

## Weekly Water and Climate Update

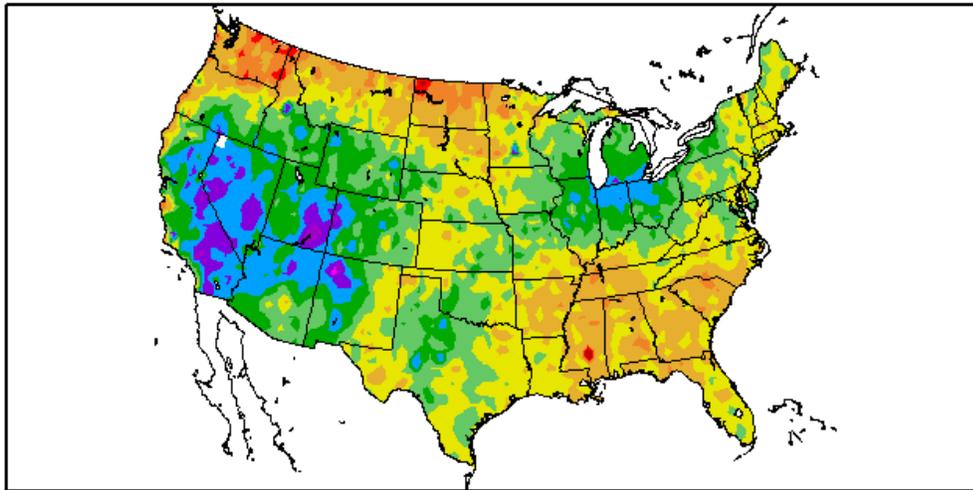
July 16, 2015

*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: The West cools down; welcomes precipitation

Departure from Normal Temperature (F)  
 7/9/2015 – 7/15/2015



Generated 7/16/2015 at HPRCC using provisional data.

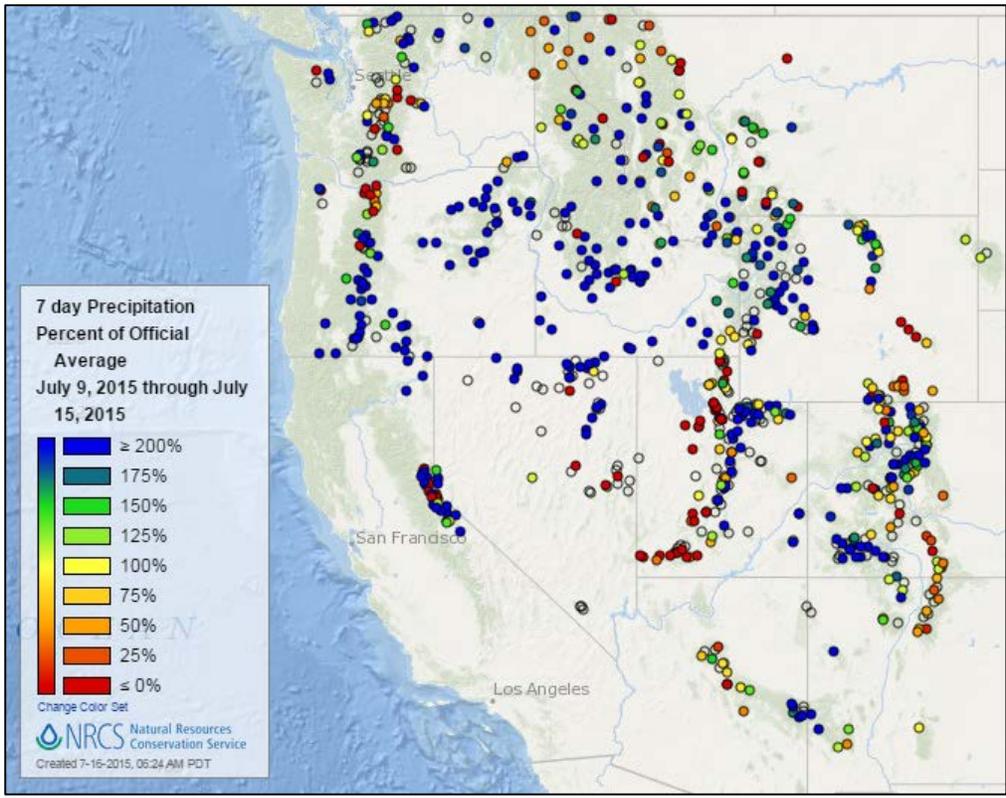
Regional Climate Centers

Compared to the previous weeks' scorching records, high [temperatures](#) in the Pacific Northwest have been almost 20°F lower this past week. The cooler temperatures have helped with fire management in Oregon and Washington.

Elsewhere in the West, precipitation amounts this week totaled 1 to 3 inches in parts of Oregon, Idaho, Wyoming, Colorado, along the central Arizona/New Mexico border, and in the Four Corners region.

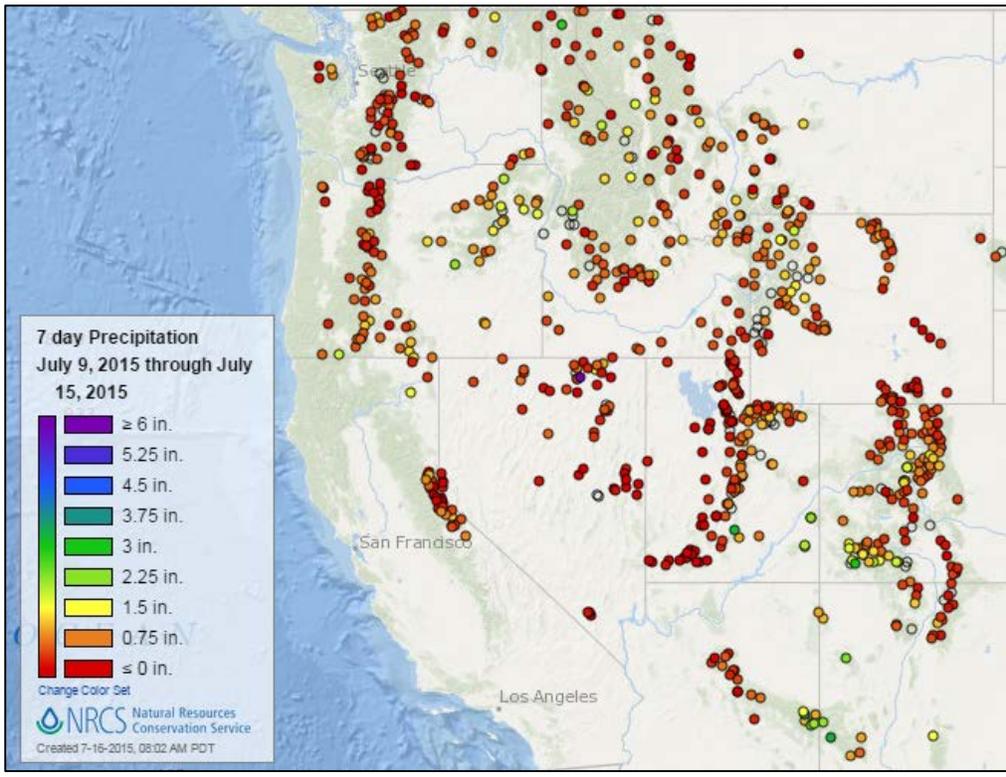
# Precipitation

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



In the West, the [precipitation percent of average](#) map highlights the scattered rain and, often, thunderstorms that happened in the past week across much of the West.

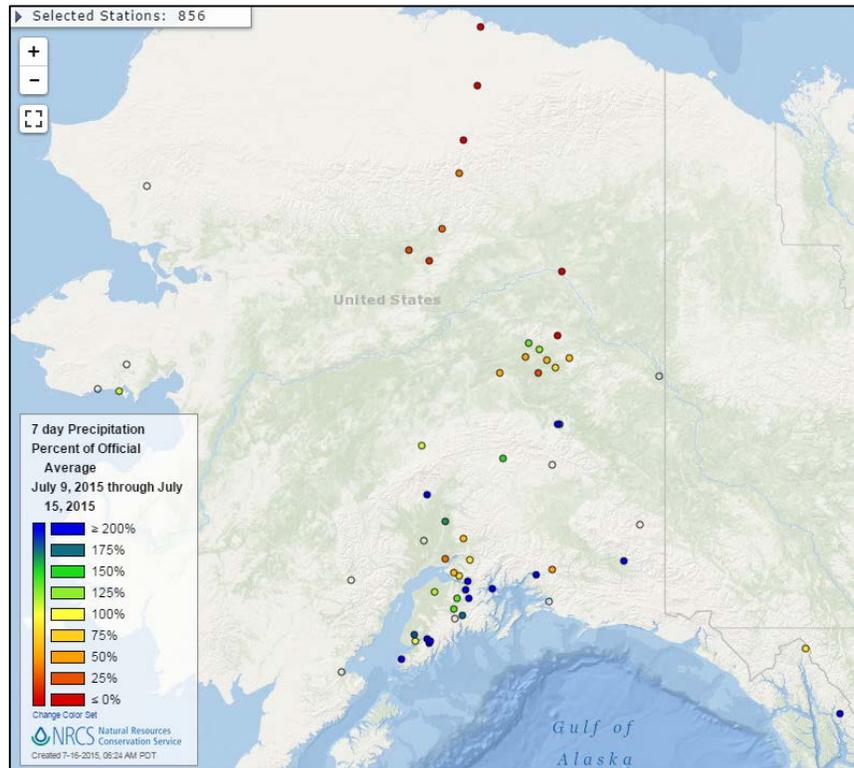
The scattered nature of these storms is illustrated in the close proximity of sites in excess of 200% of average precipitation to other sites with 0% of average.



