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

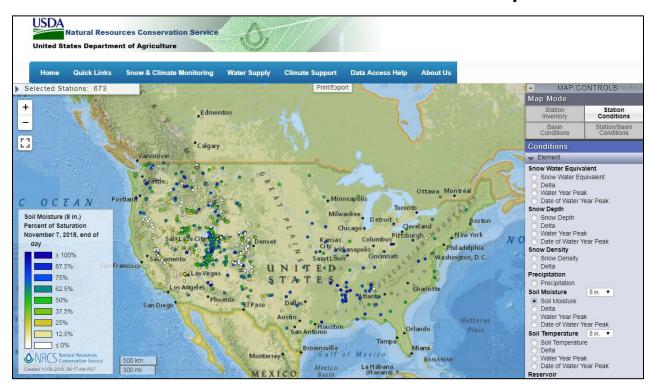
# **Water and Climate Update**

November 8, 2018

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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Precipitation3	Short- and Long-Range Outlooks1
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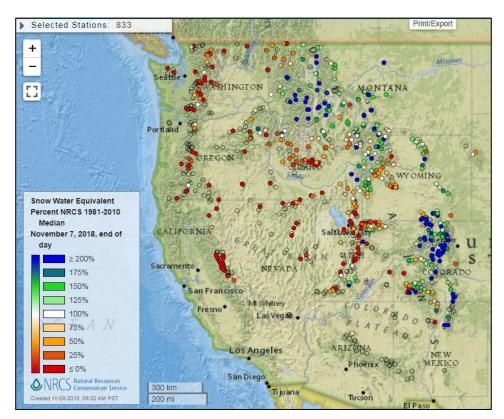
# **New features on NWCC Interactive Map**



**Note:** This new map release is available on the Beta version of the NWCC website. You may notice a new look for the website, and some features are still under construction.

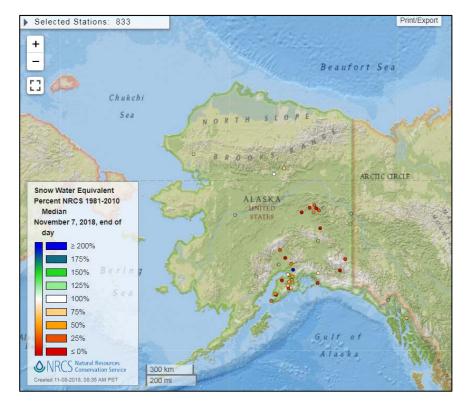
## **Snow**

# **Current Snow Water Equivalent, NRCS SNOTEL Network**



Snow water equivalent percent of median map

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

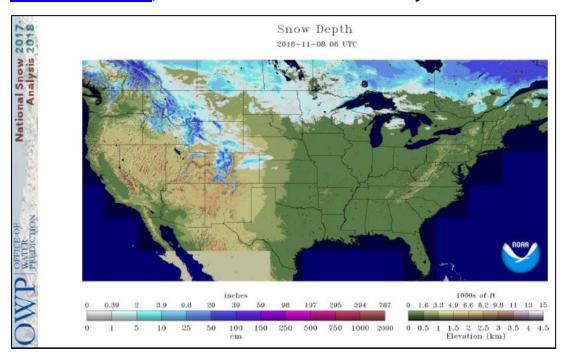


Alaska snow water equivalent percent of median map

#### See also:

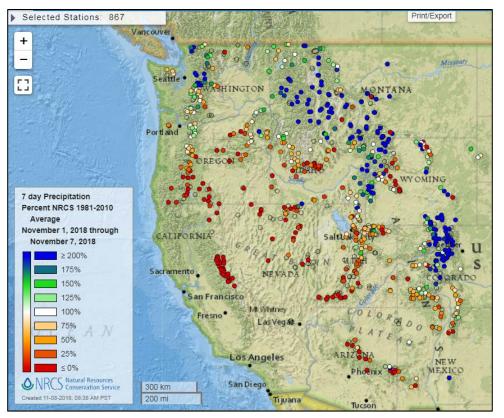
Alaska snow water equivalent values (inches) map

