

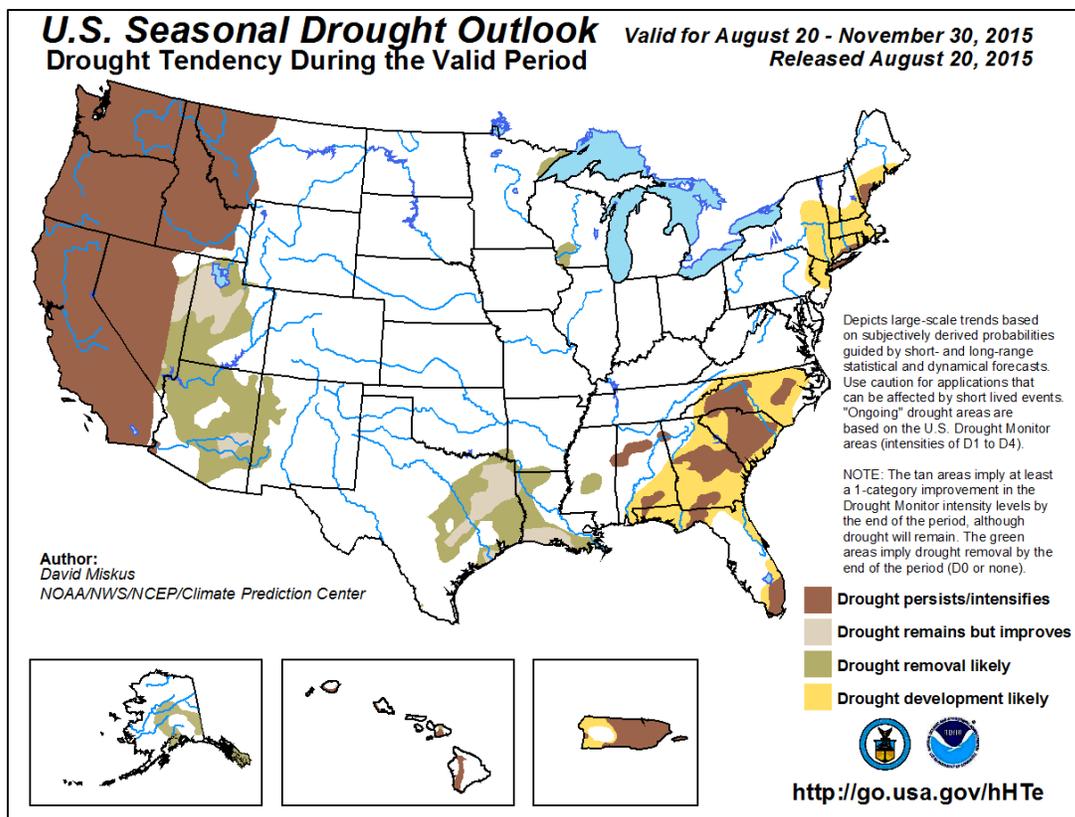
Weekly Water and Climate Update

August 20, 2015

This weekly report uses 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	1	Drought	8
Precipitation	2	Other Climatic and Water Supply Indicators	11
Temperature.....	7	Short- and Long-Range Forecasts.....	15

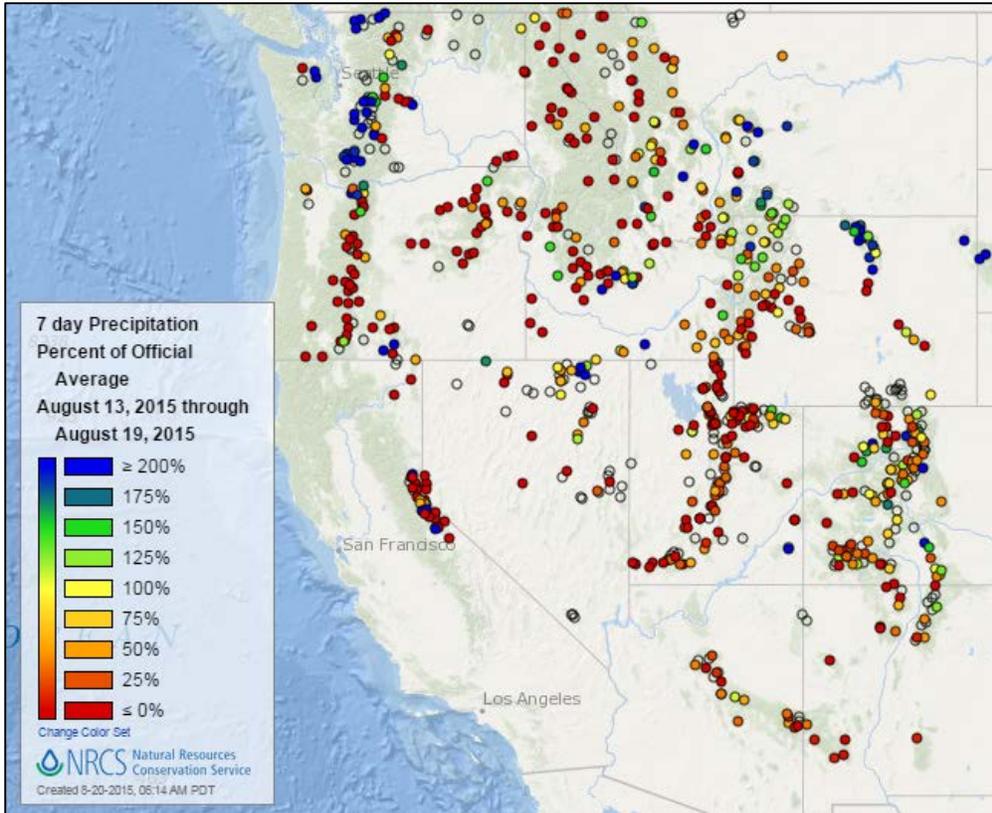
Weekly Highlight: Drought persists in the West; development expands in the East



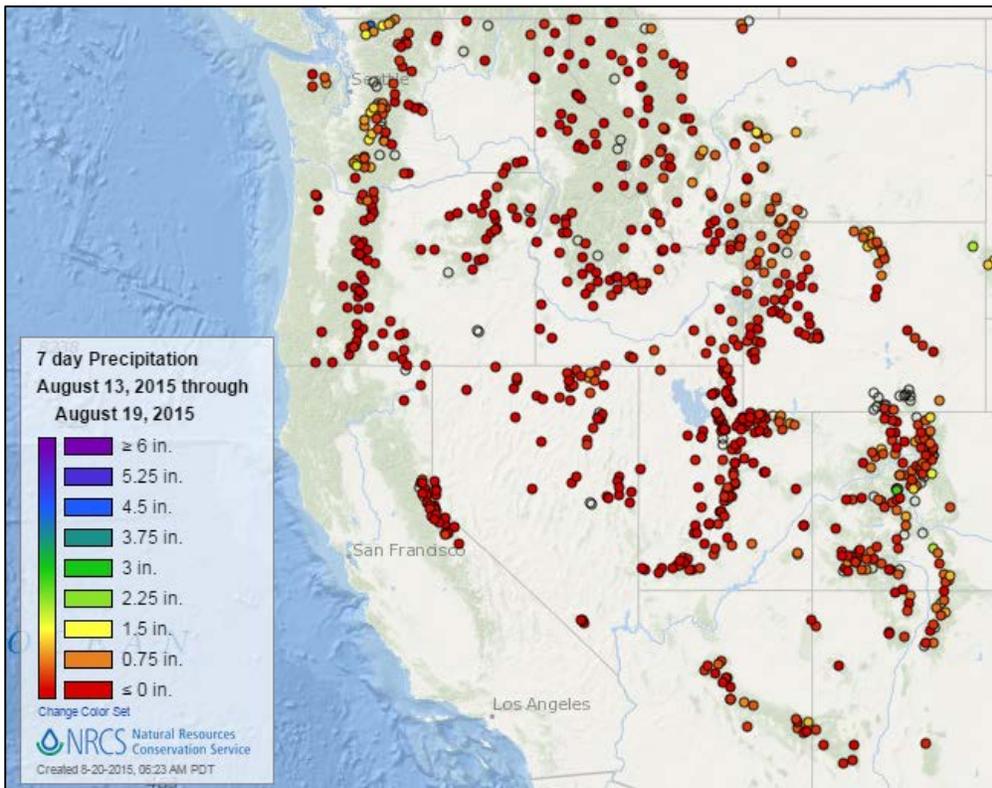
Over the next three months, [drought](#) will persist or intensify over the far West. Drought remains, but is improving, in parts of eastern Nevada, Utah, Alaska, and Texas. Drought development is likely over the Northeast and the Southeast.

Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL)



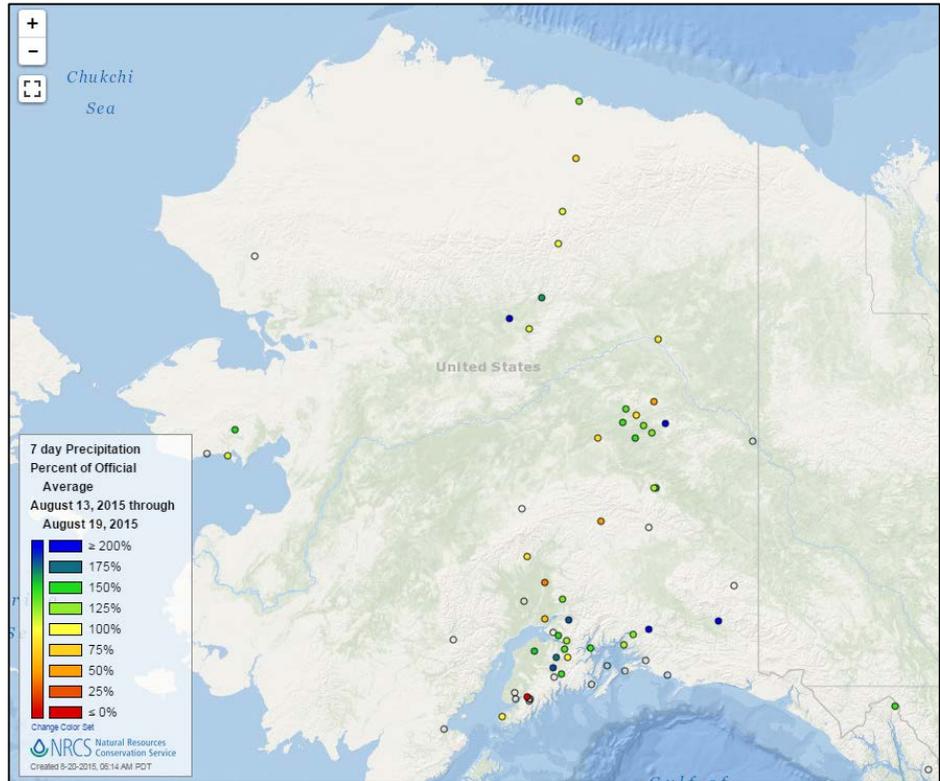
The [precipitation percent of average](#) map shows seasonally high precipitation in the mountains of Washington and northeastern Wyoming into central Montana. Primarily dry conditions prevailed elsewhere.



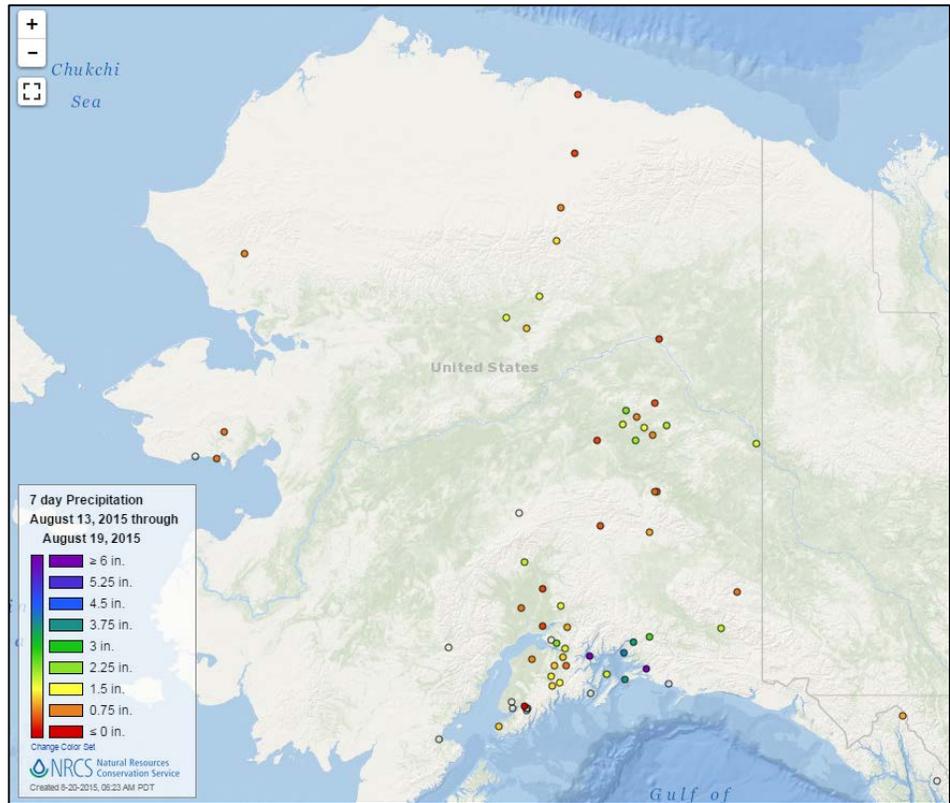
The [total precipitation](#) map shows up to two inches of precipitation in some locations in Washington, Montana, Colorado, and Wyoming.

Weekly Water and Climate Update

The Alaska [precipitation percent of average](#) map indicates highly variable precipitation over the state, with some stations well above average and others well below average. It has been generally wetter than average in southern Alaska.



The Alaska [total precipitation](#) map shows the amount at stations receiving precipitation was generally less than 1.5 inches. Heavier precipitation was reported in southern Alaska.



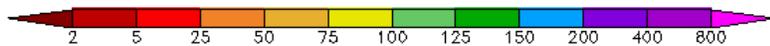
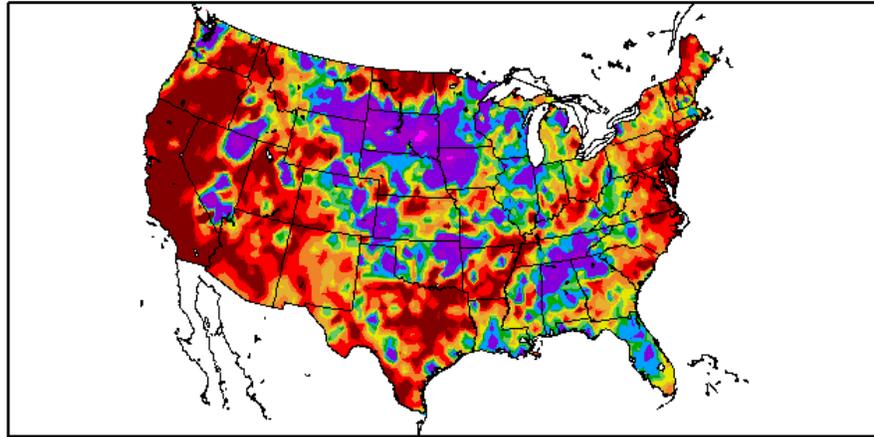
Weekly Water and Climate Update

Last 7 Days, National Weather Service (NWS) Networks

Percent of Normal Precipitation (%)
8/13/2015 – 8/19/2015

The [percent of normal precipitation](#) map shows precipitation in the central areas of the country. Much of the west coast, the Northwest, North Dakota, Texas, and the East were dry.

Most of South Dakota and adjacent areas had more than 200% of normal precipitation for the week.

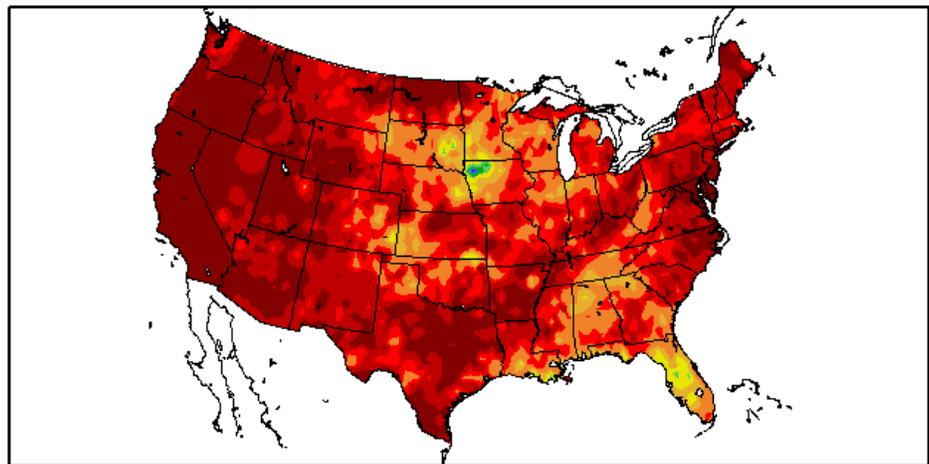


Generated 8/20/2015 at HPRCC using provisional data.

Regional Climate Centers

Precipitation (in)
8/13/2015 – 8/19/2015

In the [7-day total precipitation](#) map, very little, if any, precipitation occurred over much of the West, with some isolated areas of high precipitation in the upper Midwest and in the southeastern U.S.



