

Water and Climate Update

September 17, 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.

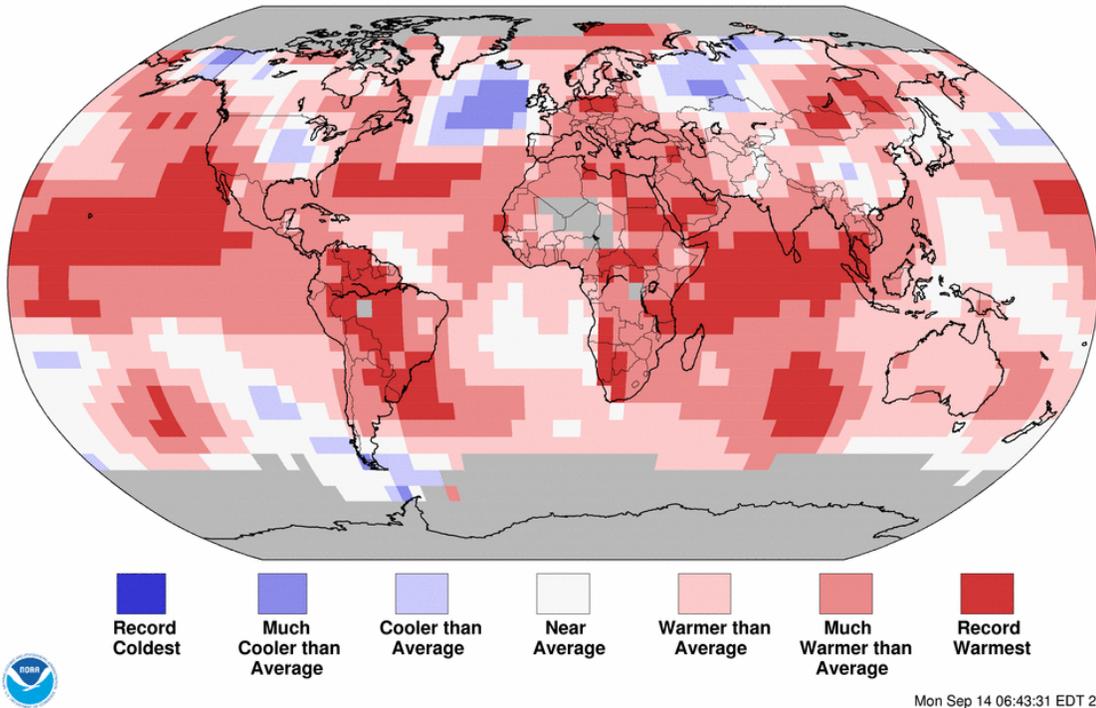
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Weekly Highlight: Record high global average temperatures reported during 2015

Land & Ocean Temperature Percentiles Aug 2015

NOAA's National Centers for Environmental Information

Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0

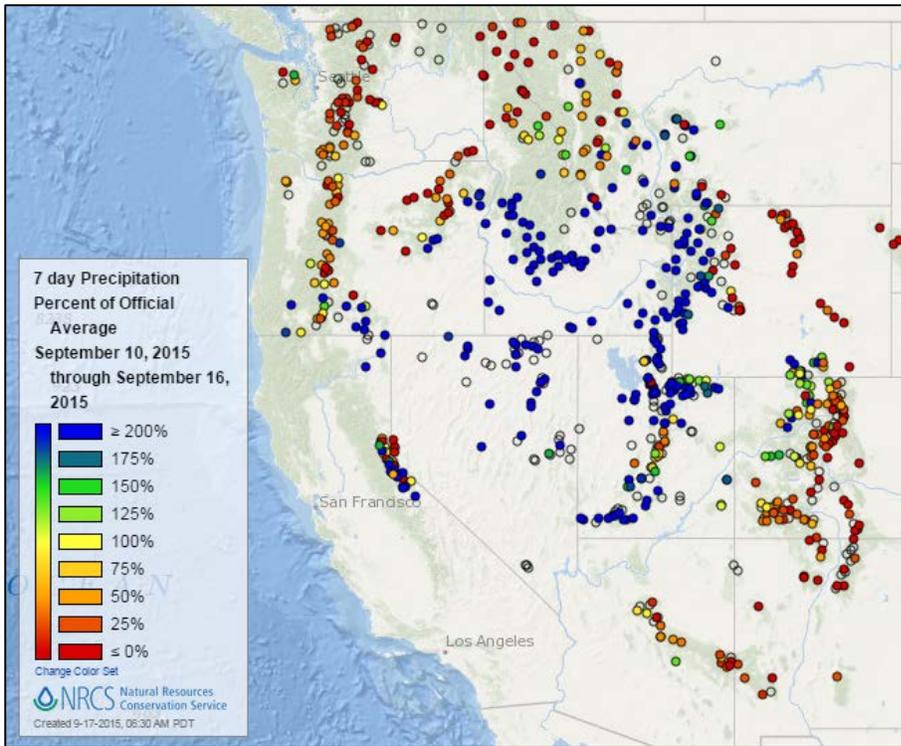


Related News:

- [NOAA's State of the Climate Summary for August 2015](#)
- [Snowpack in Sierra Nevada at 500-Year Low, Researcher Say](#)
- [System More Resilient To Severe Drought Conditions Needs To Be Designed: Researchers](#)
- [Fire, flood and drought: In Calif., 'El Nino is a cruel system'](#)
- [Snow falls in California after bleak report about Sierra snowpack, Internet goes wild](#)

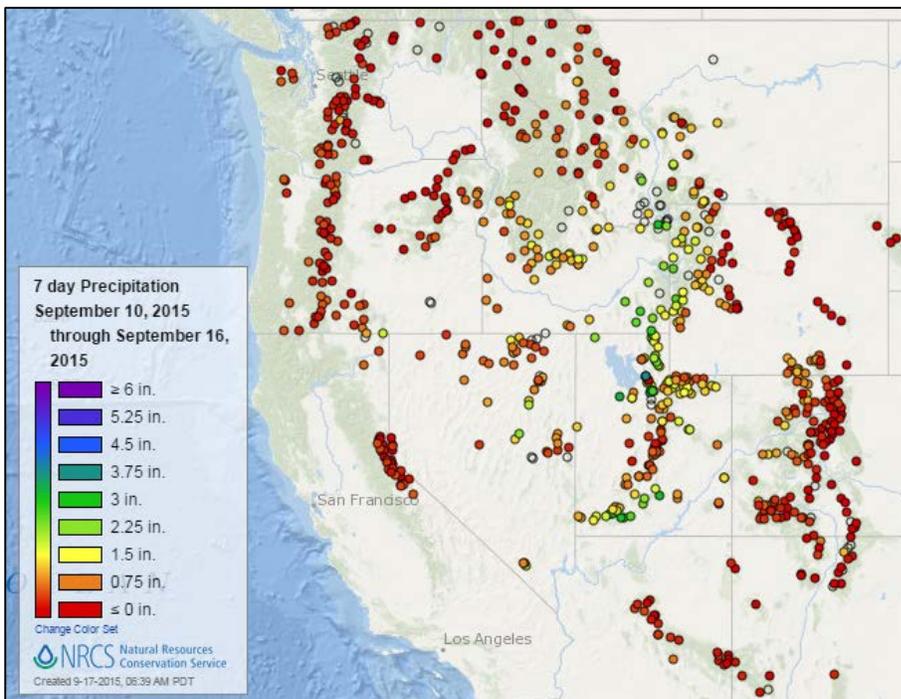
Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL)