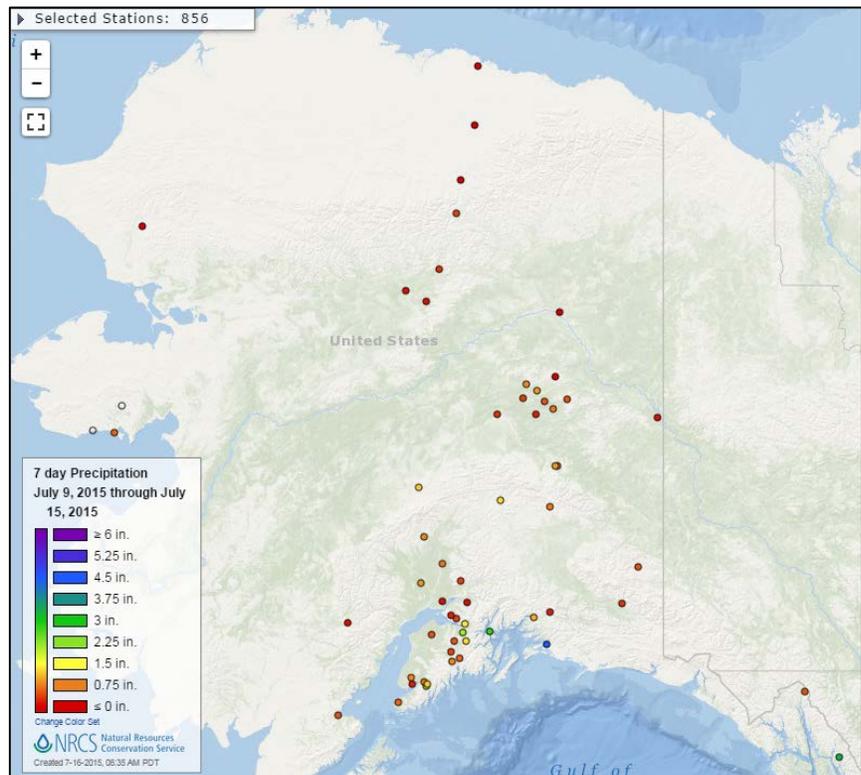
The [total precipitation](#) map shows the Southwest, adjacent to the Four Corners area, and eastern Oregon into southwestern Idaho had areas of precipitation in the 2.25 to 3 inch range. The contrast between the above map and the adjacent map illustrates that even trace amounts of precipitation in the summer can often relate to large percent of average values.

## Weekly Water and Climate Update

The Alaska [precipitation percent of average](#) map indicates above average precipitation in much of southern Alaska but little precipitation in the northern part of the state.



The Alaska [total precipitation](#) map for the last seven days shows several station with more than 2 inches of precipitation, but mainly less than this in the southern part of the state, and no precipitation in the northern part of the state for the week.

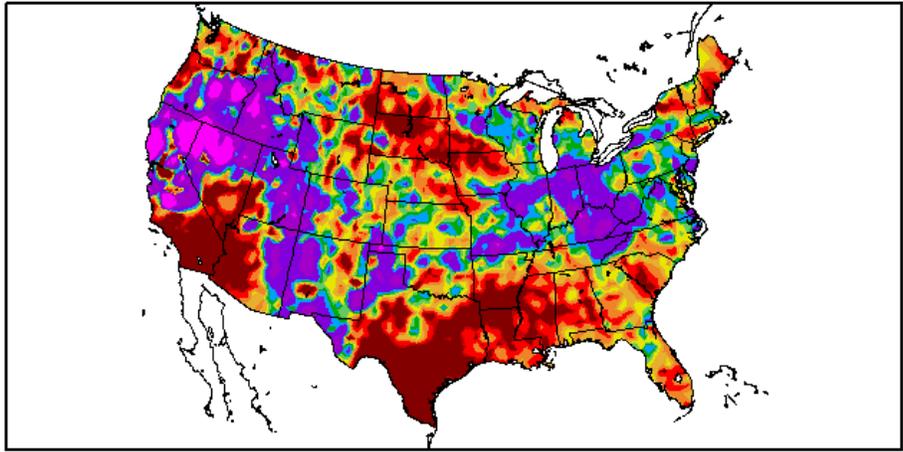


## Weekly Water and Climate Update

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

Percent of Normal Precipitation (%)  
7/9/2015 – 7/15/2015

This [percent of normal precipitation](#) map for the nation highlights the continued precipitation throughout the Ohio Valley. Storms brought precipitation from northern California and Nevada across eastern Oregon to the Rockies. Southern California, Nevada, and western Arizona, as well as much of Texas and the Southeast, were very dry.



Generated 7/16/2015 at HPRCC using provisional data.

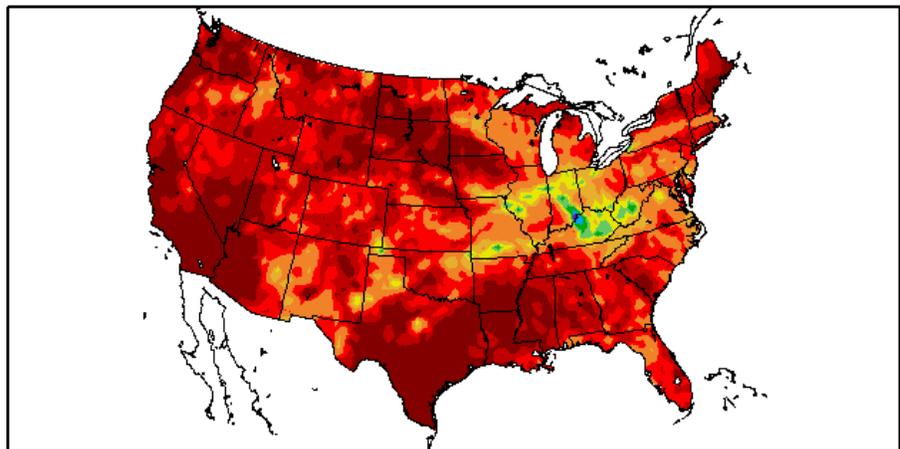
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Precipitation (in)  
7/9/2015 – 7/15/2015

The [7-day total precipitation](#) map for the U.S. shows the actual amount of precipitation in inches.

Note that the dark and light orange colors represent one to three inches of precipitation, significant amounts for some areas this time of year.

The Ohio Valley and adjacent areas had precipitation ranging from less than 3 inches to greater than 7 inches for the week.



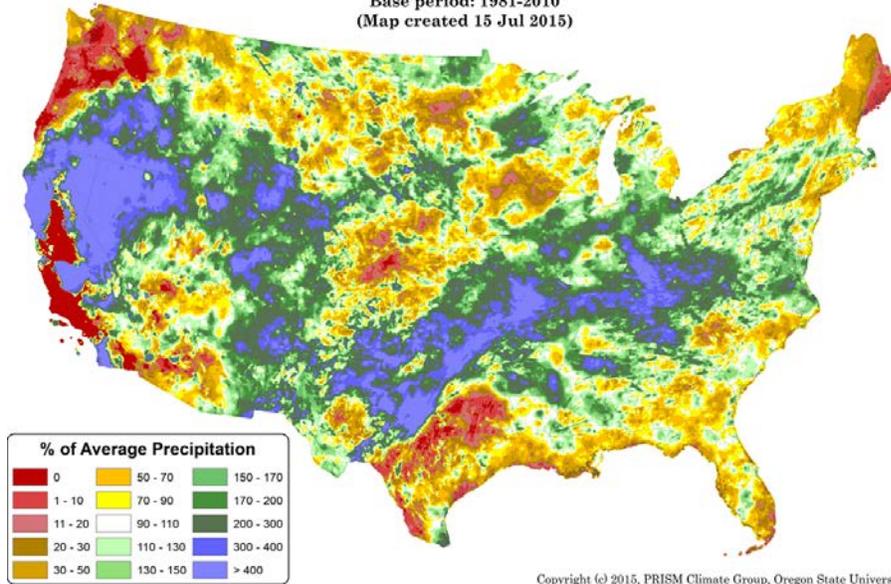
Generated 7/16/2015 at HPRCC using provisional data.