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



# **Precipitation**

## Last 7 Days, NRCS SNOTEL Network



7-day precipitation percent of average map

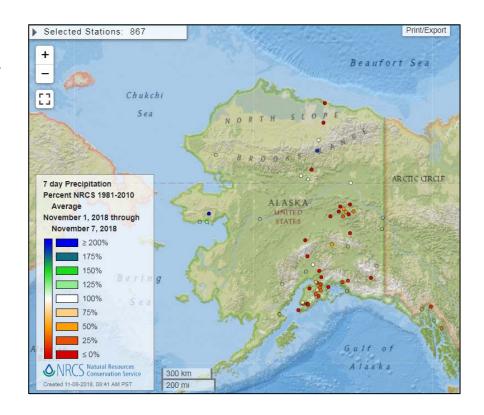
#### See also:

7-day total precipitation values (inches) map

### **Water and Climate Update**

Alaska 7-day precipitation percent of average map

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



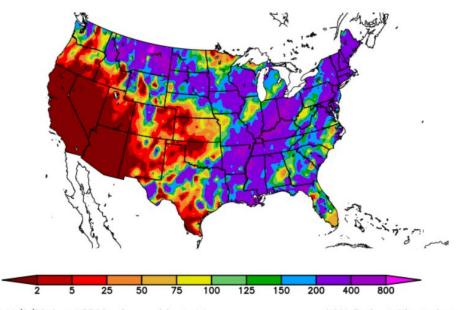
### Last 7 Days, National Weather Service (NWS) Networks

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 (%) 11/1/2018 - 11/7/2018

Source: Regional Climate Centers



Generated 11/8/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

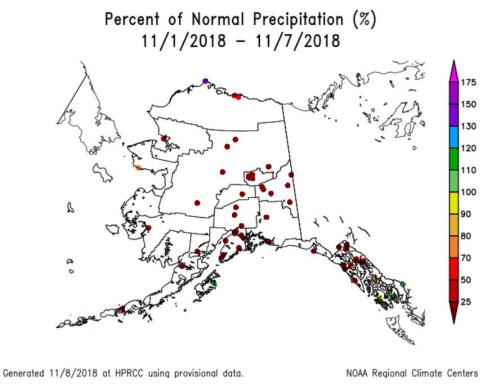
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

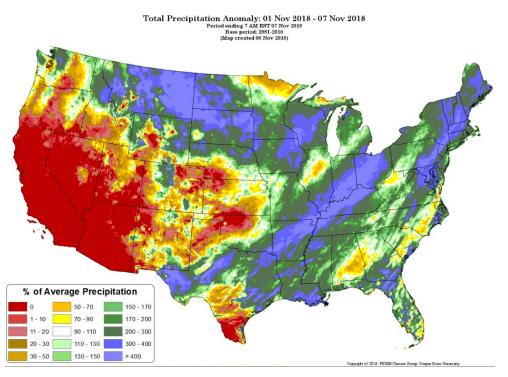
7-day precipitation anomaly map for Alaska.

#### See also:

7-day total precipitation values (inches) map



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

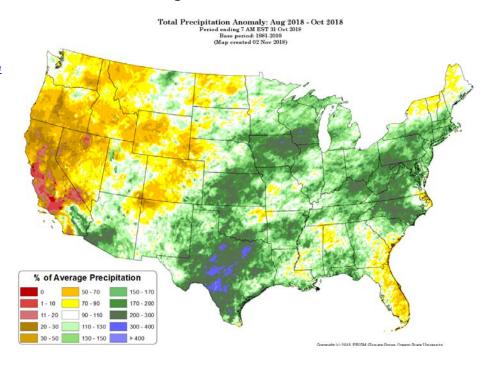


Month-to-date national total precipitation percent of average map

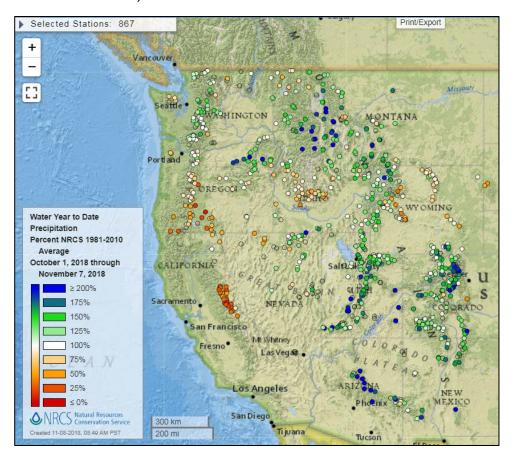
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

