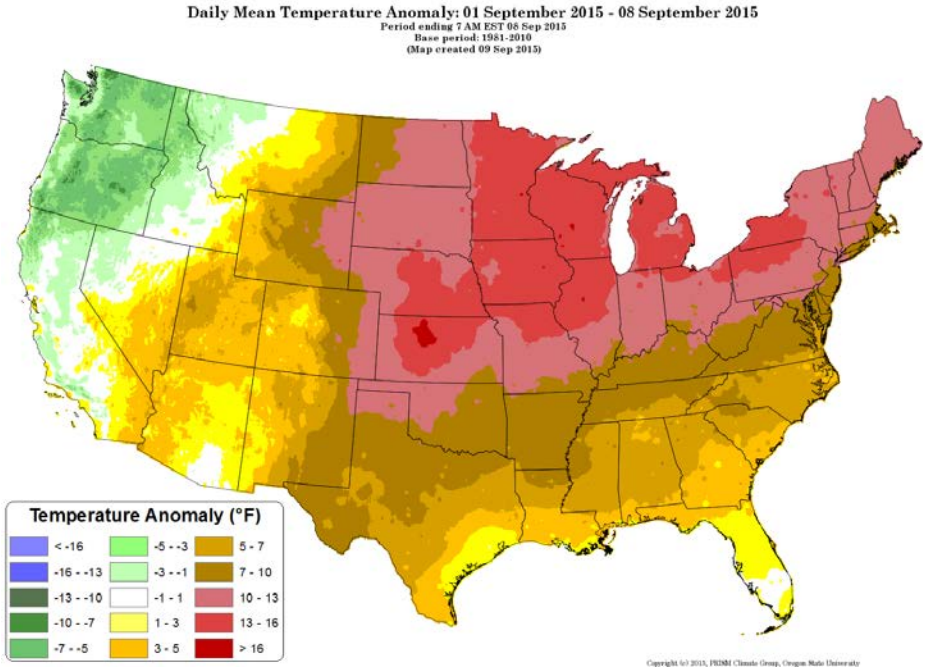
United States Department of Agriculture

Water and Climate Update

September 10, 2015

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and information provided by other agencies. The report focuses on current precipitation, seasonal snowpack, temperature, and drought conditions in the U.S.

Weekly Highlight: Cool temperatures and precipitation help suppress western fires



For September 2015, the national **daily mean temperature anomaly** map shows cool temperatures in the northwest part of the country, whereas warm temperatures were reported in the Midwest and Northeast.

Related News:

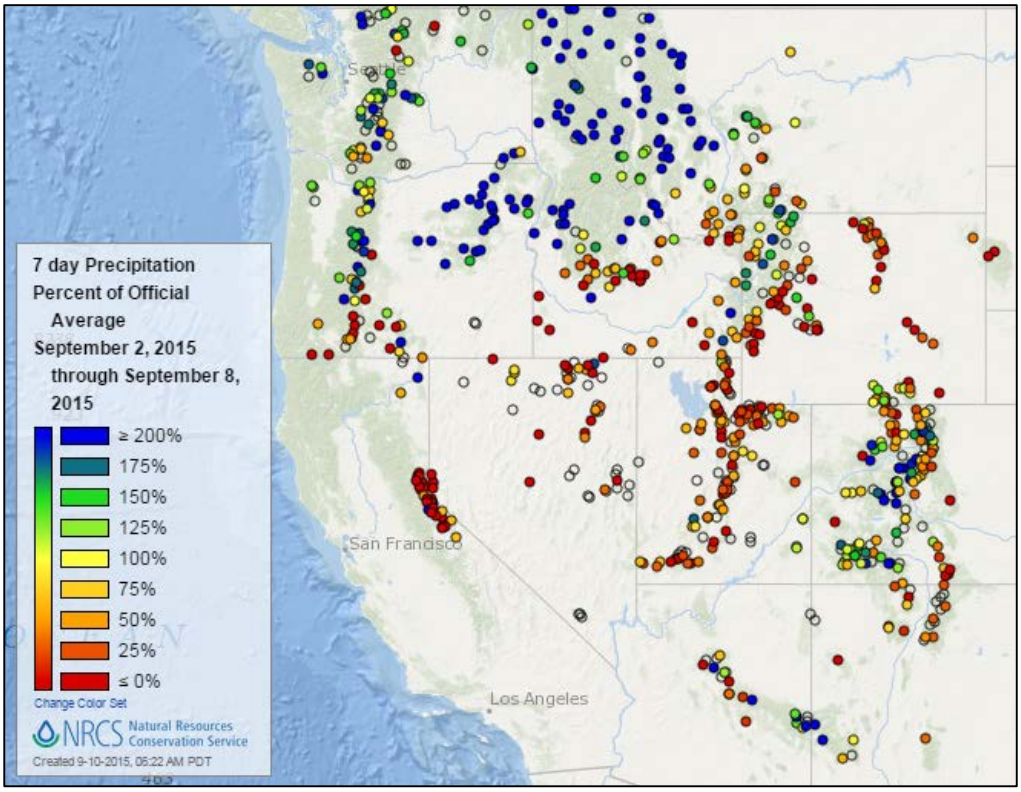
Rain helps limit area fire growth

Rain, snow dampen N. Washington fires

Firefighters partly contain wildfires in the western U.S. as rain and cool weather hits

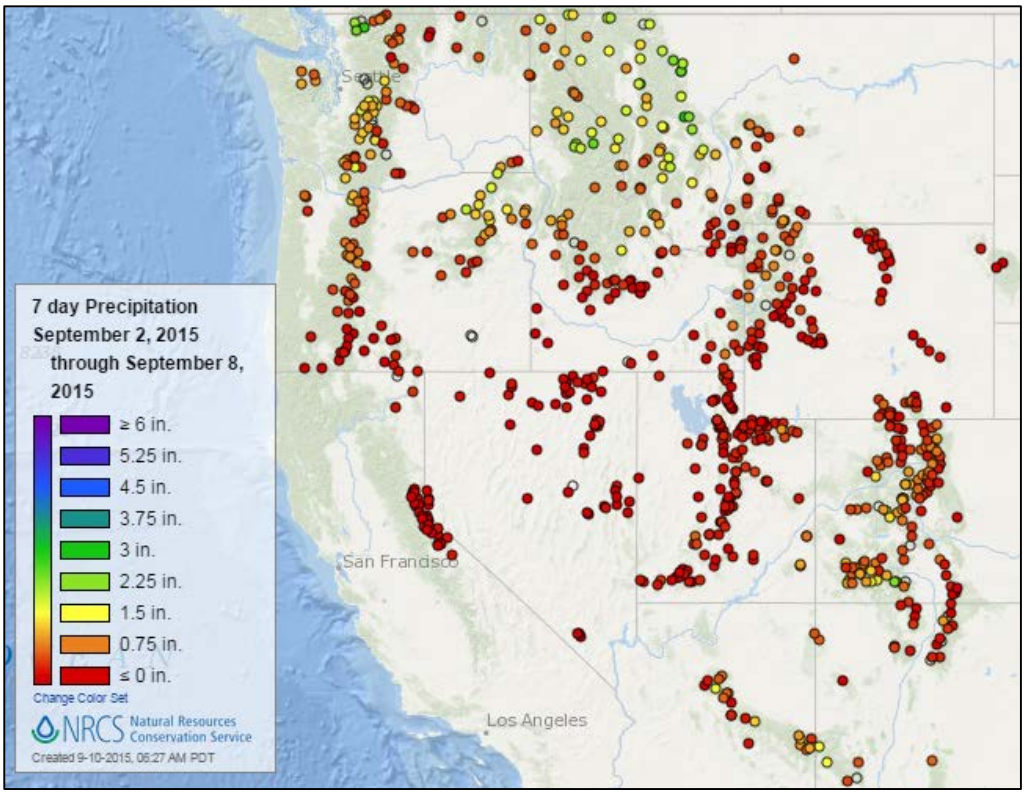
Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL)



The 7-day **precipitation percent of average** map shows seasonally high precipitation in the Cascades of Washington and Oregon, northeast Oregon, northern Idaho, western Montana, northern Colorado, as well as along the Arizona/New Mexico border.

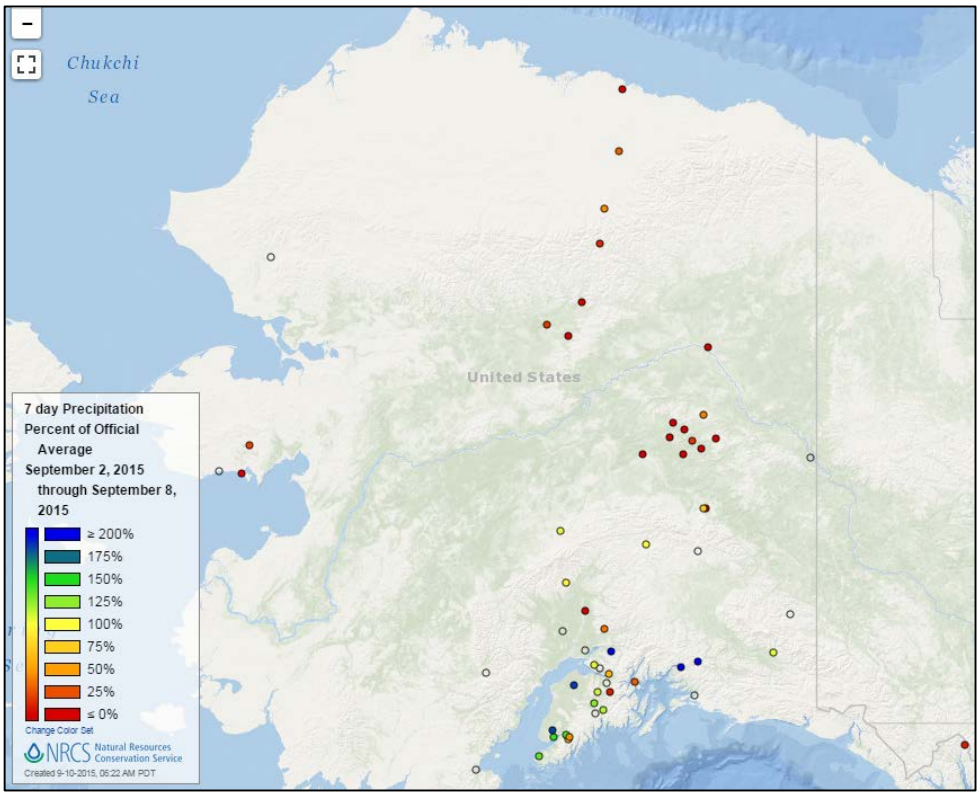
Dry conditions prevailed in the remainder of the West.



