



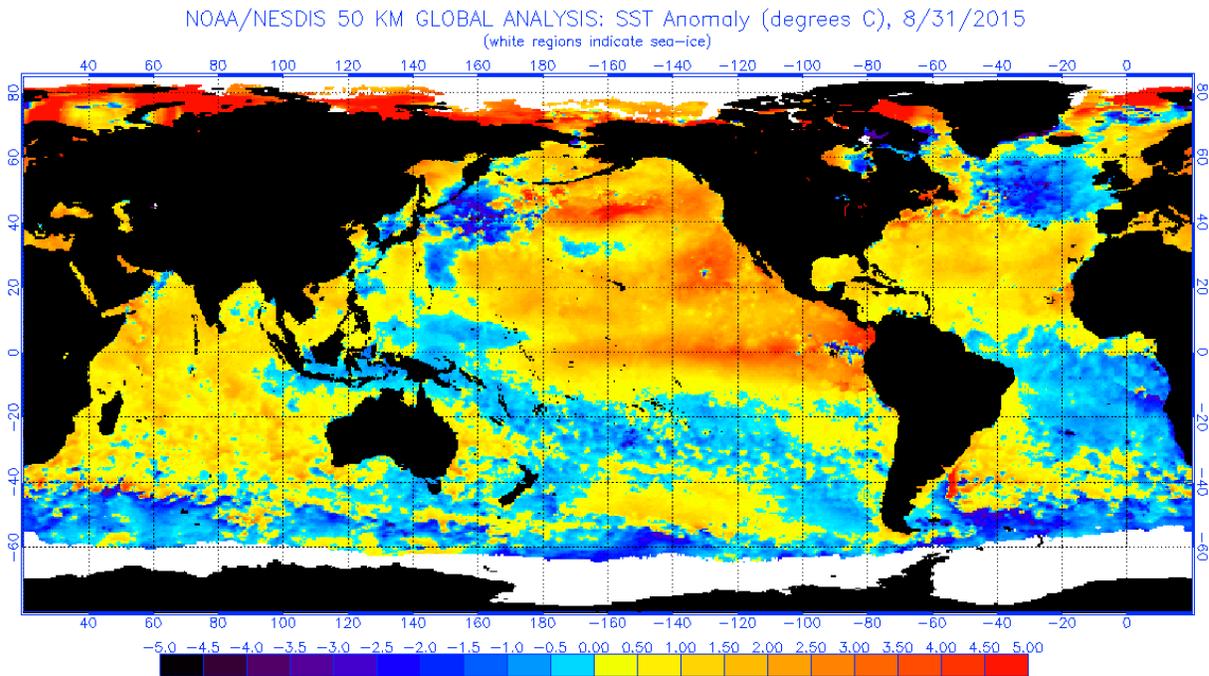
# Water and Climate Update

September 3, 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.

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## Weekly Highlight: Strong El Niño will affect weather worldwide



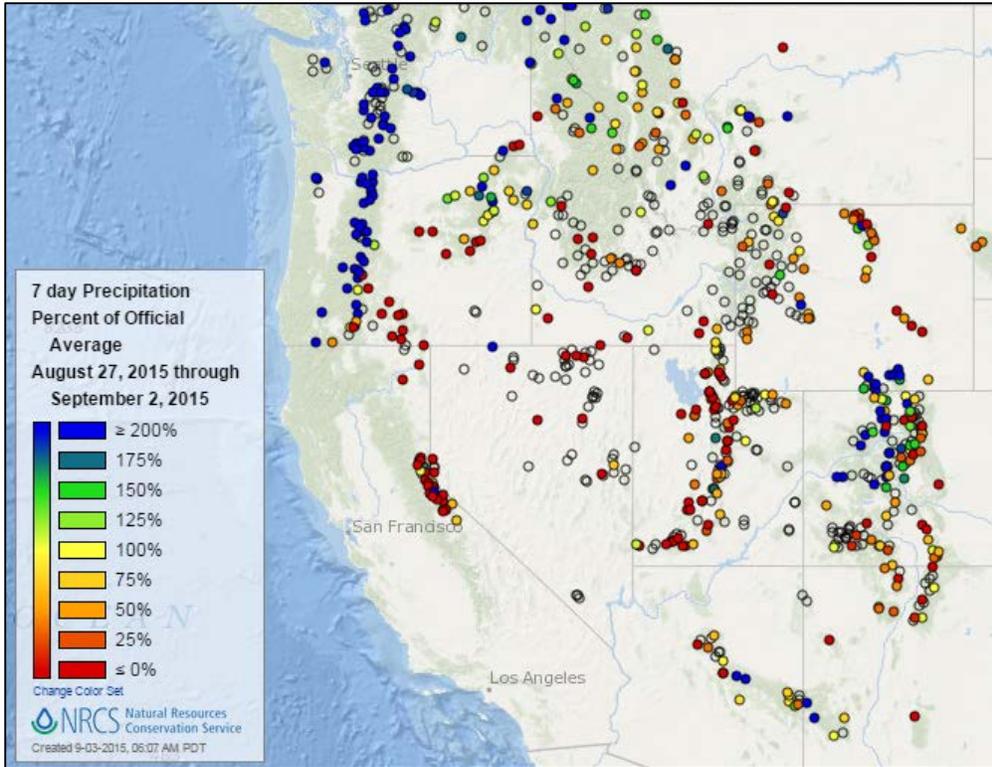
El Niño is the semi-periodic appearance of above average sea surface temperatures in the equatorial eastern Pacific Ocean. It has a significant effect on weather patterns worldwide. This year, a strong El Niño – [possibly stronger than the last major event in 1997-1998](#) – is developing and will continue to strengthen into the fall.

The map above clearly shows the warm sea surface temperature anomalies that characterize an El Niño. In addition, however, anomalously warm areas also exist off the west coast of North America and in the Gulf of Alaska (the so-called "Blob"), which is a new phenomenon and could be another influence on the behavior of this year's El Niño. In North America, the primary influence of El Niño is during the fall and winter, with the northwestern parts of the U.S. being warmer and drier, and the southern tier of states being cooler and wetter than average. It is also associated with a below normal Atlantic hurricane season. However, there is still variability in the weather patterns during an El Niño – which are highly dependent on the location of the jet stream – so these general expectations may or may not be met.

For more information, [NOAA's El Niño Portal](#) is a comprehensive resource.