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Weekly Water and Climate Update

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

Total Precipitation Anomaly: 01 July 2015 - 14 July 2015  
 Period ending 7 AM EST 14 Jul 2015  
 Base period: 1981-2010  
 (Map created 15 Jul 2015)

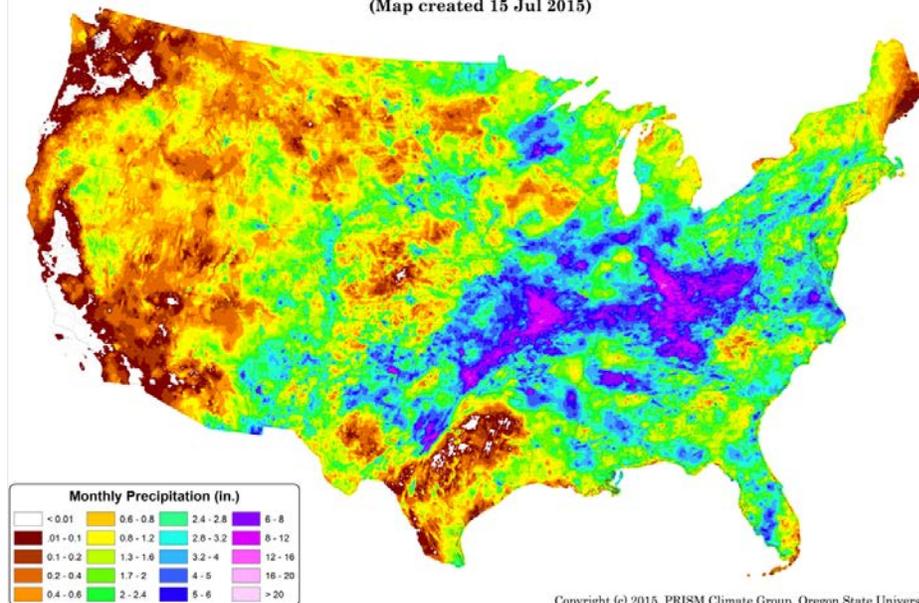


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For the month of July to date, the national [total precipitation percent of average](#) pattern reveals higher than normal precipitation in the region of northern California, southern Oregon, and southern Idaho, as well as a band from northern Texas eastward across the Ohio Valley. The Pacific Northwest, the Southwest, central Great Plains, much of Texas, and the Northeast remain dry.

In California, there is a significant contrast between the western half of the state and the Sierra Nevada to the east.

Total Precipitation: 01 July 2015 - 14 July 2015  
 Period ending 7 AM EST 14 Jul 2015  
 (Map created 15 Jul 2015)

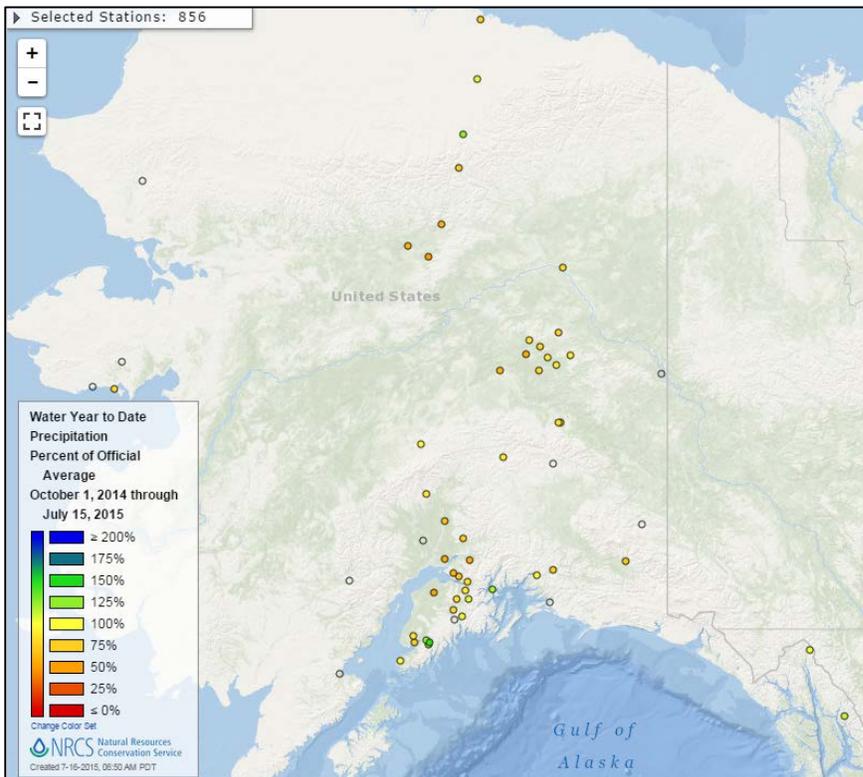
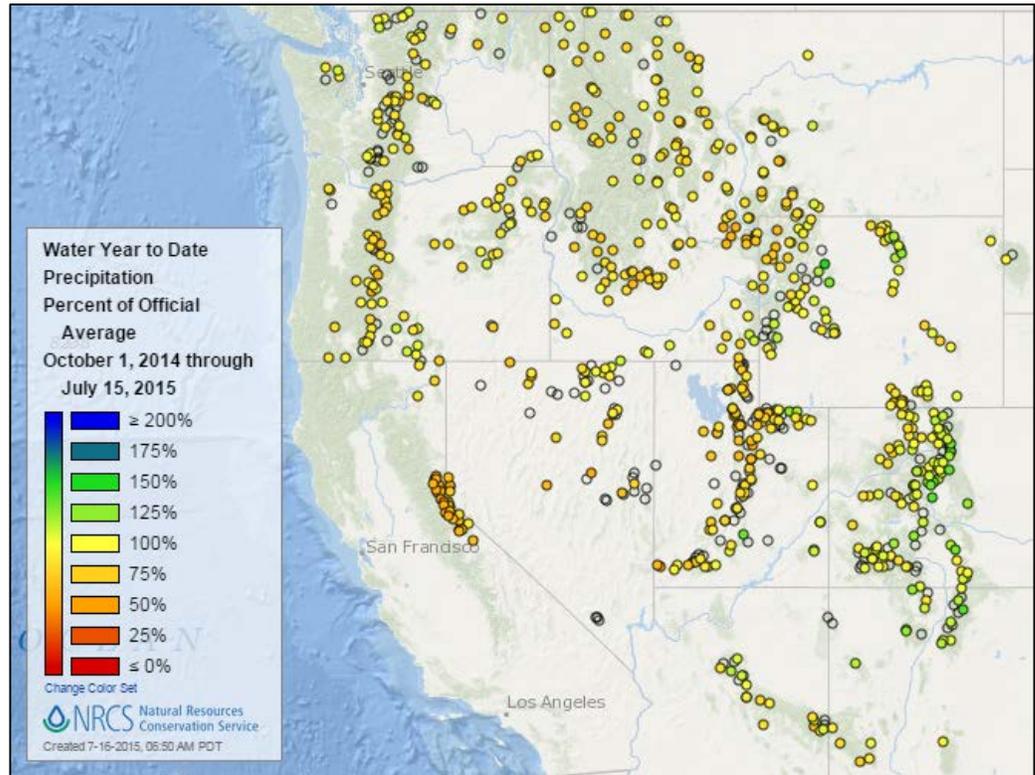


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The [total precipitation](#) map shows areas of dry conditions in the West, the far Northeast, part of the central Great Plains, and southern Texas. Larger amounts of precipitation occurred in Minnesota and from northern Texas across the Ohio Valley.

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

For the [2015 Water Year](#) that began on October 1, 2014, precipitation to date has been above normal along the eastern Rockies in Wyoming, Colorado, and northern New Mexico. To the west and north of these areas, precipitation on the whole fades to average to much below average.



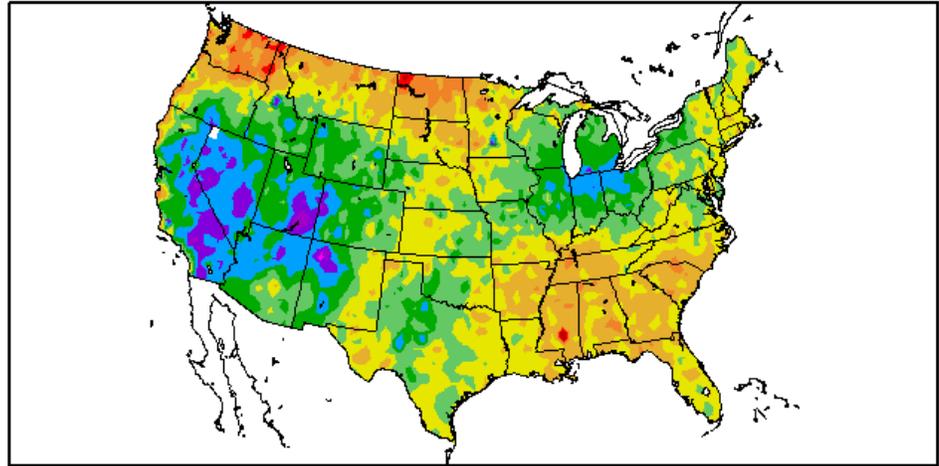
The Alaska [water year-to-date precipitation percent of average](#) map shows a mostly drier than average interior and near to above average conditions along the southern and eastern coasts.