August through
October 2018 total
precipitation
percent of average
map



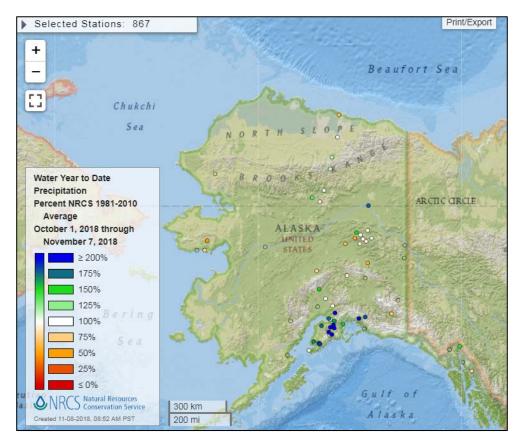
### Water Year to Date, NRCS SNOTEL Network



2019 water year-to-date precipitation percent of average map

See also:
2019
water year-todate
precipitation
values (inches)
map

## **Water and Climate Update**



Alaska 2019
water year-todate
precipitation
percent of
average map

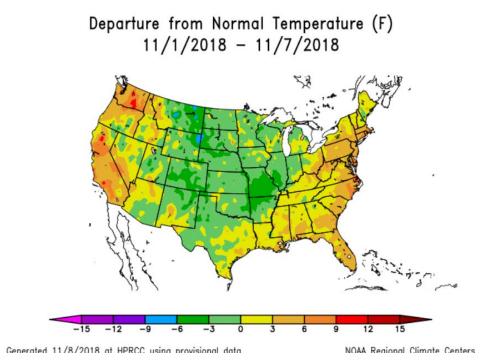
See also: Alaska 2019 water yearto-date precipitation values (inches) map

# **Temperature**

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

7-day temperature anomaly map for the continental U.S.

See also: 7-day temperature (° F) map



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

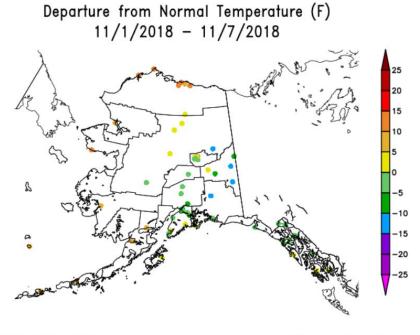
Source: Regional Climate Centers

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

#### See also:

7-day temperature (° F) map

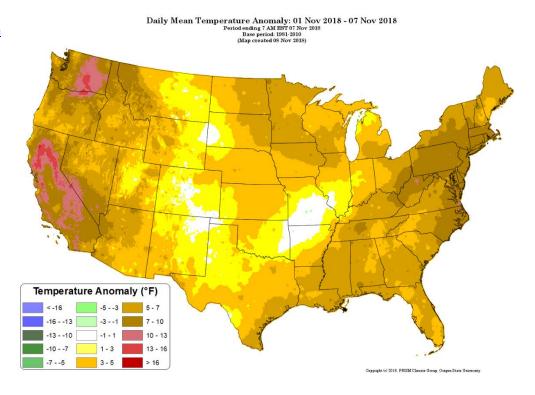


Generated 11/8/2018 at HPRCC using provisional data.

