

## Weekly Water and Climate Update

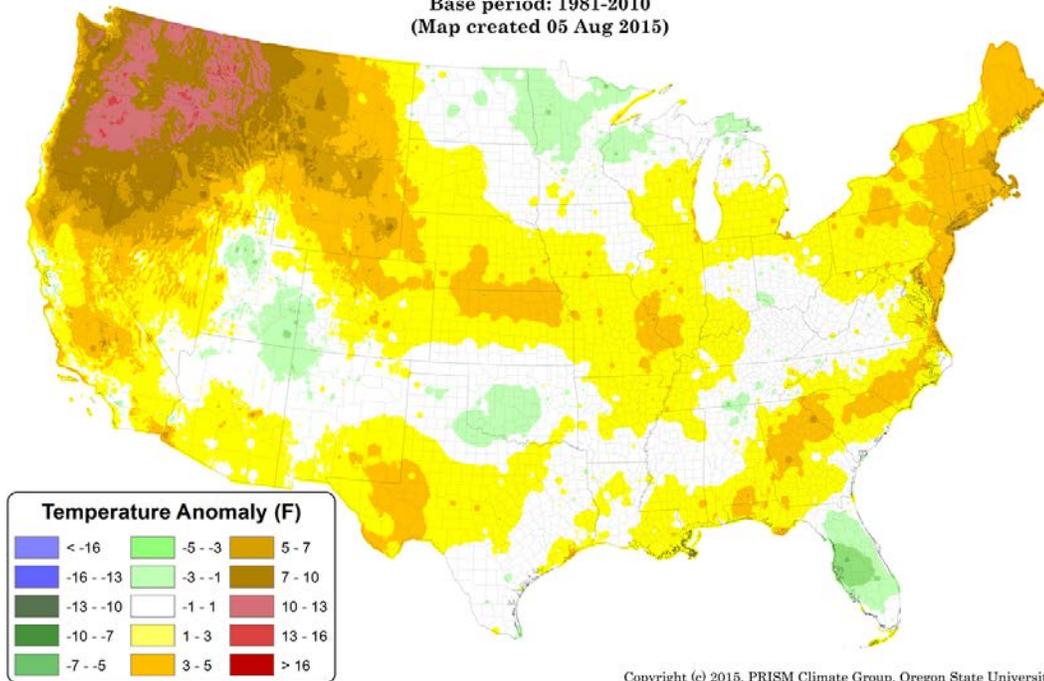
August 6, 2015

*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 .....	12
Temperature.....	7	Short- and Long-Range Forecasts.....	16

### Weekly Highlight: No relief from drought conditions; Extremely warm temperatures continue to plague much of the West

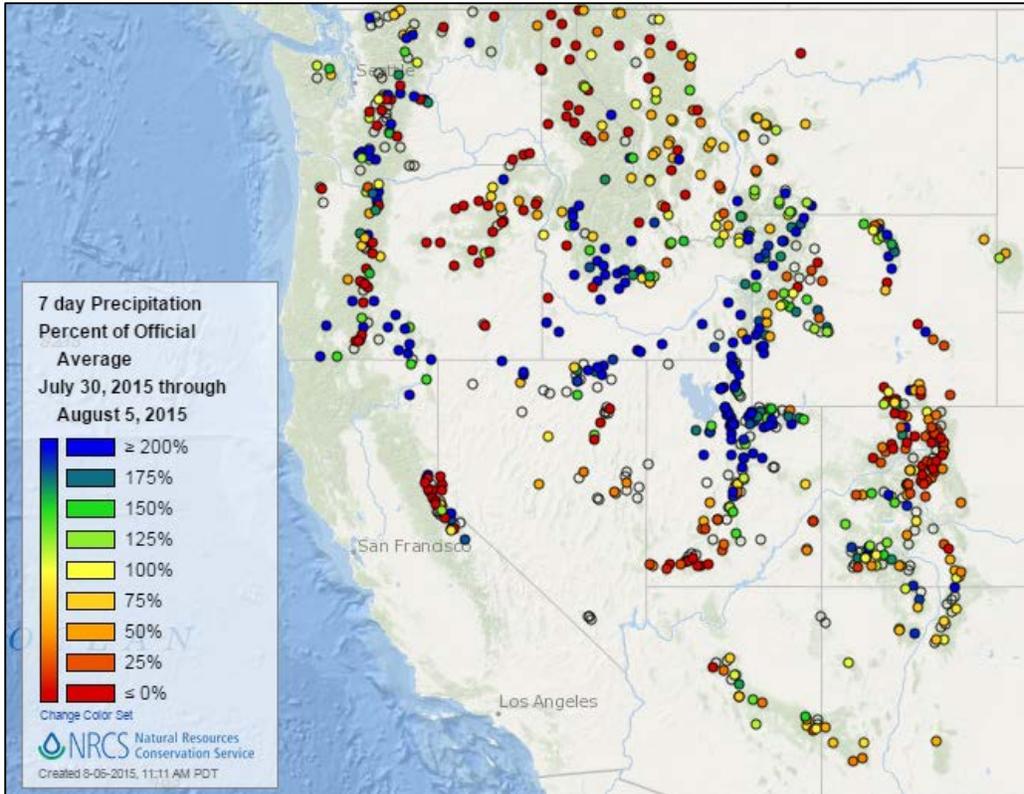
**Daily Mean Temperature Anomaly: 01 August 2015 - 04 August 2015**  
 Period ending 7 AM EST 04 Aug 2015  
 Base period: 1981-2010  
 (Map created 05 Aug 2015)



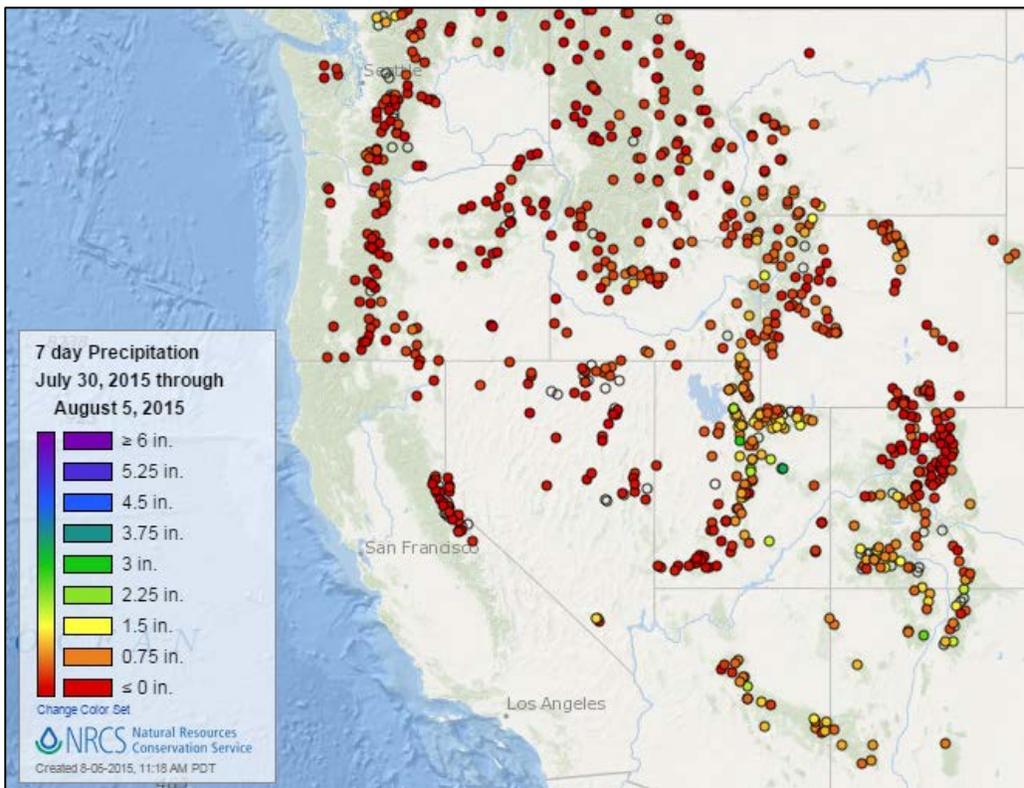
For August 2015 to date, the national [daily mean temperature anomaly](#) map shows very warm temperatures in the Northwest, with cool temperatures in the upper Midwest, the Four Corners area, and Florida.