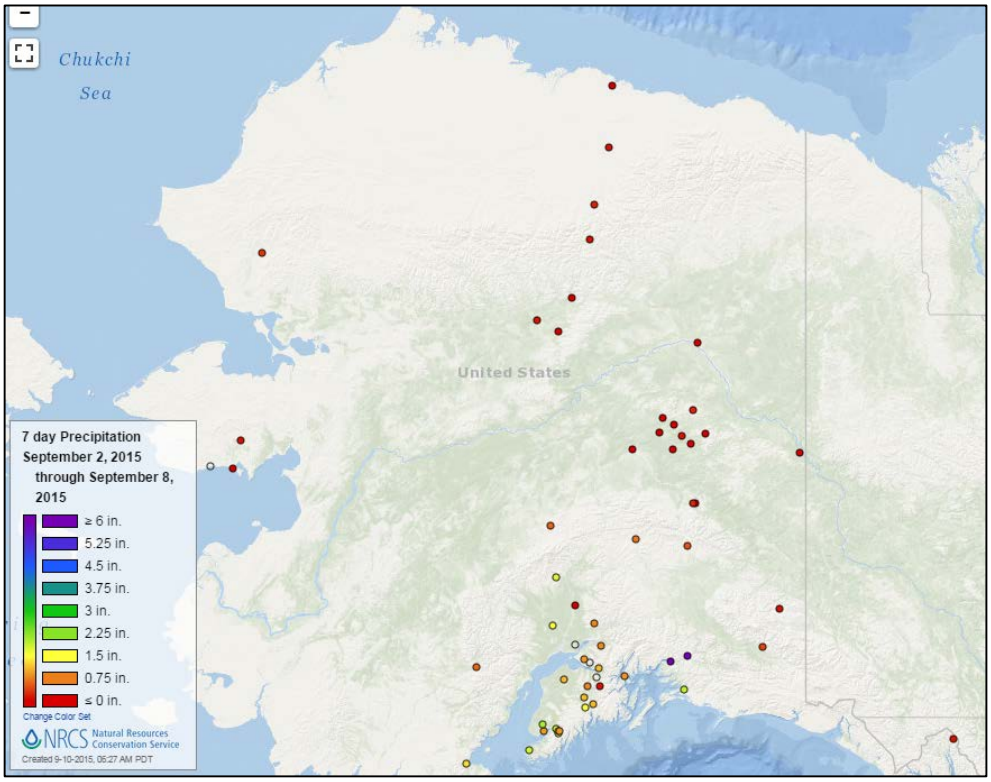
The **total precipitation** map shows up to three inches of precipitation in northern Washington, Idaho, and western Montana. Smaller amounts fell in scattered areas of northeast Oregon, Colorado, Arizona, and New Mexico.

Elsewhere, there was little precipitation.

The Alaska 7-day **precipitation percent of average** map shows below normal precipitation in the central interior and above normal precipitation in the south coastal region.

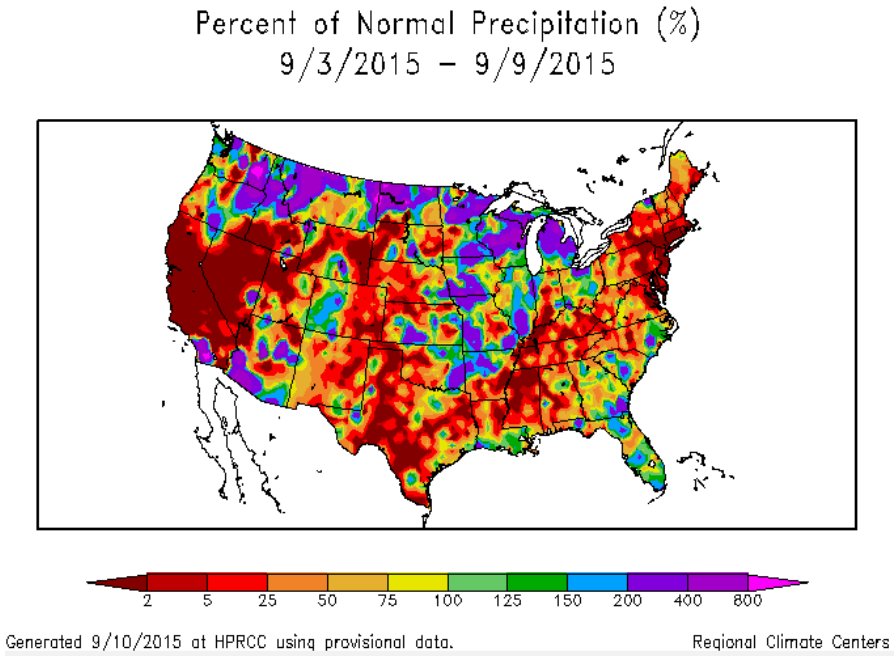


The Alaska **total precipitation** map shows up to 6 inches of precipitation for two stations and 1.5 inches or less in other stations in the southern part of the state. Most stations elsewhere had a dry week.

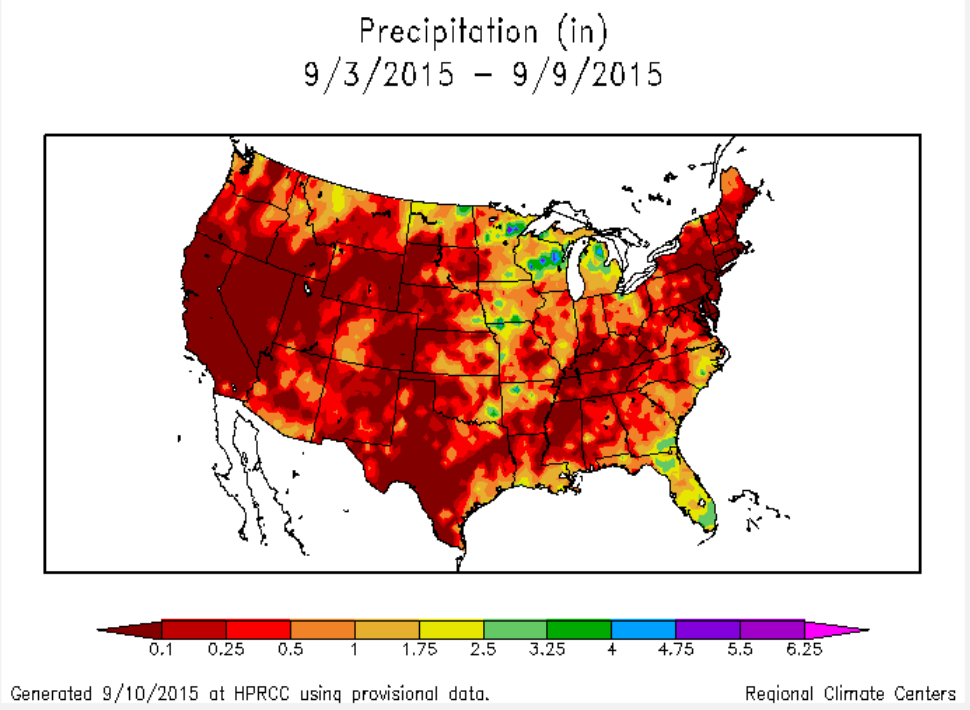


Last 7 Days, National Weather Service (NWS) Networks

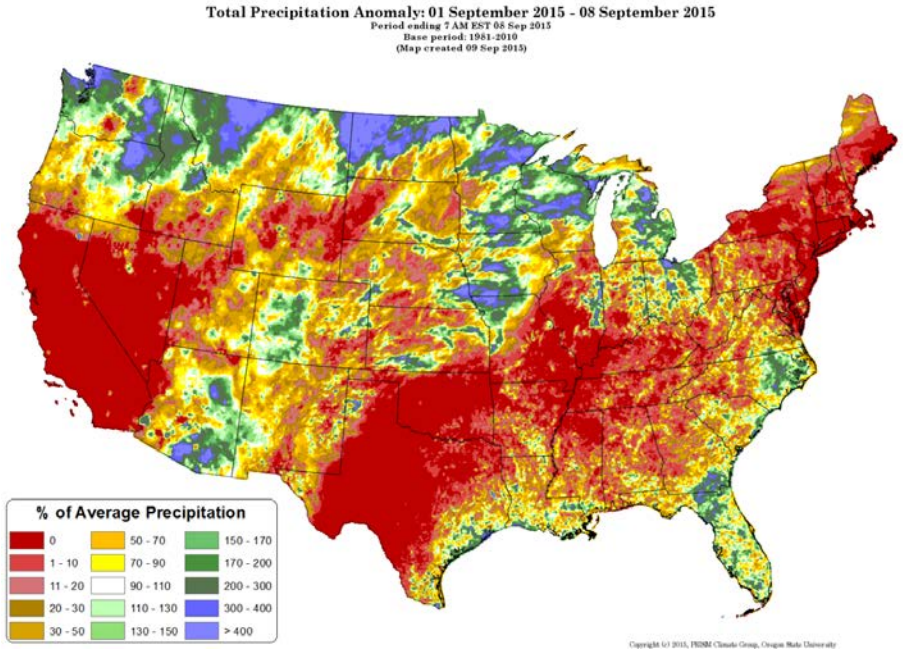
The **percent of normal precipitation** map shows well above normal precipitation across the northern tier states, from Washington to the upper Midwest. Parts of the Midwest, Southeast, and Southwest also had well above normal precipitation.