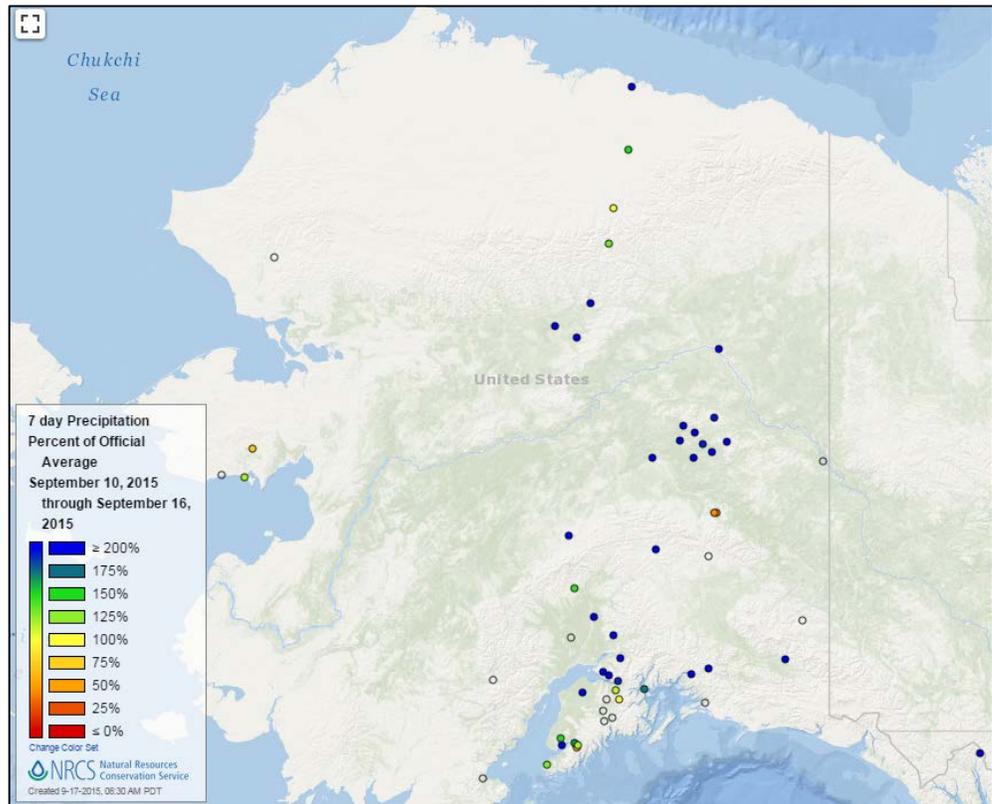
The 7-day [precipitation percent of average](#) map shows high precipitation percentages from weather systems, including the remnants of Hurricane Linda, moving across the central mountain ranges of the West, as well as some stations in the Sierra Nevada and southern Cascades.

Continued dry conditions prevailed in the Pacific Northwest and remainder of the West.

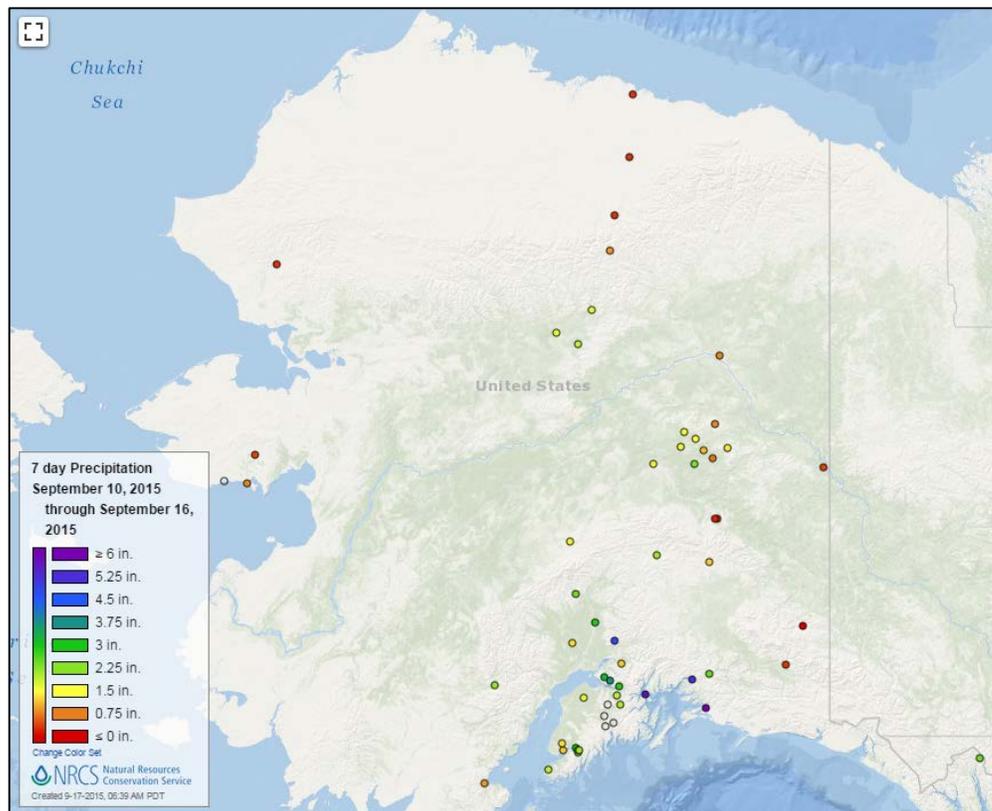


The [total precipitation](#) map shows up to three inches of precipitation in the central western mountains. Compared to the map above, there is seasonally little precipitation during this time.

The Alaska [7-day precipitation percent of average](#) map shows above normal precipitation in the central interior and southern regions. Below normal precipitation was reported at a few scattered stations.



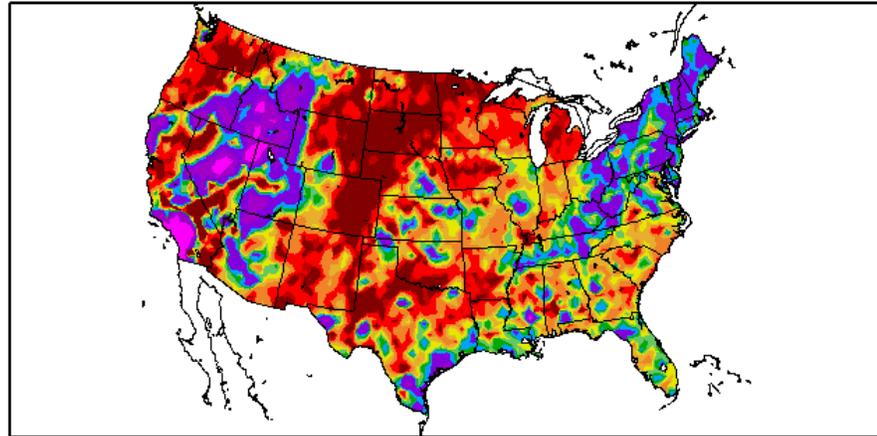
The Alaska [total precipitation](#) map shows up to six inches of precipitation for a few stations and three inches or less in other stations in the southern part of the state. Most stations elsewhere had a dry week.



Last 7 Days, National Weather Service (NWS) Networks

Percent of Normal Precipitation (%)
9/10/2015 - 9/16/2015

The [percent of normal precipitation](#) map shows well above normal precipitation across the central West, with contributions from the remnants of Hurricane Linda. The Northeast, coast of Texas, and scattered areas elsewhere also had above normal precipitation. The northern Plains, Pacific Northwest, and parts of the southern Plains were dry.

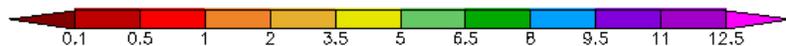
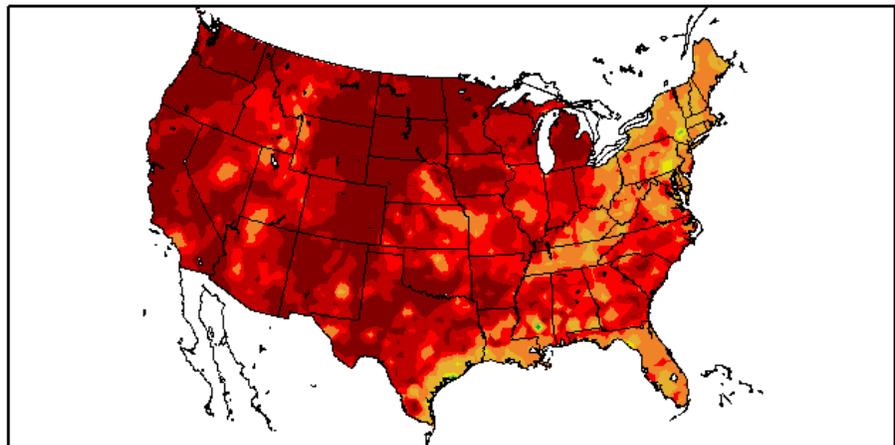


Generated 9/17/2015 at HPRCC using provisional data.

Regional Climate Centers

Precipitation (in)
9/10/2015 - 9/16/2015

In the [7-day total precipitation](#) map, three to five inches of precipitation was recorded in the Northeast and along the Gulf Coast. Precipitation above one inch was reported in other areas of the country. The Plains, Pacific Northwest, Pacific coast, and other smaller areas were mainly dry.