## Temperature

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

The map of the [average temperature anomalies](#) for the past week indicate warmer than average but still significantly cooler than the previous weeks' temperatures in the Pacific Northwest. Also warmer than average temperatures occurred along the northern tier of the U.S. and in the Southeast. Much cooler temperatures prevailed across the remainder of the West and the Great Lakes region.

Departure from Normal Temperature (F)  
7/9/2015 - 7/15/2015



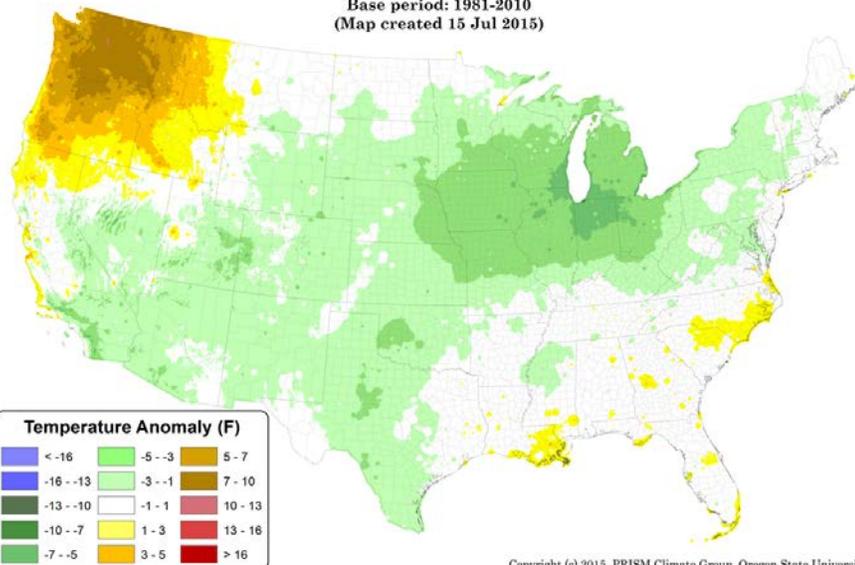
Generated 7/16/2015 at HPRCC using provisional data.

Regional Climate Centers

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

For July 2015 to date, the national [daily mean temperature anomaly](#) map shows 5-10 degrees F above average in the Pacific Northwest. The Southwest across to the Northeast had generally below normal temperatures. Parts of the Southeast also experienced above normal temperatures.

Daily Mean Temperature Anomaly: 01 July 2015 - 14 July 2015  
Period ending 7 AM EST 14 Jul 2015  
Base period: 1981-2010  
(Map created 15 Jul 2015)

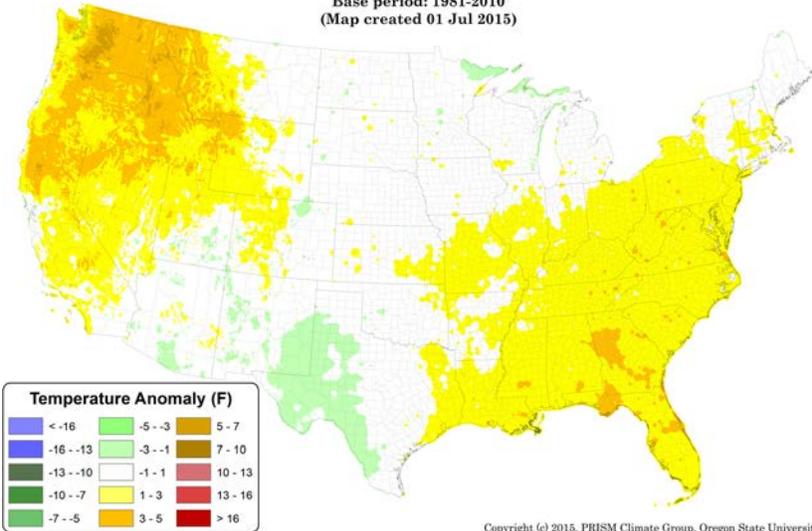


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## Weekly Water and Climate Update

### Last 3 Months, PRISM Preliminary

Daily Mean Temperature Anomaly: April 2015 - June 2015  
 Period ending 7 AM EST 30 Jun 2015  
 Base period: 1981-2010  
 (Map created 01 Jul 2015)

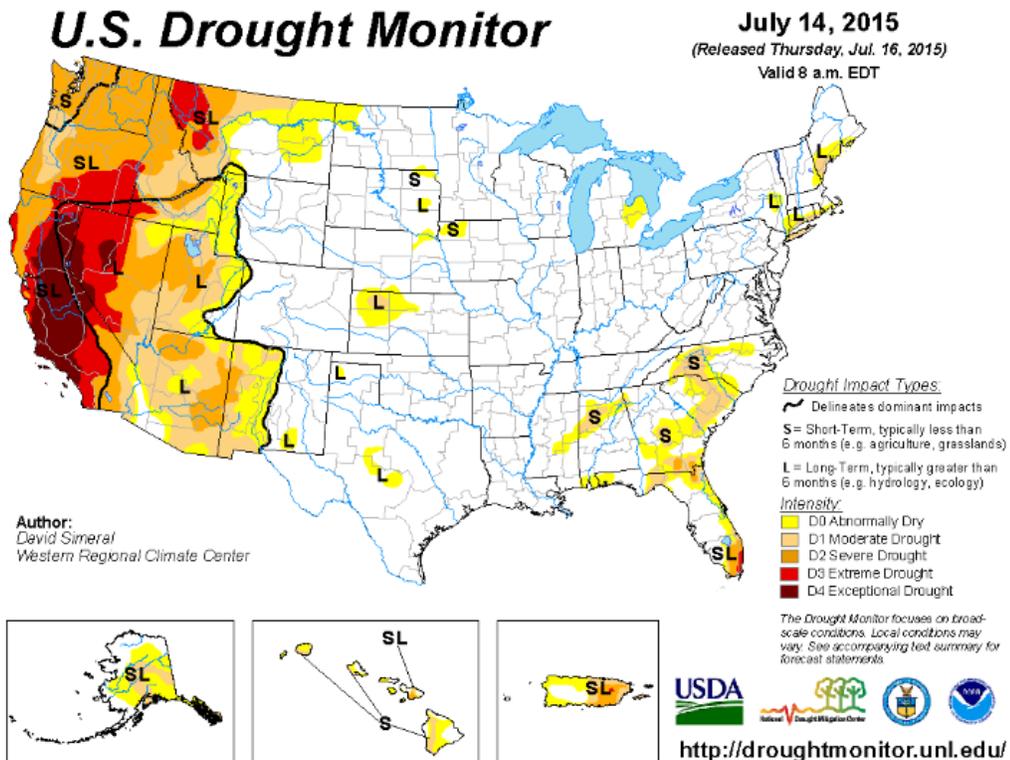


The April through June national [daily mean temperature anomalies](#) for the U.S. show the West and the Southeast had the largest temperature departures above normal. The rest of the country was mostly near average.