# Precipitation

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



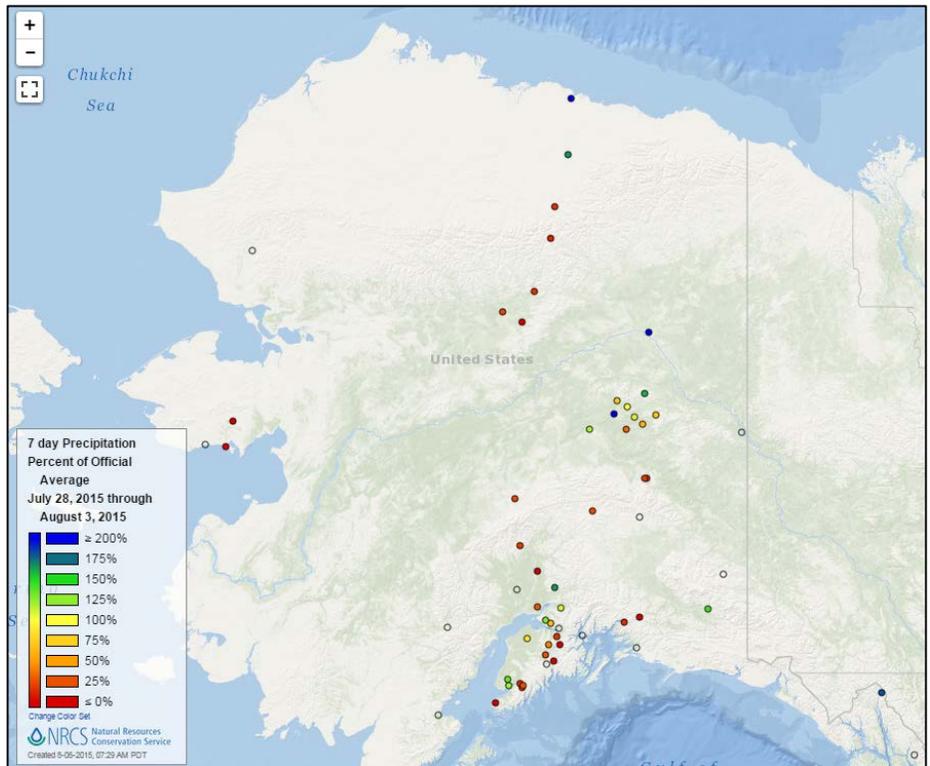
The [precipitation percent of average](#) map shows seasonally very high precipitation in the mountains of central Utah. Portions of the southern Rockies, California, and Oregon also received above average precipitation.



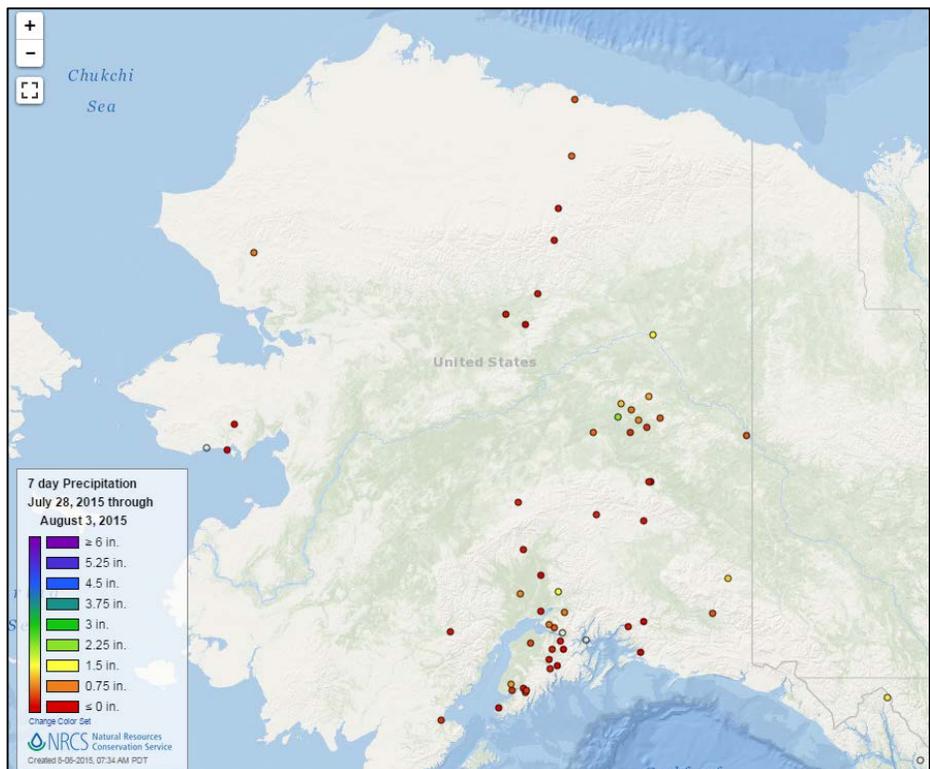
The [total precipitation](#) map shows that the precipitation amounts in the southern areas of the West were 1-3 inches. Elsewhere was dry.

## 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.



The Alaska [total precipitation](#) map shows that the amounts at stations receiving precipitation were generally less than 1.5 inches.

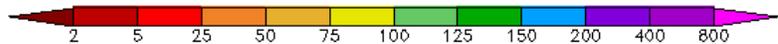
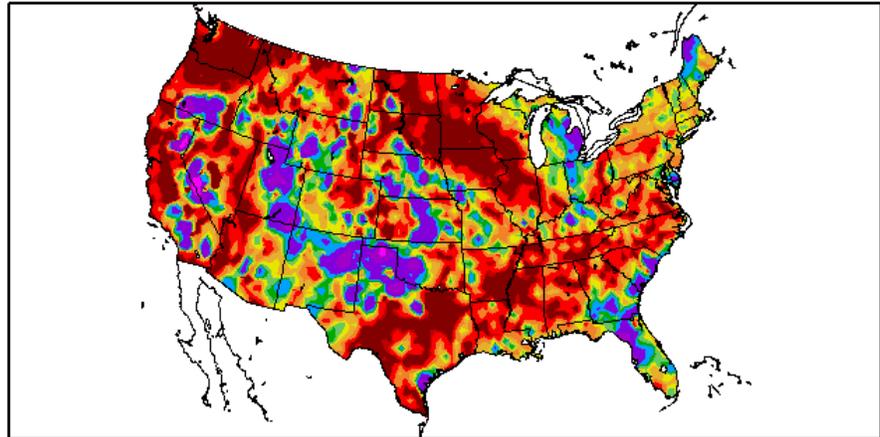


## Weekly Water and Climate Update

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

The [percent of normal precipitation](#) map shows precipitation in many areas across the country. Much of the west coast, the Northwest, Texas, and the upper Midwest were dry.

Percent of Normal Precipitation (%)  
7/30/2015 – 8/5/2015

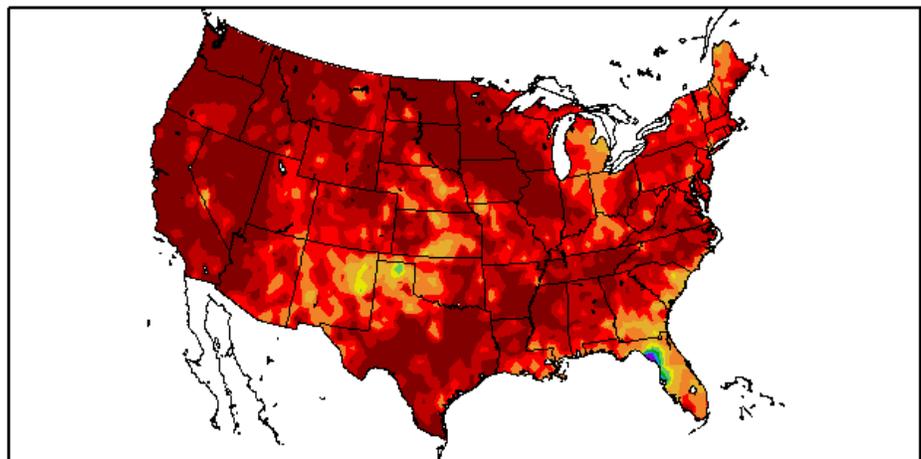


Generated 8/6/2015 at HPRCC using provisional data.

Regional Climate Centers

In the [7-day total precipitation](#) map, areas of high precipitation that are particularly noticeable are northern Texas and Florida.