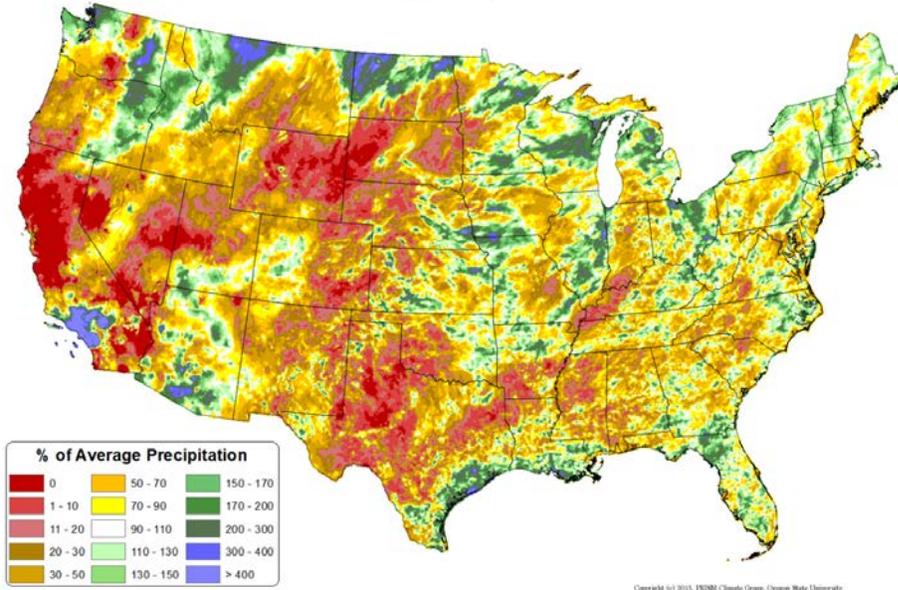


Generated 9/17/2015 at HPRCC using provisional data.

Regional Climate Centers

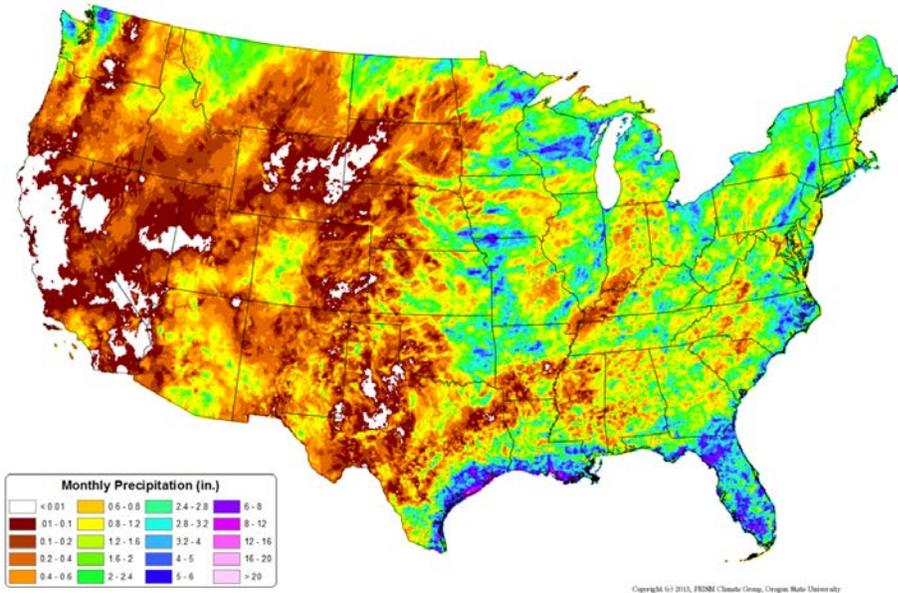
Month-to-Date, PRISM Preliminary, All available data including SNOTEL and NWS

Total Precipitation Anomaly: 01 September 2015 - 15 September 2015
 Period ending 7 AM EST 15 Sep 2015
 Base period: 1981-2010
 (Map created 16 Sep 2015)



For the month of September, the national **total precipitation percent of average** pattern reveals higher than normal precipitation in parts of the northern western states, the Southwest, southern California, and along the Gulf Coast. Most of California, Nevada, Texas, Oklahoma, and the northern Plains remained especially dry.

Total Precipitation: 01 September 2015 - 15 September 2015
 Period ending 7 AM EST 15 Sep 2015
 (Map created 16 Sep 2015)

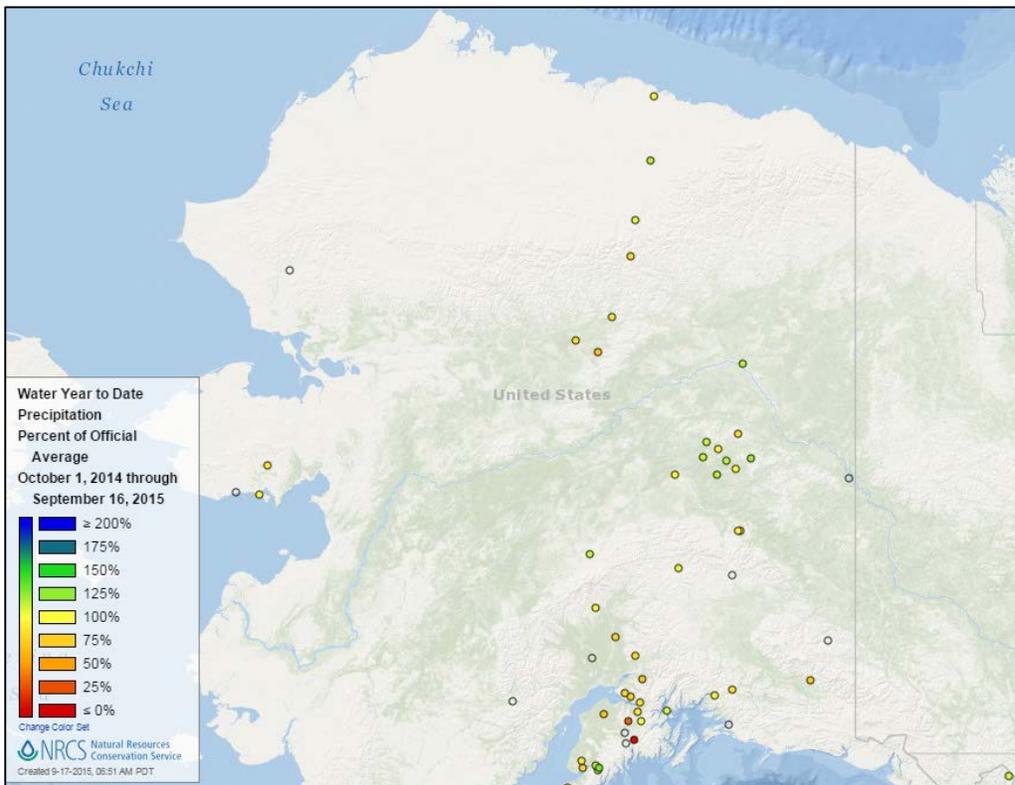
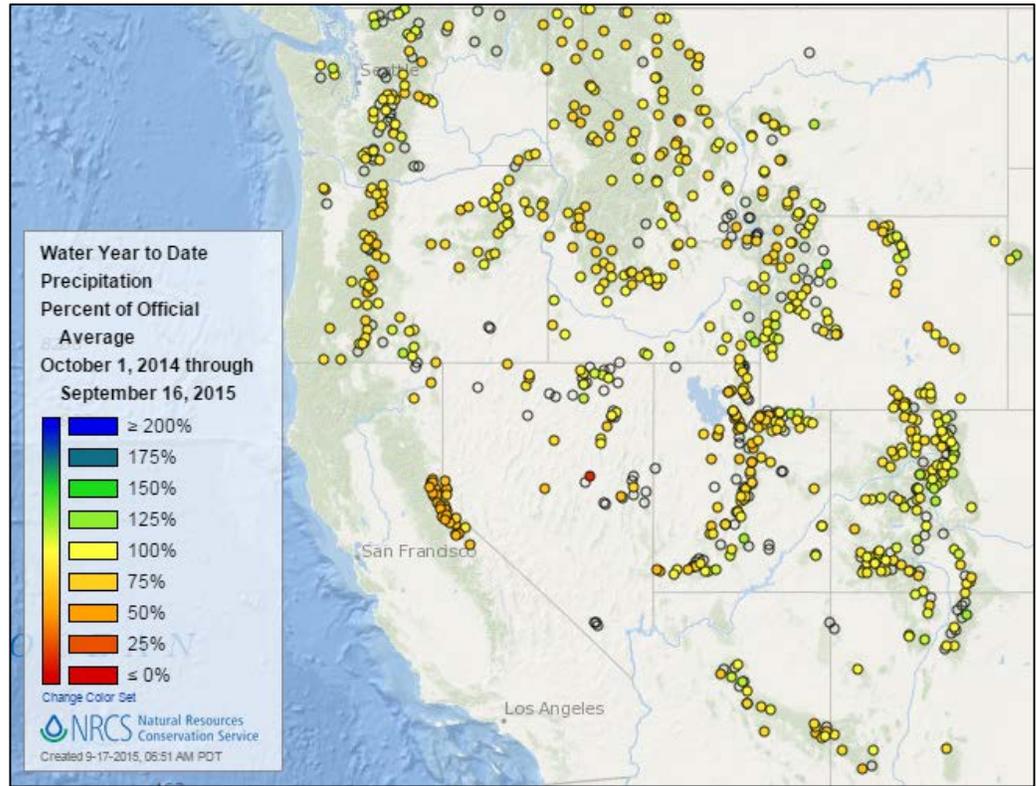


The month-to-date **total precipitation** map shows significant precipitation especially across the Gulf Coast, the Southeast, parts of the central and northeast U.S., the central Atlantic Coast, and northwest Washington.