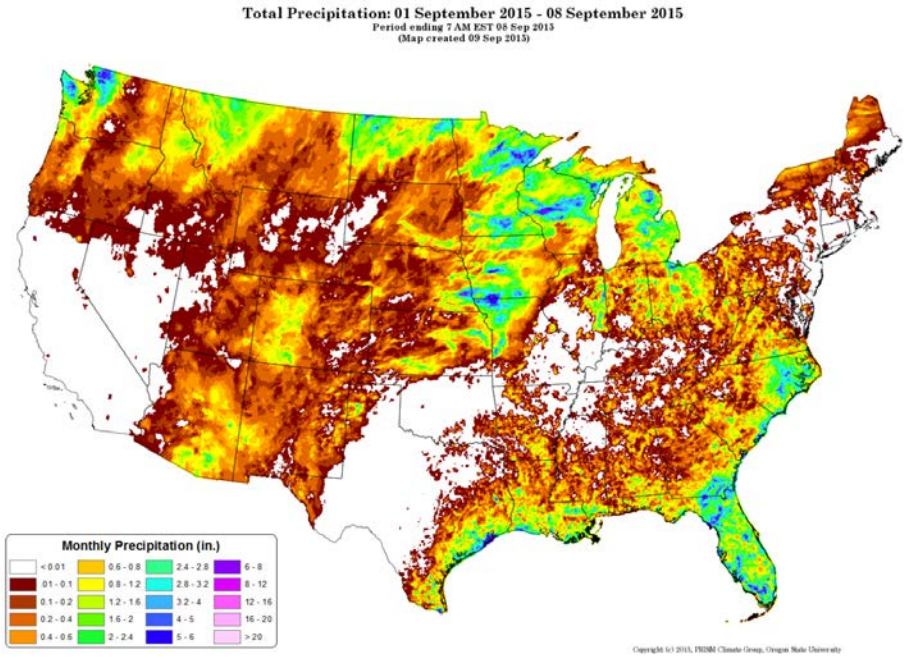
In the **7-day total precipitation** map, large amounts were recorded noticeable in the upper Midwest and the Southeast, especially in localized areas of Minnesota, Michigan, Wisconsin, and Florida.



Month-to-Date, PRISM Preliminary, All available data including SNOTEL and NWS



For the month of September, the national **total precipitation percent of average** pattern reveals higher than normal precipitation in the northern tier states, the Southwest, and central and southeast parts of the country. California, Nevada, Texas, Oklahoma, and the Northeast remained especially dry.

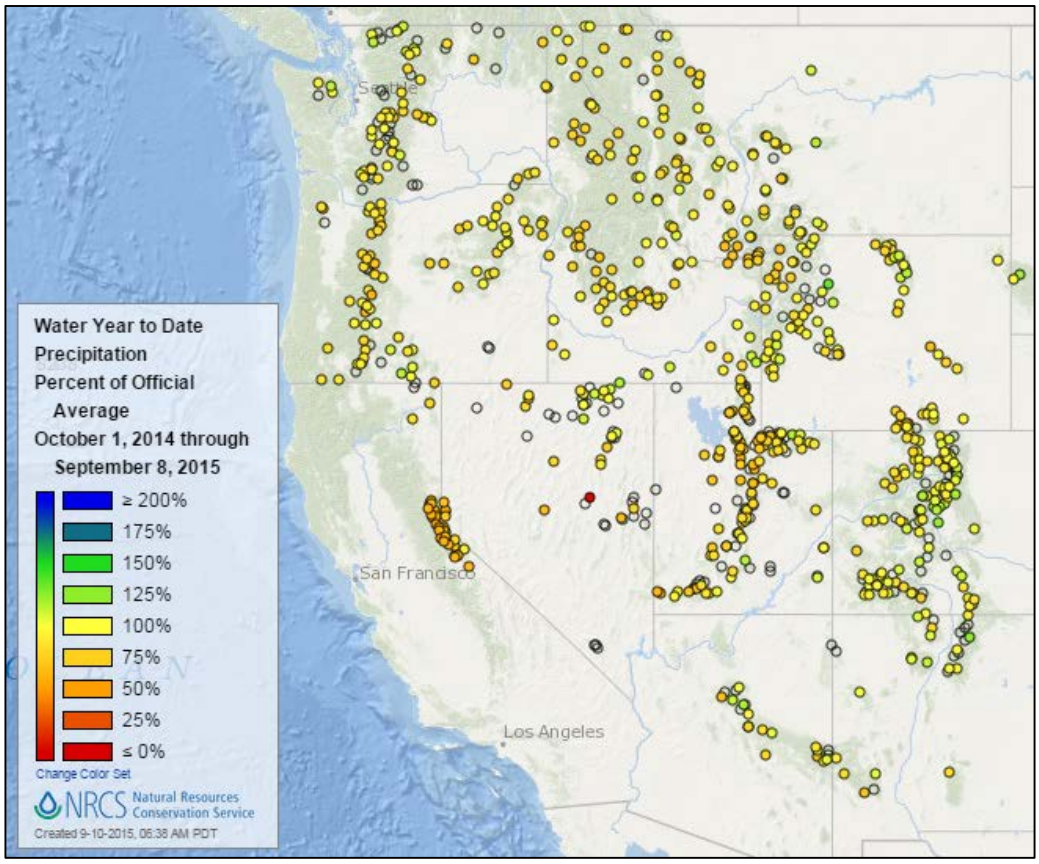


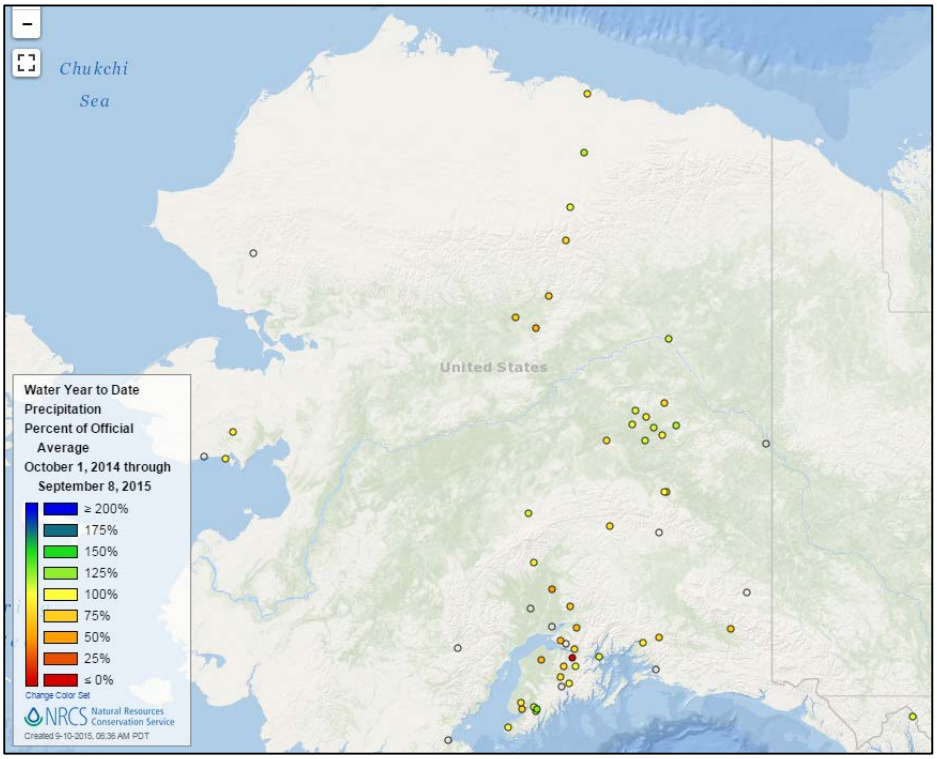
The **total precipitation** map shows significant precipitation especially across the northern tier states from Washington to the upper Midwest, the Southeast, and parts of the Southwest.

In contrast, dry conditions prevailed in much of the far West and areas in the southern Great Plains.

Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL)

For the **2015 Water Year** that began on October 1, 2014, large fluctuations throughout the year have now evened out to make most areas of the West near normal, with the exception of the central Sierra Nevada, which remains below average.



