlantic Coast today and early Friday. In the storm’s wake, freezes will end the 2019 growing season in most areas north of a line from central Texas to northern Georgia. Meanwhile in southern California, gusty winds and low humidity levels will maintain an extreme wildfire threat into Friday. During the weekend, however, much more tranquil—albeit cold—weather will envelop much of the country. The exception will be the Far West, where diminishing winds will accompany near- or above-normal temperatures. The NWS 6- to 10-day outlook for November 5 – 9 calls for below-normal temperatures from the Plains to the middle and northern Atlantic States, while warmer-than-normal weather will be limited to Florida’s peninsula and from the Pacific Coast to the Rio Grande Valley. Meanwhile, near- or above-normal precipitation across most of the U.S. should contrast with drier-than-normal conditions in much of the West.”

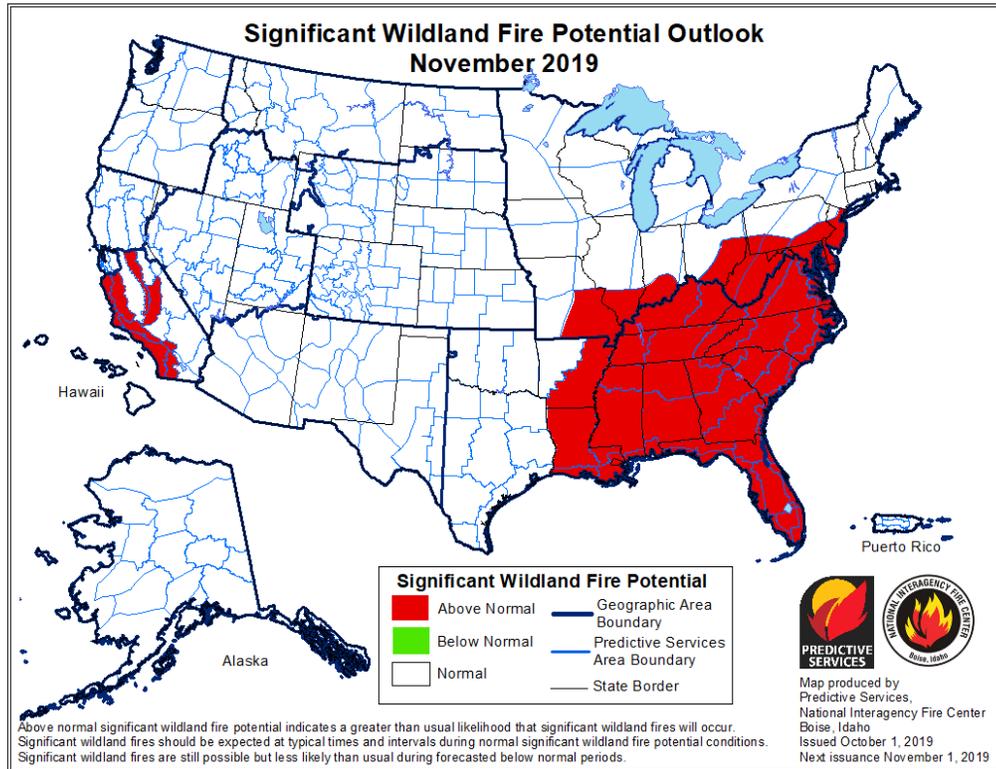
### Weather Hazards Outlook: [November 2 - 6, 2019](#)