## Drought

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

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

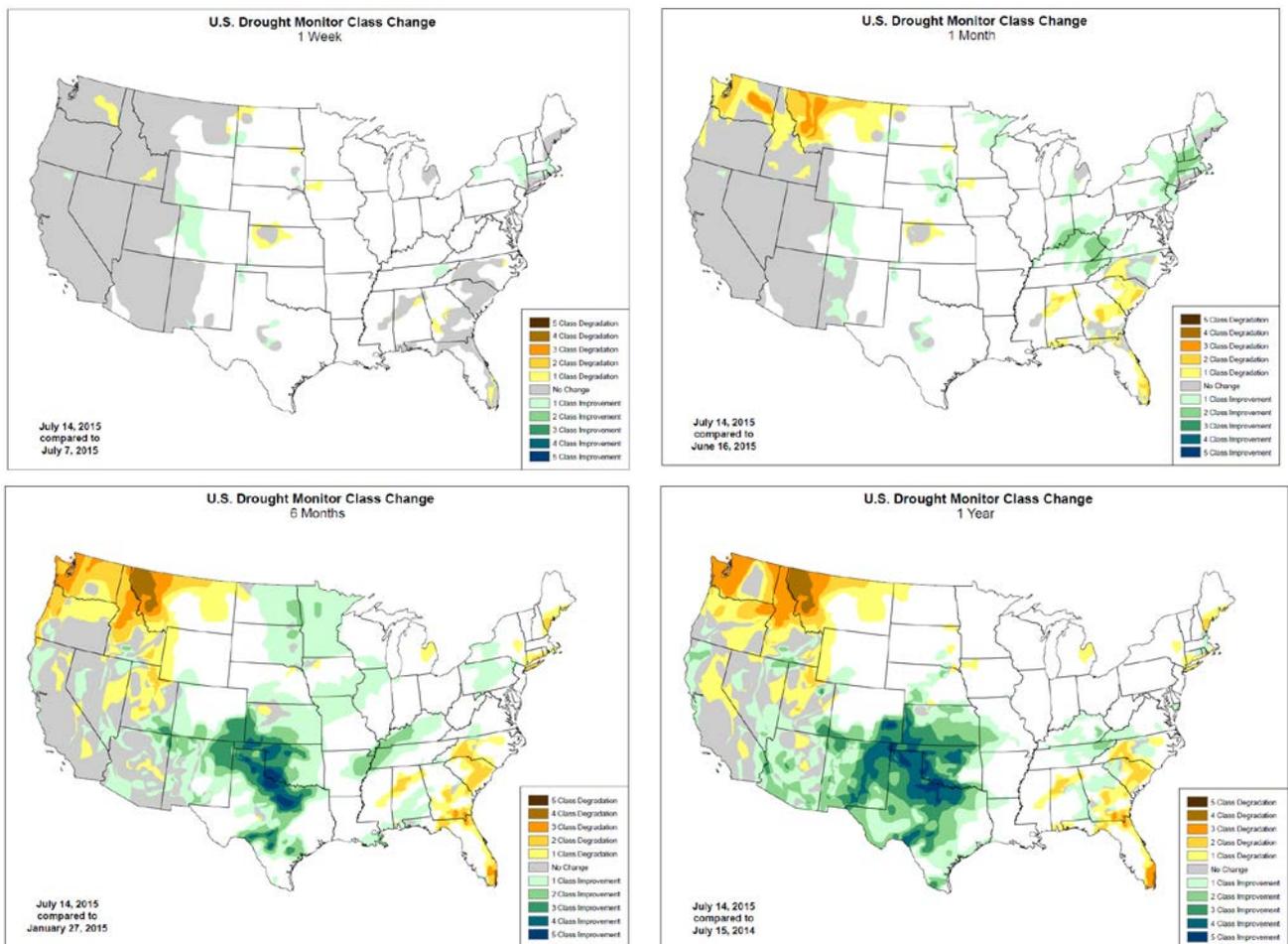


## Current National Drought Summary, July 14, 2015

“This U.S. Drought Monitor week saw some minor improvements in the Northeast while continued generally hot and dry conditions led to minor degradations in the southern portions of the Mid-Atlantic states and Southeast. Further west, recent rainfall activity continued to improve conditions in western Colorado and Texas while southeastern Idaho saw deterioration in conditions as a result of above-average temperatures and precipitation deficits during the past 60 days. In recent weeks, anomalously wet conditions in northeastern California led to minor improvements in areas of exceptional drought. Overall, temperatures were above normal across northern portions of the Pacific Northwest, Northern Plains, and the Southeast during the past week. In contrast, unseasonably cool temperatures were observed across the remainder of the West, Central and Southern Plains, and Midwest. Precipitation accumulations this week were greatest (in excess of five inches) in southern portions of the Midwest where a series of upper-level disturbances along a stationary front led to heavy shower and thunderstorm activity that impacted the region resulting in significant flash flooding in Kentucky. Elsewhere, pockets of heavy rainfall were observed in portions of Texas and eastern Oklahoma.” Author: David Simeral, Western Regional Climate Center.

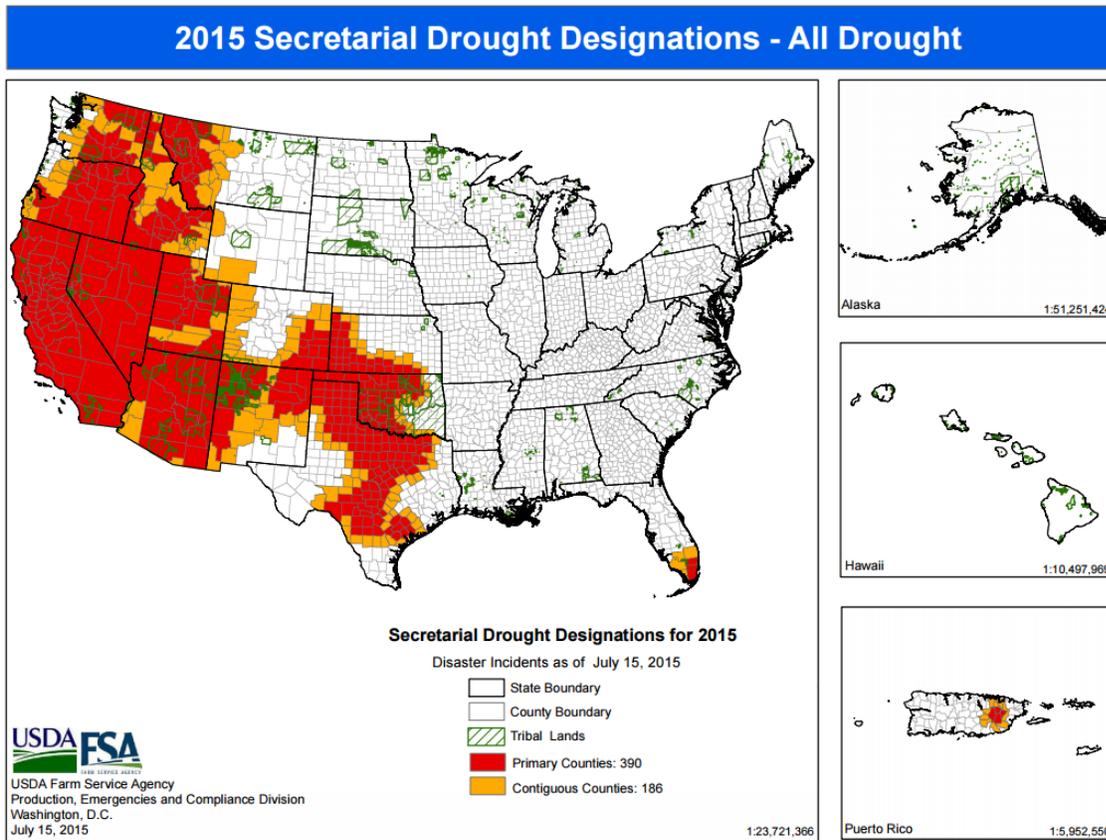
This summary and detailed regional drought narratives for the last week are [here](#).

## Changes in Drought Monitor Categories over Time



Intensifying drought over the past 1-12 months is particularly notable in the Northwest and to a lesser extent in parts of the Southeast. Conditions have improved significantly in the southern Great Plains and the Southwest.

## 2015 USDA Drought Designations



[USDA Disaster and Drought Information](#)

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

## Highlighted Drought Resources

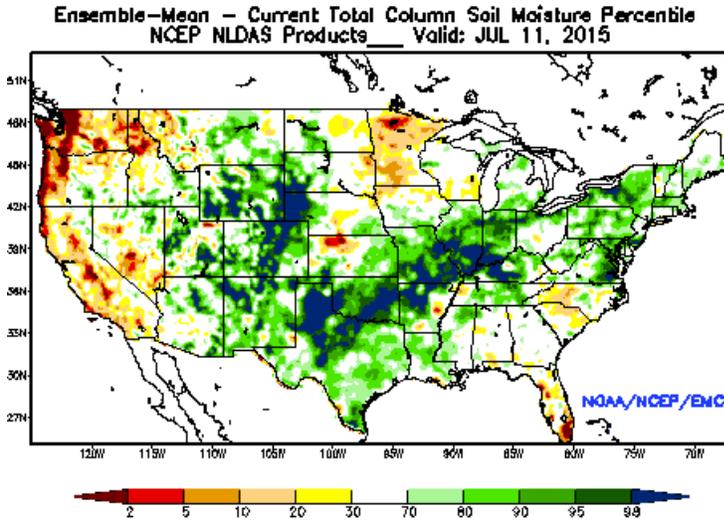
[Drought Impact Reporter](#)

[Quarterly Regional Climate Impacts and Outlook](#)

[U.S. Drought Portal Indicators and Monitoring](#)