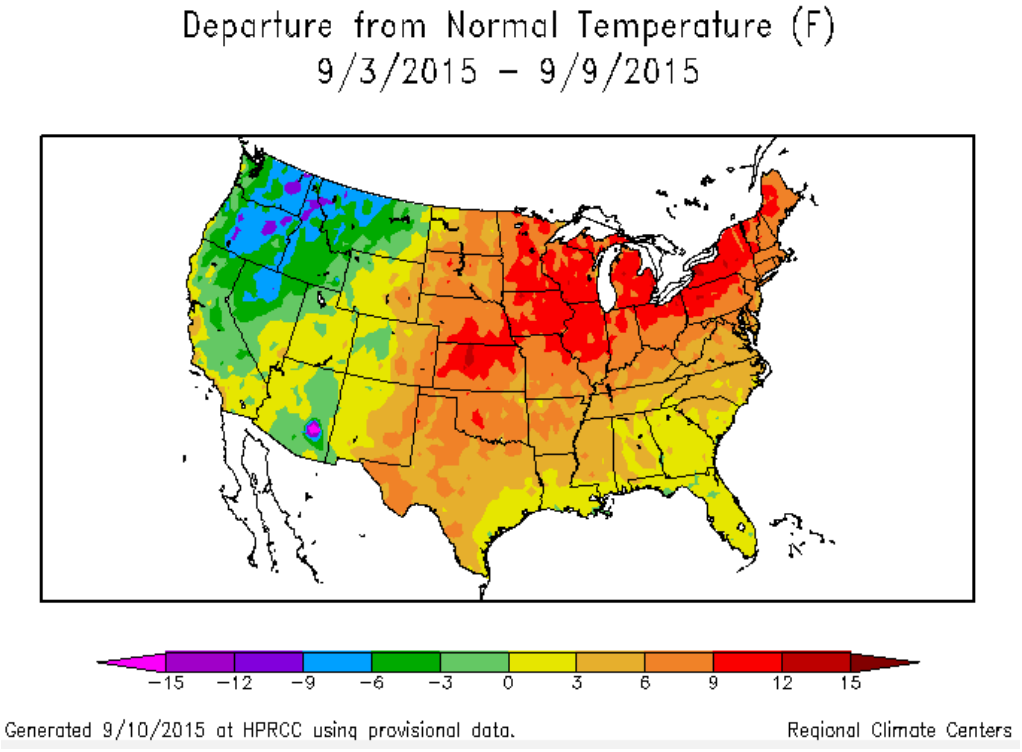


The Alaska **water year-to-date precipitation percent of average** map shows mostly near normal conditions.

Temperature

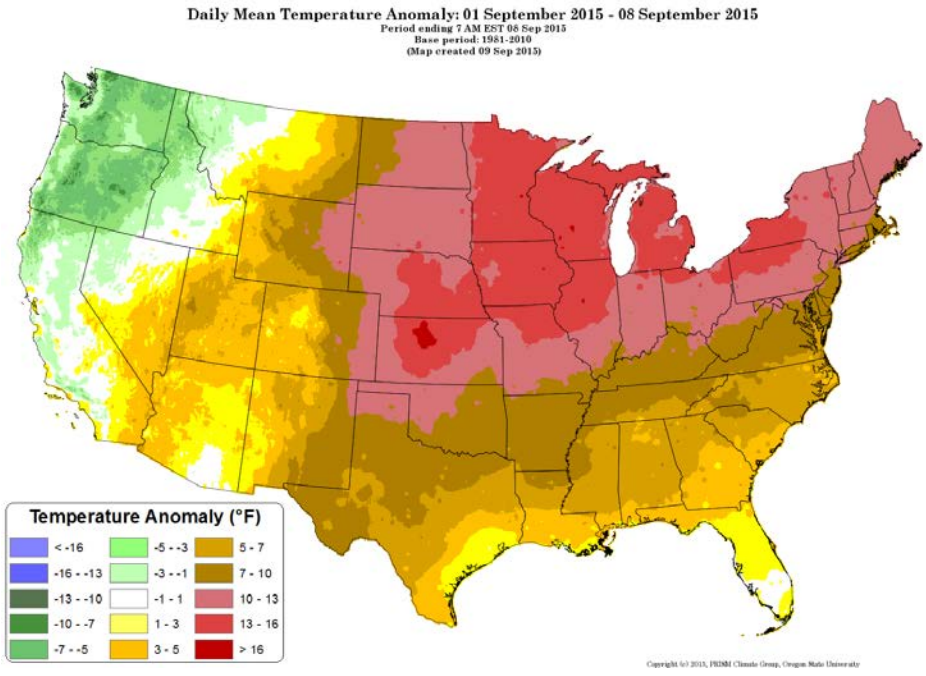
Last 7 Days, National Weather Service (NWS) Networks

The map of the **average temperature anomalies** for the past week indicates significantly warmer than normal temperatures in the central and northern Great Plains to the Northeast. The rest of the country was near or cooler than normal, with the Pacific Northwest and western Montana very well below normal.

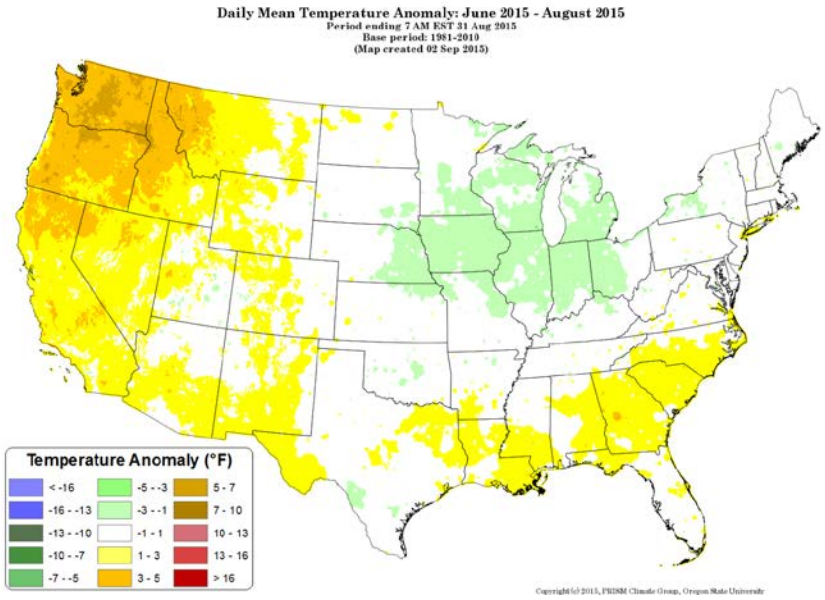


Month-to-Date, PRISM Preliminary, All available data including SNOTEL and NWS

For September 2015, the national **daily mean temperature anomaly** map shows cool temperatures in the Northwest part of the country, whereas very warm temperatures were reported in the Midwest and Northeast.



Last 3 Months, PRISM Preliminary

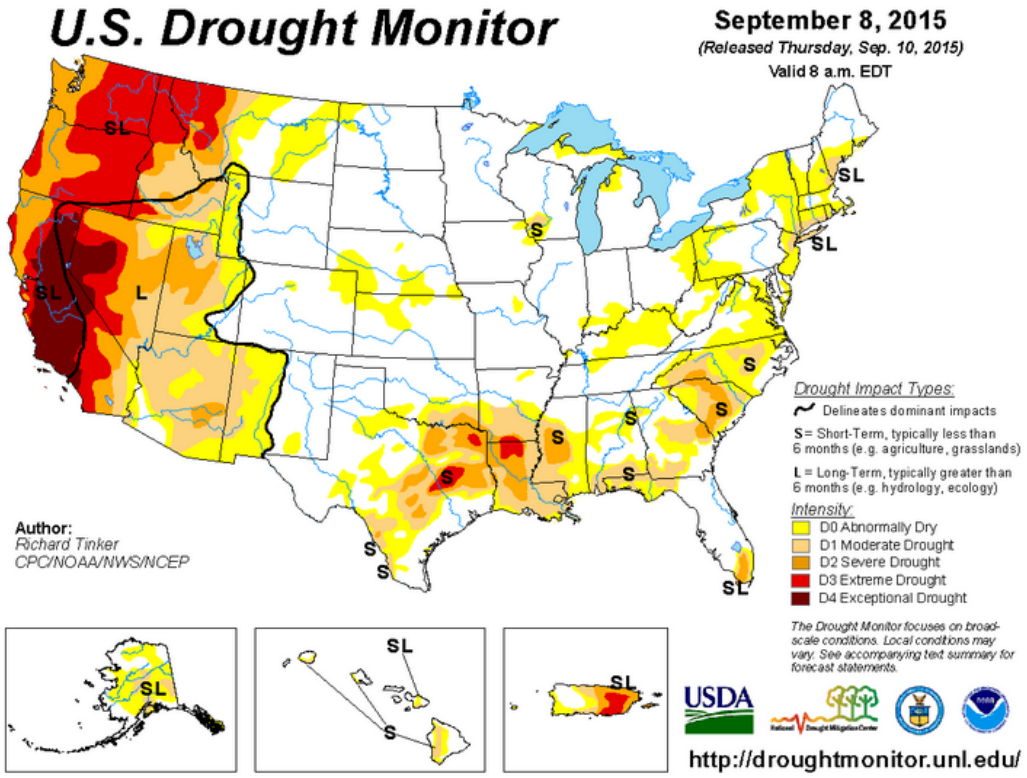


The June through August national **daily mean temperature anomalies** for the U.S. show the Pacific Northwest and the Southeast had the largest temperature departures above normal. The Midwest reported negative departures for the period.

Drought

U.S. Drought Portal Comprehensive drought resource

U.S. Drought Monitor See map below. Exceptional levels of drought continue in California and Nevada with extreme drought continuing in the Pacific Northwest, the south-central U.S., and Puerto Rico. To view regional drought conditions, select a region on the map. State maps are available from regional maps.