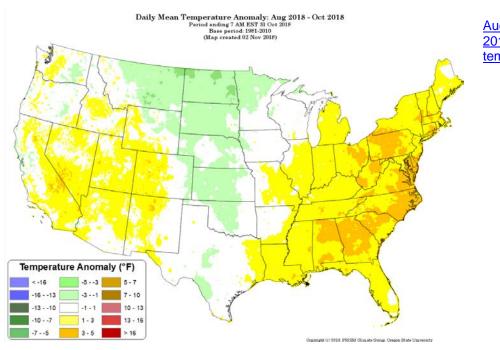
NOAA Regional Climate Centers

## 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

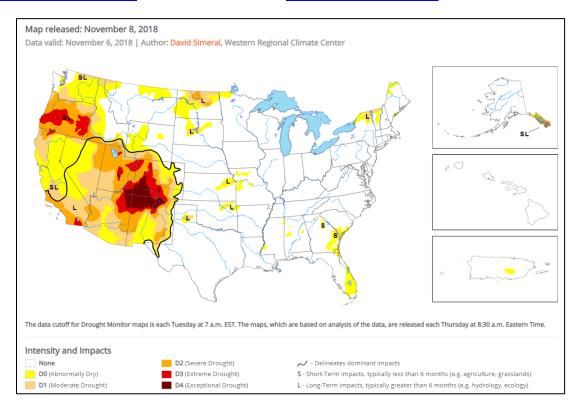


August through October
2018 daily mean
temperature anomaly map

# **Drought**

## U.S. Drought Monitor Select map below.

#### **U.S. Drought Portal** Comprehensive drought resource.

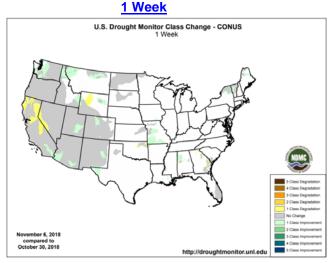


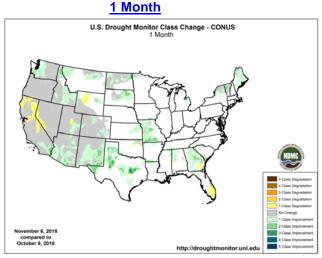
## Current National Drought Summary, November 8, 2018

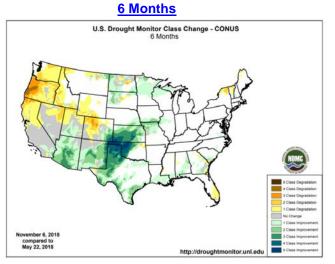
Author: David Simeral, Western Regional Climate Center

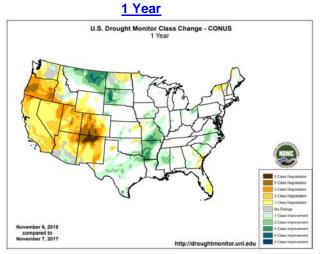
"This U.S. Drought Monitor week saw improvements on the map across portions of the Pacific Northwest as well as in the northern and central Rockies where scattered rain and mountain snow showers helped to boost snowpack levels and improve soil moisture content. In California and the western Great Basin, the dry pattern has continued from the summer months with no relief expected in the coming weeks in terms of precipitation. In northwestern California, the combination of long- and short-term precipitation deficits, agricultural impacts, and poor surface water flows led to further degradation of conditions. Conversely, in the desert region of southeastern California, areas of severe and extreme drought improved in response to well above-normal precipitation levels during the past 60 days in association with residual moisture from two tropical storm events that impacted the Southwest. Across the lower Midwest and Northeast, beneficial rains this week helped to reduce short-term precipitation deficits and improve soil moisture."

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







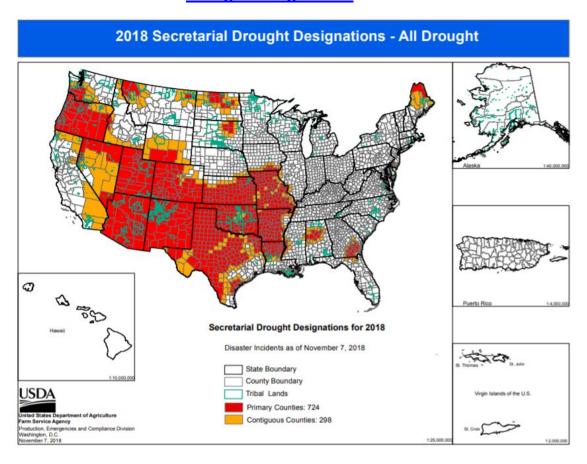


Changes in drought conditions over the last 12 months

## **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

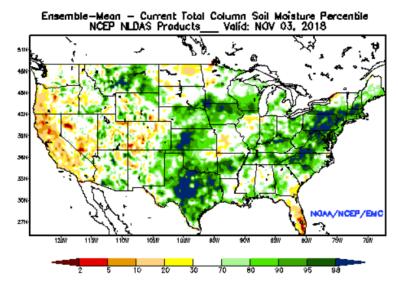
# **USDA 2018 Secretarial <u>Drought Designations</u>**