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



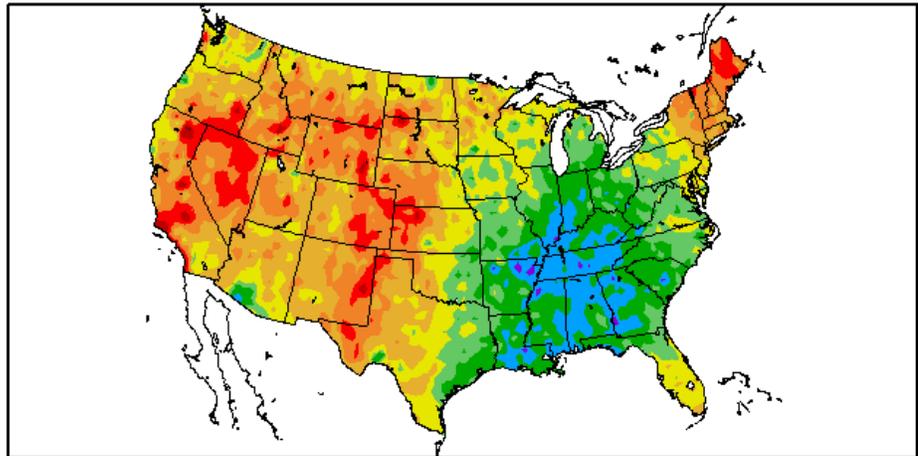
The Alaska [water year-to-date precipitation percent of average](#) map shows mostly near normal conditions.

Temperature

Last 7 Days, National Weather Service (NWS) Networks

Departure from Normal Temperature (F)
9/10/2015 – 9/16/2015

The map of the [average temperature anomalies](#) for the past week indicates significantly warmer than normal temperatures from the West to the Great Plains and New England. The rest of the country was near or cooler than normal, with much of the central U.S. and the Southeast well below normal.



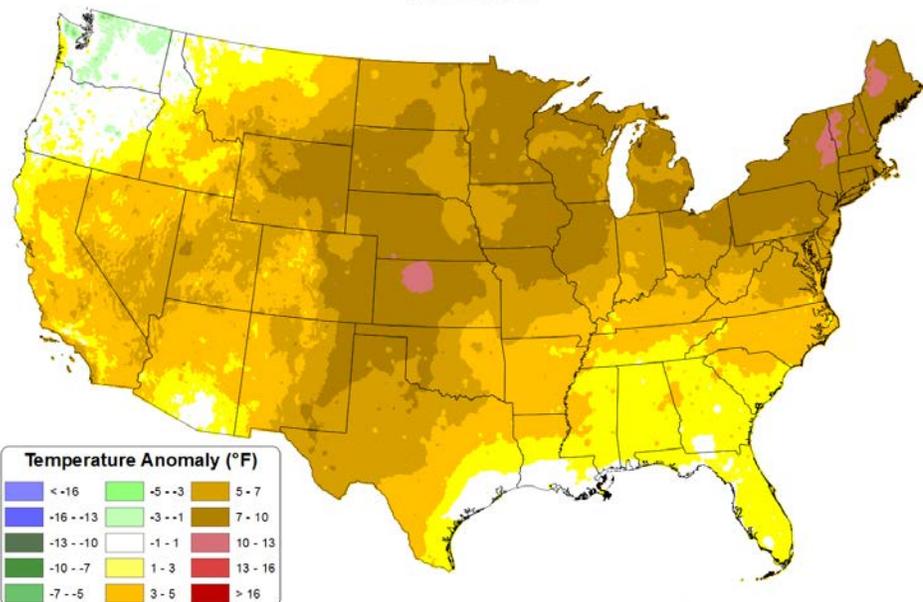
Generated 9/17/2015 at HPRCC using provisional data.

Regional Climate Centers

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

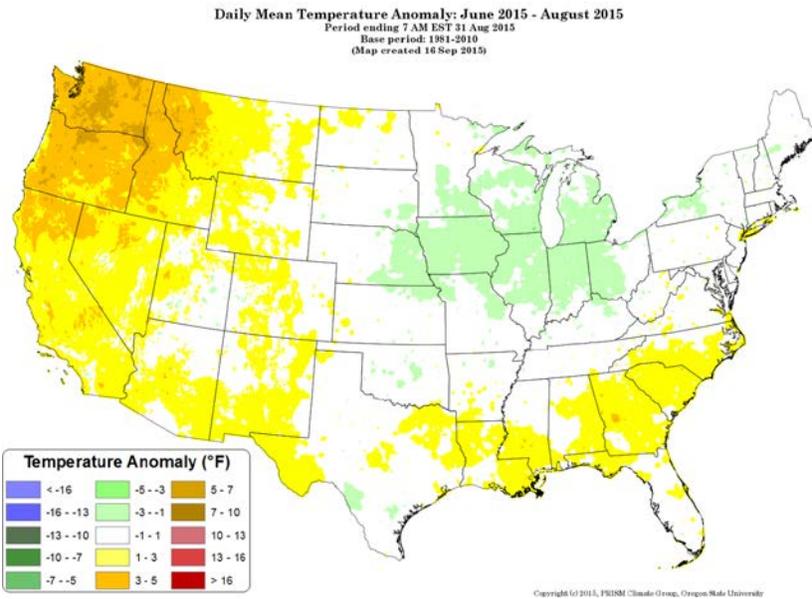
For September 2015, the national [daily mean temperature anomaly](#) map shows cool temperatures in Washington, whereas very warm temperatures were reported in the remainder of the U.S., especially in Kansas and the Northeast.

Daily Mean Temperature Anomaly: 01 September 2015 - 15 September 2015
Period ending 7 AM EST 15 Sep 2015
Base period: 1981-2010
(Map created 16 Sep 2015)



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Last 3 Months, PRISM Preliminary

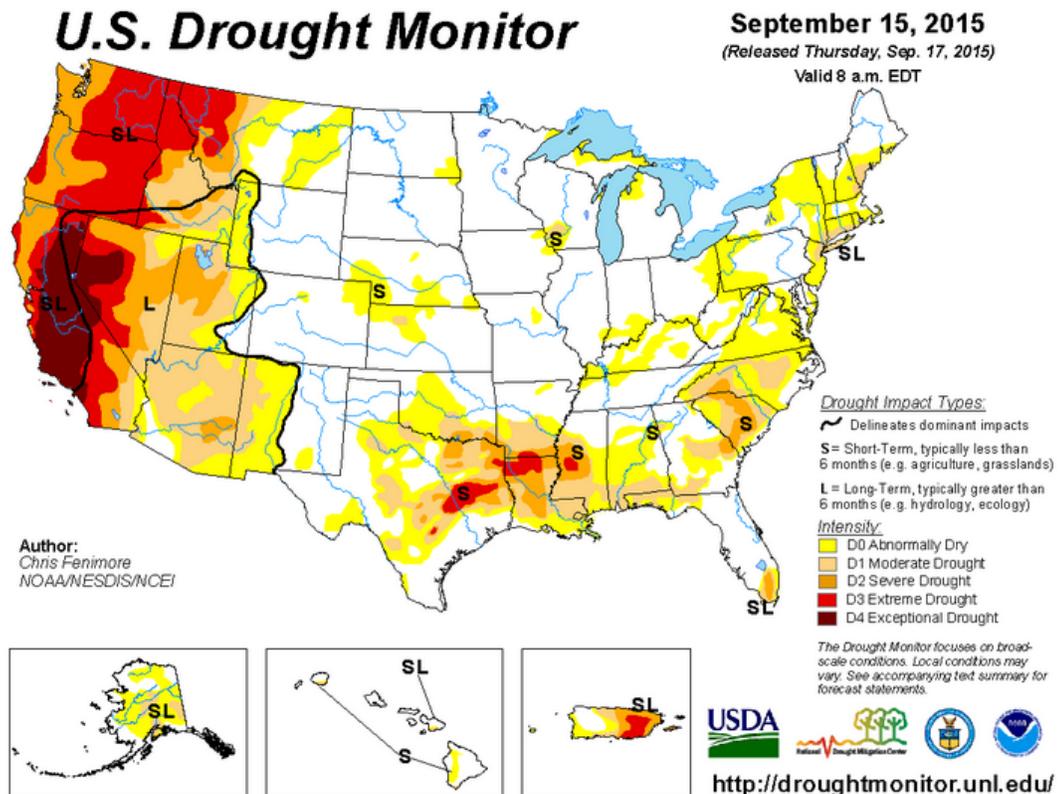


The June through August national [daily mean temperature anomalies](#) for the U.S. show the Pacific Northwest and parts of the Southeast had the largest temperature departures above normal. The upper Midwest reported slight negative departures for the period.