Precipitation (in)  
7/30/2015 – 8/5/2015

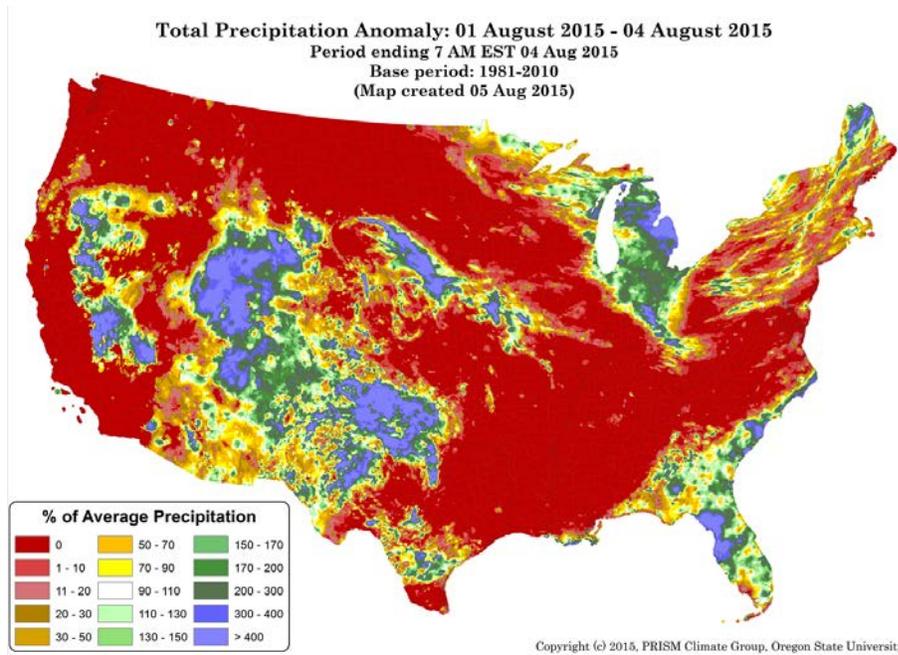


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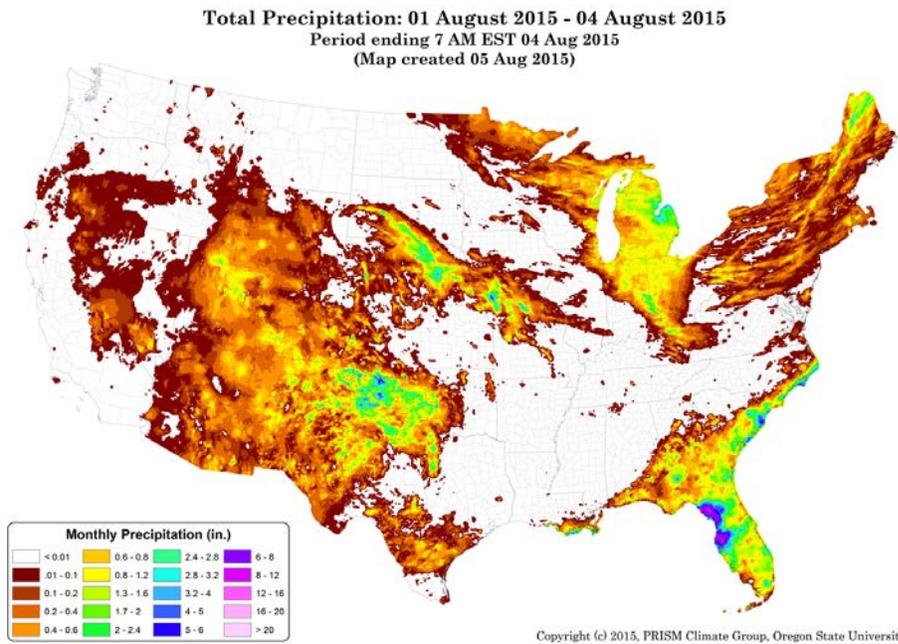
Regional Climate Centers

## Weekly Water and Climate Update

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



For the month of August to date, the national [total precipitation percent of average](#) pattern reveals much higher than normal precipitation in much of California, southern Oregon, western Nevada, Utah to northern Texas, the Southeast, the Great Lakes, and northern Maine. The Pacific Northwest, central California, the northern Great Plains, and the south central area of the country remain dry.

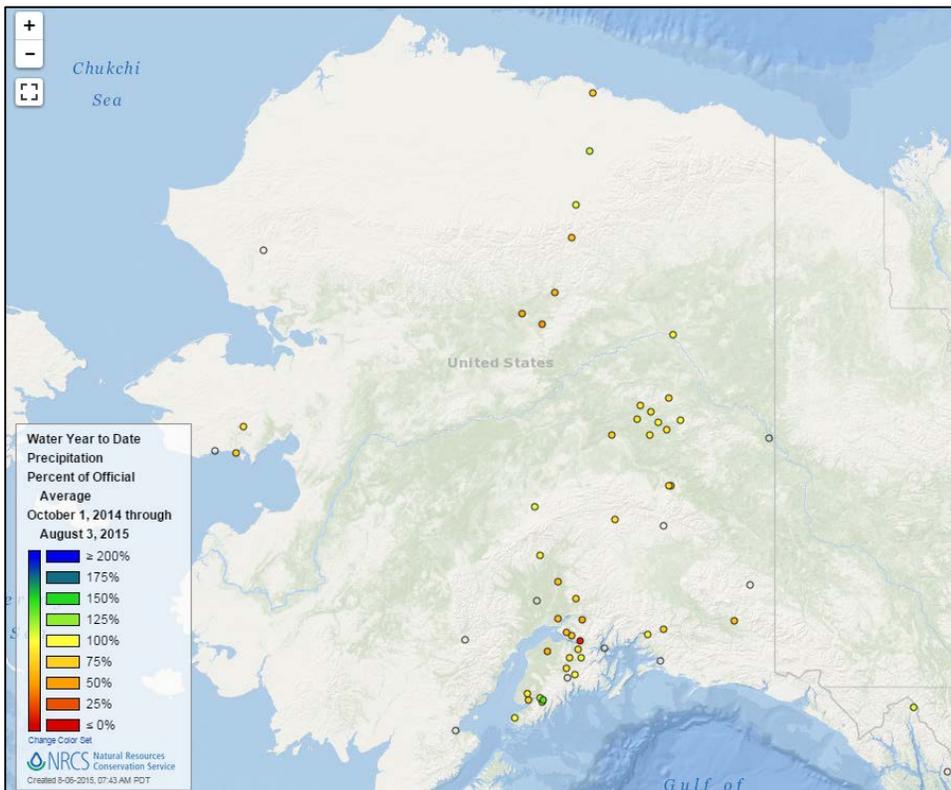
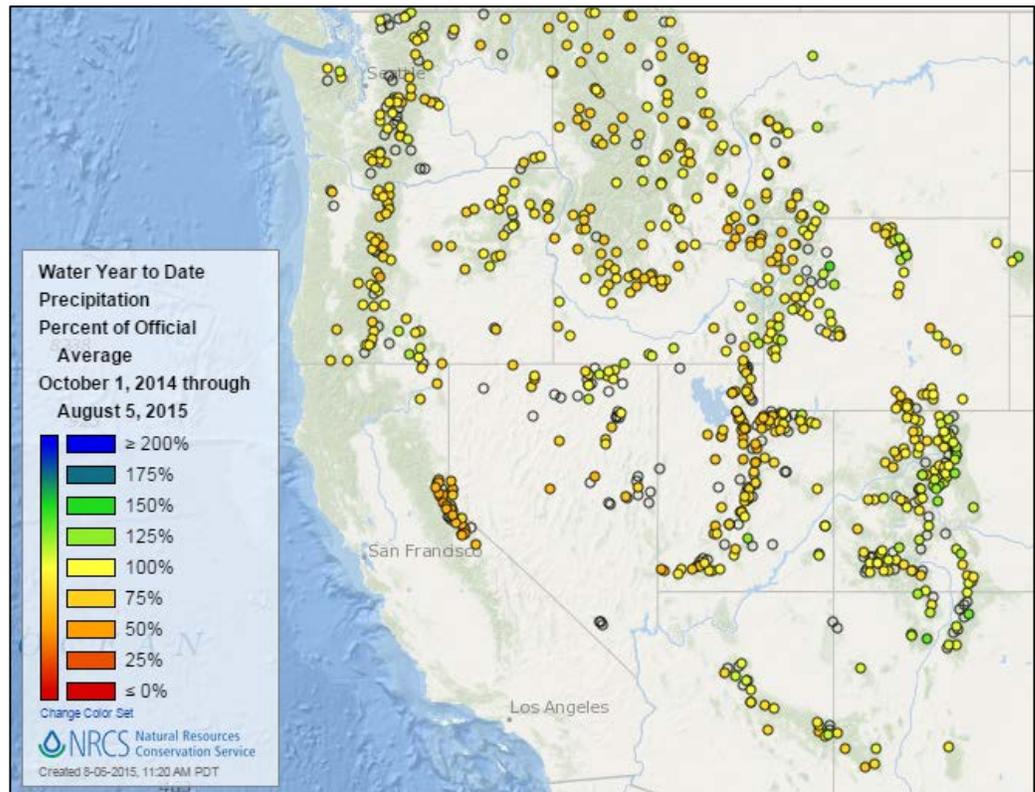


The [total precipitation](#) map shows significant precipitation especially in the West, central Plains, Great Lakes, the Southeast, and northern Maine. In contrast, dry conditions prevailed along the West Coast, northern Plains, and south central areas of the U.S.

## 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 normal.



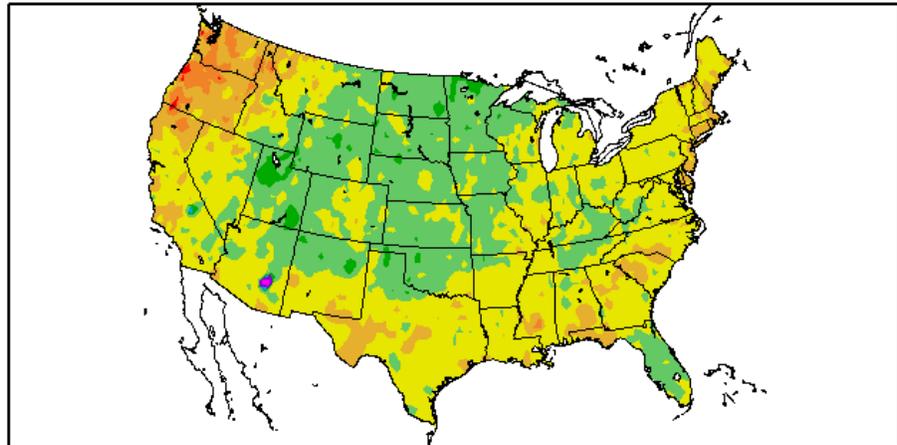
The Alaska [water year-to-date precipitation percent of average](#) map shows mostly near average conditions, with a few stations on the Kenai Peninsula reporting above average precipitation for the month.

## Temperature

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

The map of the [average temperature anomalies](#) for the past week indicate much warmer than normal temperatures in the West, South, and Northeast, with cooler than normal conditions in the central part of the country and in Florida.