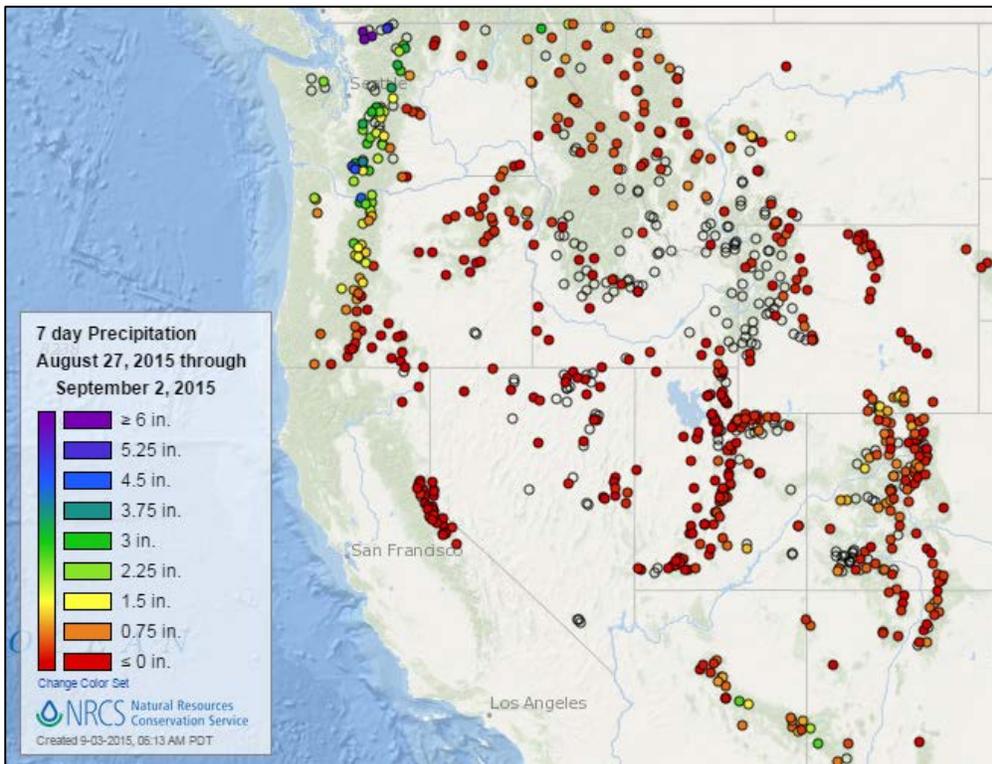
# Precipitation

## Last 7 Days, Western Mountain Sites (NRCS SNOTEL)



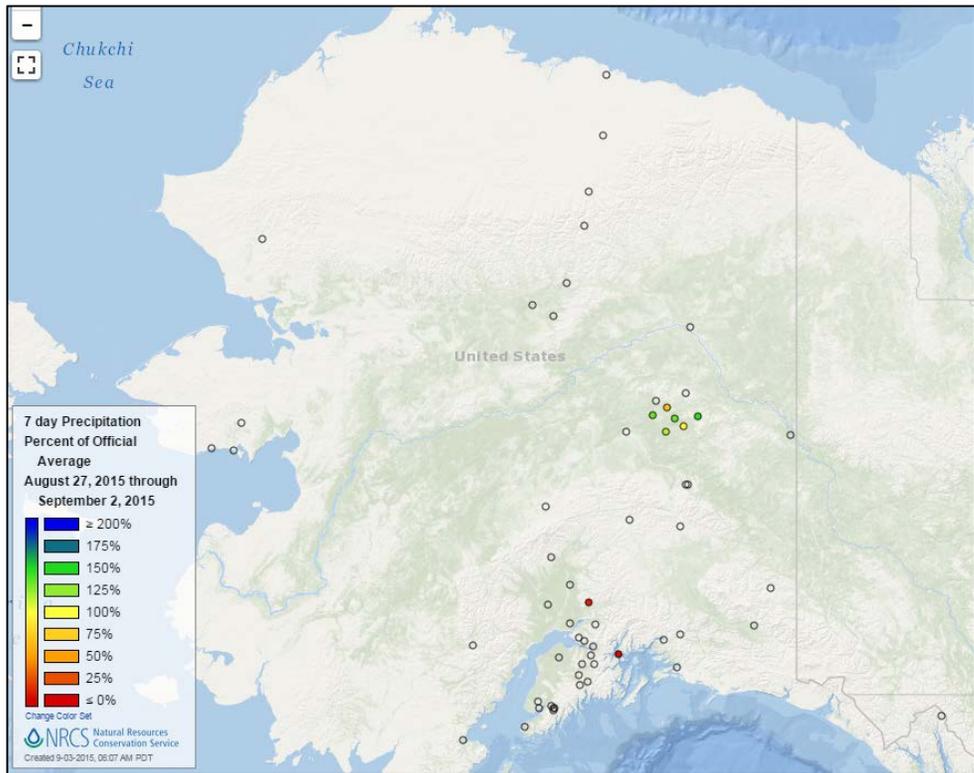
The [precipitation percent of average](#) map shows seasonally high precipitation in the Cascades of Washington and Oregon, in northern Idaho, and in northern Colorado. Dry conditions prevailed elsewhere.

Note: A number of stations are not reporting, due to technical difficulties.

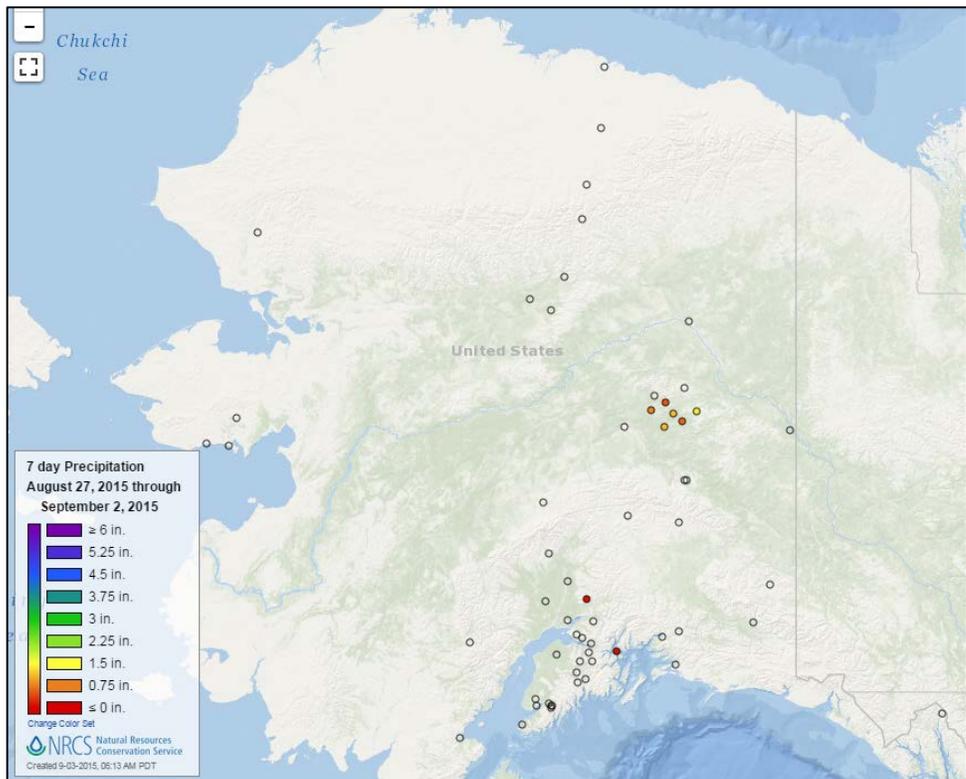


The [total precipitation](#) map shows up to three inches of precipitation in the Cascades of Washington and Oregon. Smaller amounts fell in scattered areas of Colorado, Arizona, and New Mexico. Elsewhere, there was little precipitation.

The Alaska [precipitation percent of average](#) map shows only a few stations reporting, due to technical difficulties. The stations that are reporting show near normal precipitation in the central Interior and below normal precipitation in the south coastal region.



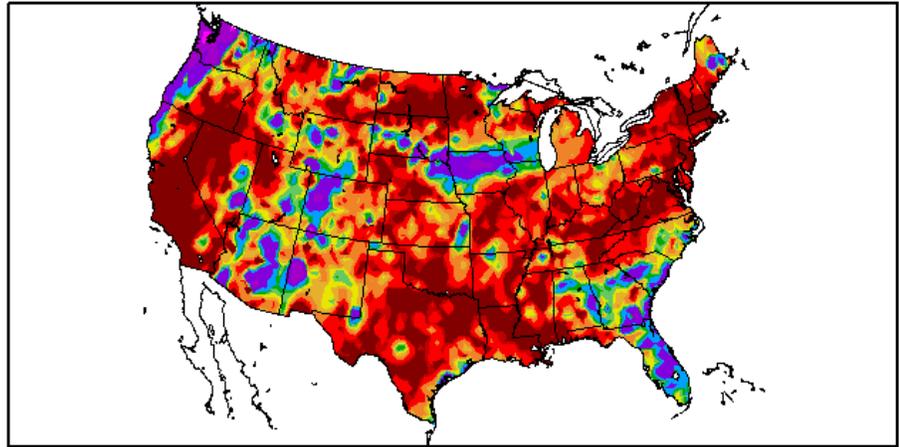
The Alaska [total precipitation](#) map shows only small amounts of precipitation for the stations reporting.



Last 7 Days, National Weather Service (NWS) Networks

Percent of Normal Precipitation (%)  
8/27/2015 - 9/2/2015

The [percent of normal precipitation](#) map shows above normal precipitation in several spots across the country, including several locations in the West (especially western Washington), the upper Midwest, and Florida.

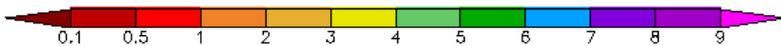
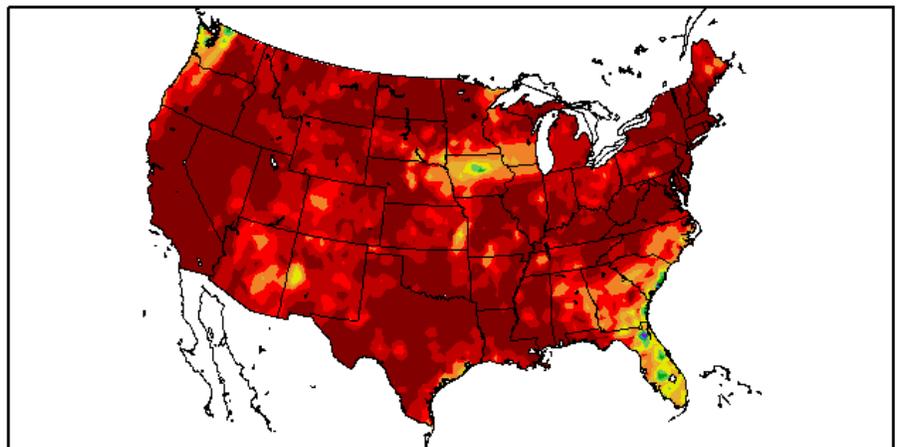


Generated 9/3/2015 at HPRCC using provisional data.

Regional Climate Centers

Precipitation (in)  
8/27/2015 - 9/2/2015

In the [7-day total precipitation](#) map, significant amounts are noticeable in western Washington, Iowa, and Florida.