## Other Climatic and Water Supply Indicators

### Soil Moisture

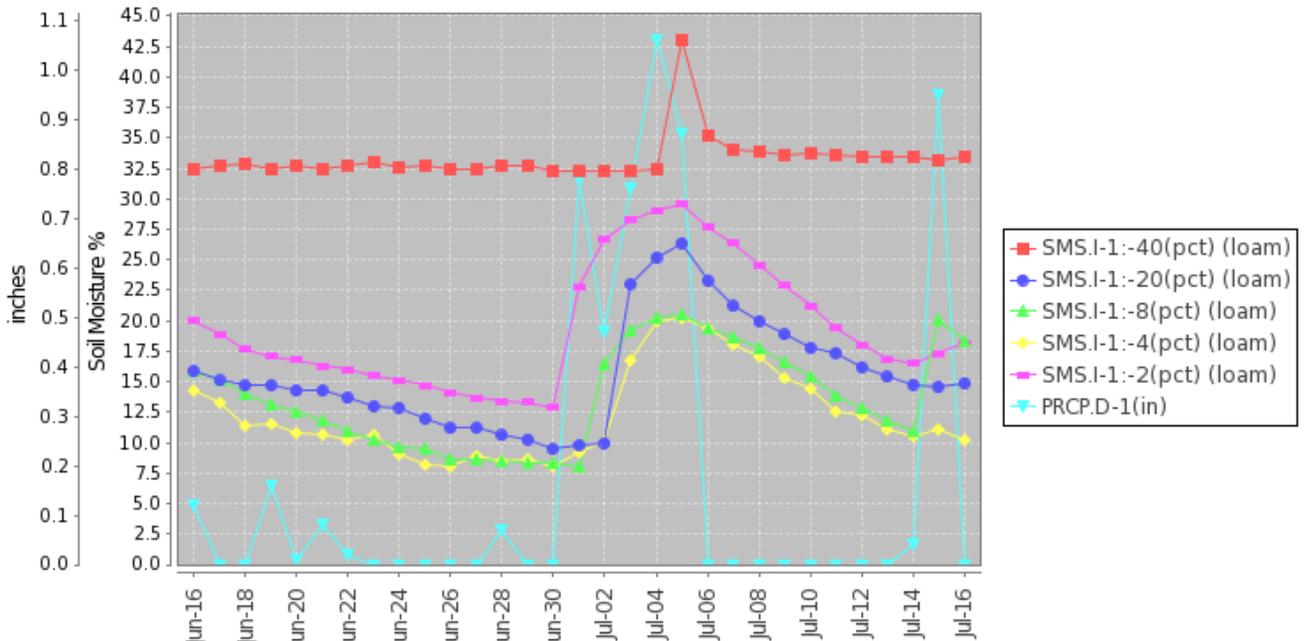


The modeled [soil moisture percentiles](#) as of July 11, 2015 show significant dryness in the far West, Minnesota, and Florida. Areas of above normal soil moisture include much of the Rocky Mountains, the southern Great Plains, the Midwest, and the Northeast.

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

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

Station (2013) MONTH=2015-06-16 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu Jul 16 07:20:49 PDT 2015



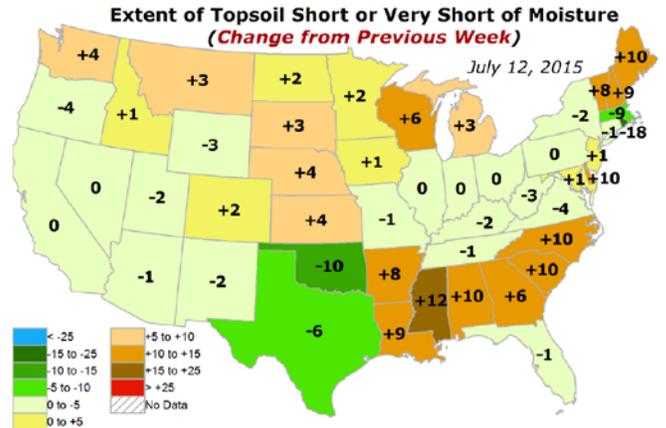
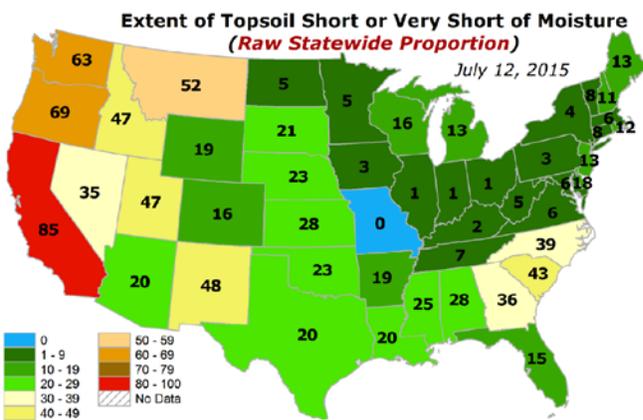
This example NRCS graph shows soil moisture (2, 4, 8, 20, and 40 inch depth) and precipitation for the last month at the [Watkinsville #1 SCAN site](#) (station number 2013) in Georgia. Note that the soil moisture response to the precipitation in the first part of July.

### Soil Moisture Data Portals

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

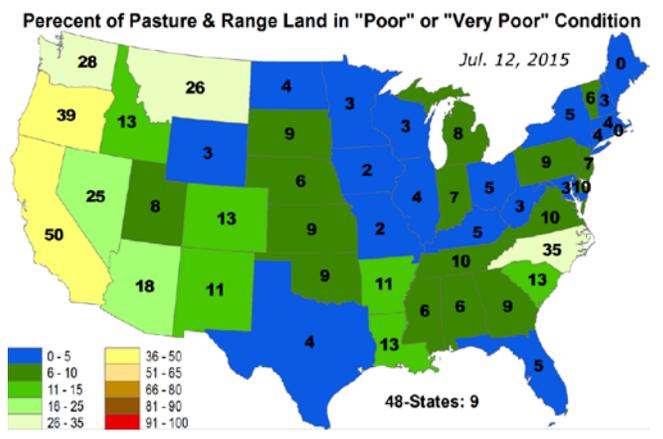
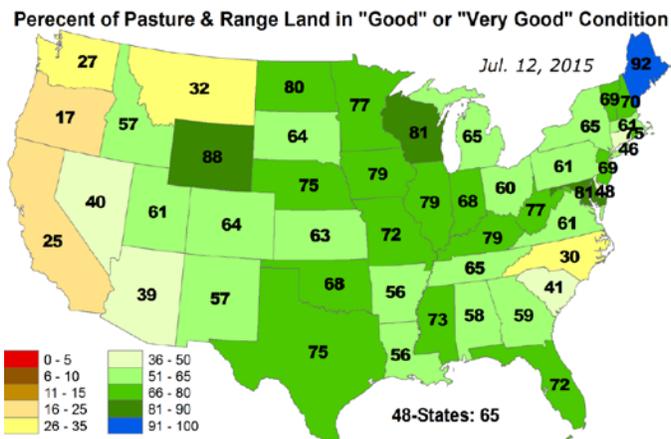
# Weekly Water and Climate Update

## Topsoil



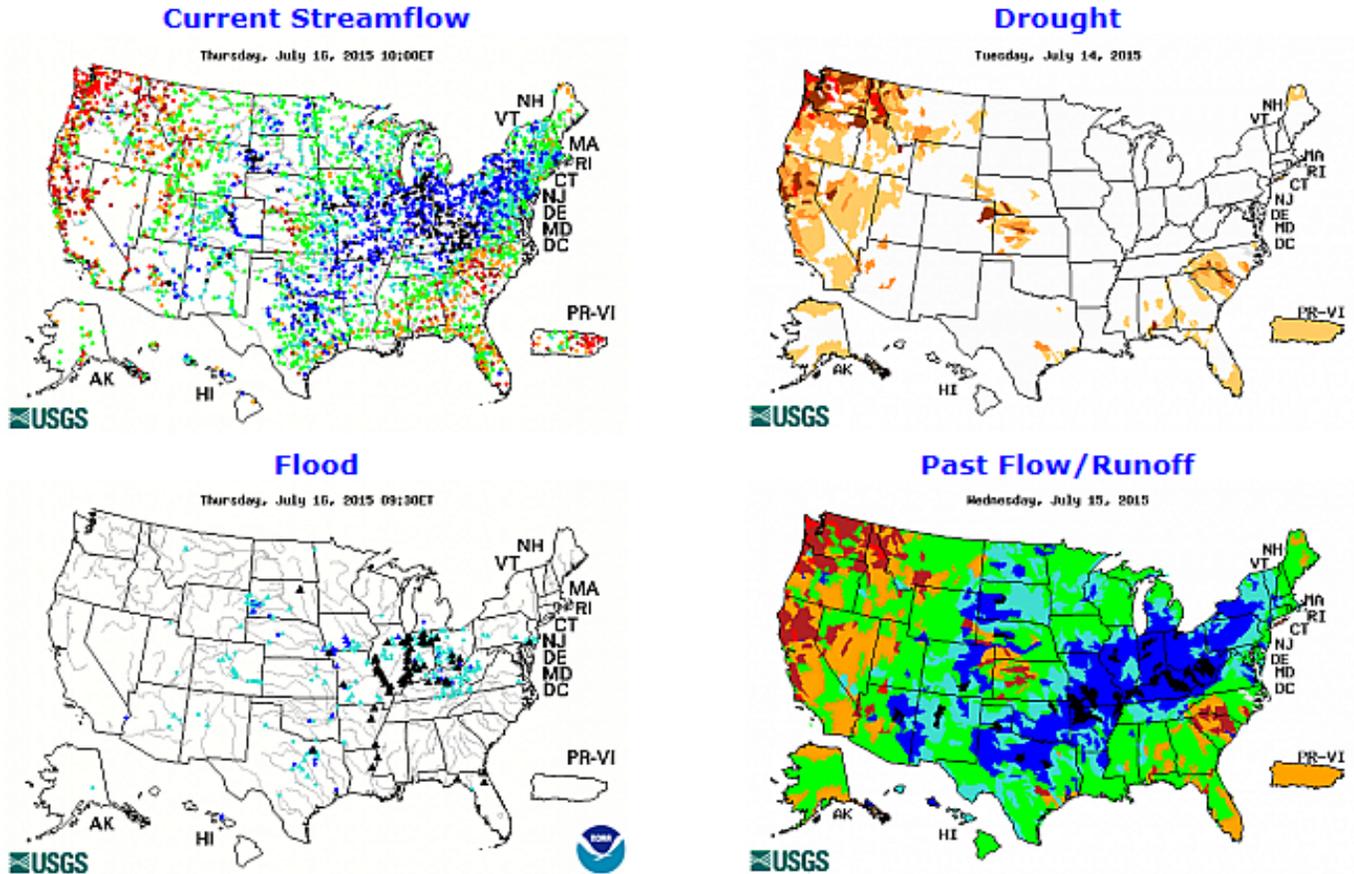
Low [topsoil moisture](#) conditions are especially notable all along the West Coast.