Departure from Normal Temperature (F)  
7/30/2015 – 8/5/2015



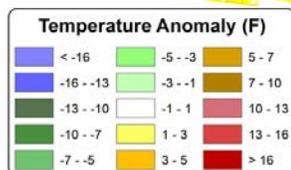
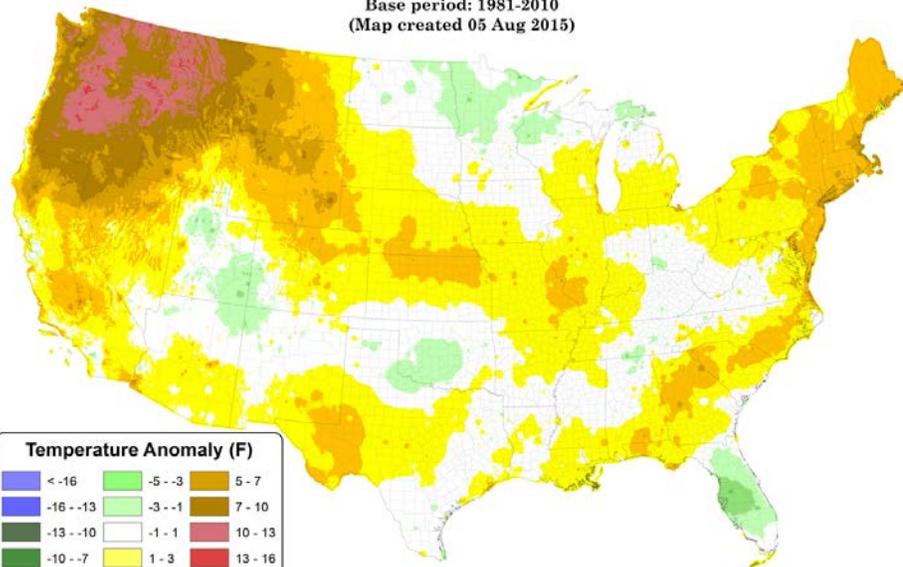
Generated 8/6/2015 at HPRCC using provisional data.

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### 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 very warm temperatures in the Northwest, with cool temperatures in the upper Midwest, the Four Corners area, and Florida.

Daily Mean Temperature Anomaly: 01 August 2015 - 04 August 2015  
Period ending 7 AM EST 04 Aug 2015  
Base period: 1981-2010  
(Map created 05 Aug 2015)

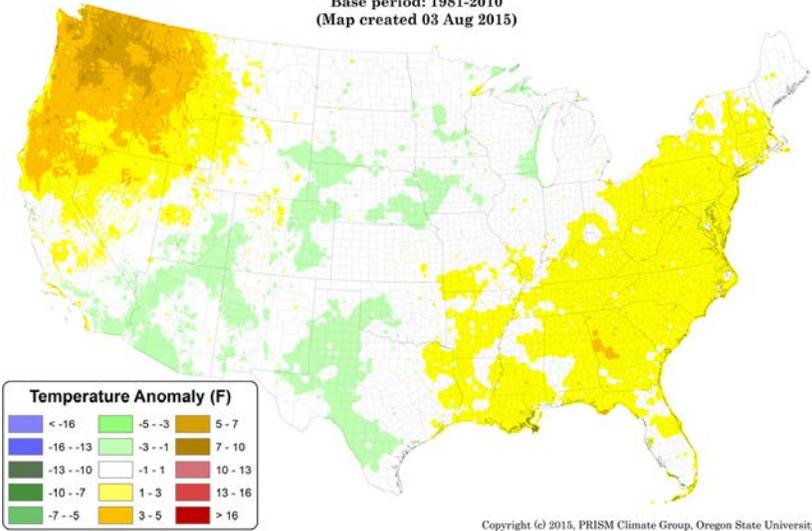


Copyright (c) 2015, PRISM Climate Group, Oregon State University

## 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 03 Aug 2015)

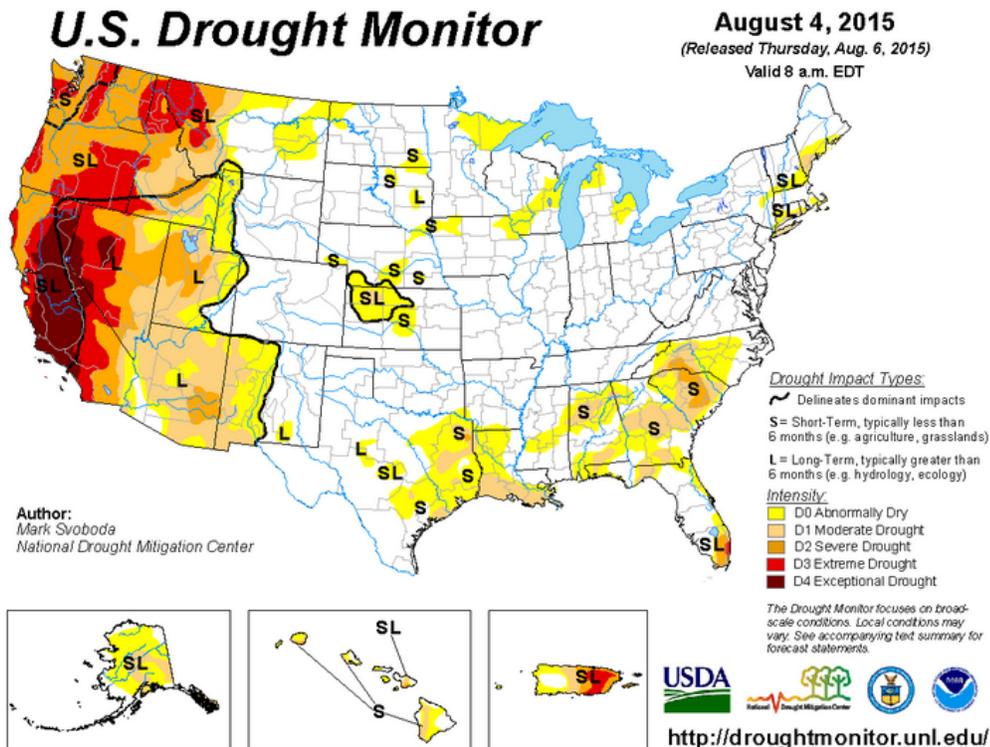


The May through July national [daily mean temperature anomalies](#) for the U.S. show the West and the Southeast had the largest temperature departures above normal. The rest of the country was mostly near average.

## 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.



## Current National Drought Summary, August 4, 2015

Author: Mark Svoboda, National Drought Mitigation Center

### Hawaii, Alaska, and Puerto Rico

“Both Alaska and Hawaii remain unchanged on this week’s map. As for Puerto Rico, drought continues to make its mark, and a westward expansion of D0-D3 is worth noting on this week’s map given the near-record/record low streamflows and dwindling water supplies being reported in some locations.

### The Northeast and Mid-Atlantic

Spotty rains and temperatures running 3 to 6 degrees above normal for the week have led to a mixed bag on the drought front, with expansion outweighing improvement from Maine to South Carolina. D0 has expanded westward out of Maine across southern New Hampshire and Vermont and into extreme east-central New York. Some pockets of localized, heavier rains last week kept the expansion from being greater. D0 has also expanded over extreme southeast Massachusetts. D1 was reduced in southeastern Rhode Island where heavier rains were recorded. In addition, the impacts label was changed from “L” to “SL” to account for the more recent seasonal dryness/drought expansion.

To the south, the situation in the Carolinas is deteriorating quickly as the woeful 30 to 60-day precipitation totals have recently been joined by above-normal temperatures, leading to elevated concerns about wild-fires along with soil moisture and forage shortfalls in the agricultural sector. D0-D1 has expanded across more of western and southern North Carolina as well as southern South Carolina. In addition, a large area of D2 has been introduced from central/west-central North Carolina southward across the border into central and eastern South Carolina.

### The Northern and Central Plains and Midwest

The best of the rains fell across the dry/drought regions last week but the real story, particularly in the Midwest, was the heat as temperatures ran 3 to 5 degrees above normal. That fact, on top of the recent 30-45 days of dryness (albeit after a cool and wet start to the growing season) brought a sweeping advance of D0 across central Wisconsin into extreme northeastern Iowa. Given the bounty of the early season, this recent hot and dry spell hasn’t led to many impacts yet, as can be commonly depicted under abnormally dry (D0) conditions on the Drought Monitor map. An additional small expansion of D0 can also be found in extreme northwestern Iowa, which has now pushed up against the Minnesota border. In a bit of good news, the last remnant of D0 was removed this week from the Texas Panhandle. Status quo is the call elsewhere this week across Minnesota, the Dakotas, Nebraska and Kansas.