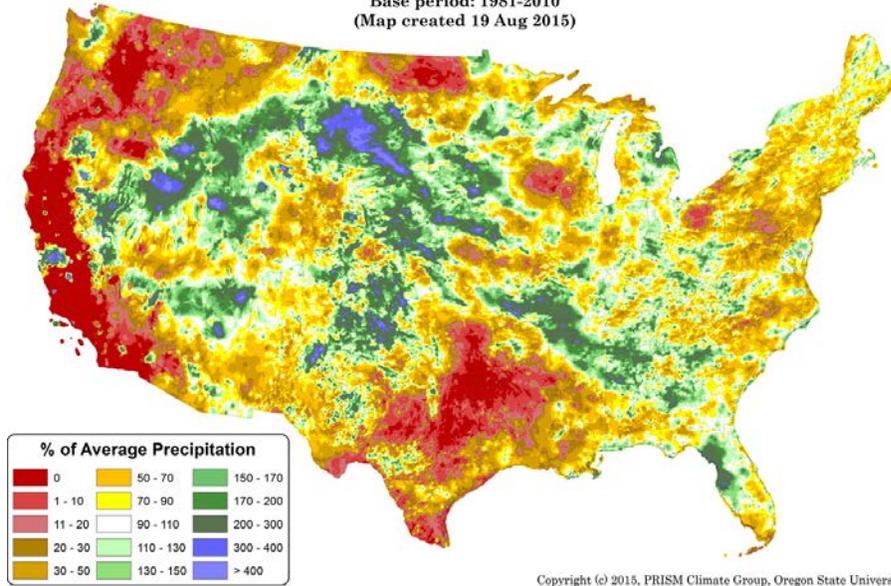
Generated 8/20/2015 at HPRCC using provisional data.

Regional Climate Centers

Weekly Water and Climate Update

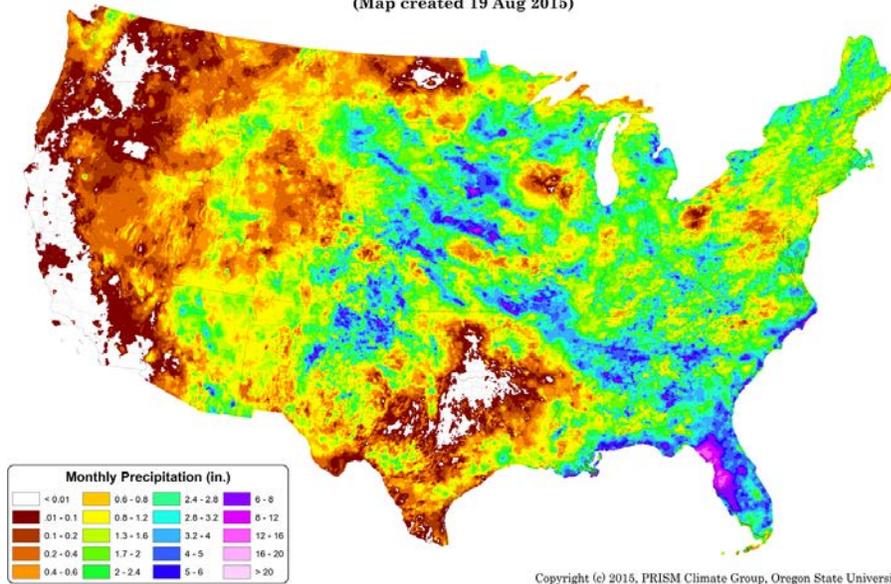
Month-to-Date, PRISM Preliminary, All available data including SNOTEL and NWS

Total Precipitation Anomaly: 01 August 2015 - 18 August 2015
 Period ending 7 AM EST 18 Aug 2015
 Base period: 1981-2010
 (Map created 19 Aug 2015)



For the month of August to date, the national [total precipitation percent of average](#) pattern reveals much higher than normal precipitation in the central West and the Midwest. The Pacific Northwest, western California, the northern Great Plains, and south-central areas of the country remained dry.

Total Precipitation: 01 August 2015 - 18 August 2015
 Period ending 7 AM EST 18 Aug 2015
 (Map created 19 Aug 2015)

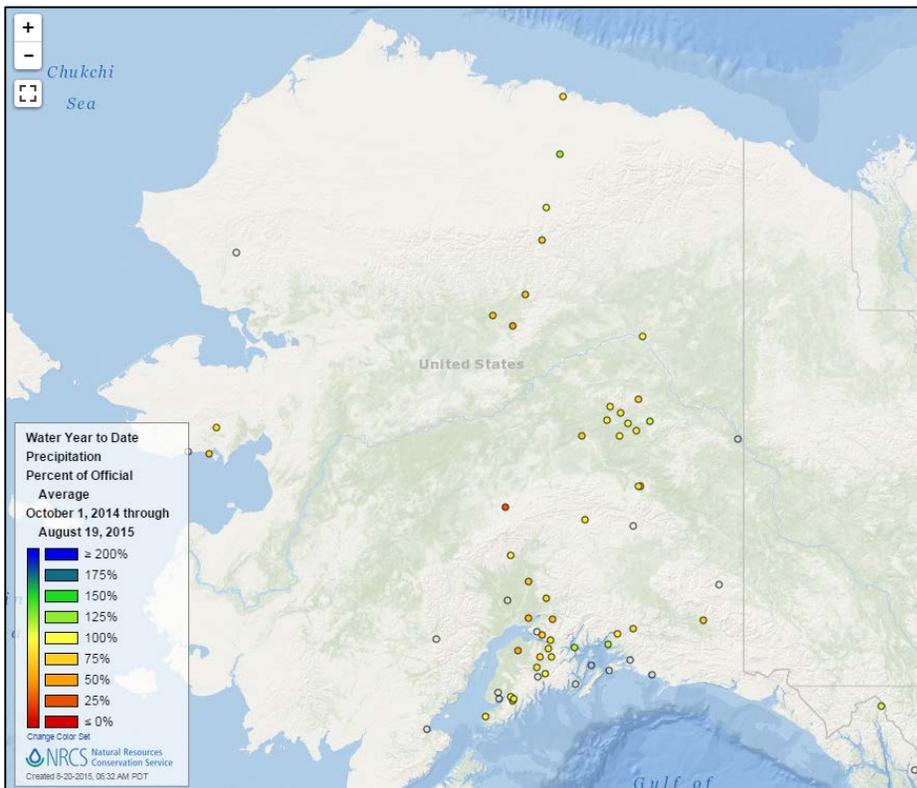
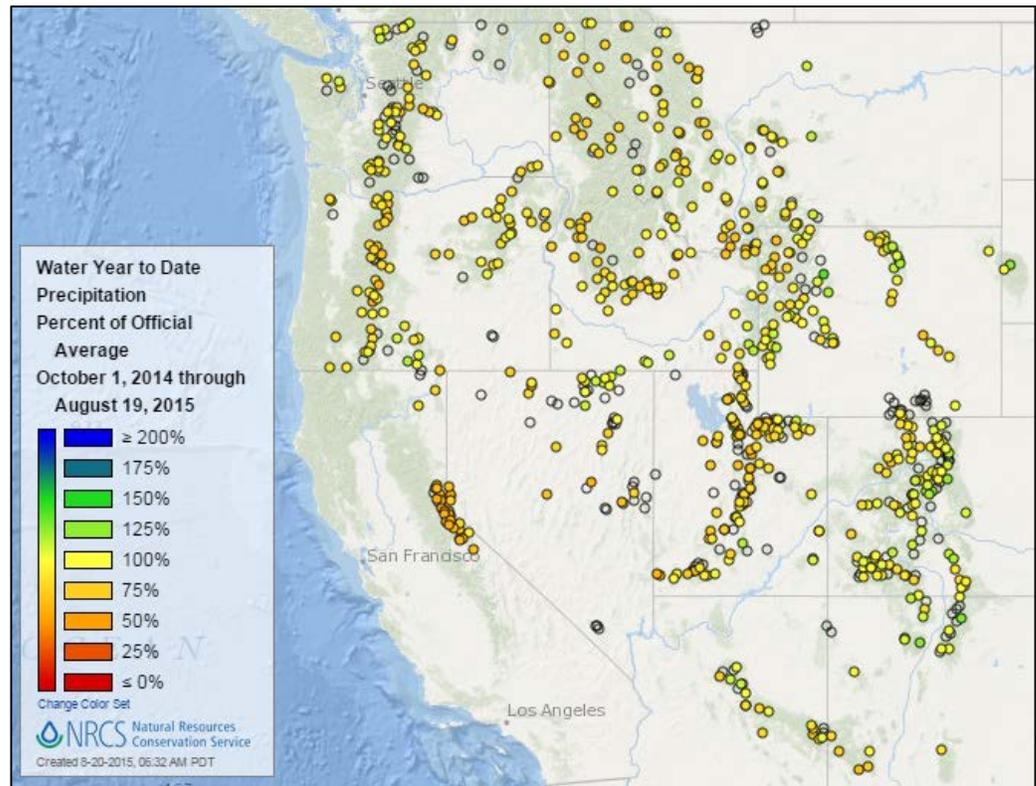


The [total precipitation](#) map shows significant precipitation especially in the central Plains, the Southeast, and Florida. In contrast, dry conditions prevailed along the West Coast, northern Plains, and south-central areas of the U.S.

Weekly Water and Climate Update

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, which remains below average.