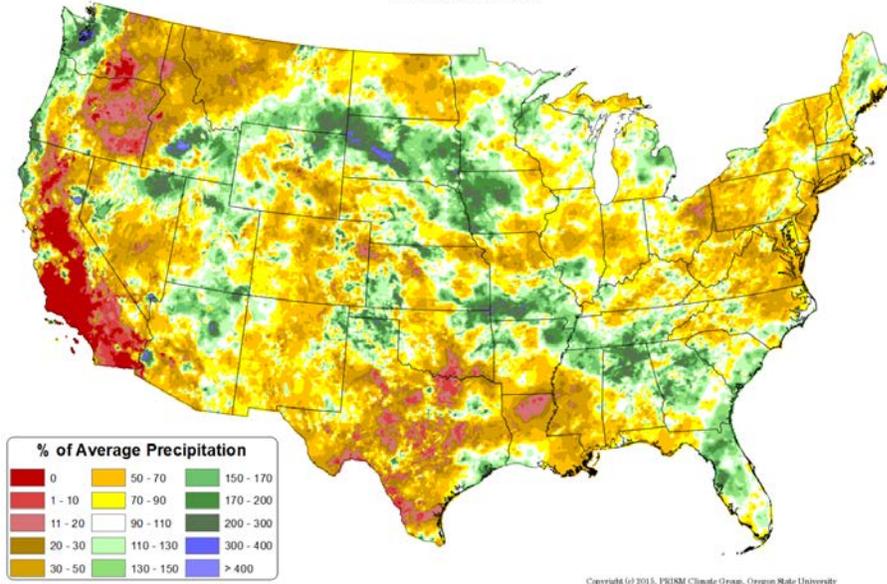


Generated 9/3/2015 at HPRCC using provisional data.

Regional Climate Centers

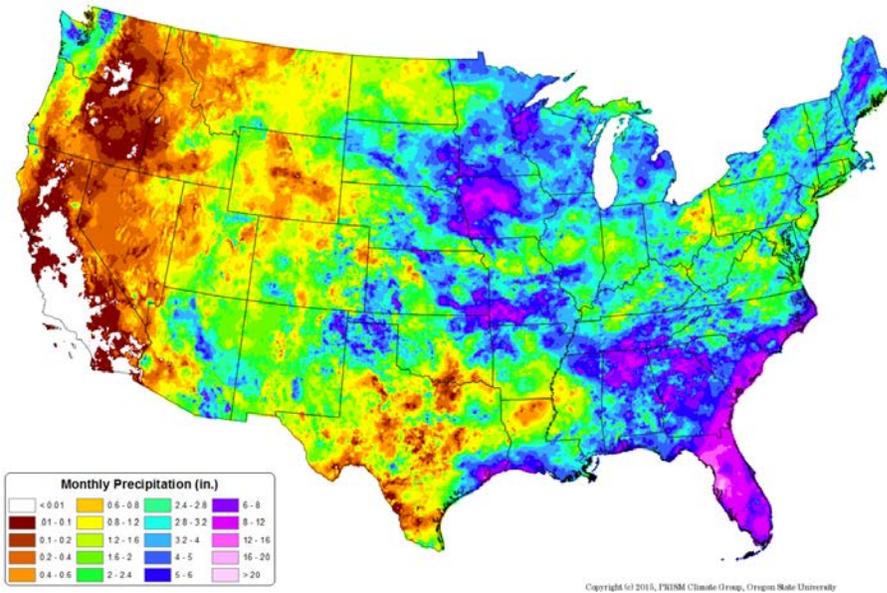
Previous Month, PRISM Preliminary, All available data including SNOTEL and NWS

Total Precipitation Anomaly: August 2015  
 Period ending 31 Aug 2015  
 Base period: 1981-2010  
 (Map created 02 Sep 2015)



For the month of August, the national [total precipitation percent of average](#) pattern reveals higher than normal precipitation in the northwest coast, the interior West, and the central and southeast parts of the country. Southern California and some areas in Texas remained especially dry.

Total Precipitation: August 2015  
 Period ending 31 Aug 2015  
 (Map created 02 Sep 2015)

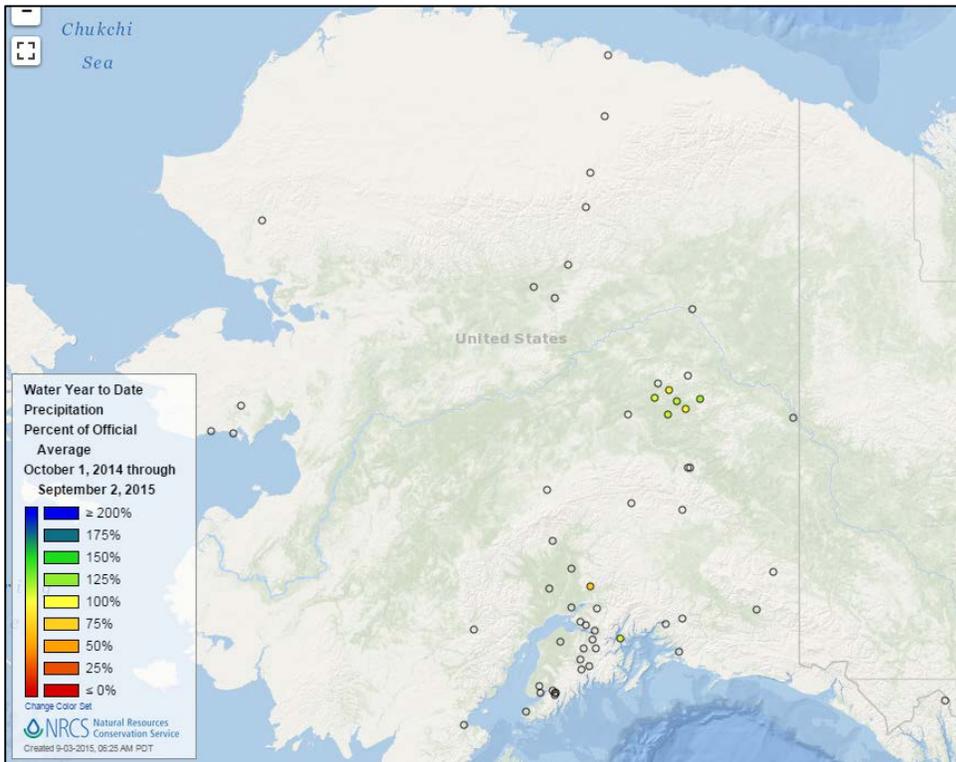
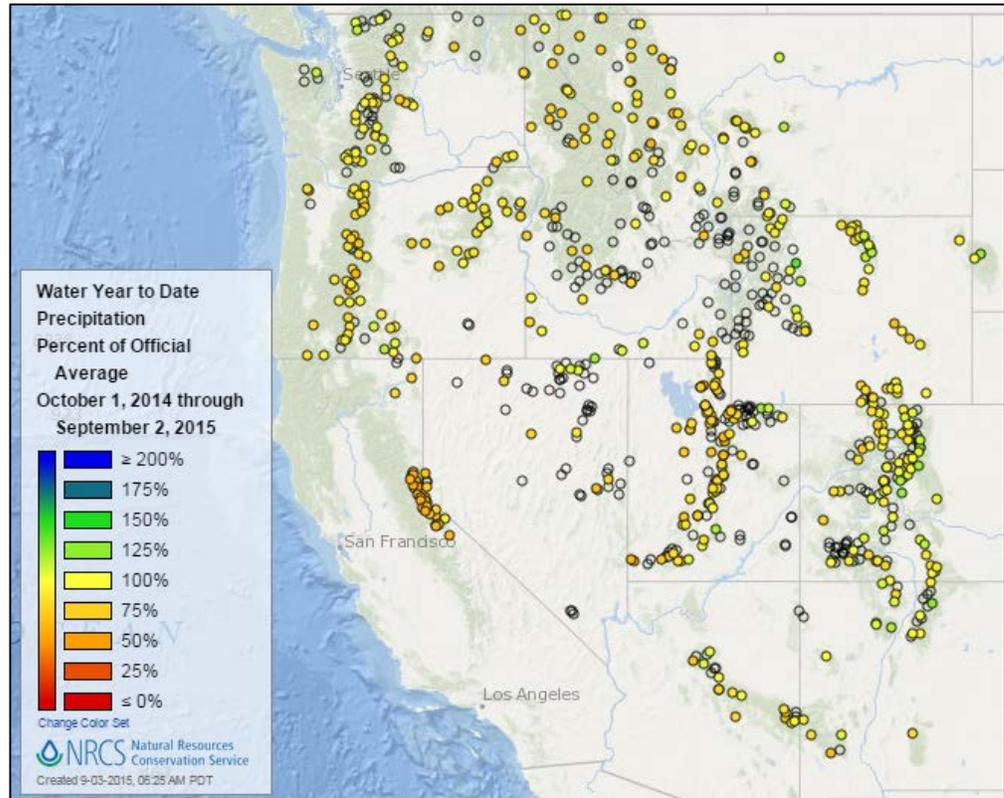


The [total precipitation](#) map shows significant precipitation especially in western Washington, the upper Midwest, the Southeast, and some areas in the Northeast.

In contrast, dry conditions prevailed in much of the far West and some areas in Texas.

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 somewhat below average.