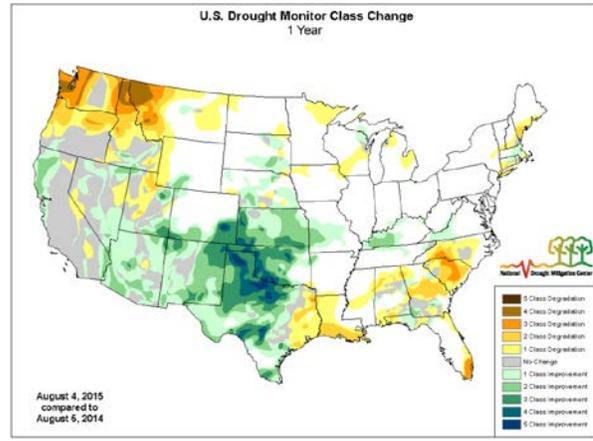
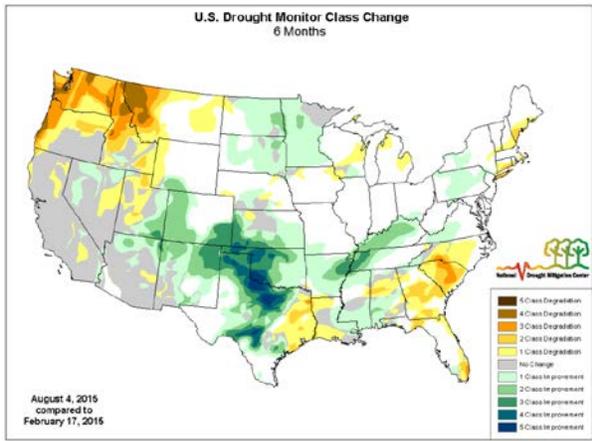
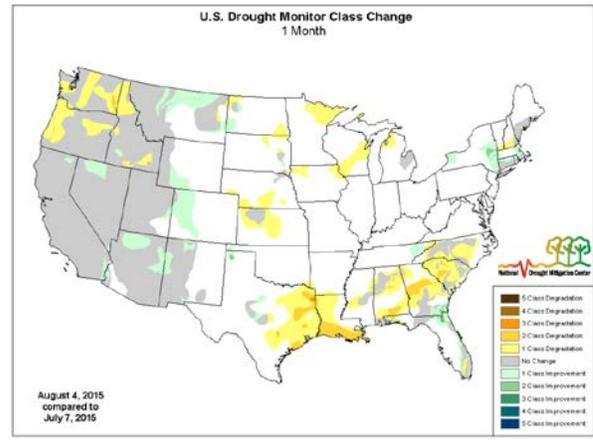
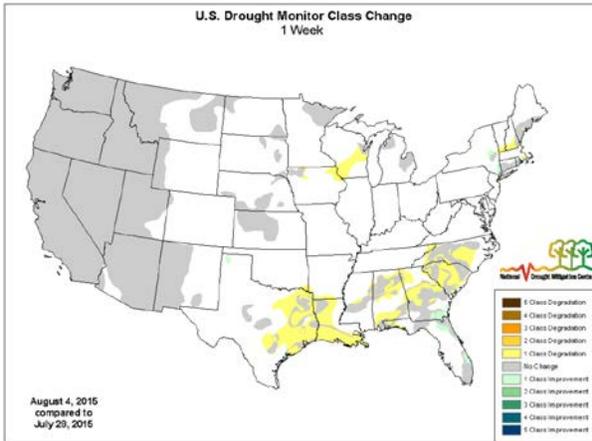
### The Southern Plains and Southeast

Above-normal temperatures and a generally dry week means drought is regaining a toe hold on the landscape from eastern Texas all the way to Florida. Building off of the expanding dryness last week, a large expansion of D0 is noted across western and northern Louisiana, eastern Texas, extreme southeastern Oklahoma and southwest Arkansas. Many locales in these states have seen less than half their normal rainfall over the past two months and less than 10% of their normal rains over the past 30 days. The quick-hitting, flashy nature of this developing drought across both regions bears watching given the time of year and the fact that the shorter-term forecasts don’t appear overly promising, particularly in the Southern Plains and lower Mississippi basin. Things can go downhill in a hurry this time of year and El Niño’s chokehold on tropical storm activity to date is only enhancing the dry signal. Of course, that same pesky culprit, El Niño, may well be the one that comes to the rescue this fall and winter given the stronger likelihood of a cooler and wetter winter across the Gulf Coast region...stay tuned. As such, D0-D1 expansion is prevalent on this week’s map throughout eastern Texas, most of Louisiana, eastern Mississippi, Alabama, the Florida Panhandle and a good chunk of Georgia. However, not all places saw expansion in the Southeast this past week as D2 was eliminated in extreme southeastern Georgia and D0-D2 was trimmed in general up and down Florida’s east coast from Jacksonville to Miami. Locally heavy rains (2 to 4 inches) were the reason behind the improvement this past week.

### The West

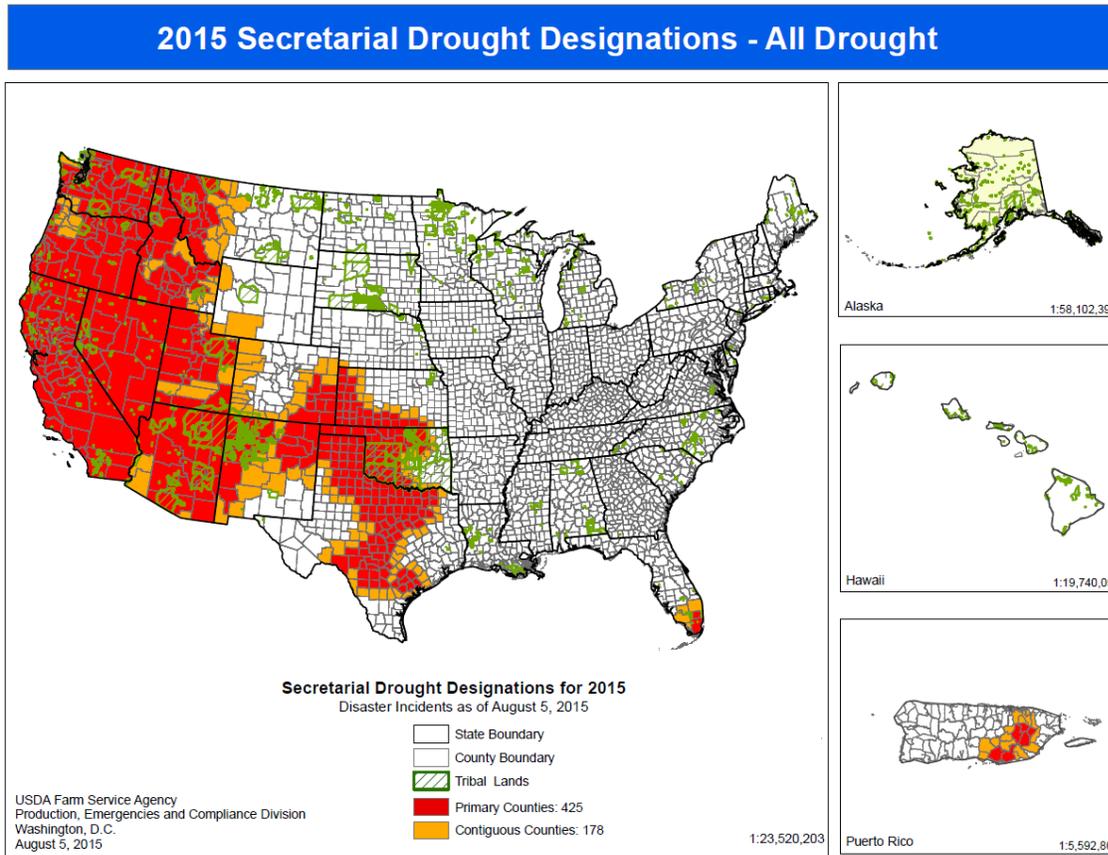
As can be expected this time of year, it was a pretty uneventful week on the precipitation front across most of the region, including a quiet monsoon signal across the Desert Southwest. The West remains unchanged this week but the impacts (near-record/record low streamflow, water supply, water temperatures, fire, etc.) are still being felt and are of major concern as we head toward a new water year with September now on the horizon.”

### 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](#)

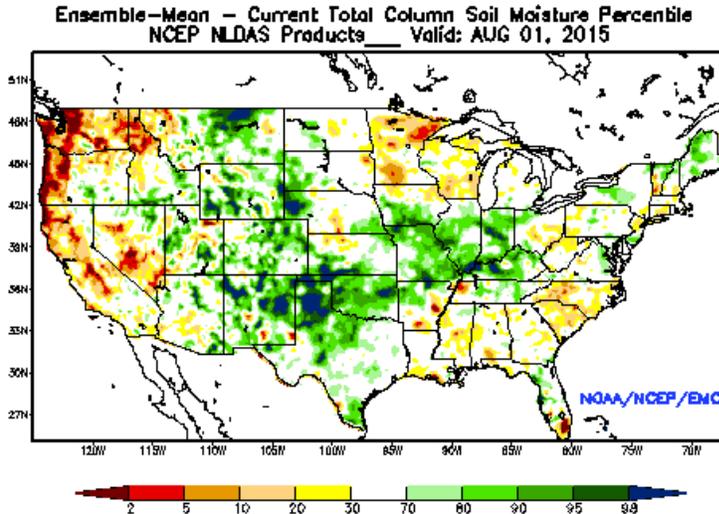
[U.S. Population in Drought, Weekly Comparison](#)