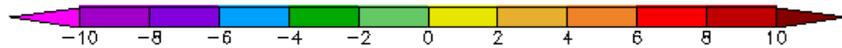
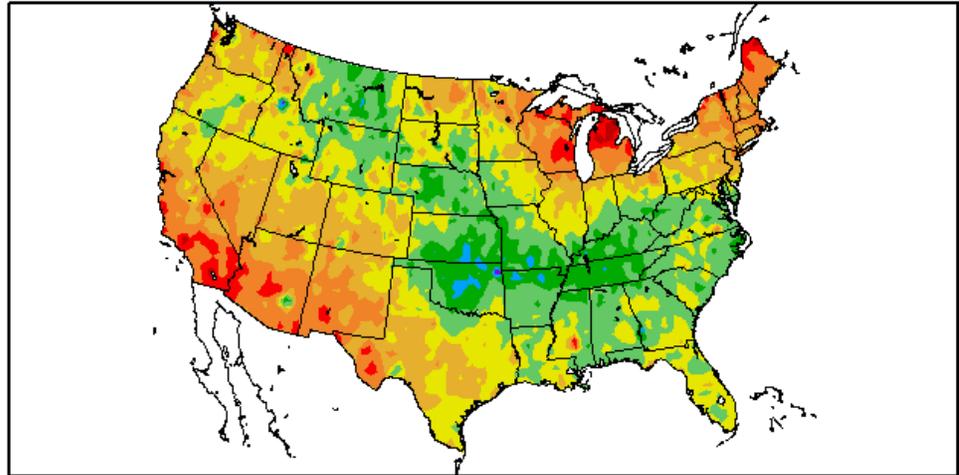
The Alaska [water year-to-date precipitation percent of average](#) map shows mostly near to below average conditions.

Temperature

Last 7 Days, National Weather Service (NWS) Networks

Departure from Normal Temperature (F)
8/13/2015 – 8/19/2015

The map of the [average temperature anomalies](#) for the past week indicates much warmer than normal temperatures in the West, Southwest, Great Lakes, and Northeast, with cooler than normal conditions in the central Plains and Southeast.



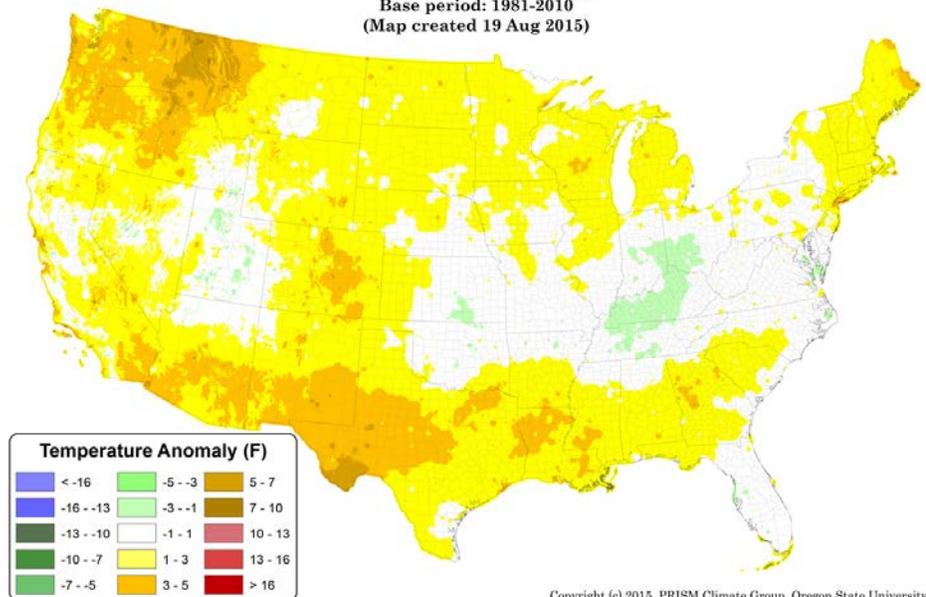
Generated 8/20/2015 at HPRCC using provisional data.

Regional Climate Centers

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

For August 2015 to date, the national [daily mean temperature anomaly](#) map shows warm temperatures in the Northwest and south-central U.S., with slightly cool temperatures in Utah and the Midwest.

Daily Mean Temperature Anomaly: 01 August 2015 - 18 August 2015
Period ending 7 AM EST 18 Aug 2015
Base period: 1981-2010
(Map created 19 Aug 2015)

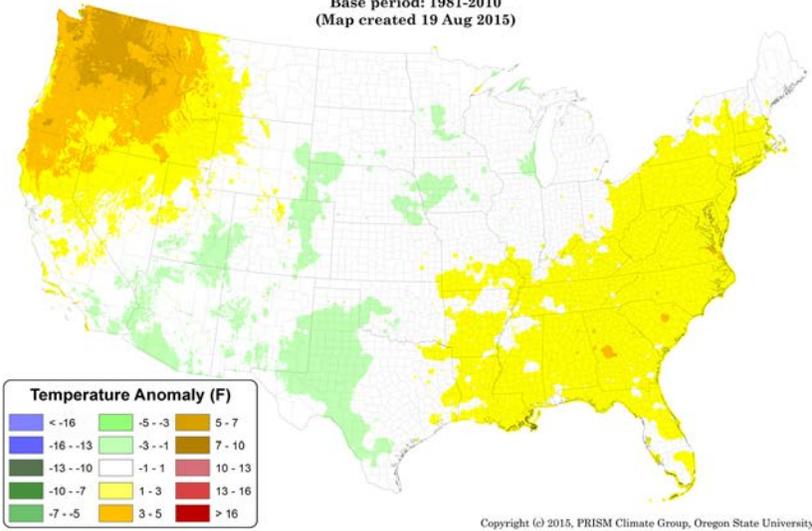


Copyright (c) 2015, PRISM Climate Group, Oregon State University

Weekly Water and Climate Update

Last 3 Months, PRISM Preliminary

Daily Mean Temperature Anomaly: May 2015 - July 2015
 Period ending 7 AM EST 31 Jul 2015
 Base period: 1981-2010
 (Map created 19 Aug 2015)



The May through July national [daily mean temperature anomalies](#) for the U.S. show the West and the Southeast had the largest temperature departures above normal. The rest of the country was mostly near average.

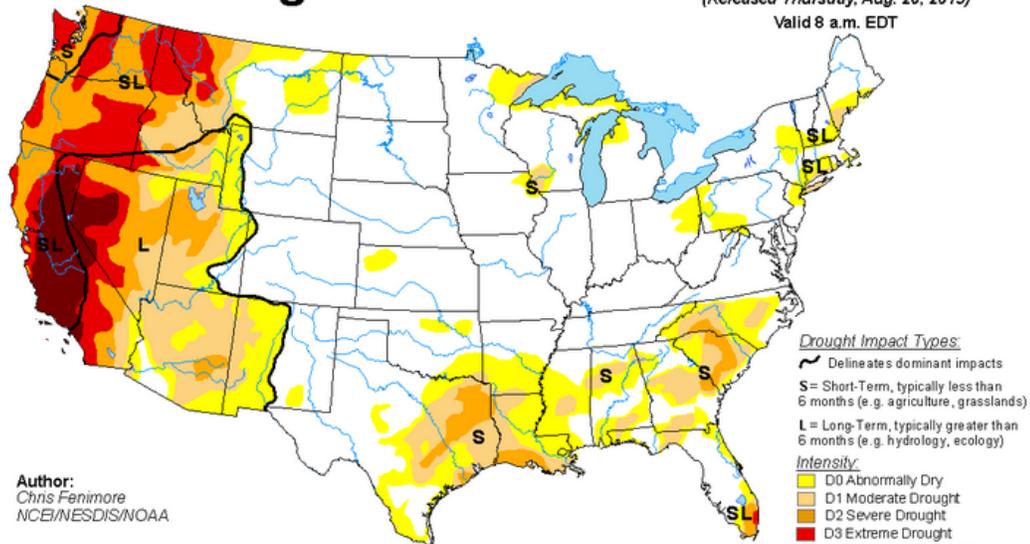
Drought

[U.S. Drought Portal](#) Comprehensive drought resource

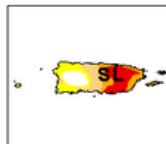
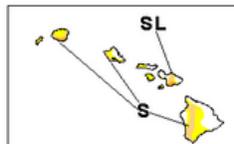
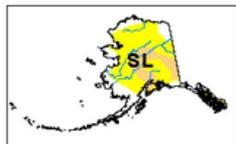
[U.S. Drought Monitor](#) See map below. Exceptional levels of drought continue in California and Nevada. To view regional drought conditions, select a region on the map. State maps are available from regional maps.