Current National Drought Summary, September 8, 2015

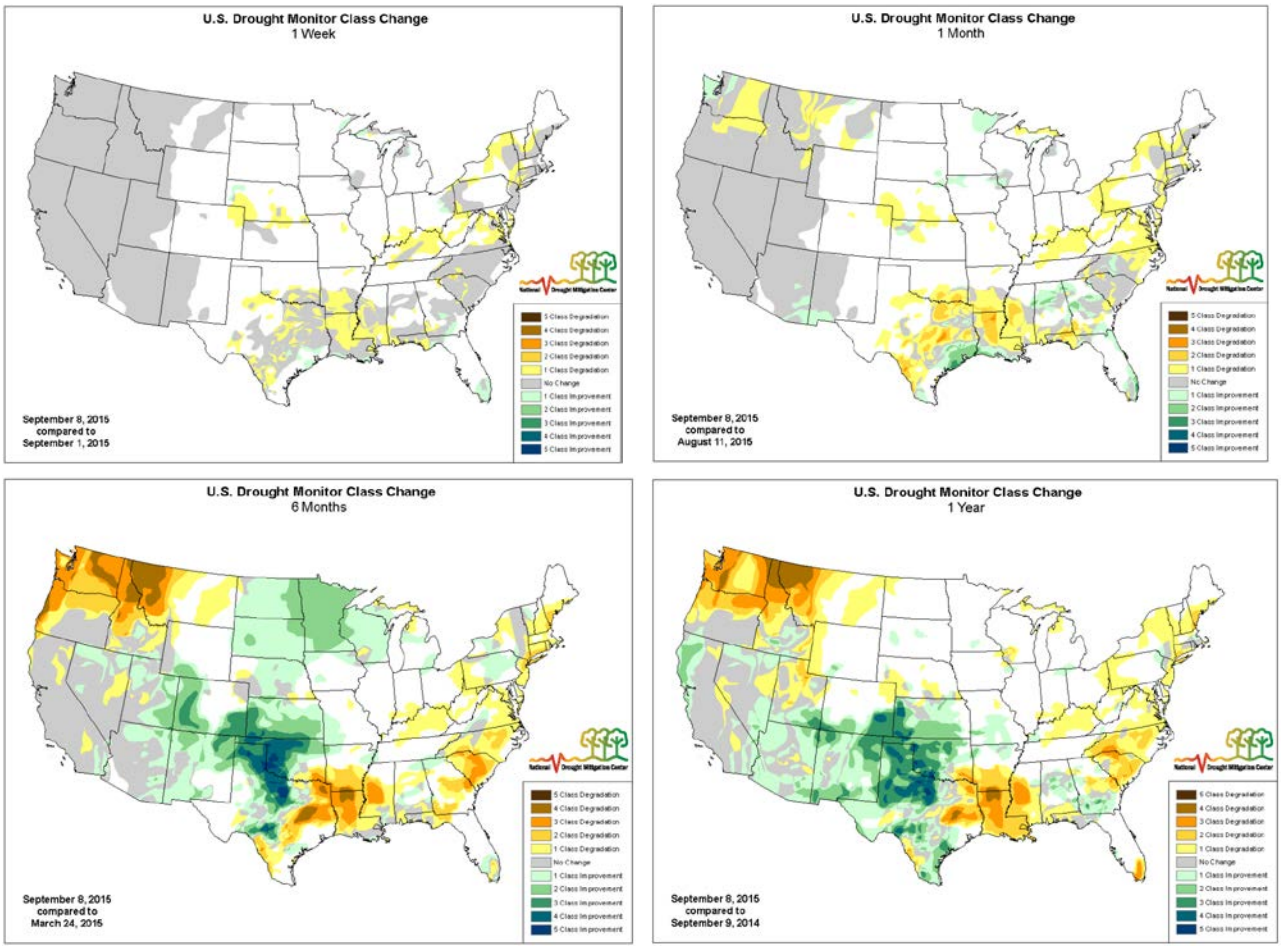
Author: Richard Tinker, CPC/NOAA/NWS

“East of the Rockies, abnormally warm weather prevailed again, and rainfall was sparse outside of the Great Lakes Region, The Midwest, Florida, and the South Atlantic and Gulf Coasts. Dryness and drought eased in some of the limited regions receiving moderate to locally heavy rain, but persistence or intensification was much more common.

Significant changes were made in areas where the warm, dry pattern has persisted for multiple weeks. D0 was broadly expanded in a broken pattern across the mid-Atlantic, The Northeast, and The Ohio Valley while widespread intensification occurred in most areas of dryness and drought from eastern Texas to western Mississippi.”

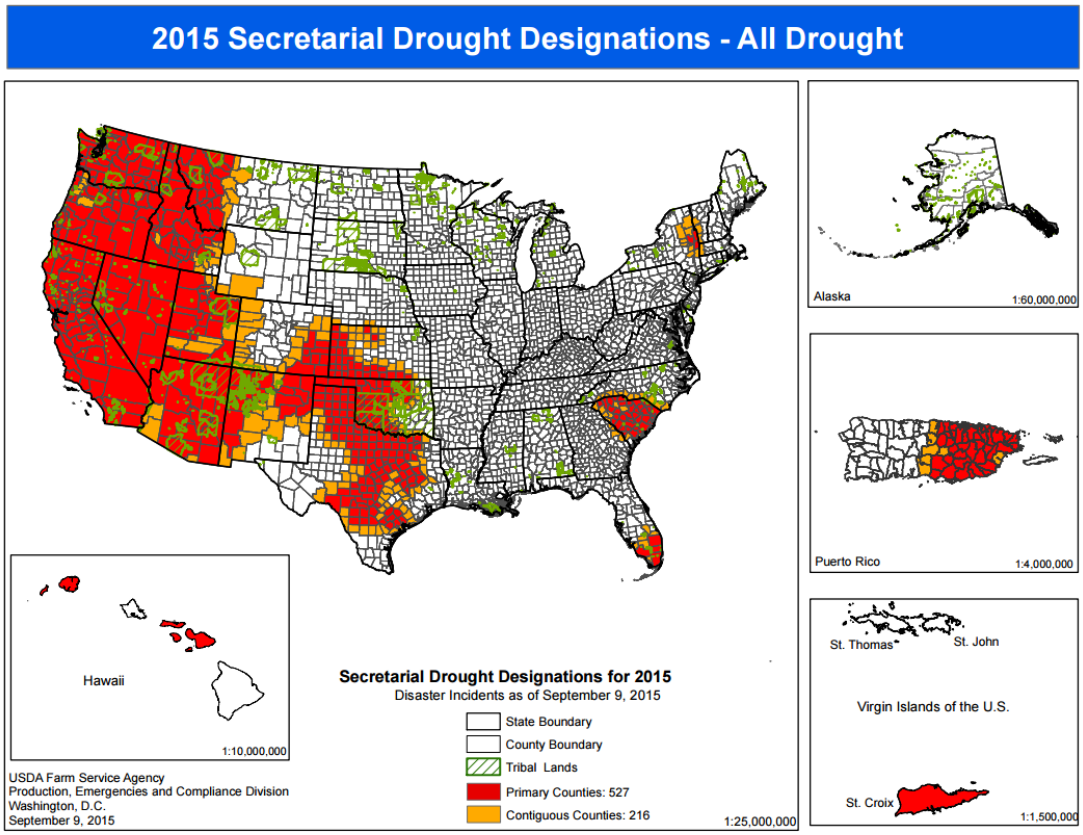
Detailed regional drought narratives for the last week are here.

Changes in Drought Monitor Categories over Time



Persistent dry conditions are particularly notable in the Northwest and parts of the East. Conditions have improved significantly in the south-central Great Plains and parts of the Southwest.

2015 USDA Drought Designations



Drought Designations as of September 9, 2015

New drought designations this week in South Carolina

USDA Disaster and Drought Information

U.S. Population in Drought, Weekly Comparison

Highlighted Drought Resources

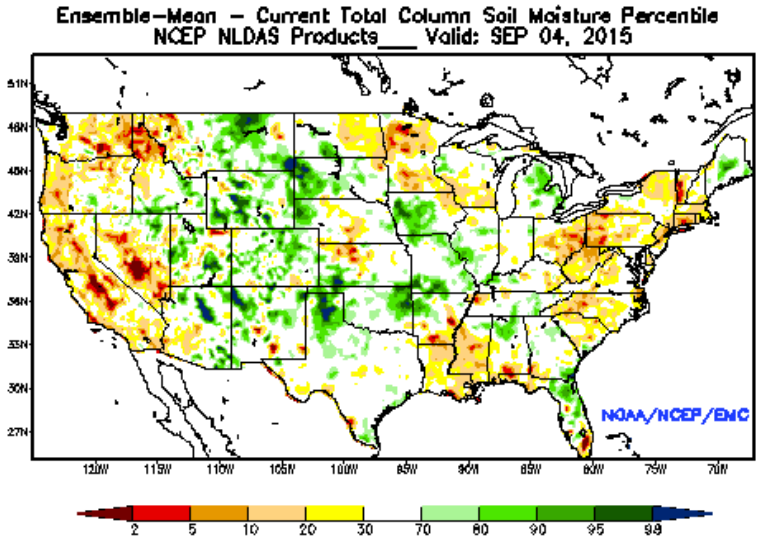
- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring