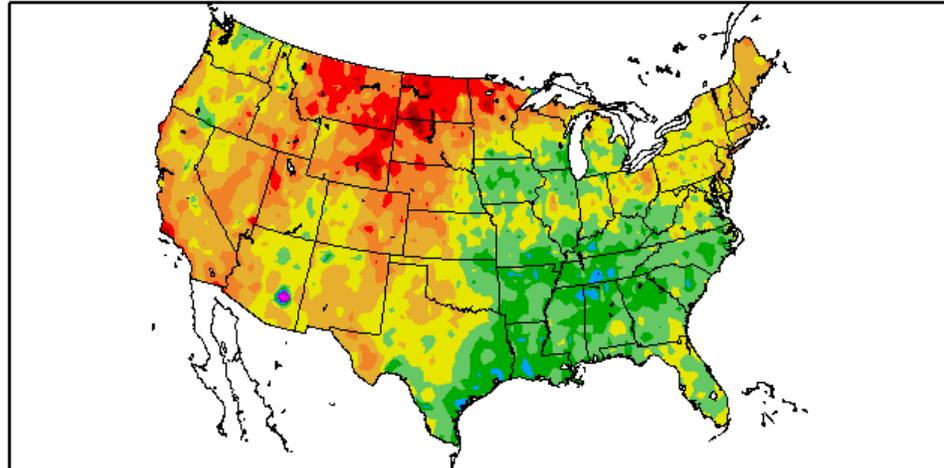
The Alaska [water year-to-date precipitation percent of average](#) map shows mostly near normal conditions for the few stations reporting today.

## Temperature

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

Departure from Normal Temperature (F)  
8/27/2015 – 9/2/2015

The map of the [average temperature anomalies](#) for the past week indicates significantly warmer than normal temperatures in the northern Great Plains, with the rest of the country being near or cooler than normal.



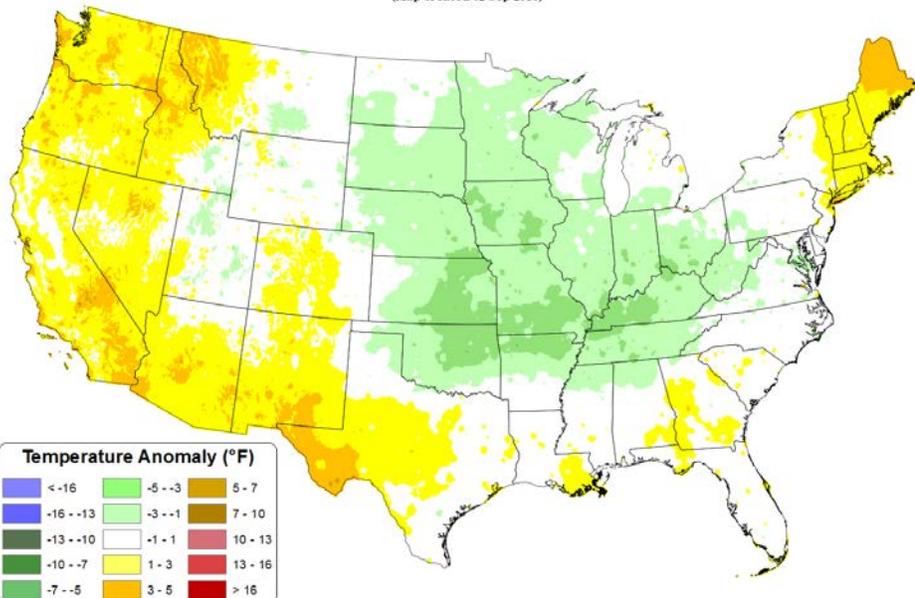
Generated 9/3/2015 at HPRCC using provisional data.

Regional Climate Centers

### Previous Month, PRISM Preliminary, All available data including SNOTEL and NWS

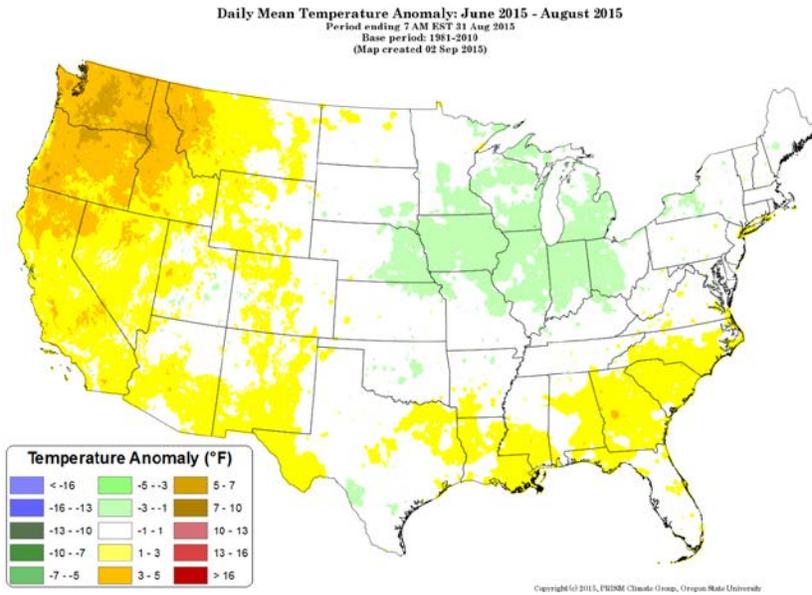
For August 2015, the national [daily mean temperature anomaly](#) map shows warm temperatures in the West, the Southwest, and Northeast, with cool temperatures in the center of the country.

Daily Mean Temperature Anomaly: August 2015  
Period ending 7 AM EST 31 Aug 2015  
Base period: 1981-2010  
(Map created 02 Sep 2015)



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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 remainder of the country was mostly near average.

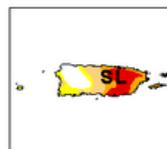
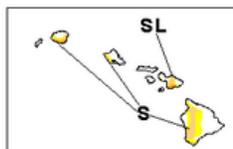
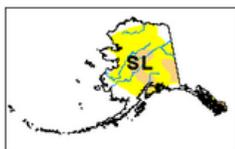
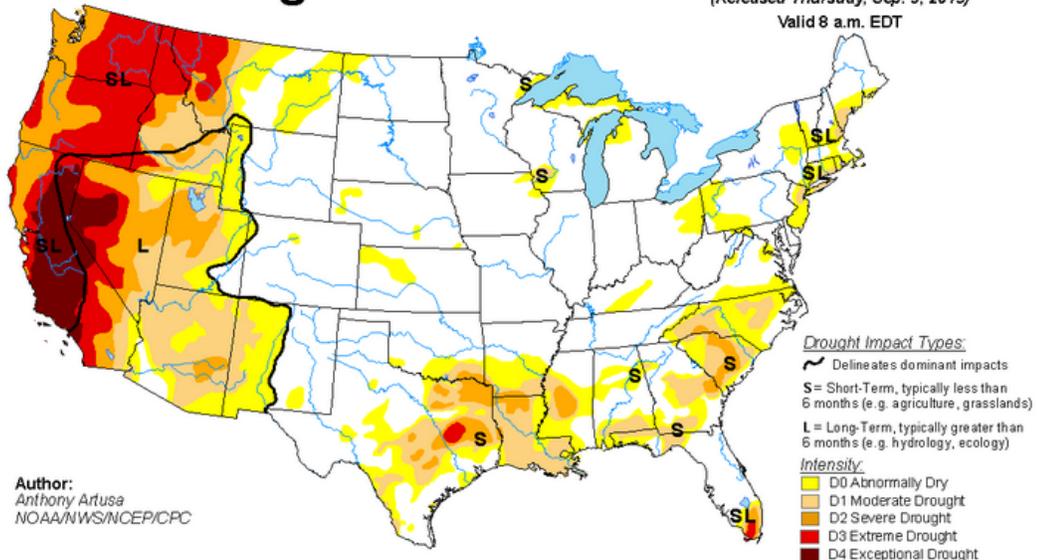
**Drought**

[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. To view regional drought conditions, select a region on the map. State maps are available from regional maps.