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.



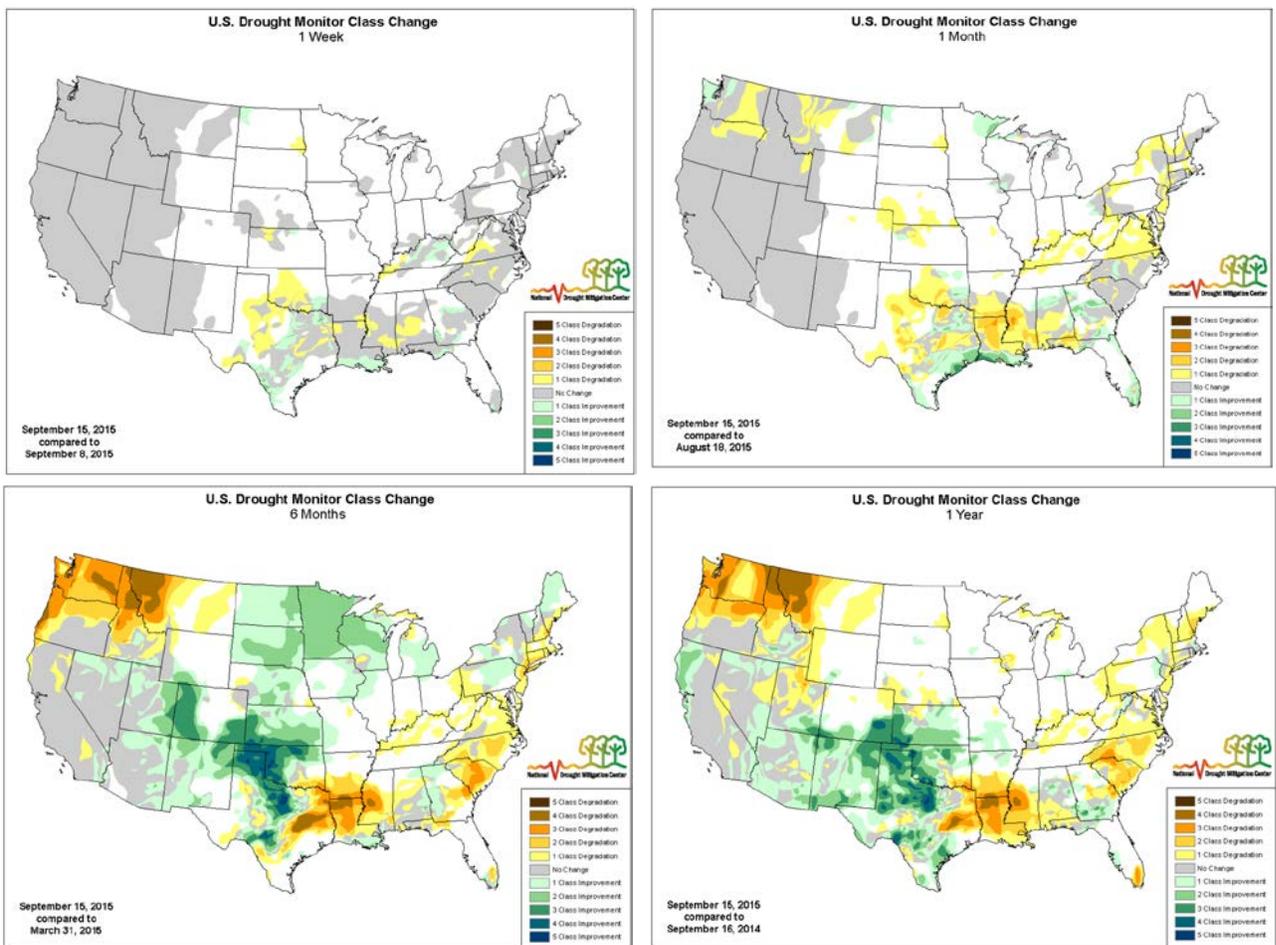
Current National Drought Summary, September 15, 2015

Author: Chris Fenimore, NOAA/NESDIS/NCEI

“At the beginning of the period, a slow moving cold front draped itself across the CONUS from the Great Lakes stretching down into the Southern Plains. Along its boundary were scattered showers and thundershowers. As the front stalled out, another stronger cold front ushered in cool dry air, providing the first taste of autumn across areas of the eastern half of the US. Oppressive heat continued into the first half of the period in the Northwest where the average temperatures were 10-20 degrees F above normal. Cooler temperatures moved in during the latter half of the week. In the West and Southwest, scattered showers and thunderstorms kicked off with the arrival of an upper-level disturbance.”

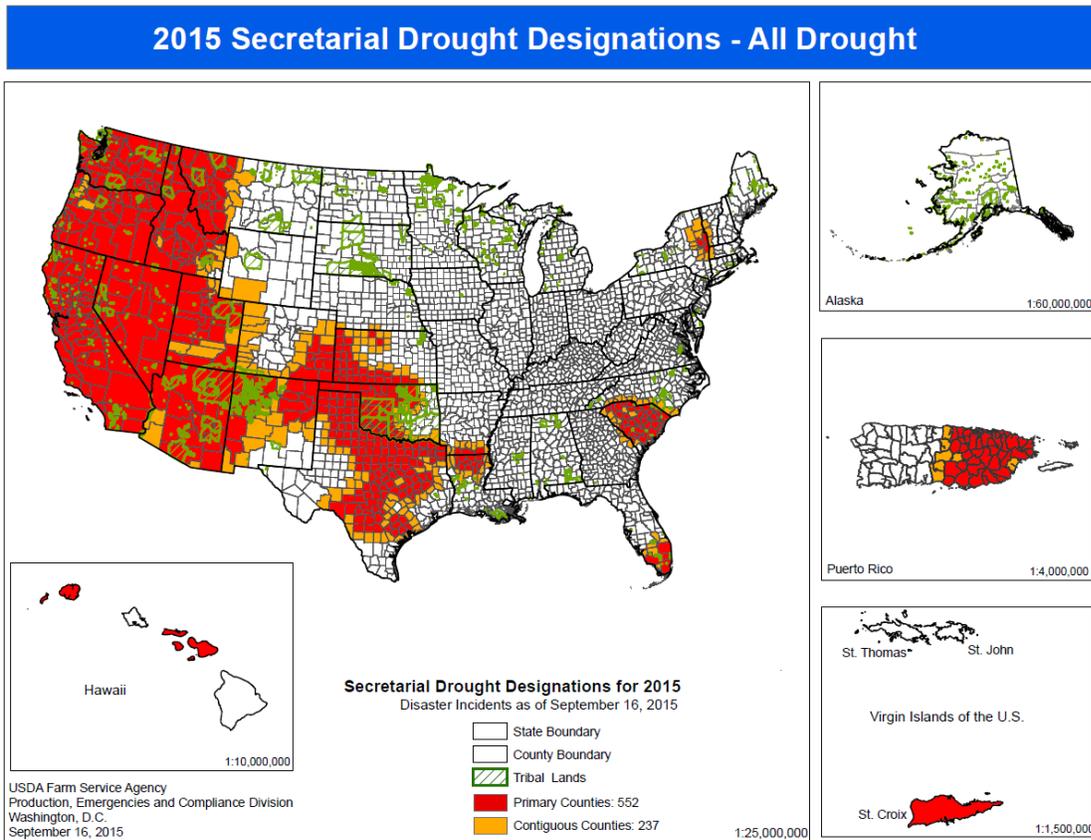
Detailed regional drought narratives for the last week are [here](#).

Changes in Drought Monitor Categories over Time



Persistent dry conditions are particularly notable in the Northwest and parts of the Southeast. [Conditions](#) have improved significantly in the southern Great Plains and the Southwest.