Drought News

- Oregon Worst in U.S. for Drought Conditions

Other Climatic and Water Supply Indicators

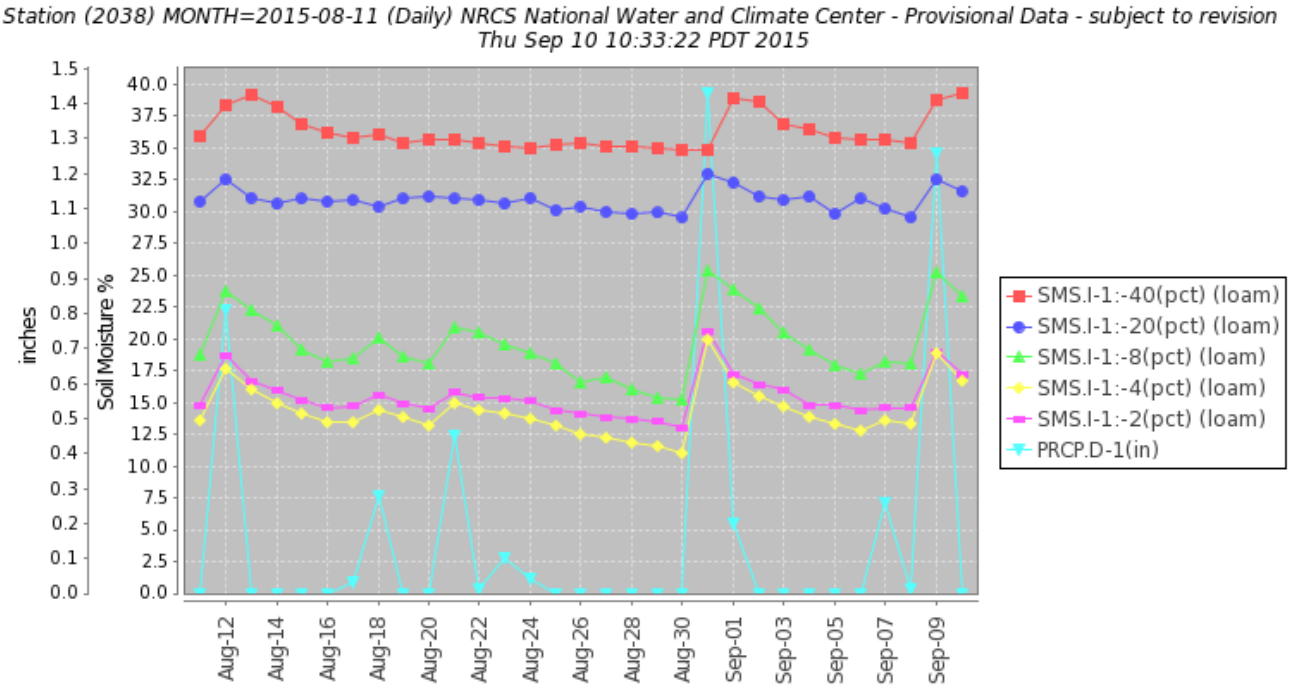
Soil Moisture



The modeled **soil moisture percentiles** as of September 4, 2015 show significant dryness in the far West, Minnesota, the Northeast, and the South. Areas of above normal soil moisture include much of the Rocky Mountains, the central Great Plains, northern Florida, the southern Mississippi Valley, and Maine.

University of Washington Experimental Modeled Soil Moisture

Soil Moisture Data: NRCS Soil Climate Analysis Network (SCAN)

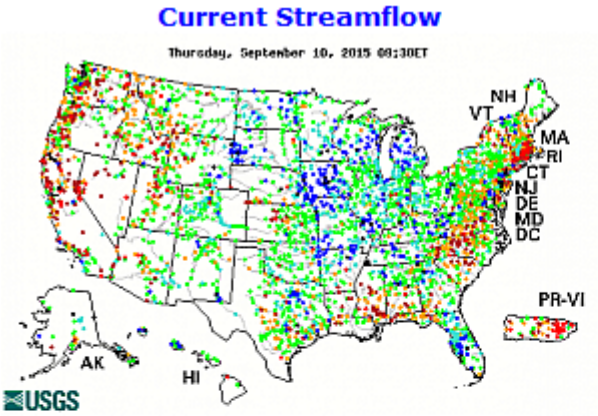


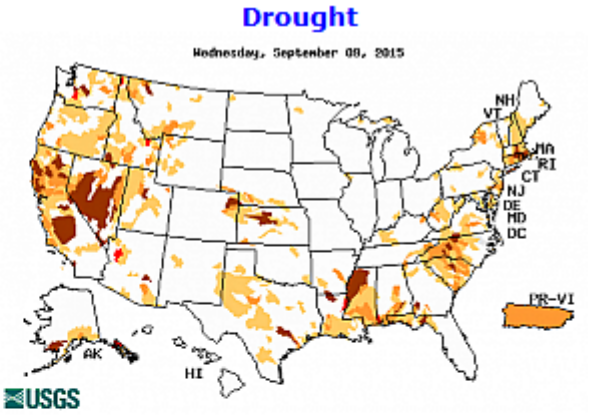
This example graph shows soil moisture (2, 4, 8, 20, and 40 inch depth) and precipitation for the last month at the Youmans Farm SCAN site (station number 2038) in South Carolina. Multiple precipitation events generated corresponding soil moisture response with drying between events.

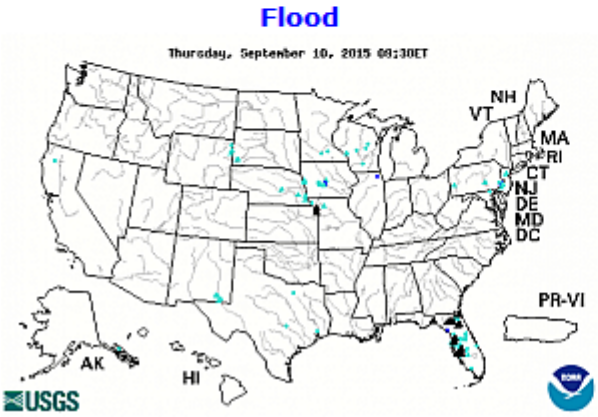
Soil Moisture Data Portals

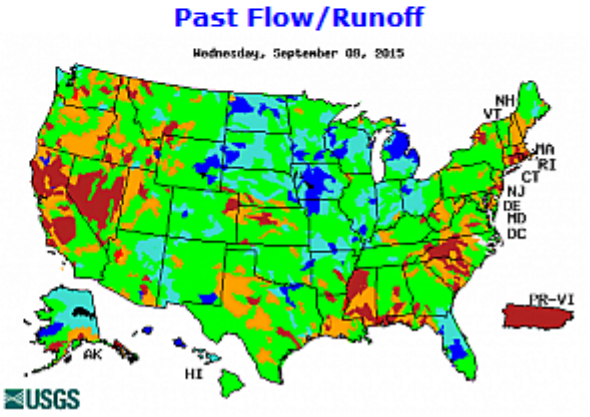
CRN Soil Moisture
Texas A&M University North American Soil Moisture Database

Streamflow









Streamflow remains below normal in the West and parts of the Southeast, whereas it is above normal in the north-central part of the country. From the USGS web site, select any individual map to enlarge and display a legend.

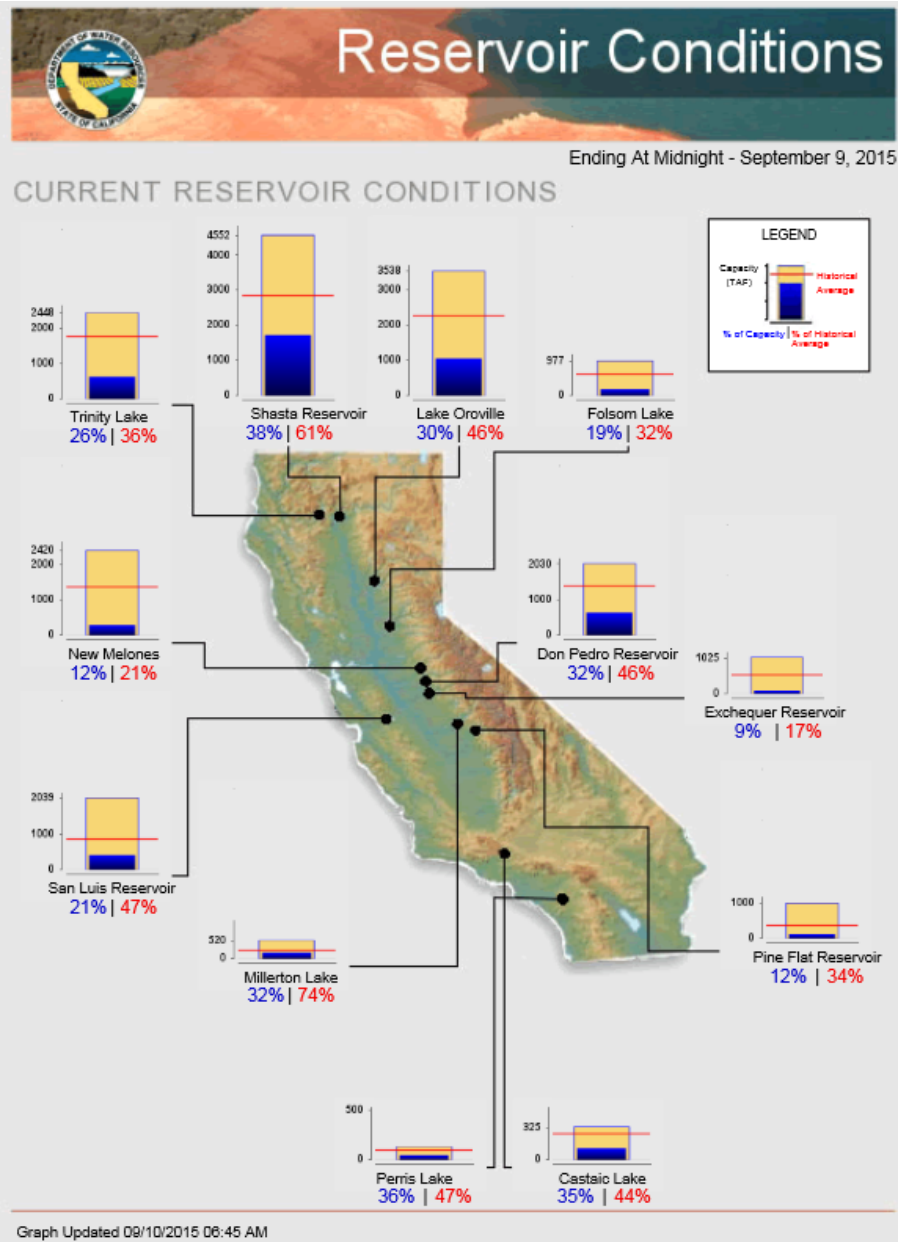
Current Reservoir Storage

National Water and Climate Center Reservoir Data

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

Upper Colorado
Pacific Northwest/Snake/Columbia
Sevier River Water, Utah
Upper Missouri, Kansas, Oklahoma, Texas