**U.S. Drought Monitor**

**September 1, 2015**  
 (Released Thursday, Sep. 3, 2015)  
 Valid 8 a.m. EDT



<http://droughtmonitor.unl.edu/>

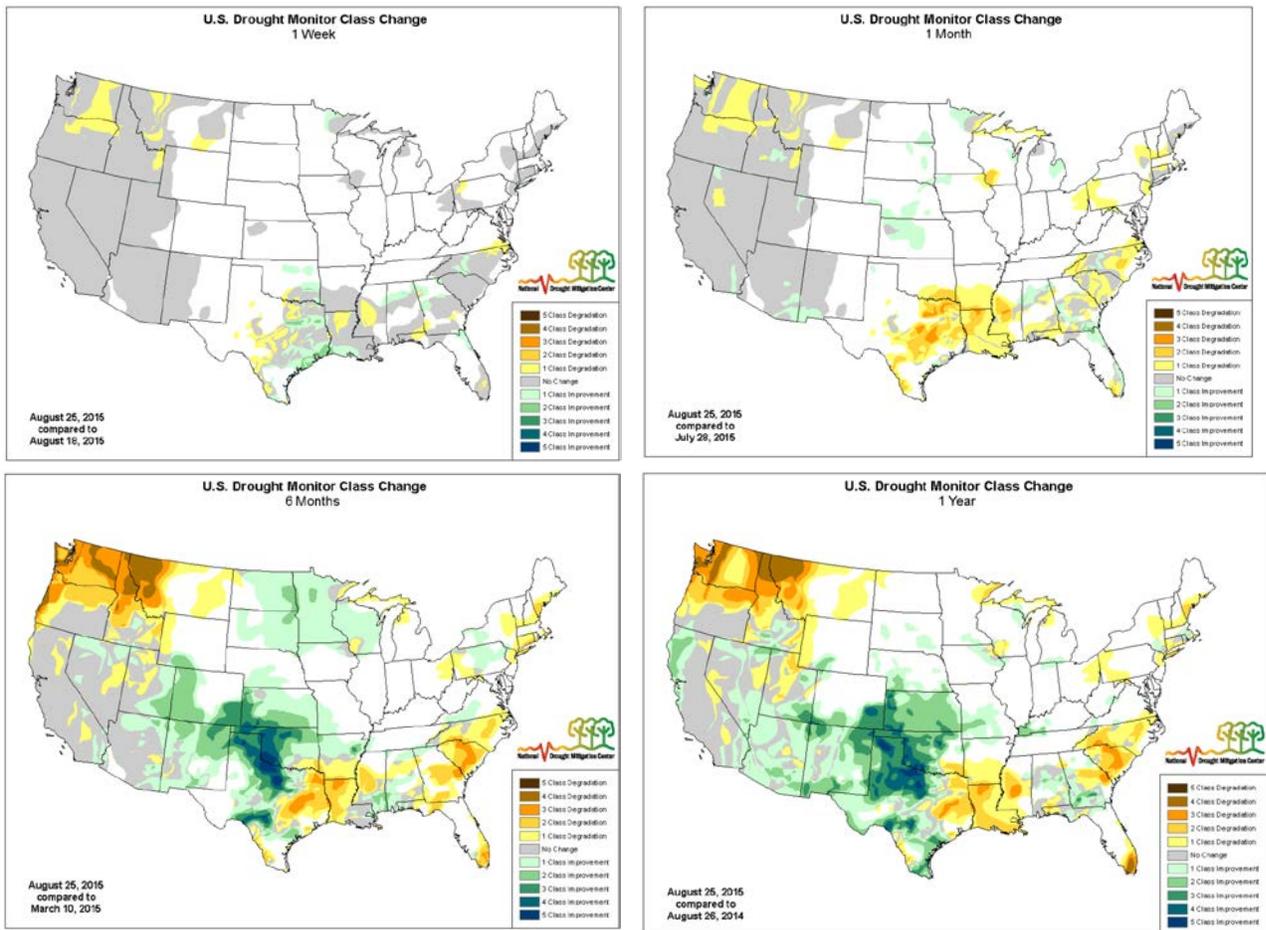
## Current National Drought Summary, September 1, 2015

Author: Anthony Artusa, NOAA/NWS

“During the past 7-days, heavy rain (in excess of 2 inches) fell across portions of the Southern Atlantic Coast region (especially the Florida peninsula, and the coasts of both Georgia and the Carolinas), the coastal ranges and Cascades of the Pacific Northwest, the Midwest, Maine, and the southern Alaska Panhandle. Heavy rain also fell in portions of east-central Puerto Rico, in association with what was Tropical Storm Erika. Larger-scale areas of moderate precipitation (0.5-2 inches) were reported in the Southwest, remaining portions of the coastal ranges and Cascades of the Pacific Northwest, portions of both the Rockies and Great Plains, the north-central Mississippi Valley, the interior Southeast, parts of Ohio and Pennsylvania, and New England. Moderate precipitation was also reported across interior Alaska and the Seward Peninsula, the northern Alaska Panhandle, and much of the remainder of Puerto Rico.”

Detailed regional drought narratives for the last week are [here](#).

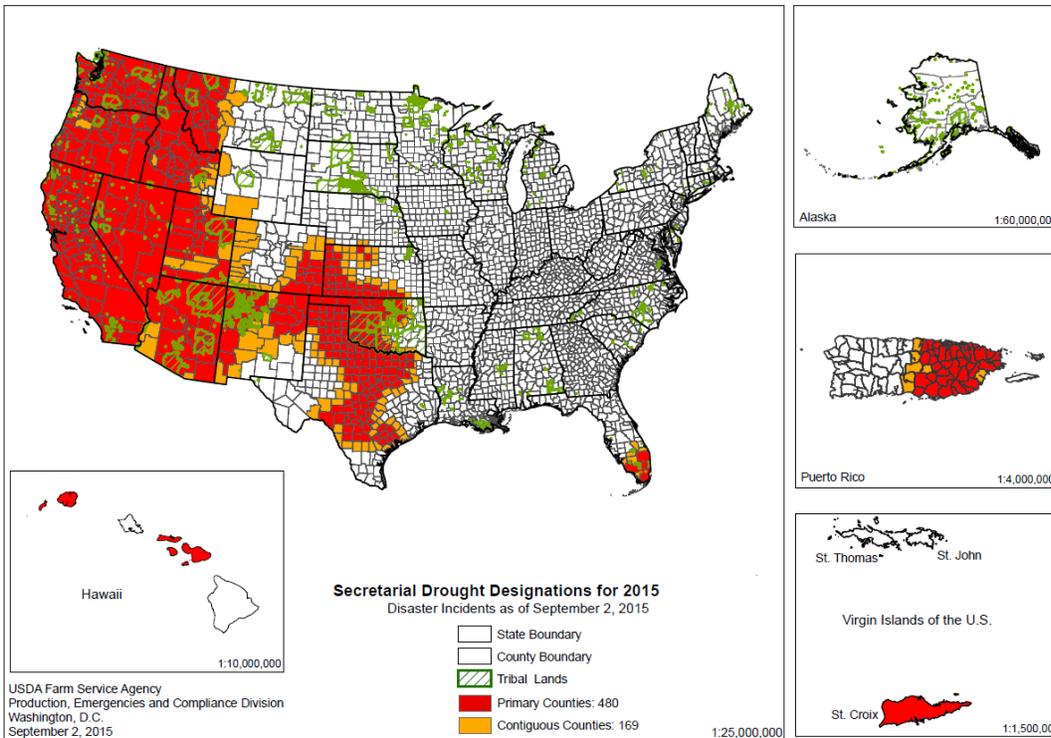
## Changes in Drought Monitor Categories over Time



Persistent dry conditions are particularly notable in the Northwest and parts of the South. Conditions have improved significantly in the southern Great Plains and parts of the Southwest.

## 2015 USDA Drought Designations

### 2015 Secretarial Drought Designations - All Drought



[Drought Designations as of September 2, 2015](#)

U.S. Virgin Islands added to Secretarial Drought Designation map.

[USDA Disaster and Drought Information](#)

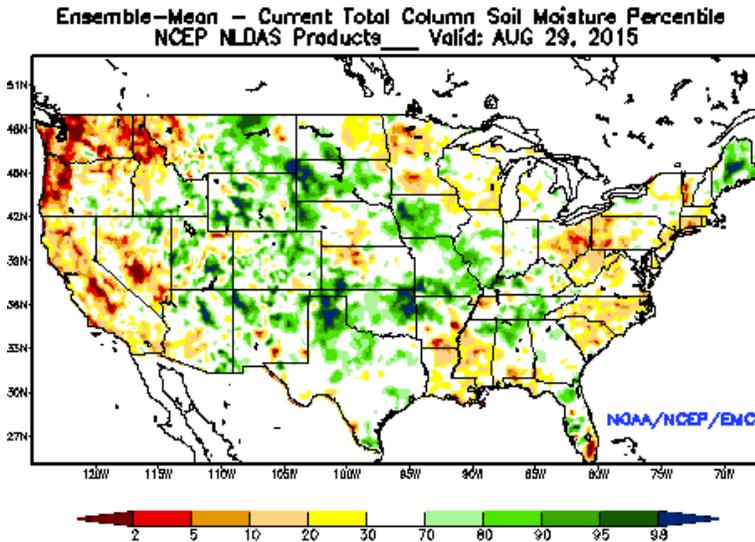
[U.S. Population in Drought, Weekly Comparison](#)

## Highlighted Drought Resources

- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)