# Other Climatic and Water Supply Indicators

#### **Soil Moisture**

Source: NOAA National Centers for Environmental Prediction



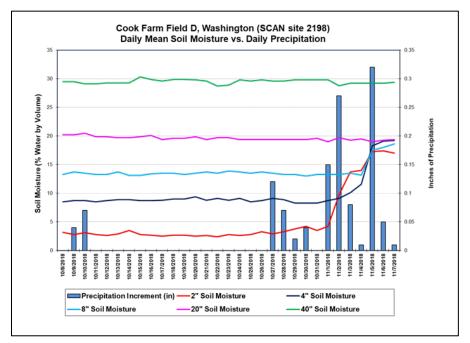
Modeled soil moisture percentiles as of November 3, 2018

#### Soil Moisture Data Portals

- CRN Soil Moisture
- Texas A&M University North <u>American Soil Moisture</u>
   Database
- University of Washington
   Experimental Modeled Soil
   Moisture

#### Soil Moisture Data

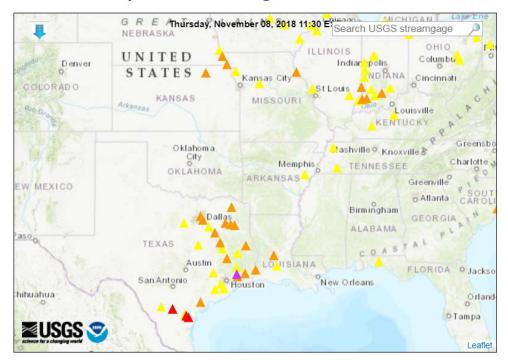
Source: NRCS Soil Climate Analysis Network (SCAN)

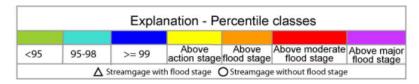


This chart shows the precipitation events during the last 30 days at the <u>Cook Farm Field D SCAN site</u> in Washington. This site is in eastern Washington in an area that has experienced a period of dry weather. Recent precipitation has increased soil moisture levels at the 2-, 4-, and 8-inch sensor depths.

Streamflow Source: USGS

## Map of flood and high flow conditions





WaterWatch: Streamflow, drought, flood, and runoff conditions

## **Reservoir Storage**

#### Western States Reservoir Storage

Source: NRCS National Water and Climate Center Reservoir Storage as of November 1, 2018 ■ Below Average At or Above Average ■ Average Capacity of Reservoirs Reported (1000 Acre-Feet) 3,218 38,129 5,710 14,400 36,569 632 8,441 3,099 9,079 2,493 7,244 100 90 80 Percent of Usable Contents 70 not available Data not available Data not available 60 50 Data 40 30 20 10 0 ID МТ ΝV UT WY ΑZ CA CO NM OR WA 30/31 0/154 73/84 25/25 0/46 5/5 40/42 8/10 20/22 0/4 17/17 Prepared by: USDA Natural Resources Conservation Service State and Number of Reservoirs Reported National Water and Climate Center, Portland, OR

November 1, 2018 Reservoir Storage: Chart | Dataset

### U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

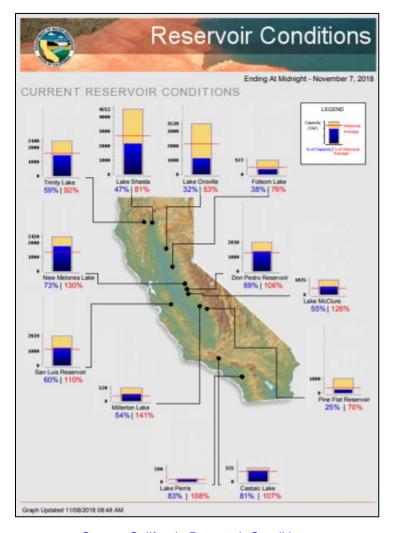
- **Upper Colorado**
- Pacific Northwest/Snake/Columbia
- Sevier River Water, Utah