California Reservoir Conditions



Short- and Long-Range Forecasts

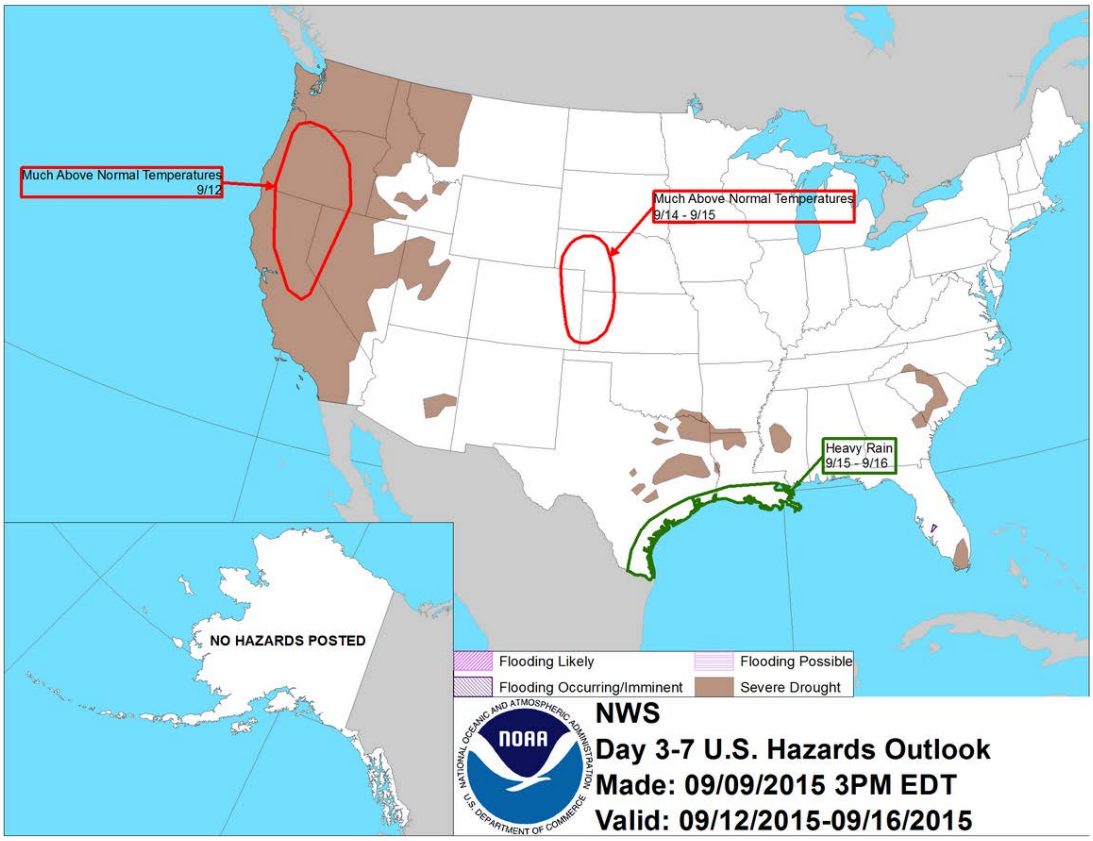
Agricultural Weather Highlights

Author: Brad Rippey, USDA Agricultural Meteorologist

Outlook, September 10, 2015: "During the next few days, a surge of cool air will trail a cold front across the South, East, and Midwest. Widespread showers and thunderstorms will precede and accompany the front, totaling 1 to 2 inches across the Deep South and at least 1 to 3 inches from the central Appalachians to the northern Atlantic Coast. Showers will also occur, mainly on September 10-11, from the central Plains into the Midwest, although most areas will receive less than an inch. In contrast, mostly dry weather will prevail across the northern Plains and upper Midwest, as well as a broad area stretching from northern California and the Pacific Northwest to the northern Rockies. Unusual heat will accompany the Northwestern dryness, with hot weather overspreading the nation's mid-section during the weekend. Elsewhere, monsoon-related showers will continue in the Southwest, including parts of southern California. The NWS 6- to 10-day outlook for September 15 – 19 calls for the likelihood of above-normal temperatures across most of the central and eastern U.S., while cooler-than-normal conditions will be confined to the Northwest. Meanwhile, near- to above-normal precipitation across the majority of the nation will contrast with drier-than-normal weather in a few areas, including the southern High Plains and the middle and northern Atlantic States."

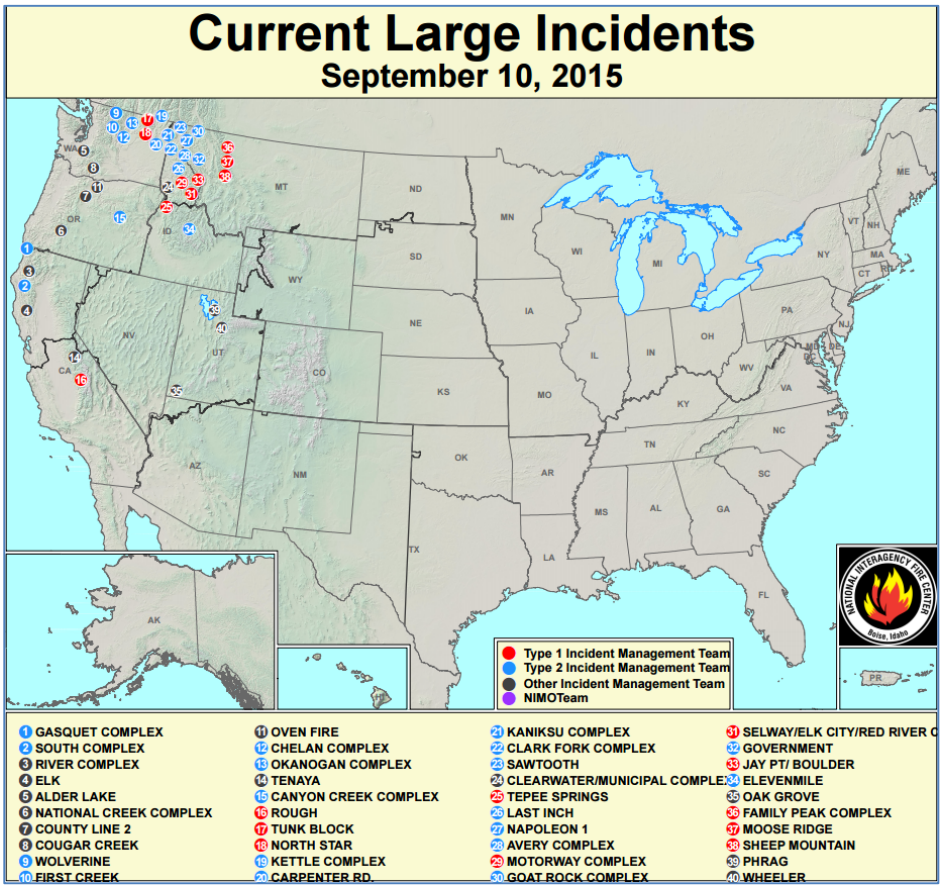
National Weather Hazards

The outlook for **weather hazards** over the next week shows the severe drought in the West plus a few scattered areas in the South. Much above normal temperatures are forecast for the central Plains and central West. Heavy rain is forecast for the western Gulf Coast.