## Other Climatic and Water Supply Indicators

### Soil Moisture

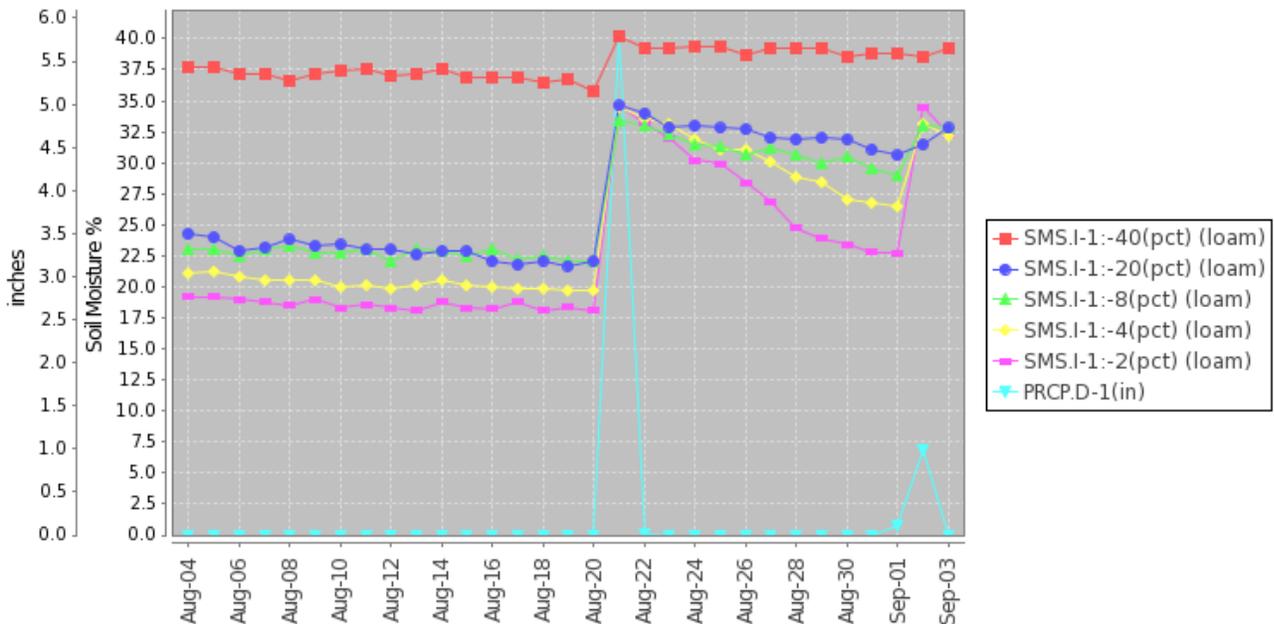


The modeled [soil moisture percentiles](#) as of August 29, 2015 show significant dryness in the far West, Minnesota, and Ohio. Areas of above normal soil moisture include much of the Rocky Mountains, the central Great Plains, and Maine.

[University of Washington Experimental Modeled Soil Moisture](#)

### Soil Moisture Data: NRCS [Soil Climate Analysis Network \(SCAN\)](#)

Station (2205) MONTH=2015-08-04 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu Sep 03 06:53:10 PDT 2015

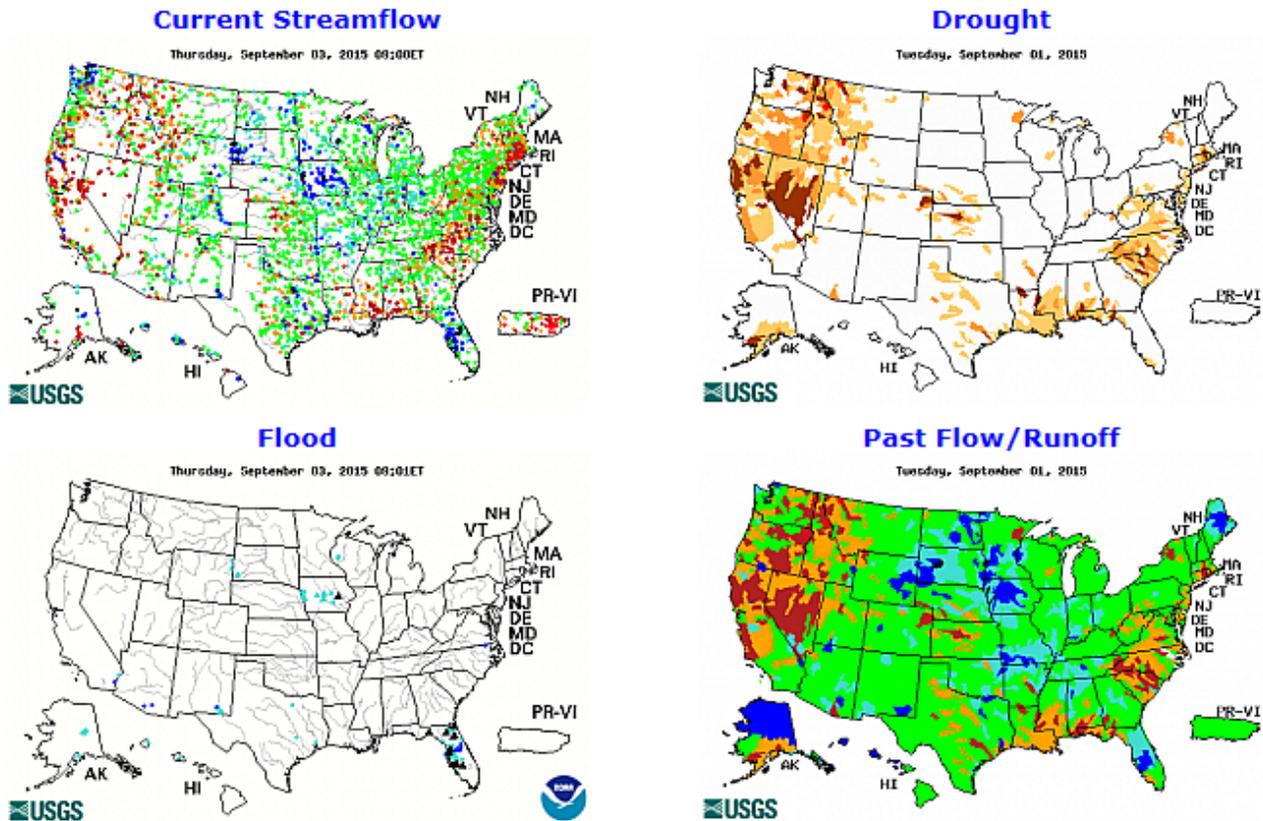


This example graph shows soil moisture (2, 4, 8, 20, and 40 inch depth) and precipitation for the last month at the [Weslaco SCAN site](#) (station number 2205) in southern Texas. A major precipitation event on August 21 is particularly notable.

### 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 central part of the country. From the USGS web site, select any individual map to enlarge and display a legend.