## Pasture and Rangeland



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

## Streamflow



[Streamflow](#) is currently below normal in California, the Northwest, and parts of the Southeast, whereas it is above normal in the central and northeastern parts of the country. From the USGS web site, select any individual map to enlarge and display a legend.

## Current Reservoir Storage

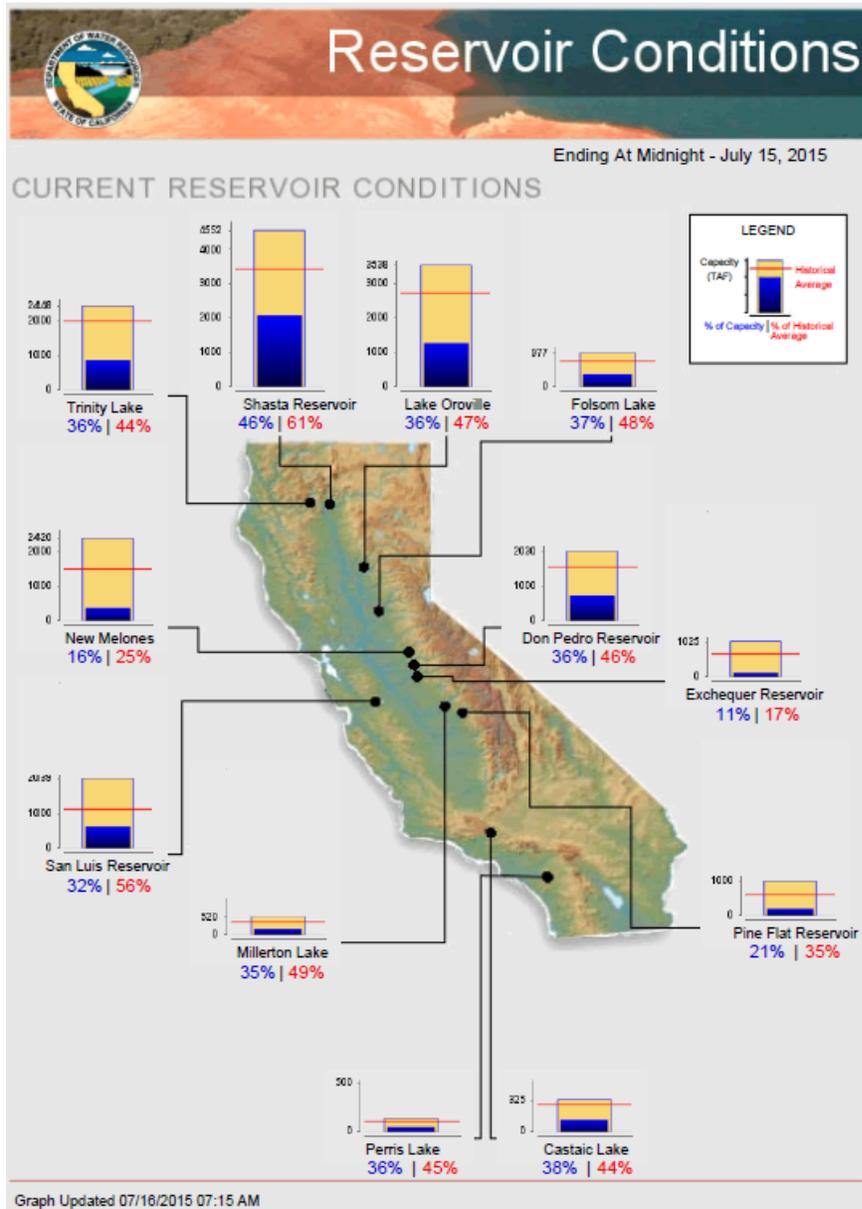
### [National Water and Climate Center Reservoir Data](#)

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



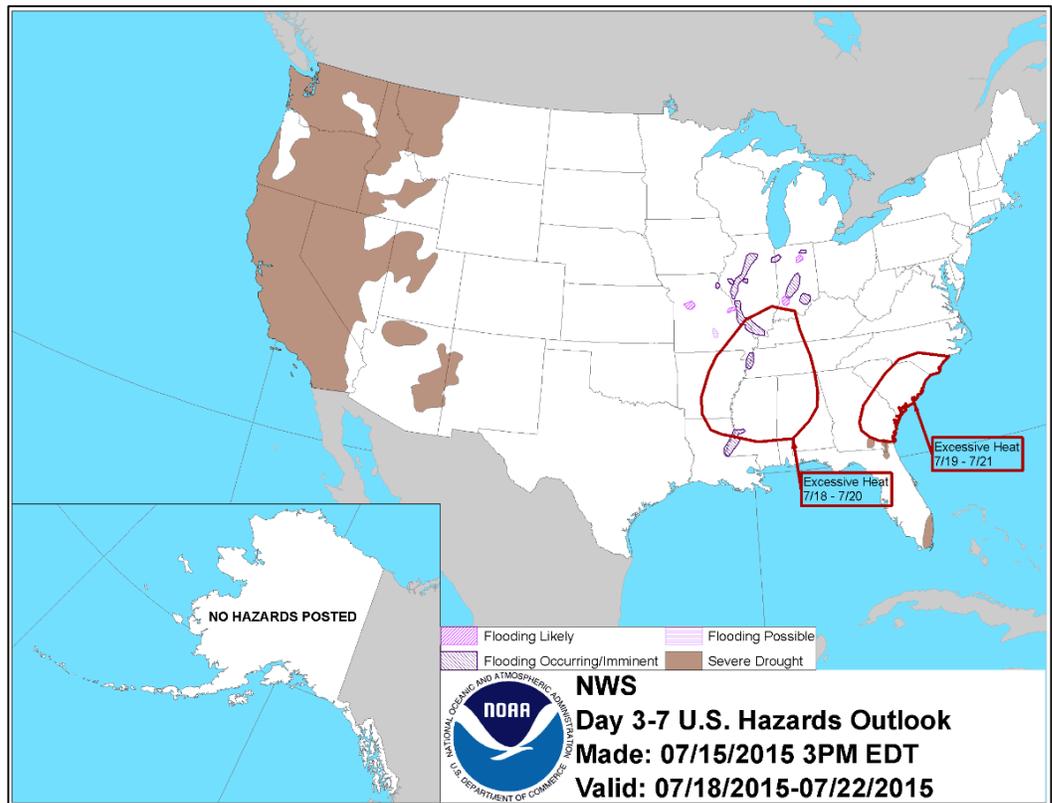
## Short- and Long-Range Forecasts

### Agricultural Weather Highlights

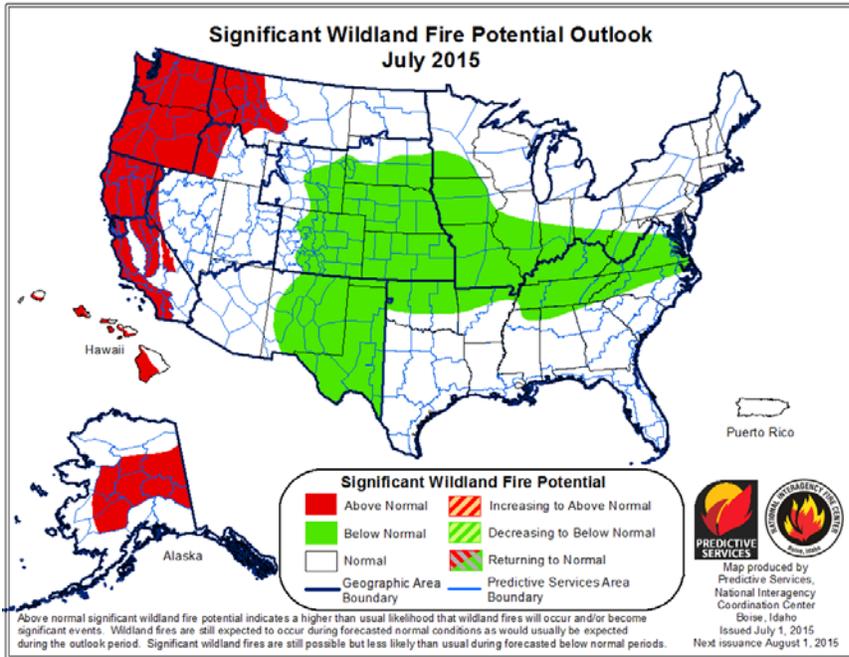
**Outlook, July 16, 2015:** “During the next several days, a series of disturbances crossing Canada will maintain showery conditions in the northern U.S. Five-day rainfall totals could reach 1 to 3 inches in the Midwest and Northeast. Meanwhile, unsettled weather will also continue across the Southwest and lower Southeast, with 1- to 2-inch totals possible in Florida and Arizona. The Southwestern showers will be enhanced by moisture associated with eastern Pacific Hurricane Dolores, and should spread as far northwest as California and the Great Basin. Much of the West will continue to experience cool weather, although heat will return during the weekend to the Pacific Northwest. Elsewhere, hot, humid weather will continue across the South and at week’s end briefly overspread Midwest. The NWS 6- to 10-day outlook for July 21 – 25 calls for the likelihood of above-normal temperatures along the Pacific Coast and from the southern half of the Plains into the Southeast, while cooler-than-normal conditions will be limited to the interior West. Meanwhile, below-normal precipitation between the southern Rockies and southern Appalachians will contrast with wetter-than-normal weather in parts of Arizona and New Mexico and across much of the nation’s northern tier.” Author: Brad Rippey, USDA Agricultural Meteorologist.