U.S. Drought Monitor

August 18, 2015
 (Released Thursday, Aug. 20, 2015)
 Valid 8 a.m. EDT



Author:
 Chris Fenimore
 NCEI/NESDIS/NOAA



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

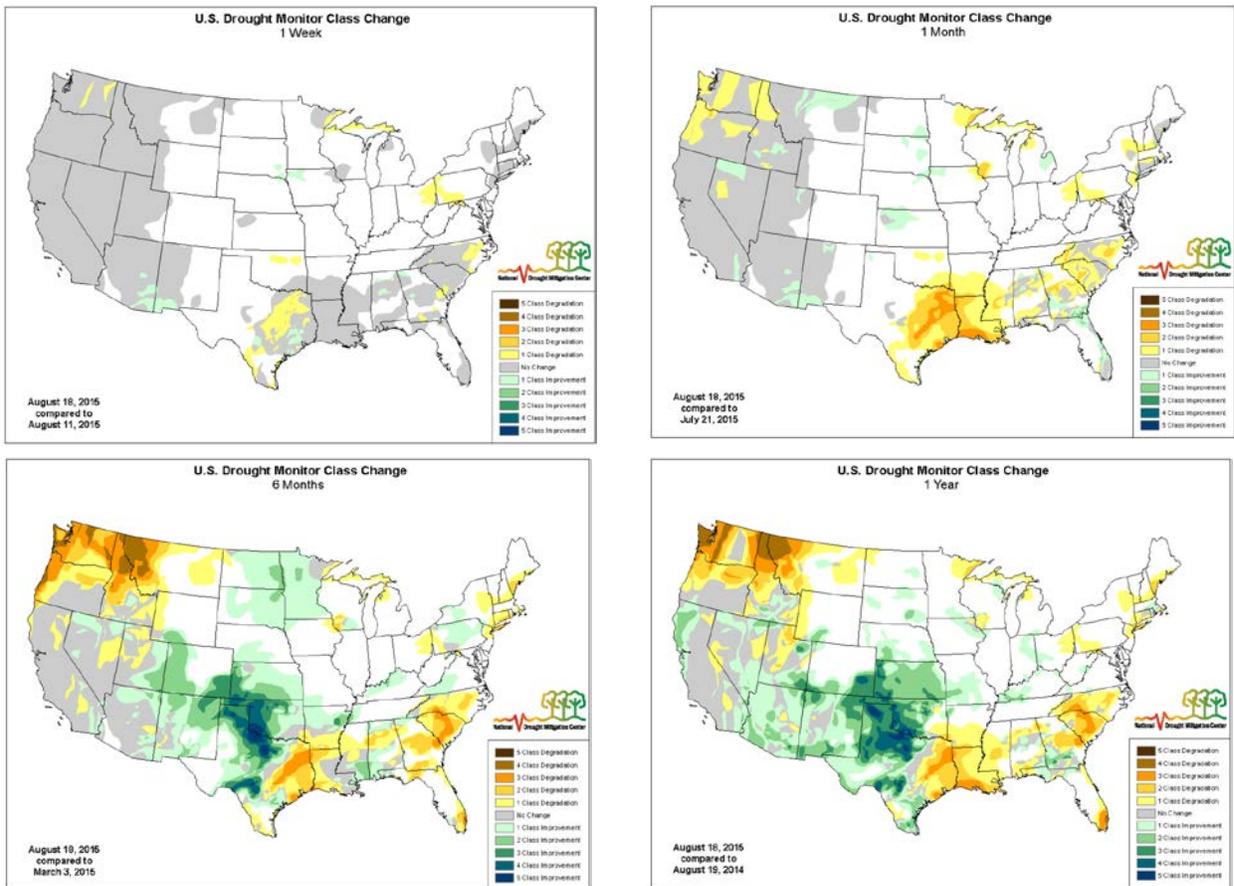
Current National Drought Summary, August 18, 2015

Author: Chris Finimore, NOAA

“This week a southwesterly flow returned to the Southeast, ushering in a tropical like air mass that produced widespread precipitation across the region. Meanwhile, a strong upper level low developed in the Midwest, producing heavy rains, which prompted flash flood watches. Warm, dry air continued to dominate the West.”

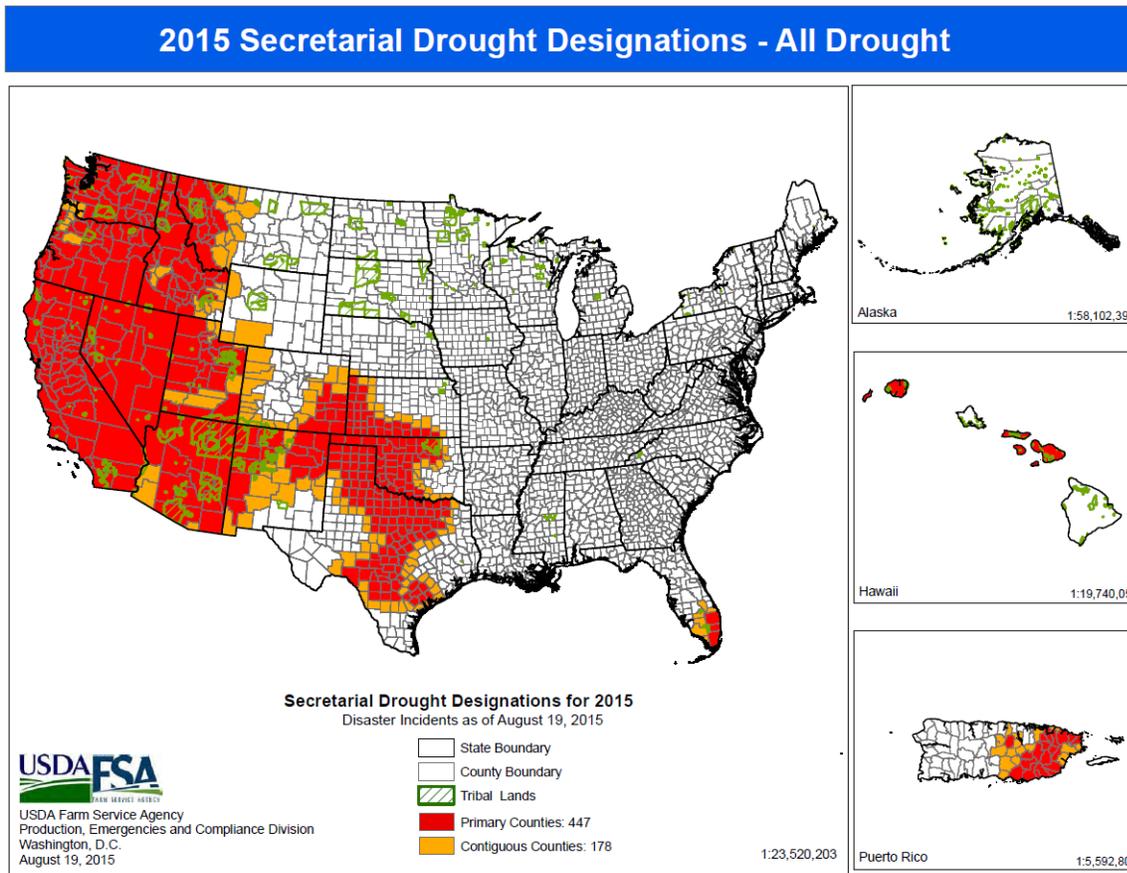
Detailed regional drought narratives for the last week are [here](#).

Changes in Drought Monitor Categories over Time



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

2015 USDA Drought Designations



[USDA Disaster and Drought Information](#)

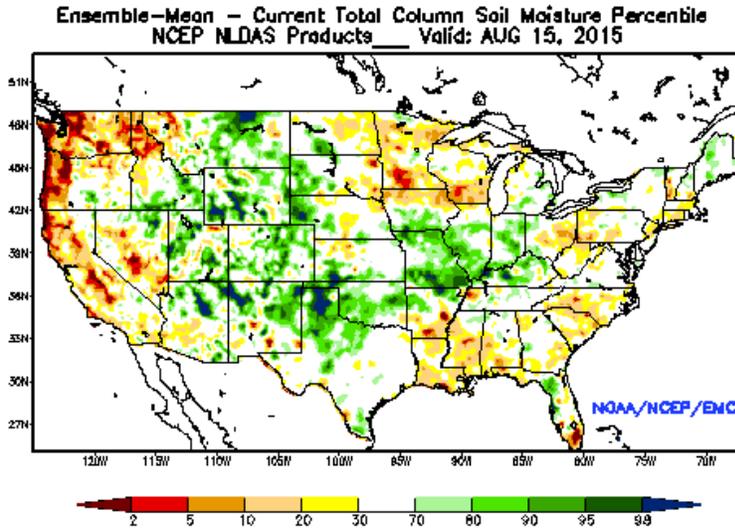
[U.S. Population in Drought, Weekly Comparison](#)