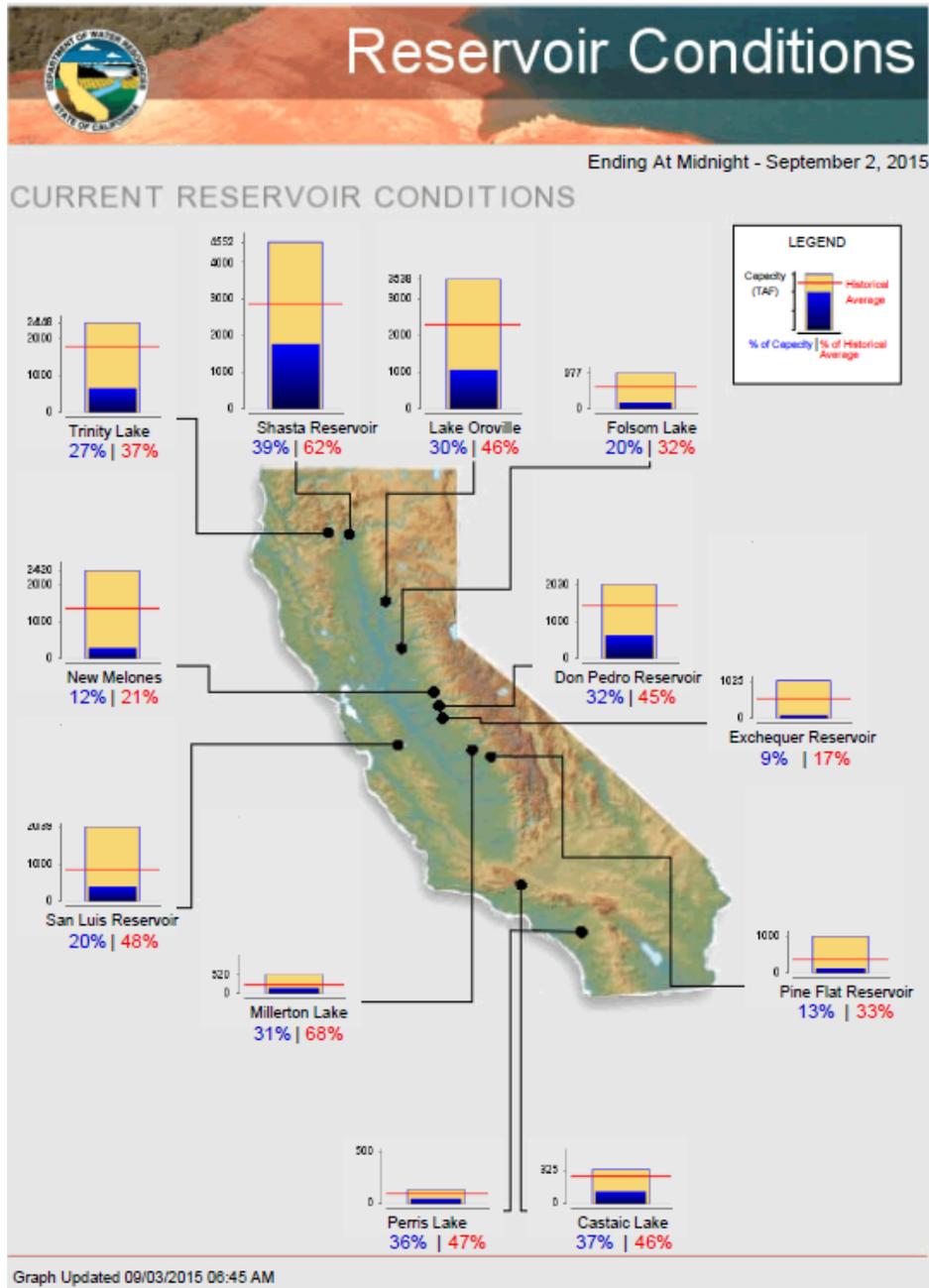
## Current Reservoir Storage

[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

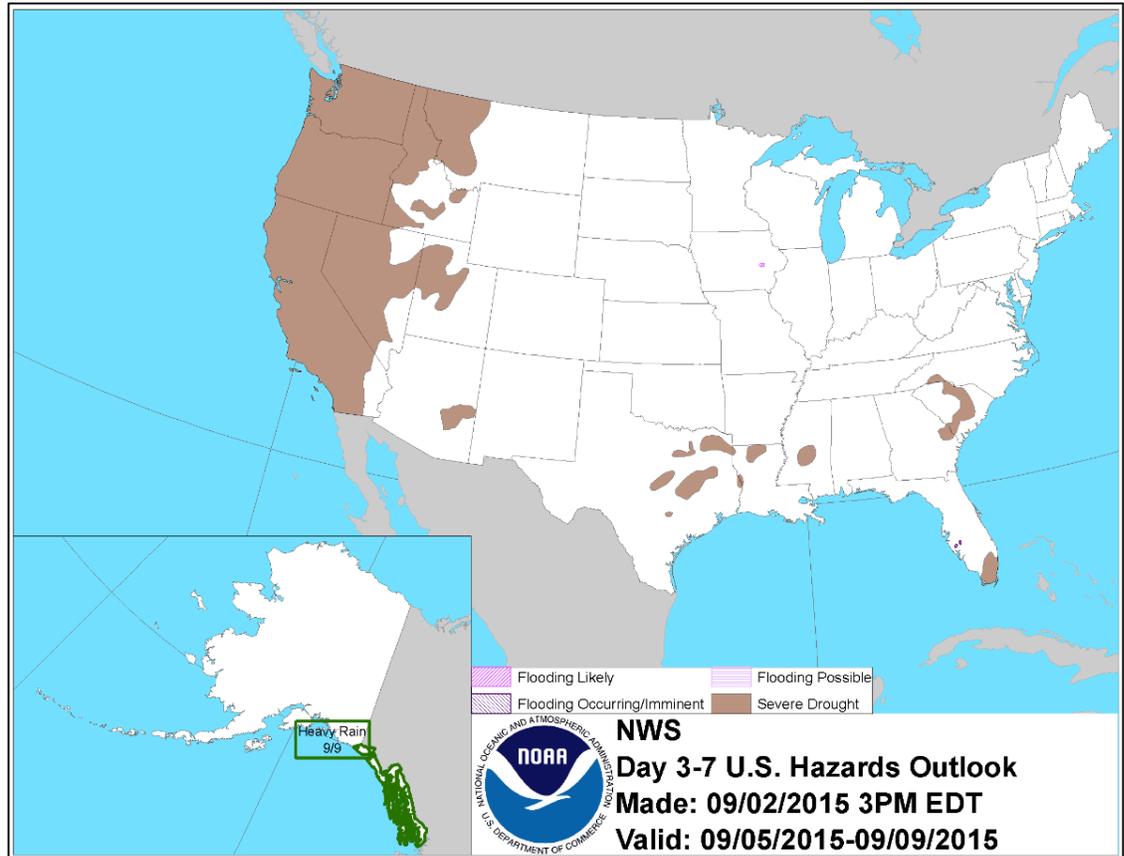
### Agricultural Weather Highlights

Author: Brad Rippey, USDA Agricultural Meteorologist

**Outlook, September 3, 2015:** “Cool air will continue to spread eastward, reaching the Rockies and northern High Plains during the weekend. In contrast, much of the central and eastern U.S. will continue to experience late-summer warmth. Little or no rain will fall during the next 5 days in California, the Great Basin, and the southern Plains, but showers will affect most other parts of the U.S. Some of the heaviest precipitation, locally 2 to 4 inches, will fall across the nation’s northern tier from Montana to the Red River Valley. Five-day totals could reach 1 to 2 inches in portions of the Four Corners States and the lower Southeast. The NWS 6- to 10-day outlook for September 8 – 12 calls for the likelihood of near- to above-normal temperatures nationwide, except for cooler-than-normal conditions on the northern Plains. Meanwhile, near- to above-normal precipitation across the majority of the U.S. will contrast with drier-than-normal weather in the Northwest and southern sections of Florida and Texas.”

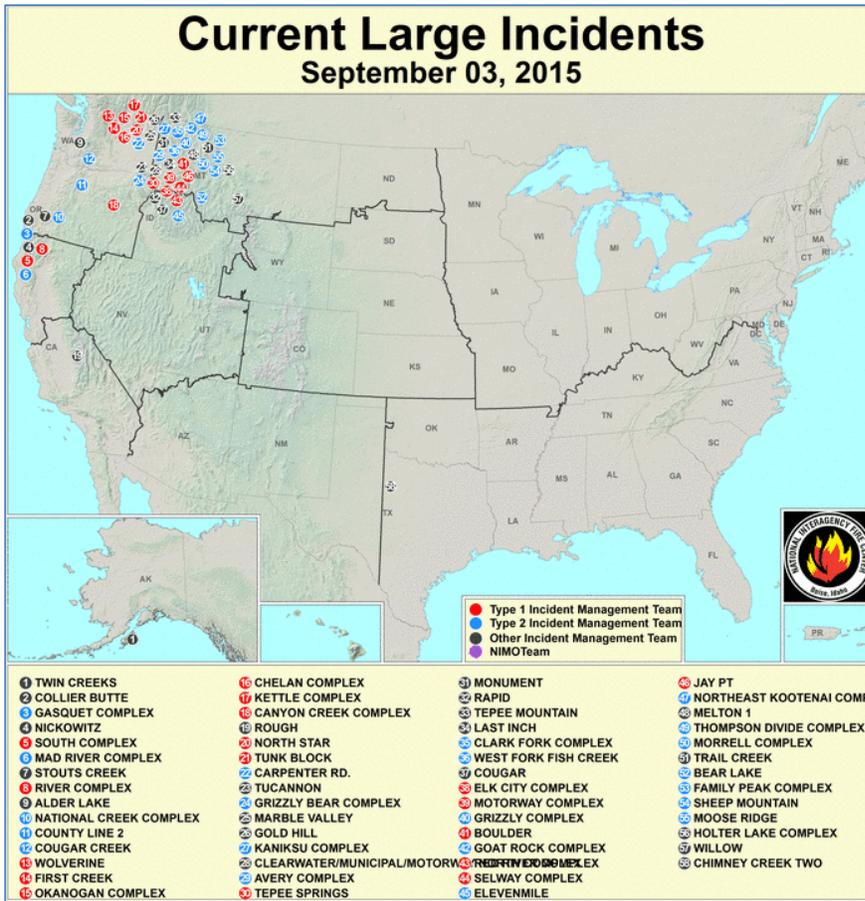
### National Weather Hazards

The outlook for [weather hazards](#) over the next week shows the severe drought in the West plus a few scattered areas in the Southeast. The only other hazard is heavy rain in the Alaska Panhandle.