2015 USDA Drought Designations



[Drought Designations as of September 16, 2015](#)

New drought designations this week in South Carolina

[USDA Disaster and Drought Information](#)

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

Highlighted Drought Resources

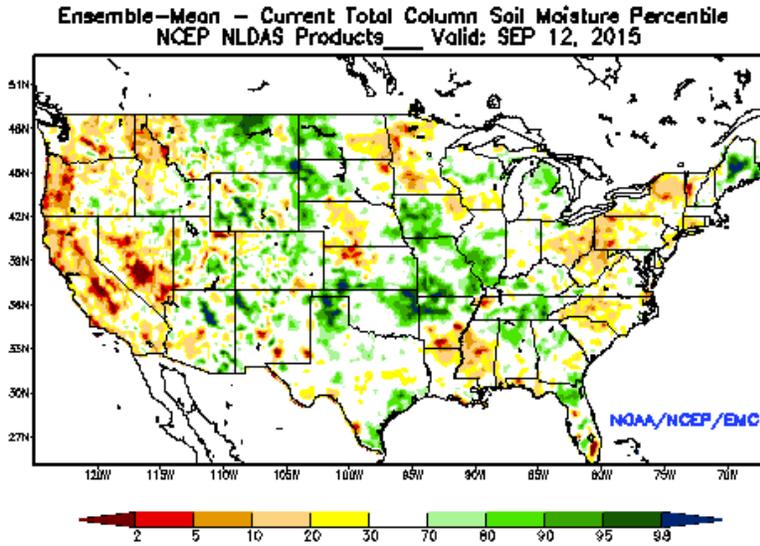
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)

Drought News

- [Oregon Worst in U.S. for Drought Conditions](#)

Other Climatic and Water Supply Indicators

Soil Moisture

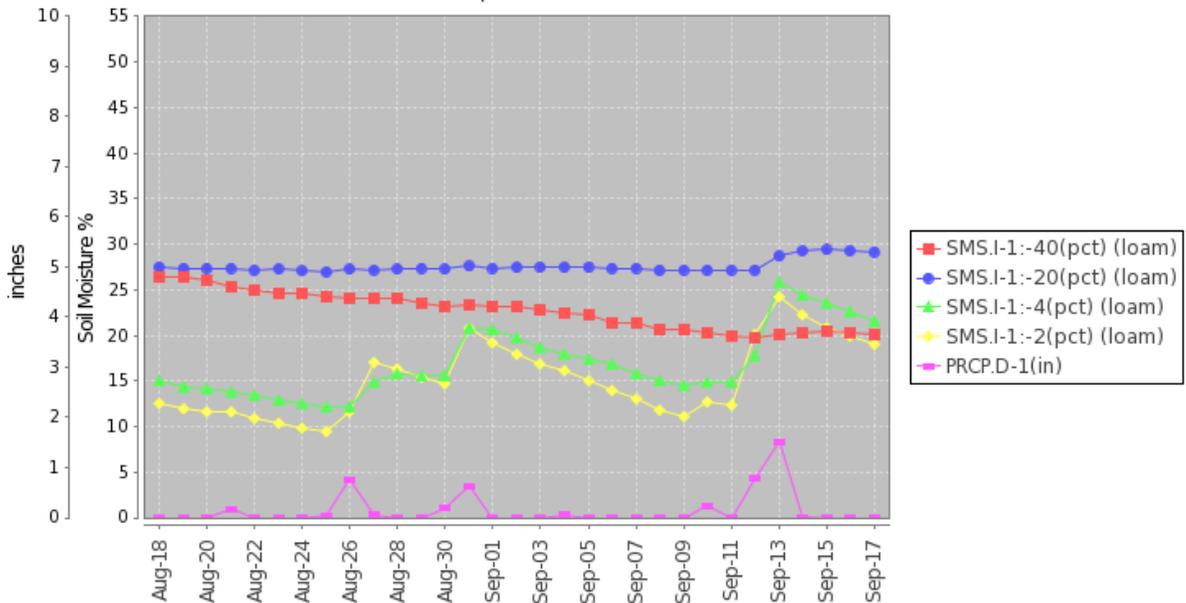


The modeled [soil moisture percentiles](#) as of September 12, 2015 show significant dryness in the far West, parts of the Great Plains, the Northeast, and the South. Areas of above normal soil moisture include much of the Rocky Mountains, the northern Great Plains, northern Florida, parts of the Mississippi Valley, the Panhandle of Texas, and Maine.

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

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

Station (2073) MONTH=2015-08-18 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision Thu Sep 17 07:12:03 PDT 2015

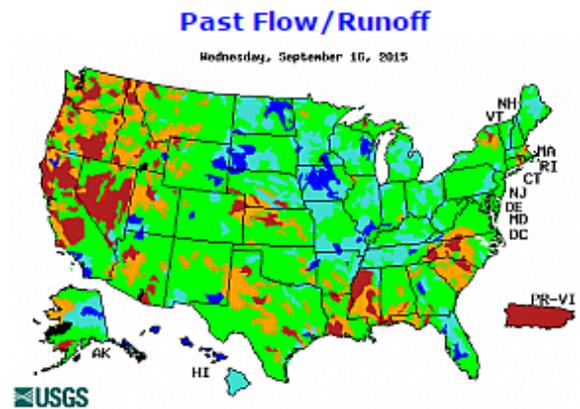
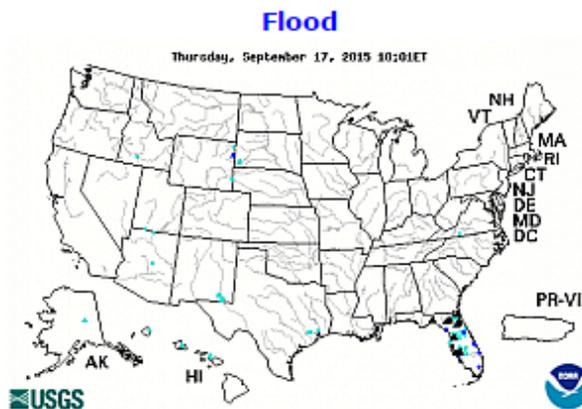
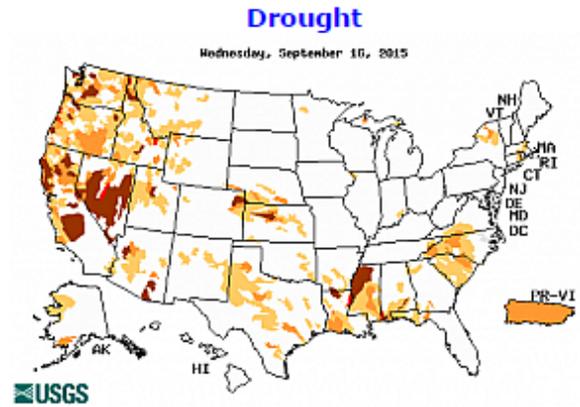
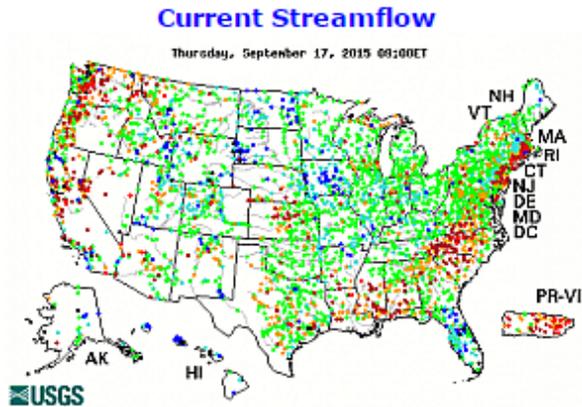


This graph shows soil moisture (2, 4, 20, and 40 inch depth) and precipitation for the last month at the [Sunleaf Nursery SCAN site](#) (station number 2073) in northeast Ohio. Multiple precipitation events generated corresponding soil moisture response with drying between events. Sensors at the 2- and 4-inch depths responded to each precipitation event, whereas the response at the deeper sensors was slight. The 40-inch sensor shows almost continued drying during this period.

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, and the Mid-Atlantic, 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.