Wildfires

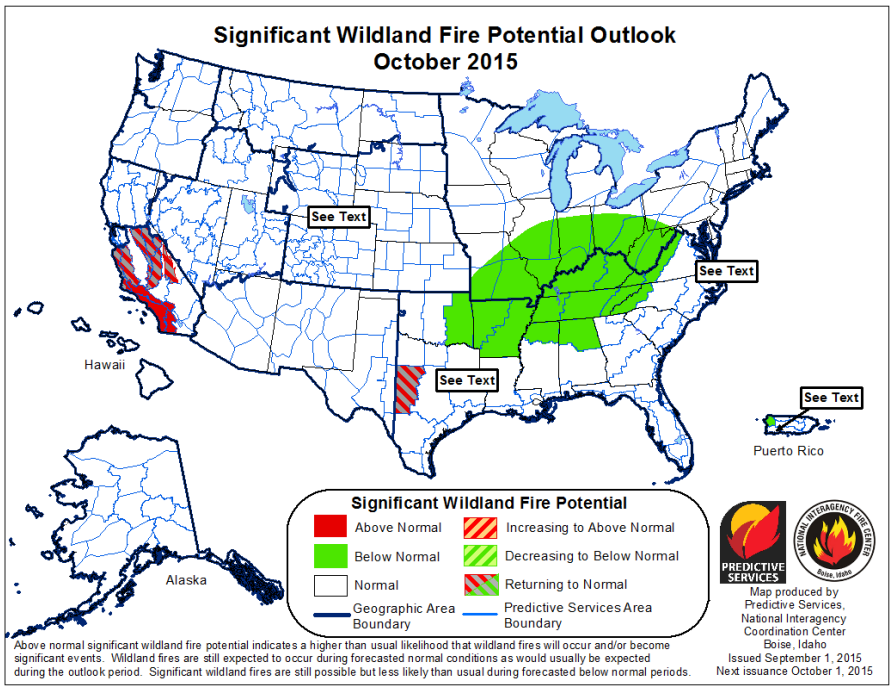
Current Conditions



[Current Wildfire Conditions]

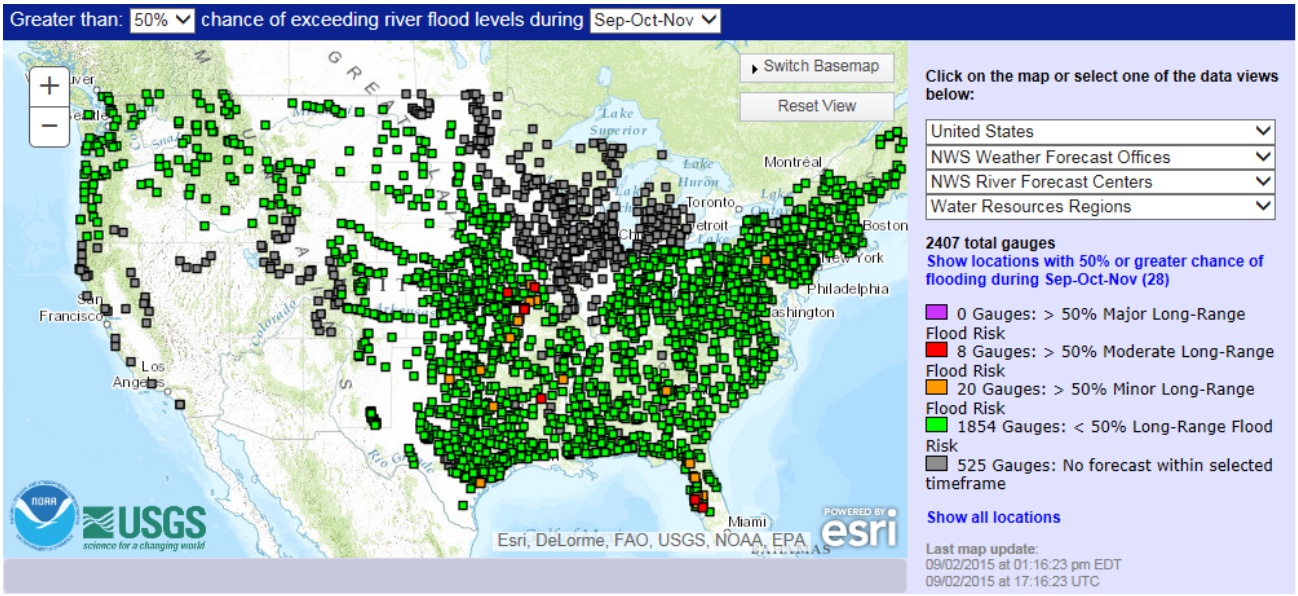
Many wildfires continue in the Pacific Northwest, northern Rockies, and northern California.

Wildland Fire Potential: October 2015



In October, **fire potential** remains above normal in southern California, whereas it is greatly reduced in the remainder the country.

Long-Range Flood Outlook



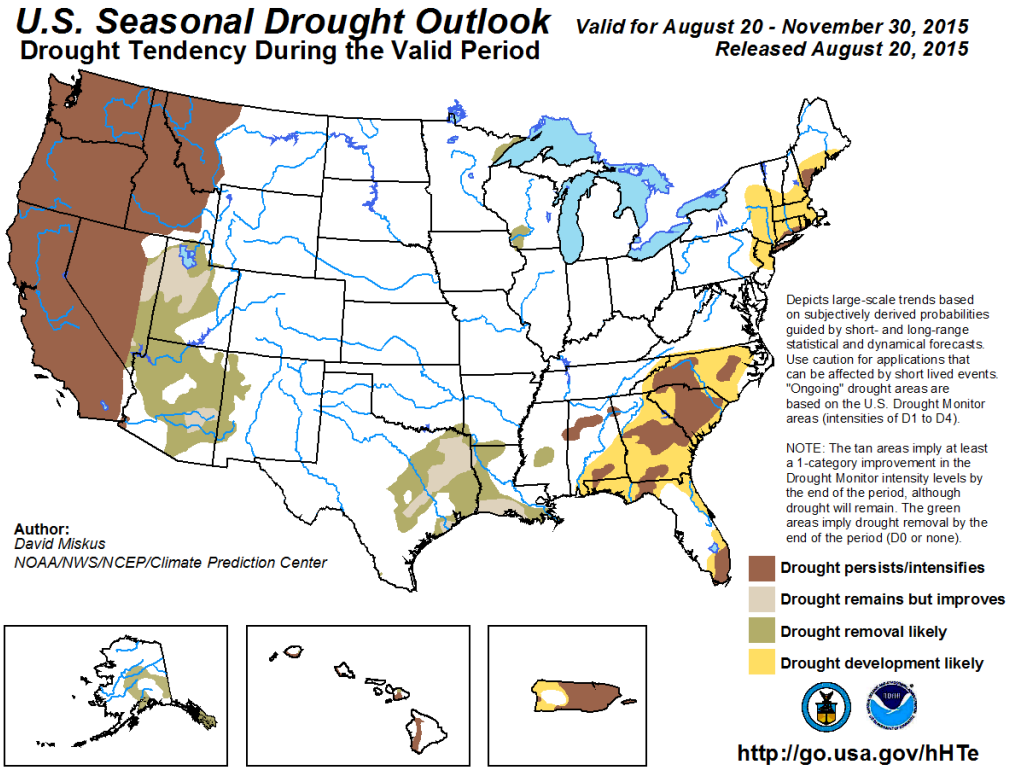
During the next three months, there is some **flooding potential** in a few scattered locations, primarily in the central part of the country and Florida.

Seasonal Drought Outlook

During the next three months, **drought** will persist over the far West.

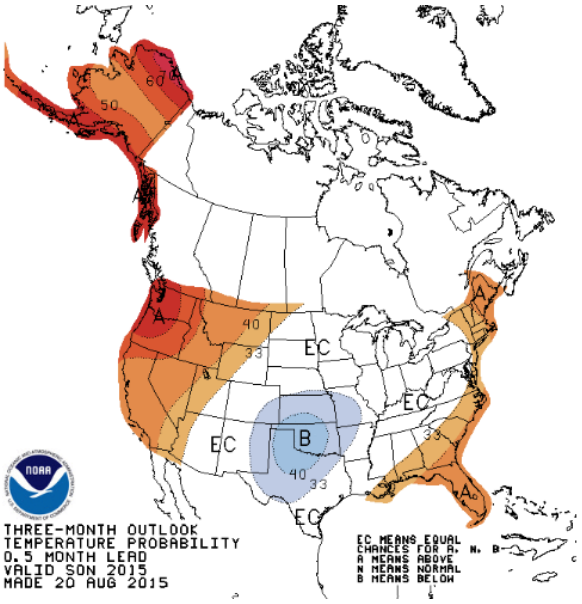
Drought remains, but is improving, in parts of the West and the South.

Drought development is likely over the Northeast and the Southeast.

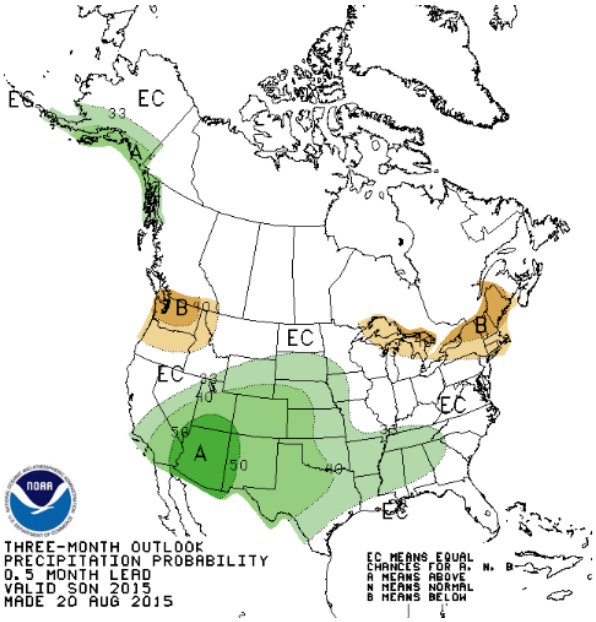


Climate Prediction Center 3-Month Outlook

Temperature



Precipitation



During **September-November**, there is enhanced probability of above normal temperatures in the West, Alaska, and the east coast, whereas below normal temperatures are likely in the southern Great Plains and the Midwest. Enhanced probability for above normal precipitation is predicted for the Southwest, the central part of the country, and south coastal Alaska, with below normal precipitation in Washington, the Great Lakes area, and the Northeast.

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**.