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

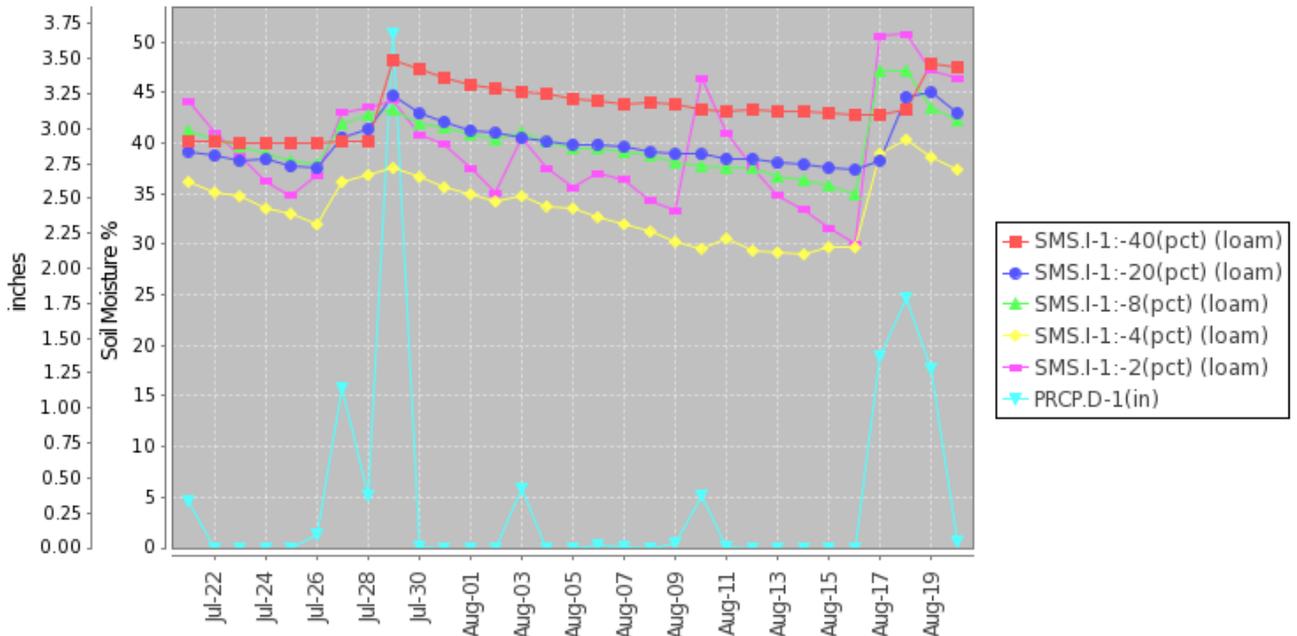


The modeled [soil moisture percentiles](#) as of August 15, 2015 show significant dryness in the far West, the north-central part of the country, the Northeast, and parts of the Southeast. Areas of above normal soil moisture include much of the Rocky Mountains, the central Great Plains, and the Midwest.

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

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

Station (2068) MONTH=2015-07-21 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision Thu Aug 20 06:49:01 PDT 2015



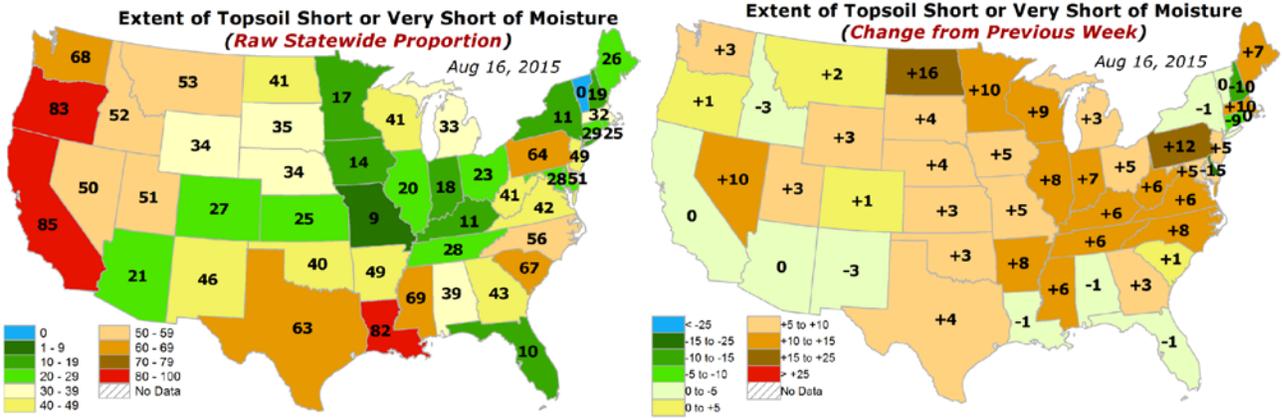
This example NRCS graph shows soil moisture (2, 4, 8, 20, and 40 inch depth) and precipitation for the last month at the [Shagbark Hills SCAN site](#) (station number 2068) in northwest Iowa. Multiple precipitation events generated corresponding soil moisture response with drying between events.

Soil Moisture Data Portals

[CRN Soil Moisture](#)
[Texas A&M University North American Soil Moisture Database](#)

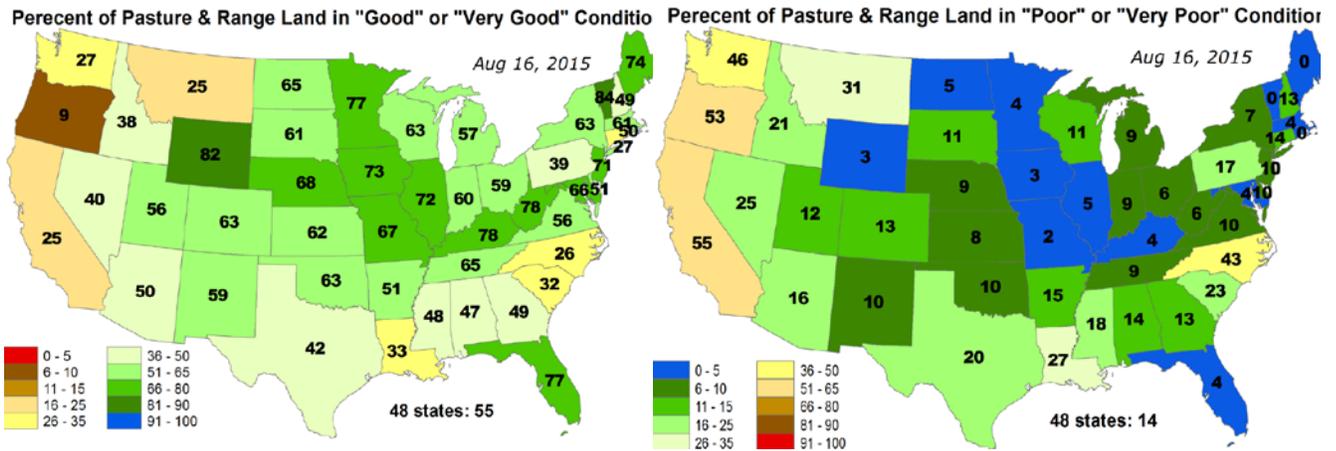
Weekly Water and Climate Update

Topsoil



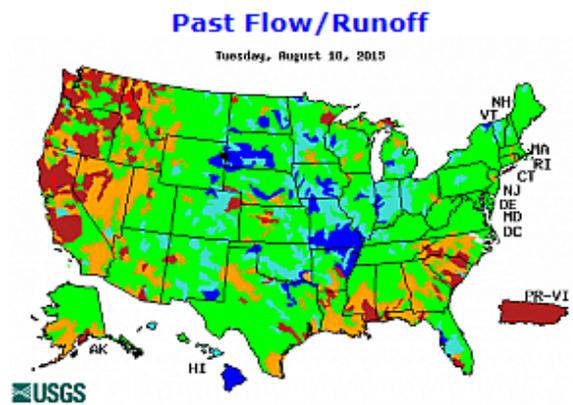
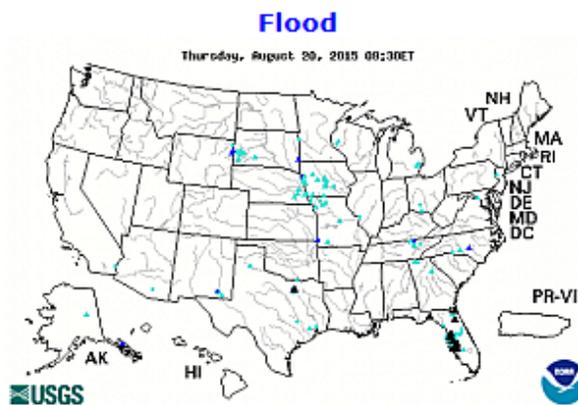
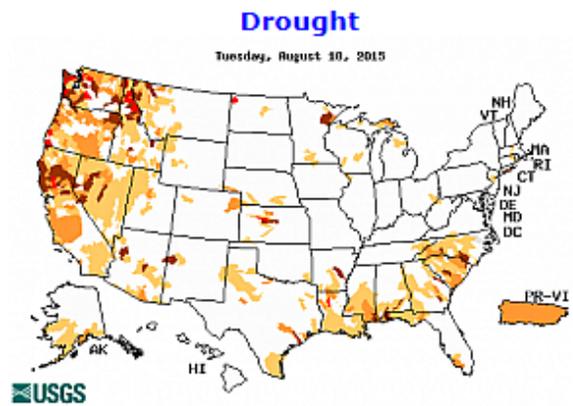
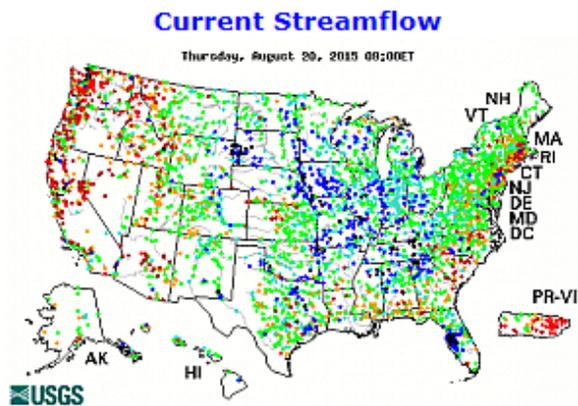
Low [topsoil moisture](#) conditions are especially notable all along the West Coast.

Pasture and Rangeland



[Pasture and rangeland](#) conditions are generally good except on the West Coast.