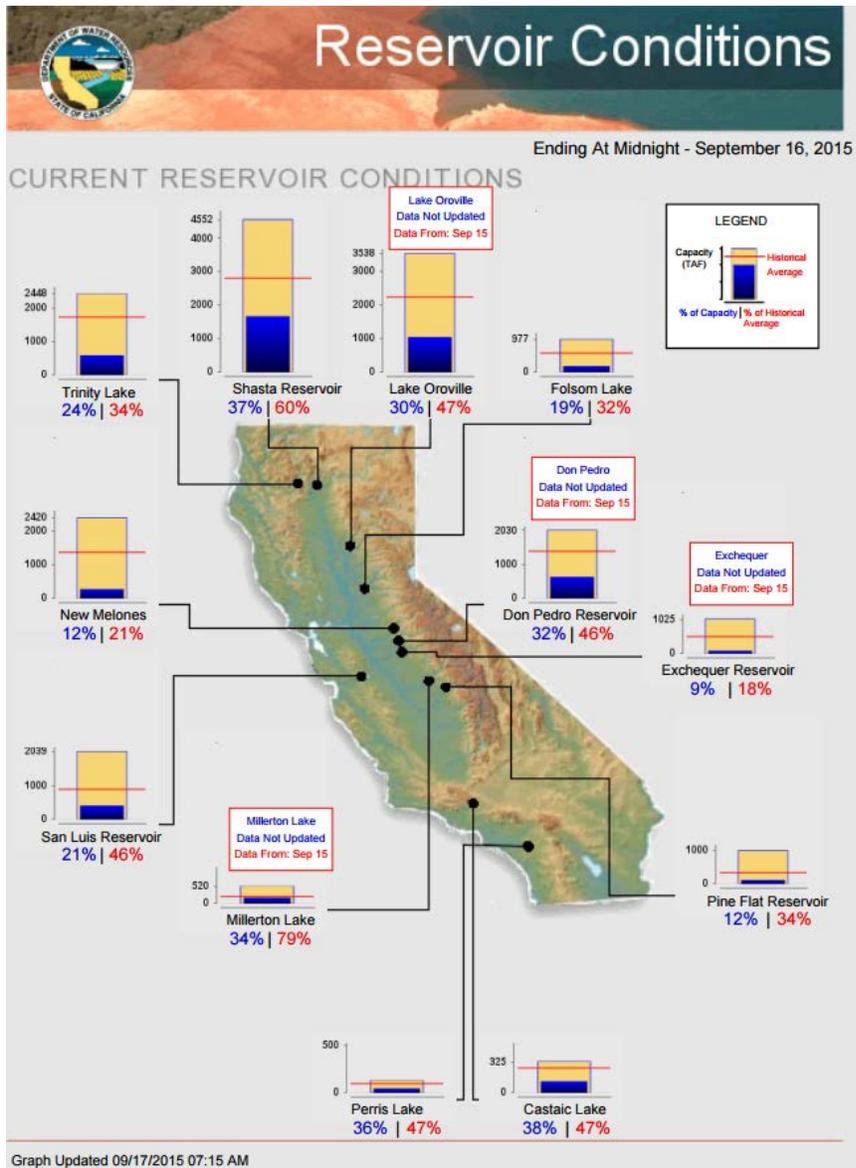
Current Reservoir Storage

[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

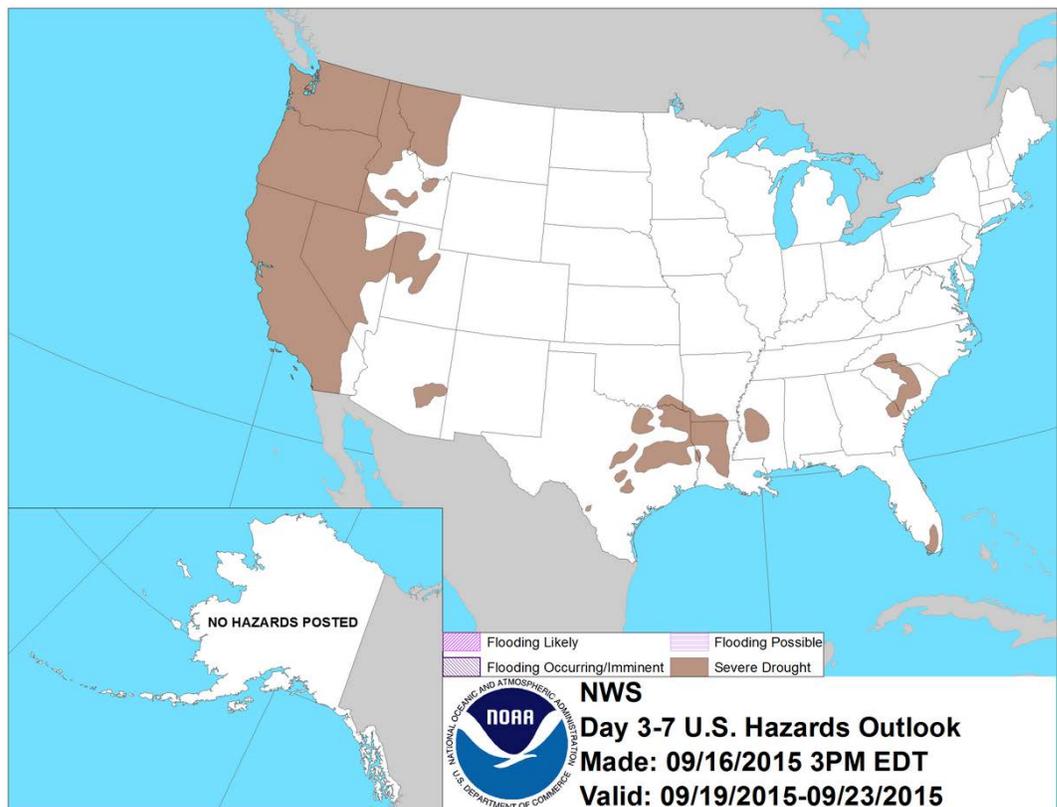
Agricultural Weather Highlights

Author: Brad Rippey, USDA Agricultural Meteorologist

National Outlook, September 17, 2015: "Precipitation will diminish later today in the Northwest but will increase in coverage and intensity across the upper Midwest. Showers will spread to the remainder of the Midwest on September 18-19, resulting in storm total rainfall of 1 to 2 inches in some areas. Rain will extend southwestward from the Corn Belt to the southern Plains, where showers may linger through the weekend. Meanwhile, locally heavy showers will persist along the southern Atlantic Coast. Additional rainfall across Florida's peninsula could reach 1 to 3 inches or more. Elsewhere, locally heavy showers could return to the Desert Southwest early next week. The western U.S. will experience a significant warming trend, with much-above-normal temperatures returning during the weekend. The NWS 6- to 10-day outlook for September 22 – 26 calls for the likelihood of near- to above-normal temperatures nationwide, except for cooler-than-normal conditions in the Pacific Northwest. Meanwhile, near- to above-normal precipitation in the western and southeastern U.S. will contrast with drier-than-normal weather in a broad area stretching from the central and southern Plains and the mid-South into the Great Lakes and Northeastern States."

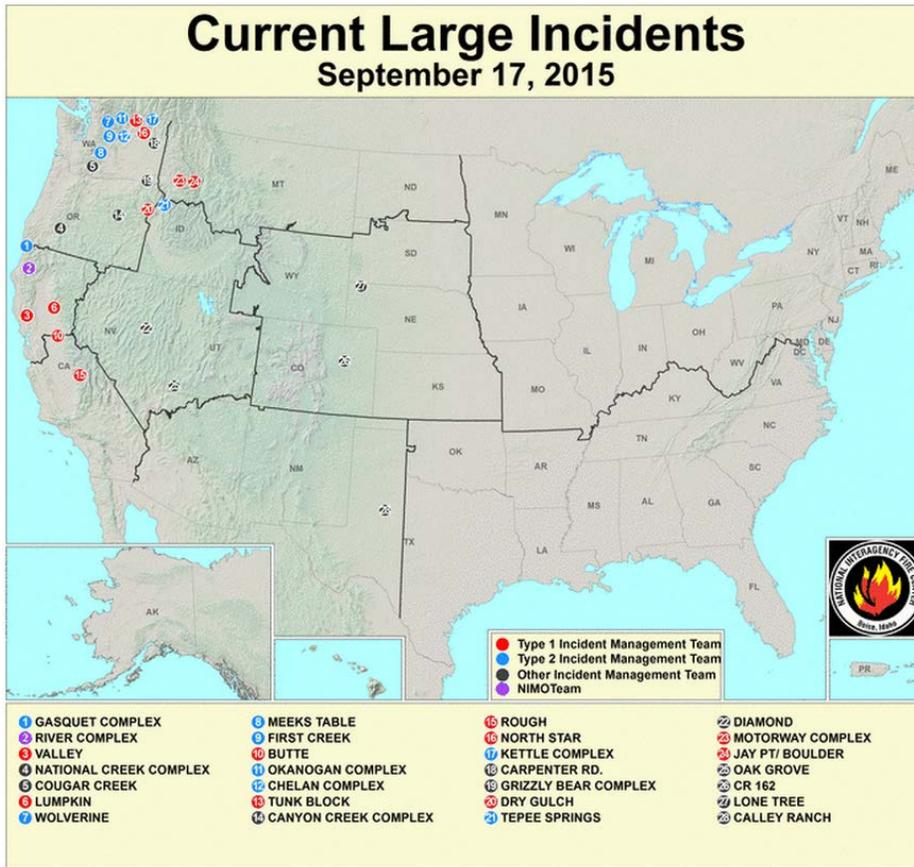
National Weather Hazards

The outlook for [weather hazards](#) over the next week shows the severe drought in the West plus a few scattered areas in the South.