## 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

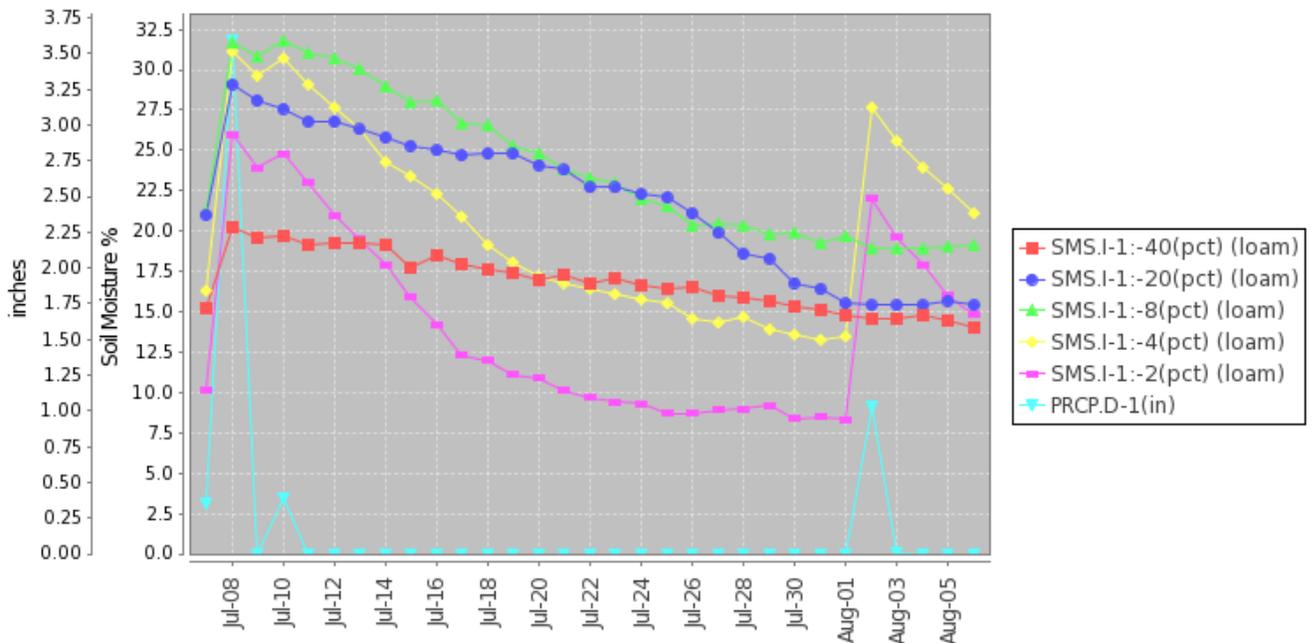


The modeled [soil moisture percentiles](#) as of August 1, 2015 show significant dryness in the far West, Minnesota, and parts of the Southeast. Areas of above normal soil moisture include much of the Rocky Mountains, the southern Great Plains, the Midwest, and parts of the Northeast.

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

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

Station (2201) MONTH=2015-07-07 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu Aug 06 06:51:49 PDT 2015



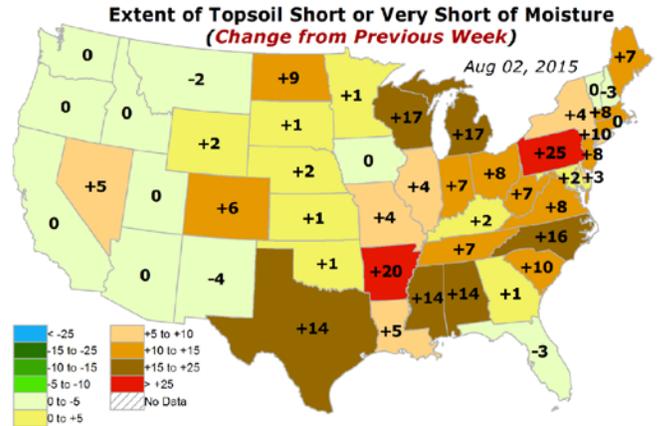
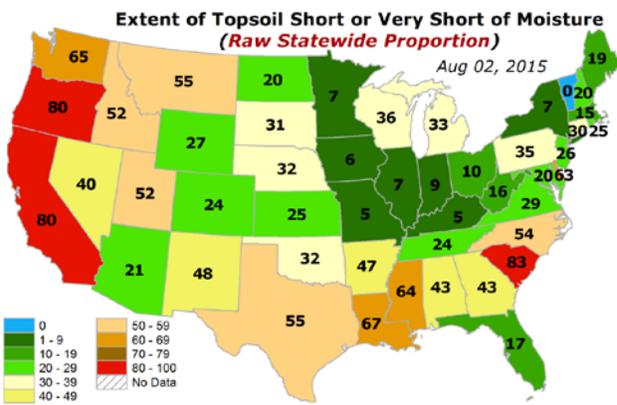
This example NRCS graph shows soil moisture (2, 4, 8, 20, and 40 inch depth) and precipitation for the last month at the [Knox City SCAN site](#) (station number 2201) in Texas. Multiple precipitation events generated corresponding soil moisture response with drying between events.

### Soil Moisture Data Portals

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

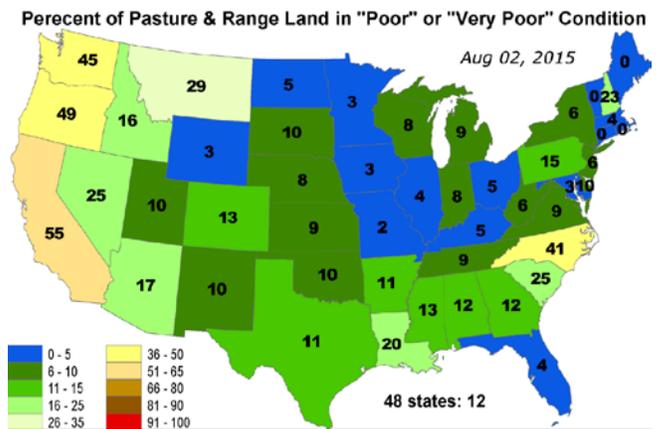
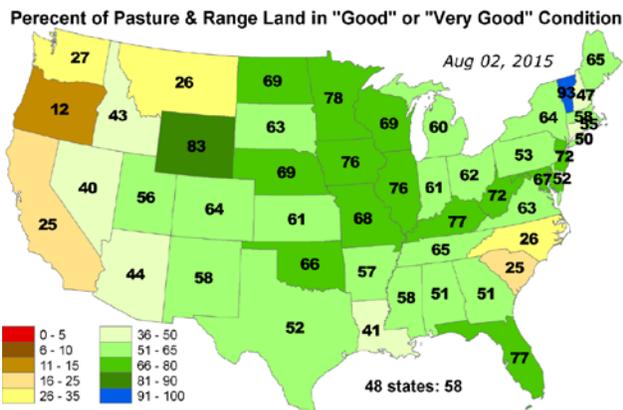
# Weekly Water and Climate Update

## Topsoil



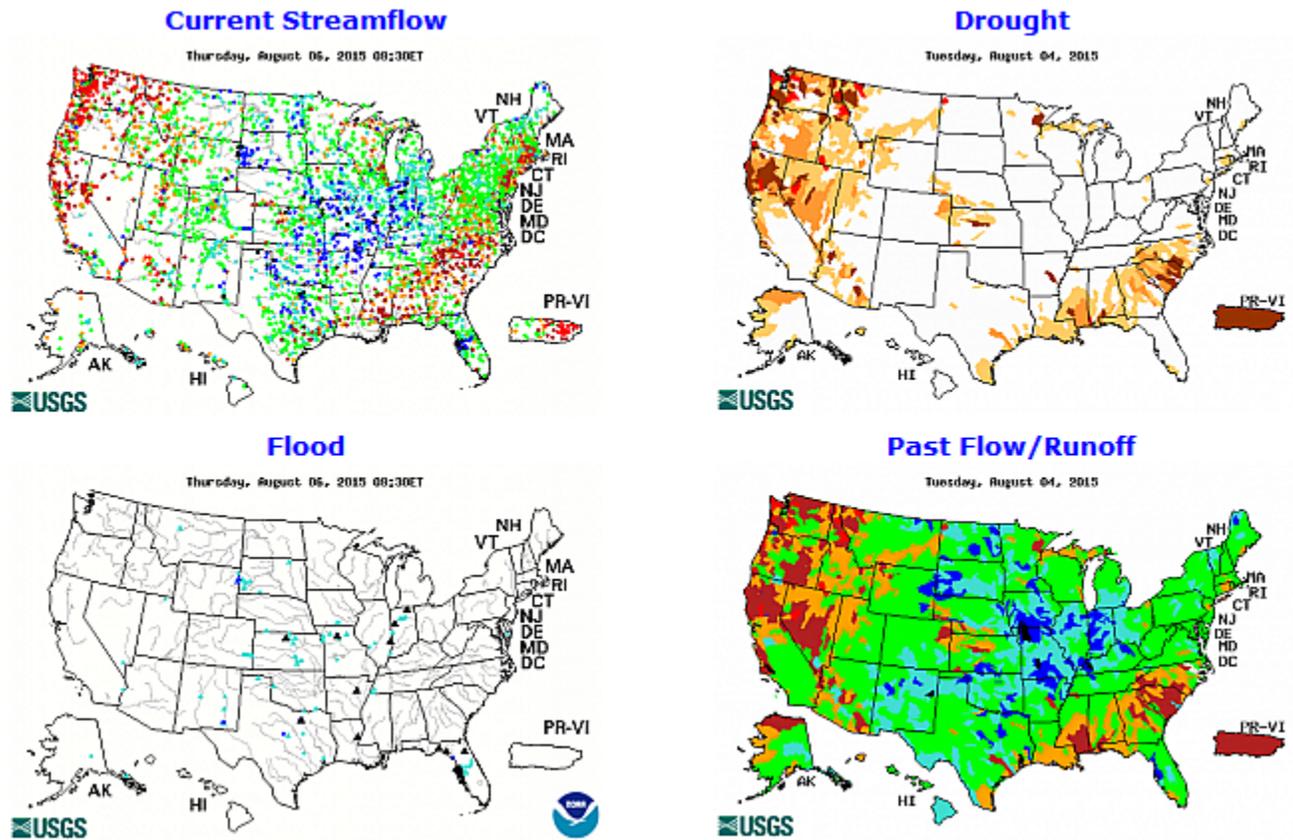
Low [topsoil moisture](#) conditions are especially notable all along the West Coast.