www.wcc.nrcs.usda.gov

Upper Missouri, Kansas, Oklahoma, Texas

### **Current California Reservoir Conditions**

Source: California Department of Water Resources



**Current California Reservoir Conditions** 

# **Short- and Long-Range Outlooks**

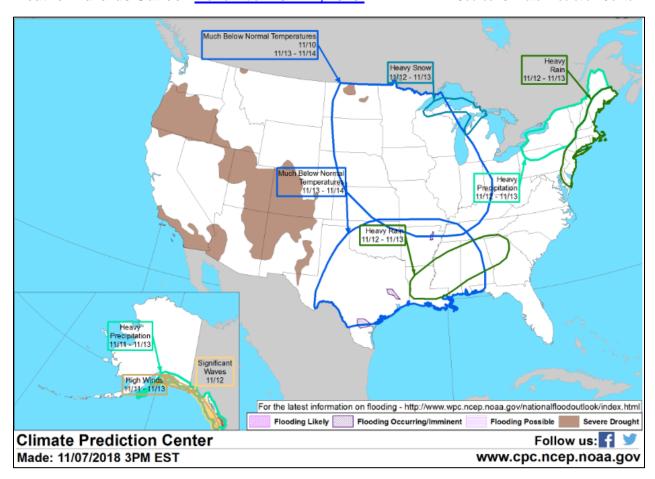
## **Agricultural Weather Highlights**

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

National Outlook, Wednesday, November 7: "Cold conditions will persist through week's end, except for lingering warmth in California and southern Florida. Late in the week, a developing storm system will produce widespread precipitation across the southern and eastern U.S., with storm totals reaching 1 to 2 inches or more in many locations. Meanwhile, mid- to late-week snow accumulations can be expected from the central Plains into portions of the Great Lakes region and northern New England. Elsewhere, dry weather will prevail during the next 5 days in most areas west of the Rockies, while a Santa Ana wind event in California could favor wildfire development and expansion. The NWS 6- to 10-day outlook for November 12 – 16 indicates that colder-than-normal conditions will cover the central and eastern U.S., while above-normal temperatures will be limited to the Far West. Meanwhile, wetter-than-normal weather in southern Texas and the Atlantic Coast States will contrast with near- or below-normal precipitation across the remainder of the country."

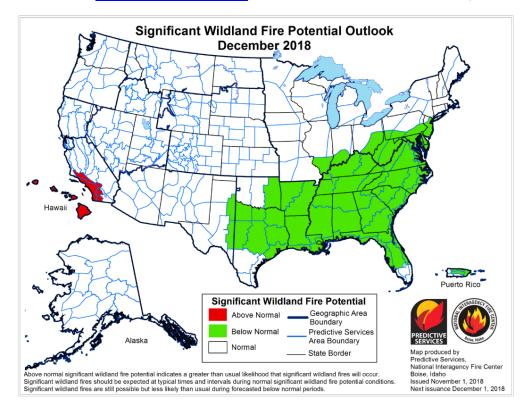
#### Weather Hazards Outlook November 10 – 14, 2018

Source: Climate Prediction Center

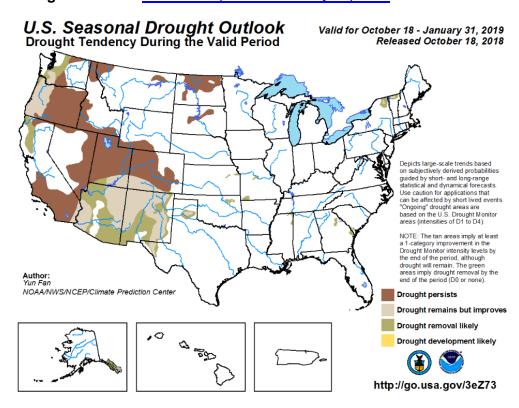


## Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center

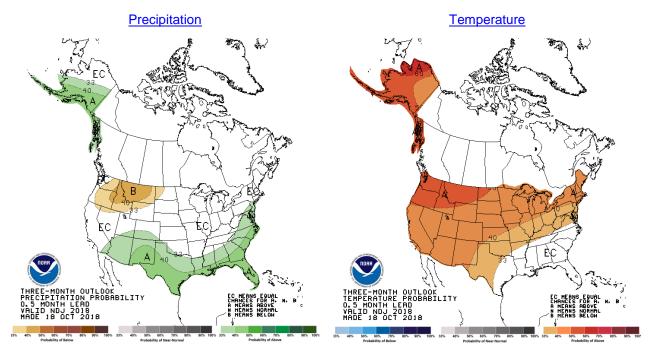


Seasonal Drought Outlook: October 18, 2018 - January 31, 2019 Source: National Weather Service



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

Source: National Weather Service



November-December-January (NDJ) 2018 precipitation and temperature outlook summaries

# **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>.