Wildfires

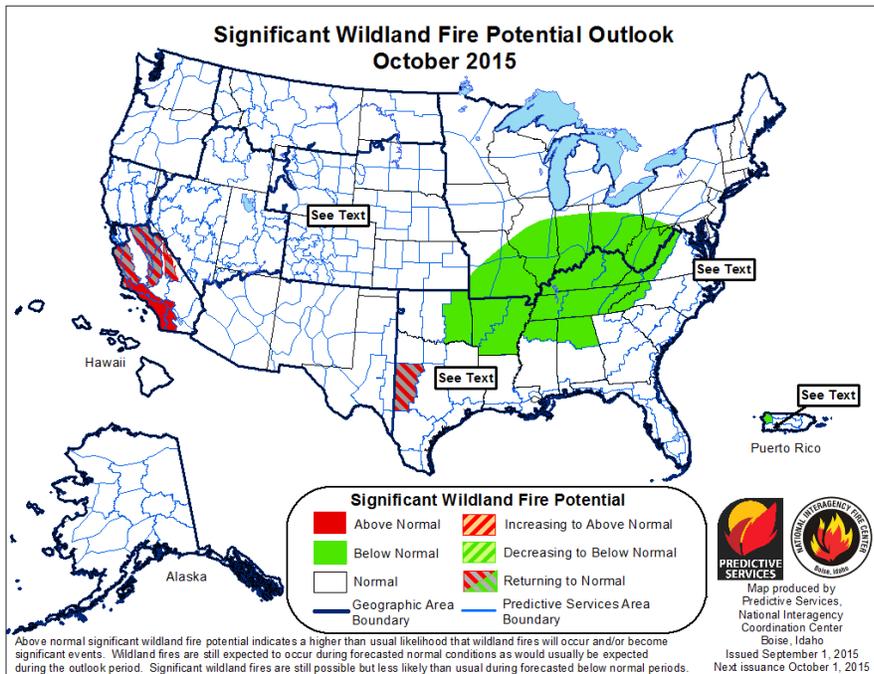
Current Conditions



[Current Wildfire Conditions](#)

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



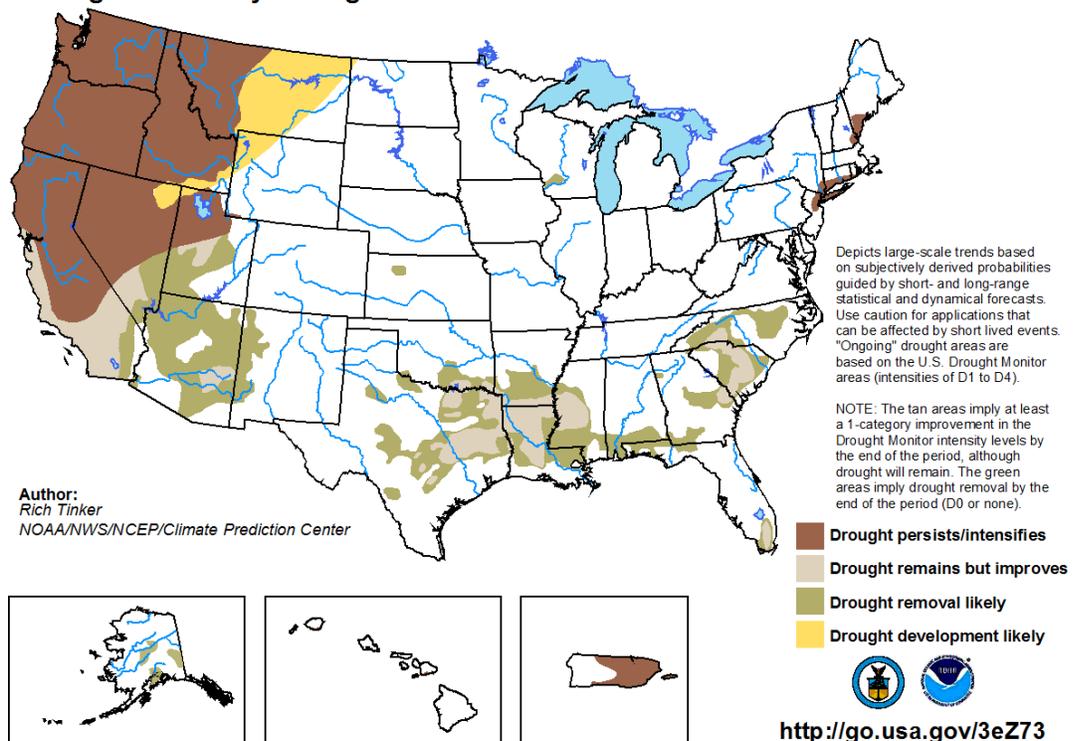
Seasonal Drought Outlook

During the next three months, [drought](#) will persist or intensify over the West, the Northeast, and Puerto Rico.

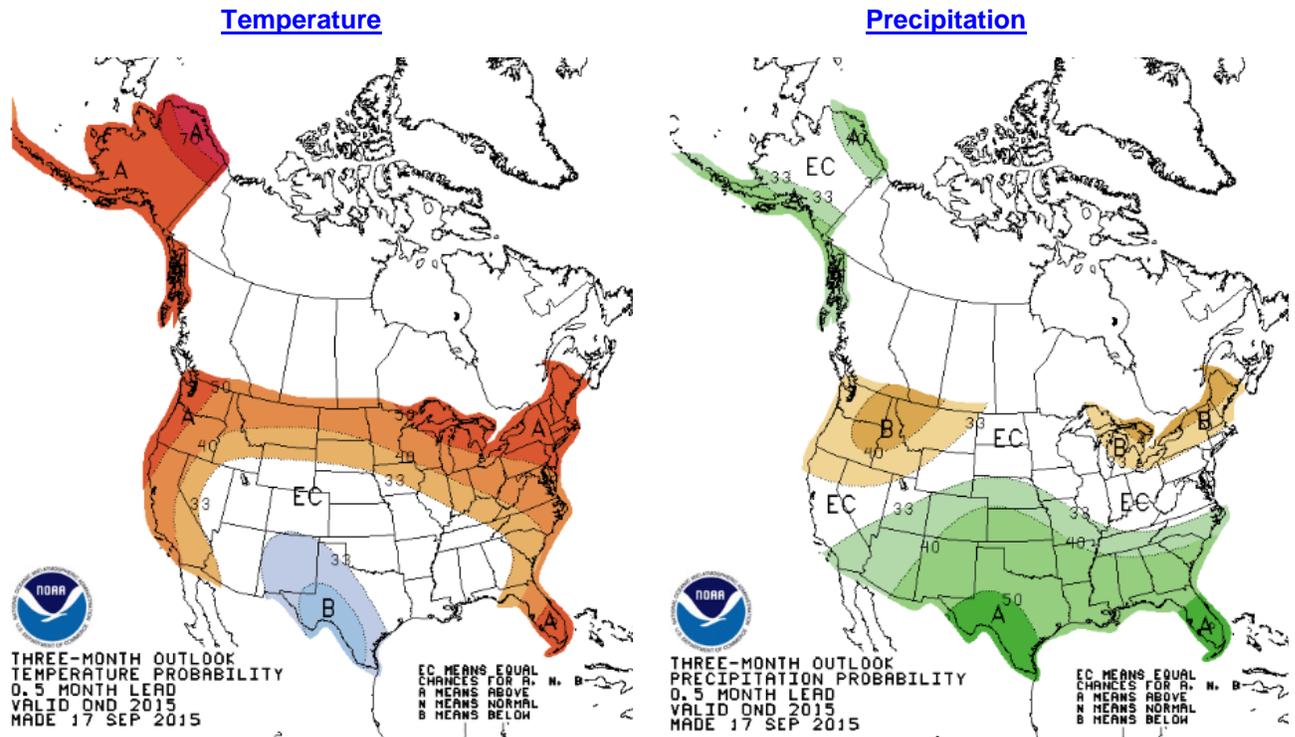
Drought remains, but is improving, in parts of the Southwest and the South.

Drought development is likely in eastern Montana.

U.S. Seasonal Drought Outlook valid for September 17 - December 31, 2015 Drought Tendency During the Valid Period Released September 17, 2015



Climate Prediction Center 3-Month Outlook



During [October-December](#), there is enhanced probability of above normal temperatures in Alaska and in an arc from California across the northern tier states and down to Florida. Below normal temperatures are likely in New Mexico and Texas. Enhanced probability for above normal precipitation is predicted across the southern U.S., and south coastal Alaska, with below normal precipitation in the Pacific Northwest and the Great Lakes area to 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](#).