Wildfires

Current Conditions

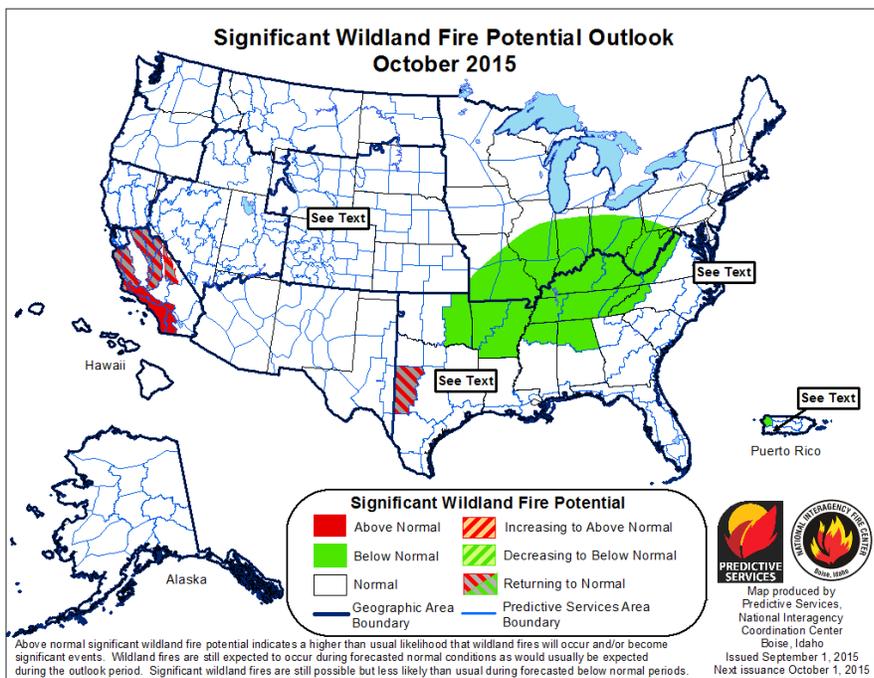


[Current Wildfire Conditions](#)

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

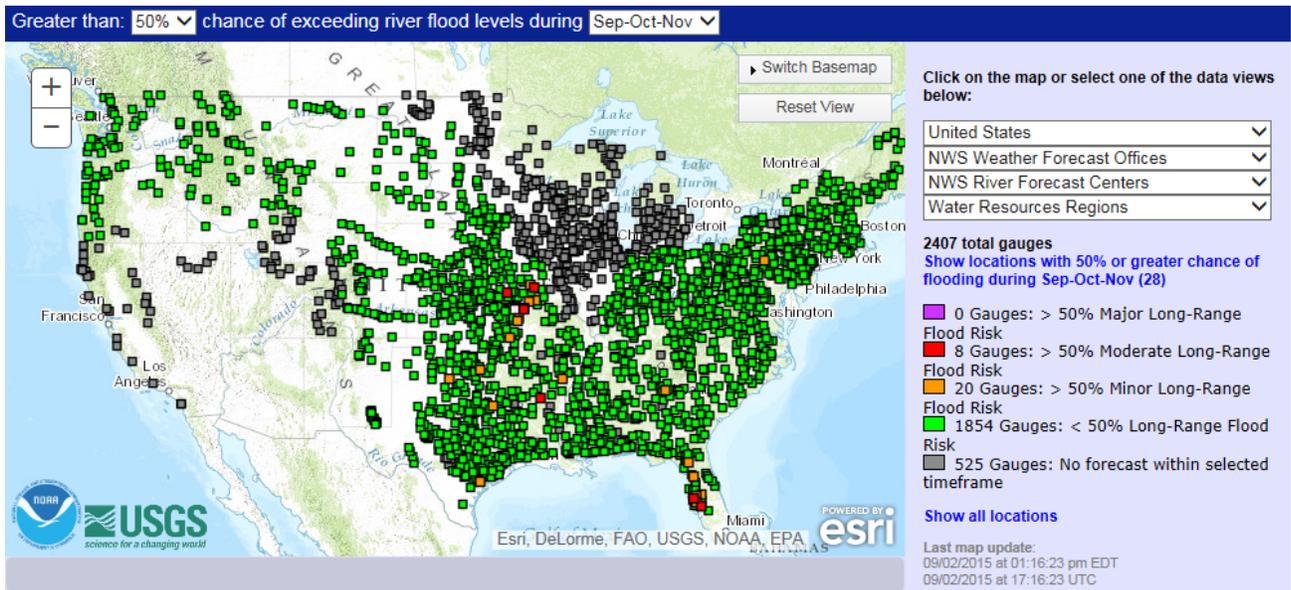
["BlueSky" Wildfire Smoke and Concentration Models](#)

Wildland Fire Potential: October 2015



In October, **fire potential** is greatly reduced throughout the country.

### Long-Range Flood Outlook



During the next three months, there is some [flooding potential](#) only in a few scattered locations, primarily in the central part of the country and Florida.

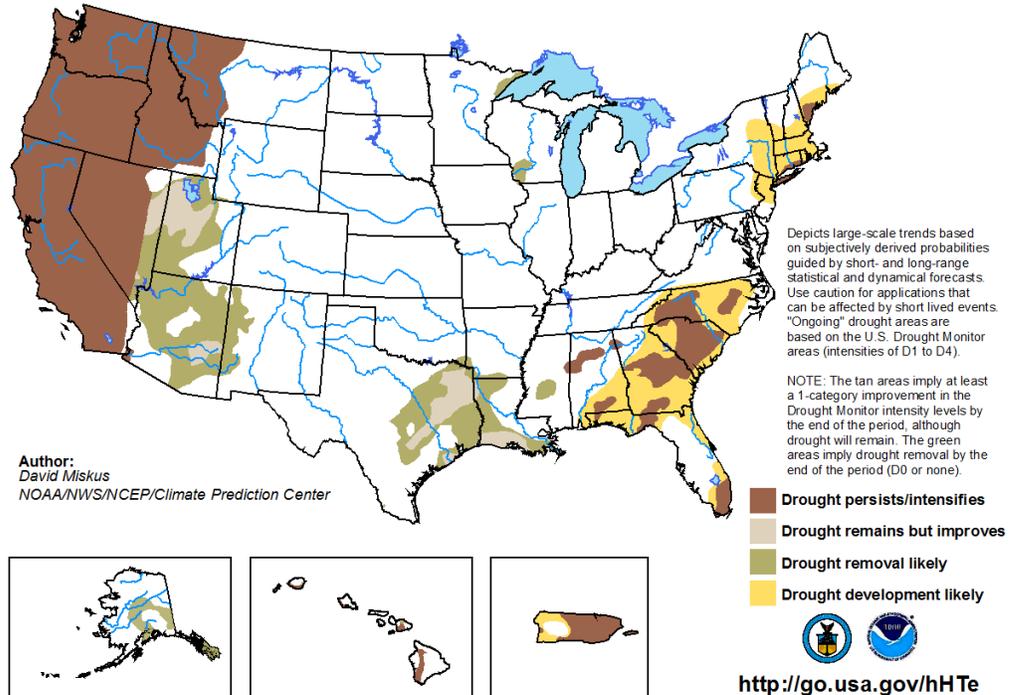
### Seasonal Drought Outlook

During the next three months, [drought](#) will persist over the far West.

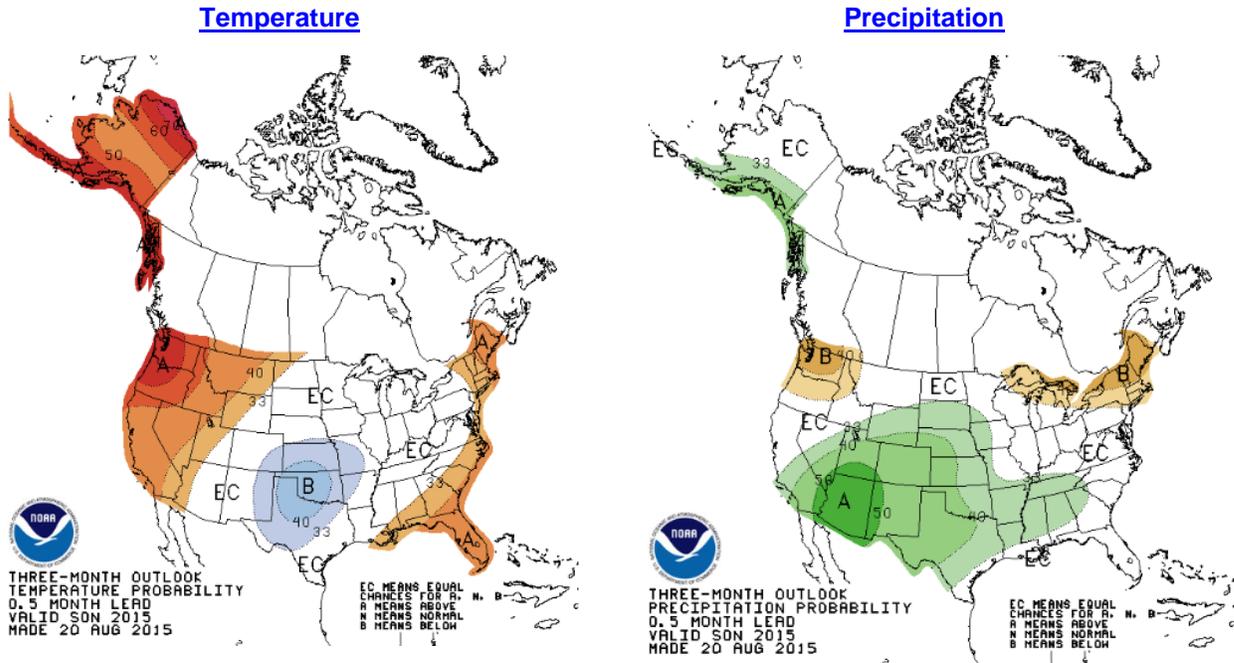
Drought remains, but is improving, in parts of eastern Nevada, Utah, Alaska, and Texas.

Drought development is likely over the Northeast and the Southeast.

### U.S. Seasonal Drought Outlook Valid for August 20 - November 30, 2015 Drought Tendency During the Valid Period Released August 20, 2015



Climate Prediction Center 3-Month Outlook



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. This outlook is beginning to show the signature of El Niño (see the Weekly Highlight story).

**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](#).