## 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

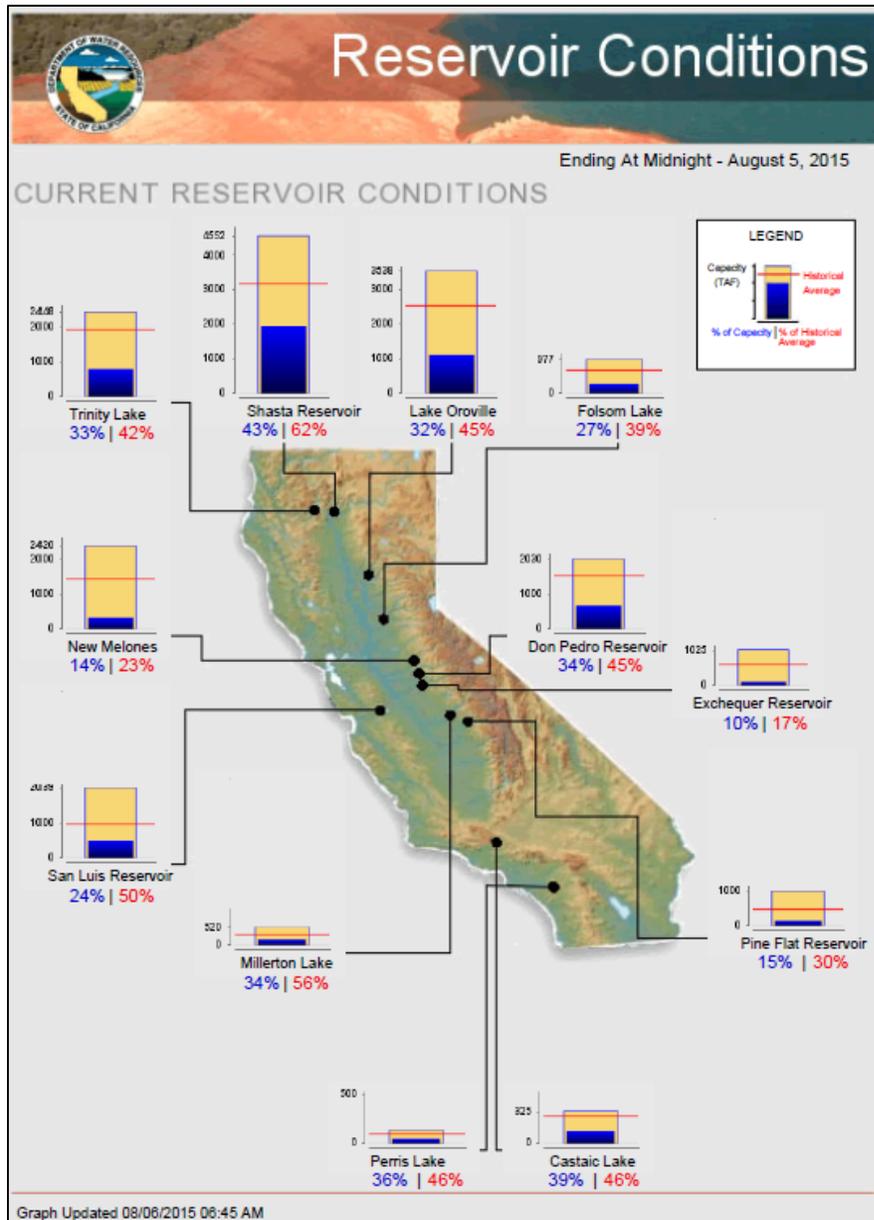
### [National Water and Climate Center Reservoir Data](#)

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



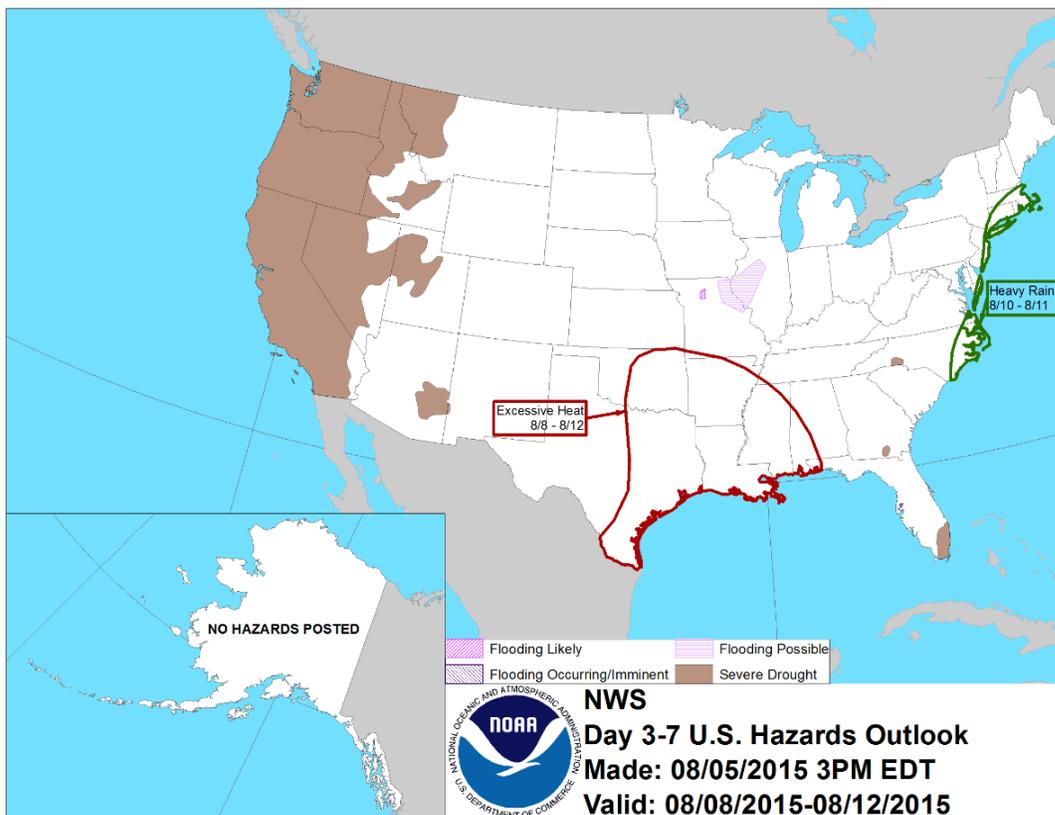
## Short- and Long-Range Forecasts

### Agricultural Weather Highlights

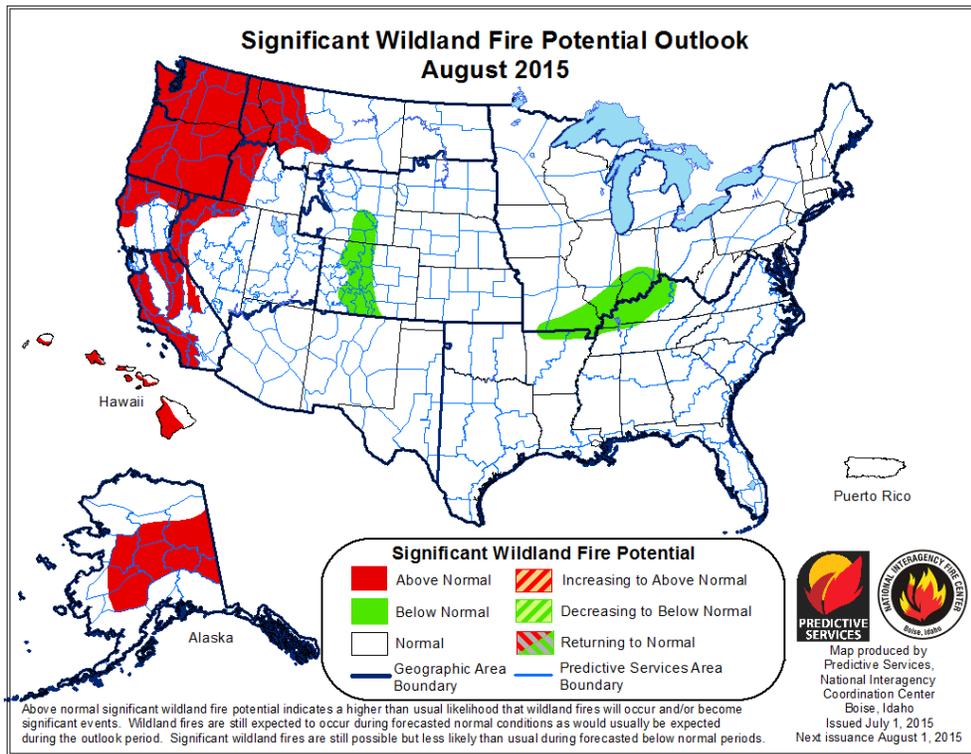
**Outlook, August 6, 2015:** "A storm system currently crossing the Ohio Valley will reach the Mid-Atlantic States on Friday. Rainy, windy conditions will linger along portions of the Atlantic Seaboard into the weekend. Five-day rainfall totals could reach 1 to 2 inches along the path of the storm and in the Southeast, with 2- to 4-inch amounts possible along and near the Mid-Atlantic Coast. Farther west, the interaction between a surge of monsoon moisture and a cold front could lead to 1- to 2-inch totals in portions of the Southwest, Intermountain West, northern and central Plains, and upper Midwest. However, mostly dry weather will persist into early next week across California, the interior Northwest, and the south-central U.S. The NWS 6- to 10-day outlook for August 11 – 15 calls for the likelihood of hotter-than-normal conditions across southern Florida, the Desert Southwest, and the central one-third of the U.S. while near- to below-normal temperatures will cover much of the eastern and western U.S. Meanwhile, near- to below-normal rainfall across the majority of the country will contrast with wetter-than-normal weather in the Northwest and portions of the Intermountain West and Atlantic Coast States." Author: Brad Rippey, USDA Agricultural Meteorologist.