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

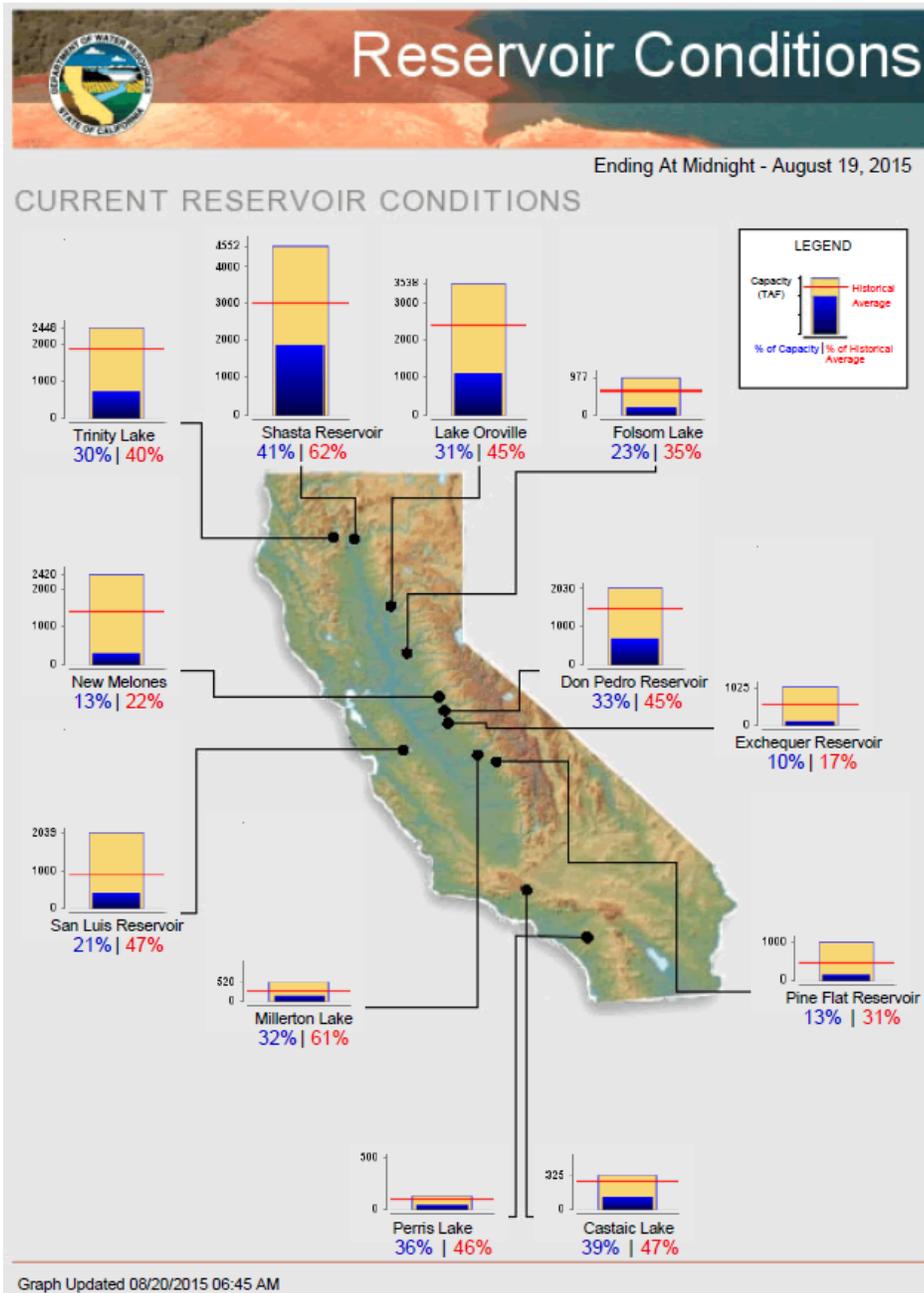
[National Water and Climate Center Reservoir Data](#)

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](#)

Weekly Water and Climate Update

California Reservoir Conditions



Short- and Long-Range Forecasts

Agricultural Weather Highlights

Author: Brad Rippey, USDA Agricultural Meteorologist

Outlook, August 20, 2015: "For the remainder of today, a cold front will spark widespread showers and thunderstorms across the southern and eastern U.S. During the weekend and early next week, a new storm system will develop over the nation's mid-section before pushing eastward. Five-day rainfall totals could reach 1 to 2 inches, with locally higher amounts, in the Northeast and across the South. Meanwhile, significant Western showers will be mostly confined to Arizona and New Mexico. Following a brief, late-week heat respite in the Northwest, above-normal temperatures will return early next week. The NWS 6- to 10-day outlook for August

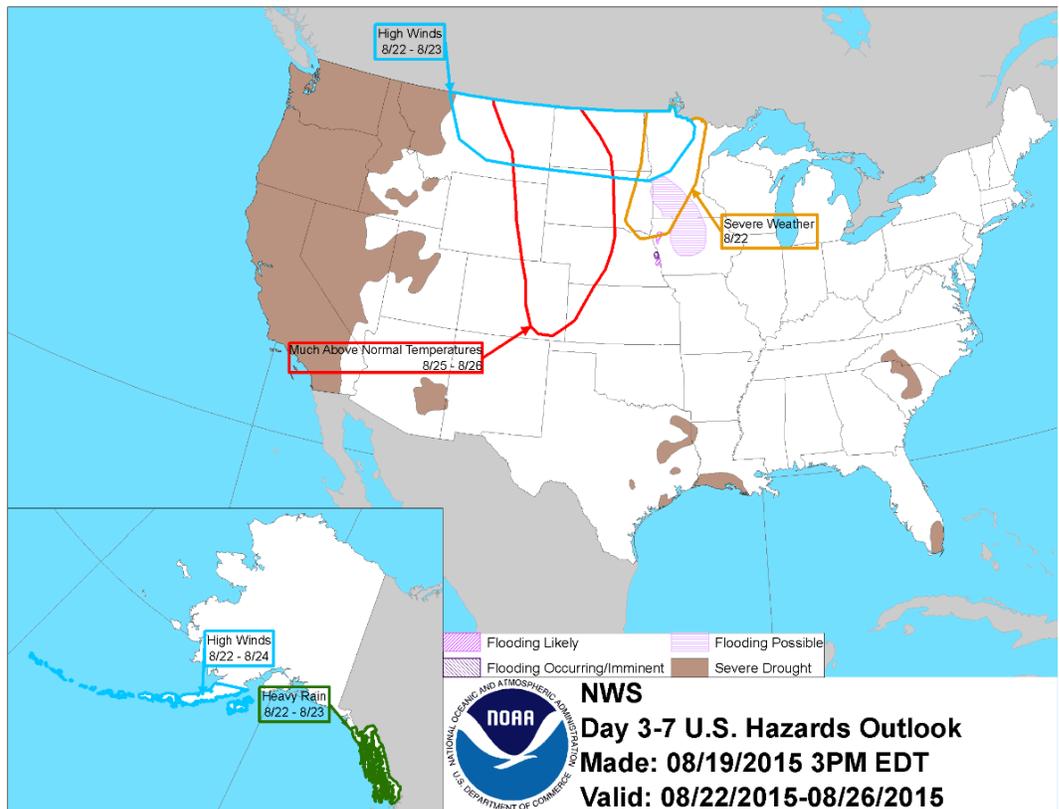
25 – 29 calls for the likelihood of cooler-than-normal conditions in much of the western U.S. and from the Ohio Valley into the lower Great Lakes region, while near- to above-normal temperatures will cover the remainder of the country. Meanwhile, drier-than-normal weather across the central and southern Plains, lower Midwest, and Southeast will contrast with near- to above normal rainfall in southern Florida, much of the West, and across the nation's northern tier as far east as the upper Great Lakes region."

National Weather Hazards

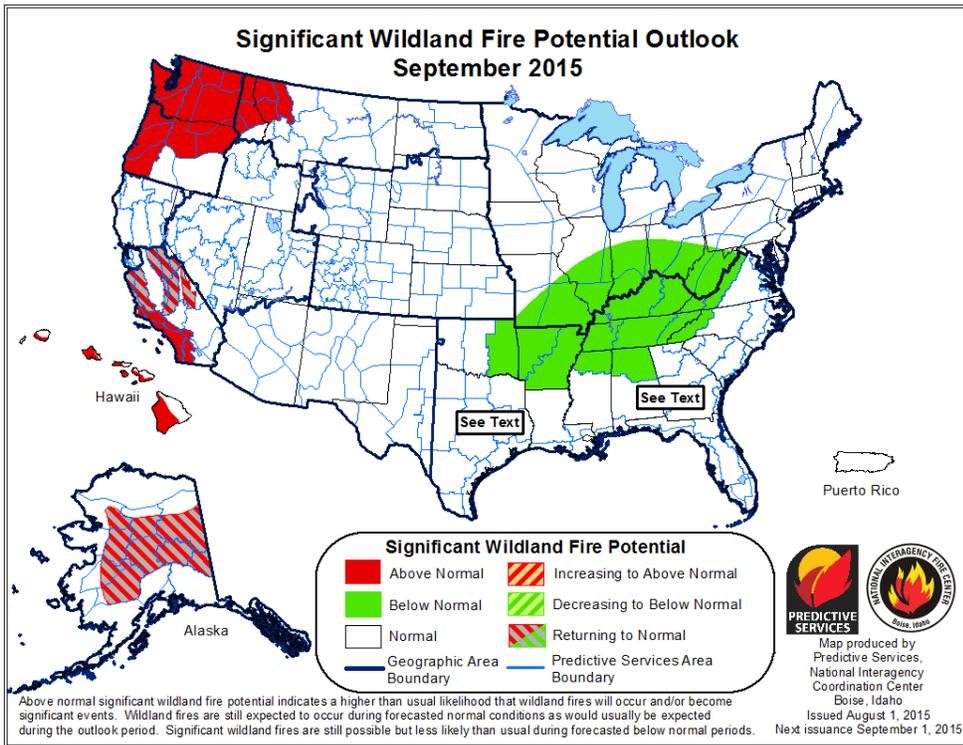
The outlook for [weather hazards](#) over the next week includes above normal temperatures in the Plains, high winds in the northern Plains, and severe weather centered in Minnesota.