Source: NOAA Climate Prediction Center



**Significant Wildland [Fire Potential Outlook](#)**

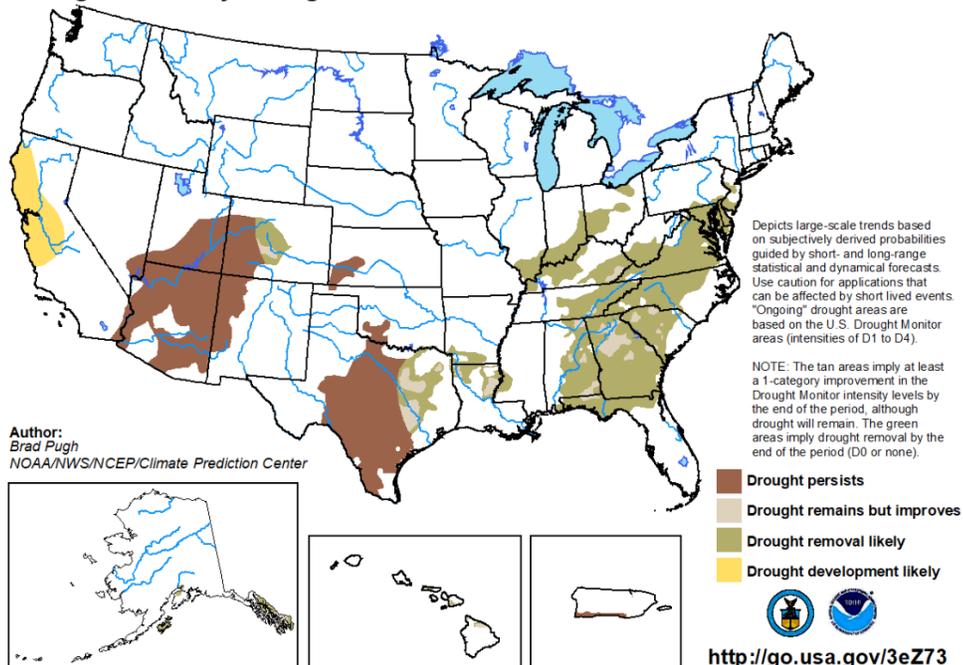
Source: National Interagency Fire Center



**Seasonal Drought Outlook: [October 17, 2019 – January 31, 2020](#)**

Source: National Weather Service

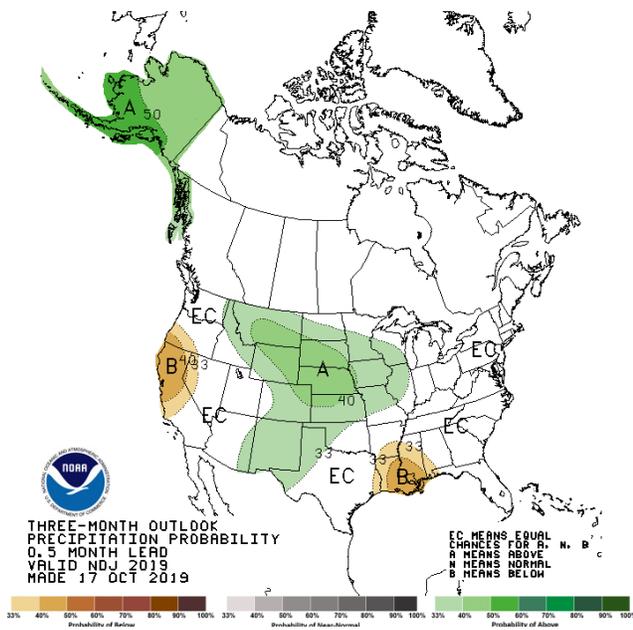
**U.S. Seasonal Drought Outlook** Valid for October 17, 2019 - January 31, 2020  
Drought Tendency During the Valid Period Released October 17, 2019



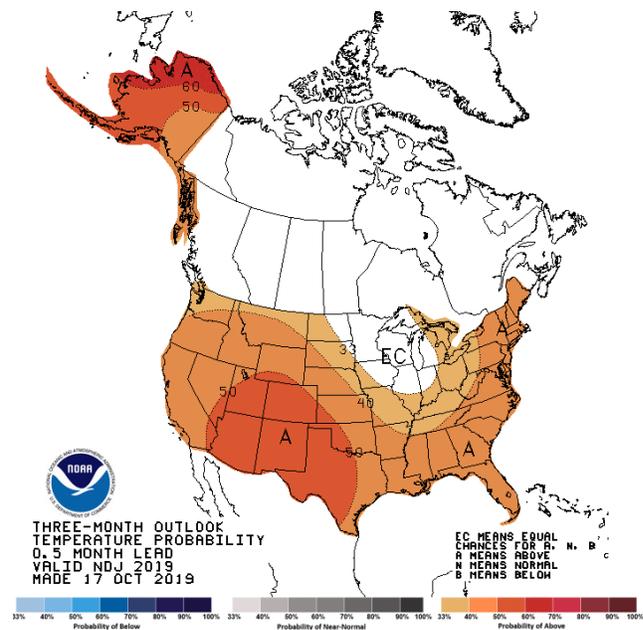
### Climate Prediction Center 3-Month Outlook

Source: National Weather Service

#### Precipitation



#### Temperature



[November-December-January \(NDJ\) 2019/2020 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](#).