### National Weather Hazards

The outlook for [weather hazards](#) over the next several days includes extremely hot temperatures in the South and heavy rain along the mid-Atlantic Coast. Severe drought remains in the far West.

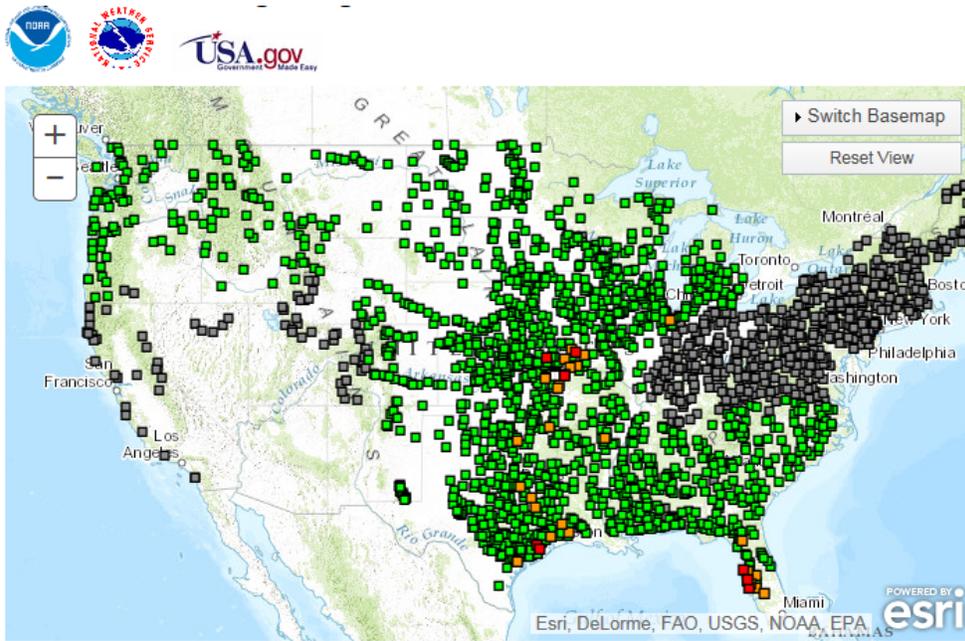


Fire Potential Outlook: August 2015



In August, above normal [fire potential](#) exists in the Pacific Northwest, Nevada, 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.

2358 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
- 1671 Gauges: < 50% Long-Range Flood Risk
- 648 Gauges: No forecast within selected timeframe

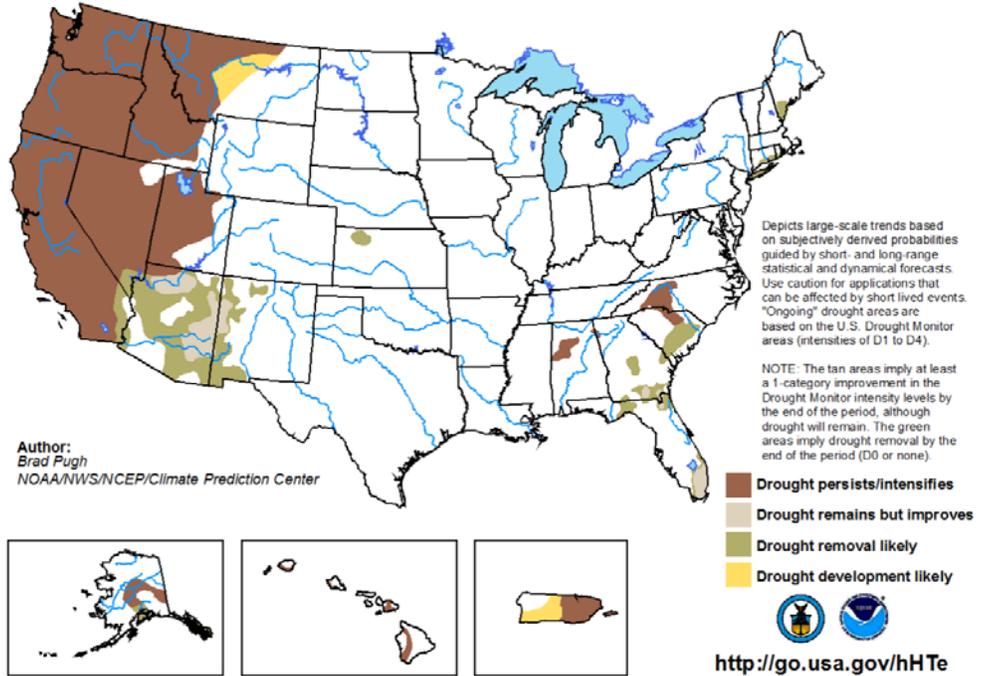
## Weekly Water and Climate Update

### Seasonal Drought Outlook

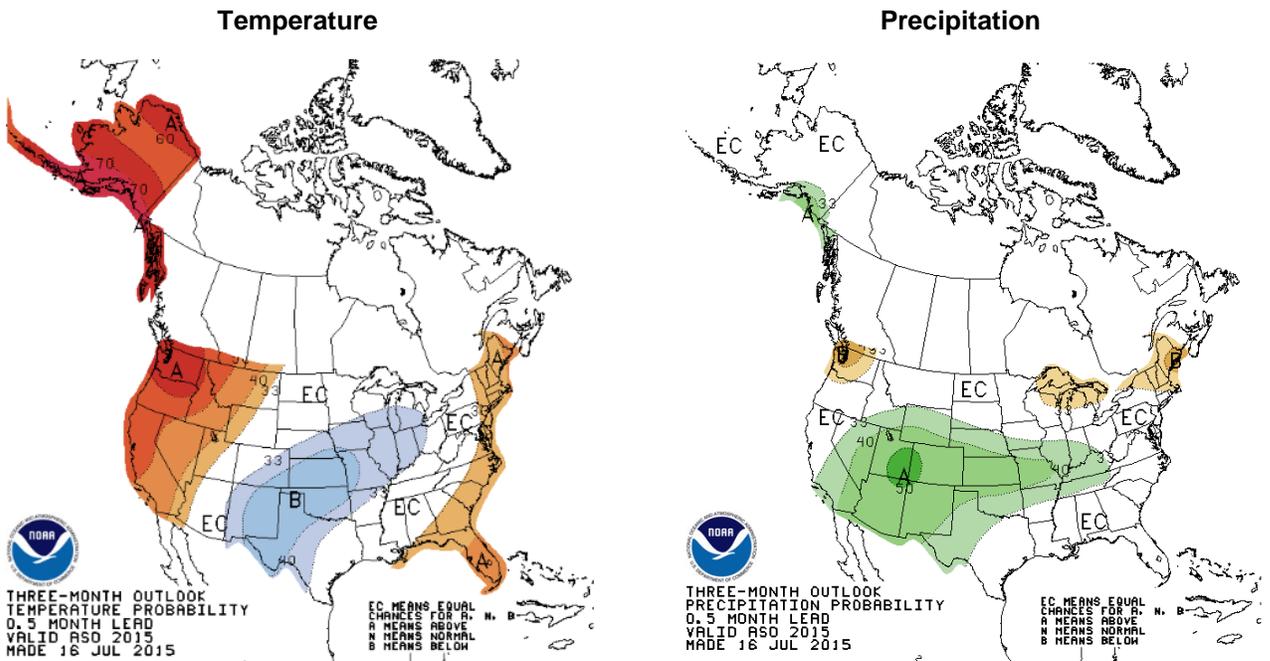
**Drought** will persist over the far West.

### U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for July 16 - October 31, 2015  
Released July 16, 2015



### Climate Prediction Center 3-Month Outlook



During **August-October**, there is enhanced probability of above normal temperatures in the West, Alaska, and the East Coast, while 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](#).