Severe drought remains in the far West.

In Alaska, heavy rain is forecast for the southeast part of the state, with high winds in the Aleutians.

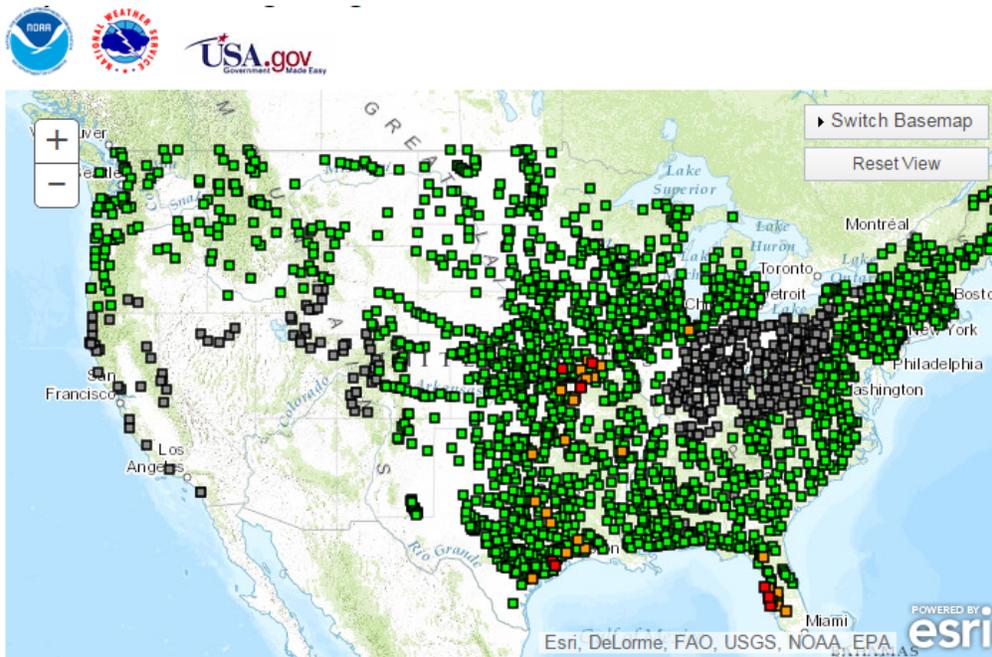


Fire Potential Outlook: September 2015



In September, above normal [fire potential](#) exists in the Pacific Northwest, California, Alaska, and Hawaii.

Long-Range Flood Outlook



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

2381 total gauges
[Show locations with 50% or greater chance of flooding during Aug-Sep-Oct \(39\)](#)

- 0 Gauges: > 50% Major Long-Range Flood Risk
- 9 Gauges: > 50% Moderate Long-Range Flood Risk
- 30 Gauges: > 50% Minor Long-Range Flood Risk
- 1955 Gauges: < 50% Long-Range Flood Risk
- 387 Gauges: No forecast within selected timeframe

Weekly Water and Climate Update

Seasonal Drought Outlook

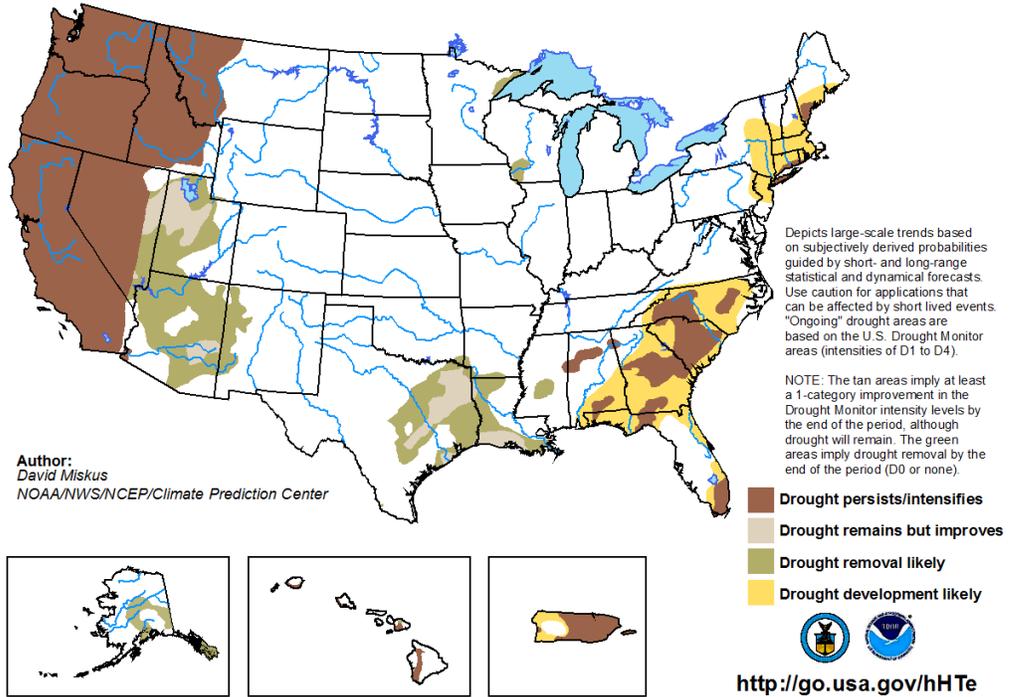
During the next three months, **drought** will persist over the far West.

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

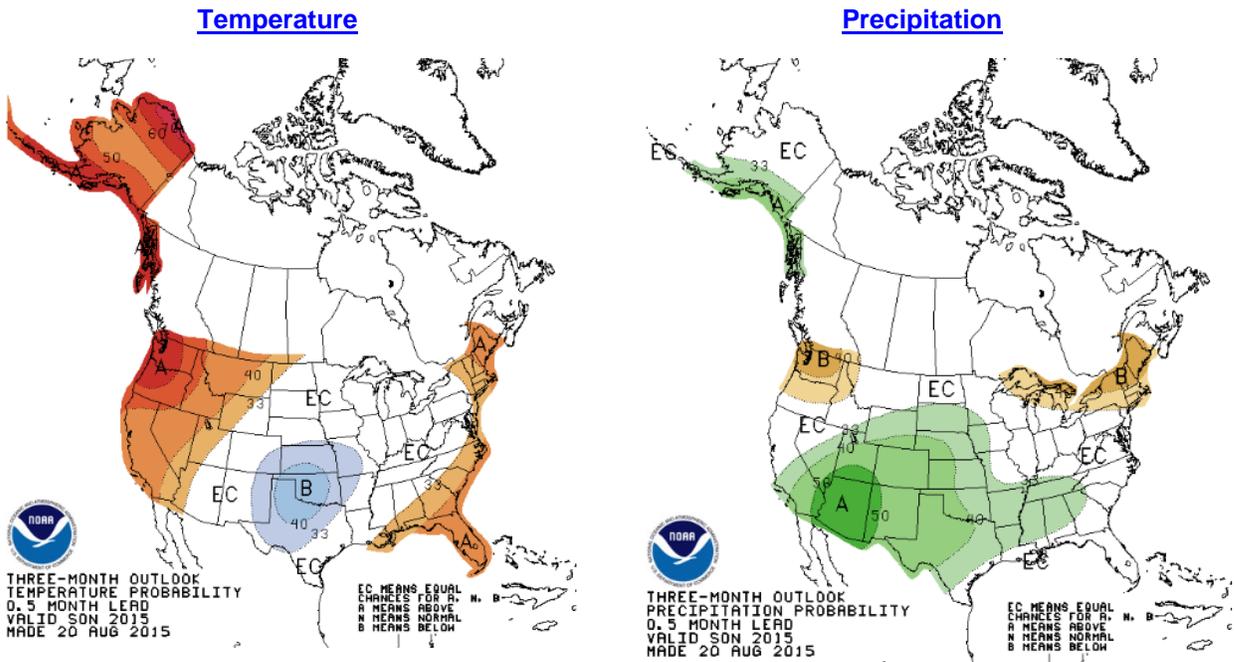
Drought development is likely over the Northeast and the Southeast.

U.S. Seasonal Drought Outlook Valid for August 20 - November 30, 2015 Released August 20, 2015

Drought Tendency During the Valid Period



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.

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](#).