### National Weather Hazards

The outlook for [weather hazards](#) over the next several days includes excessive heat in the Southeast, flooding potential in the Midwest, and persistent drought in the far West.

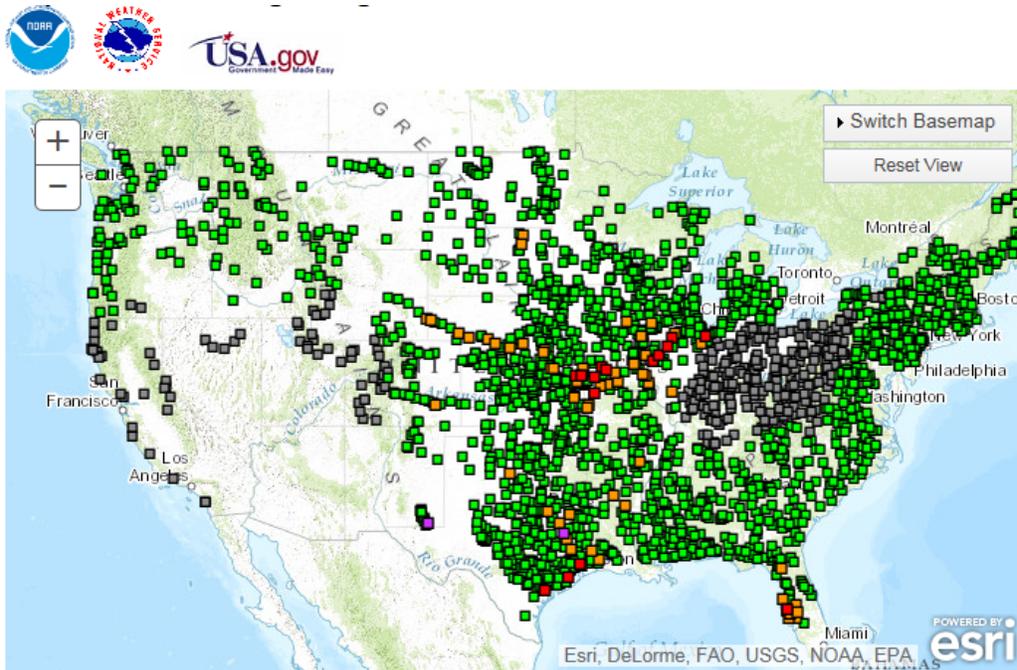


Fire Potential Outlook: July 2015



In July, significantly 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](#) for the central part of the country.

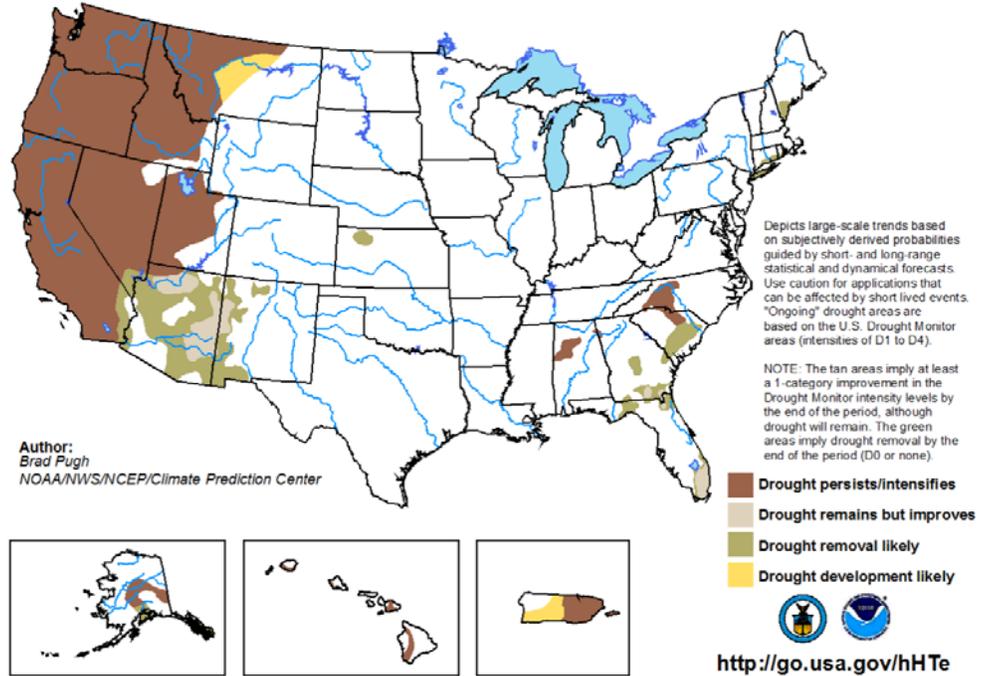
Weekly Water and Climate Update

Seasonal Drought Outlook

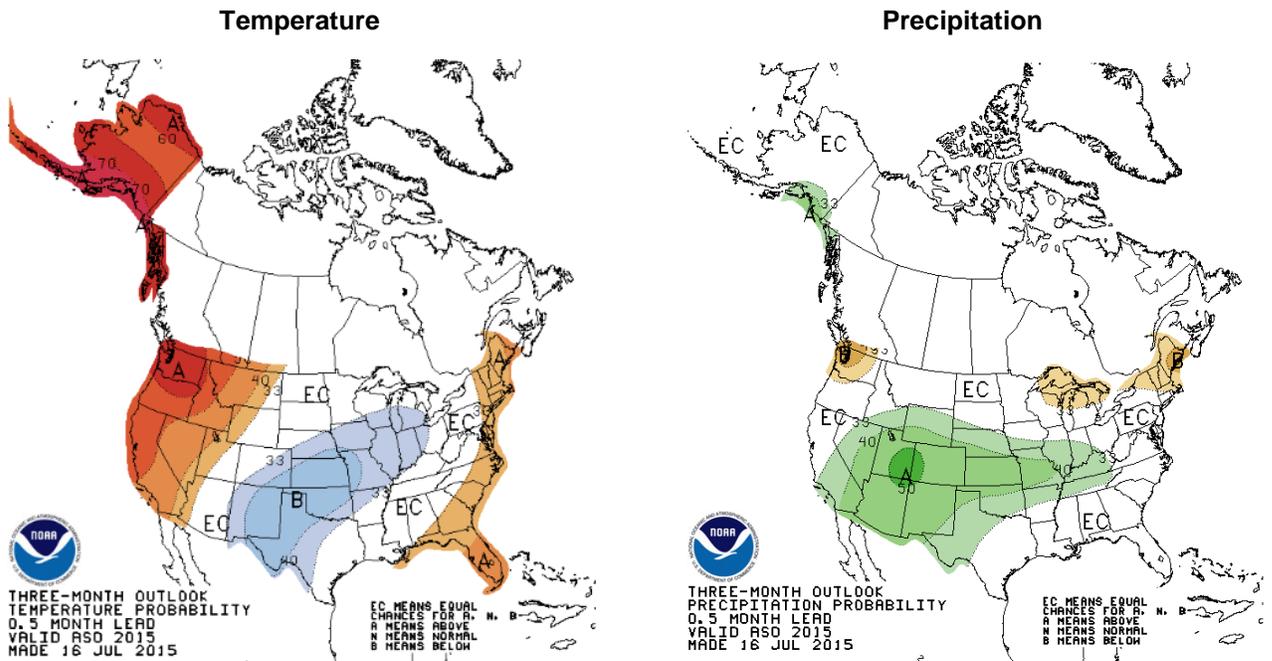
**Drought** will persist over the far West.

**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](#).