



Natural Resources Conservation Service  
P.O. Box 2890  
Washington, D.C. 20013

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## Weekly Snowpack / Drought Monitor Update

### August 14, 2014

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### Highlights: Agricultural Weather Highlights – Thursday - August 14, 2014

- “In the **West**, a plume of tropical moisture stretches from New Mexico to the northern Rockies. Beneath the plume, showers are maintaining the threat of localized flash flooding. Meanwhile in the Northwest, cooler weather and a few showers are aiding wildfire containment efforts. Elsewhere, storage in California’s 154 major reservoirs stood at 58% of the historical average on July 31. Statewide storage totaled 15.1 million acre feet on that date, ahead of only the record-low volume of 9.7 million acre-feet on July 31, 1977.
- On the **Plains**, isolated showers in Montana and the Dakotas are benefiting immature summer crops but slowing small-grain harvesting. Elsewhere, hot weather on the central and southern High Plains is increasing stress on rain-fed summer crops, including cotton.
- In the **Corn Belt**, cool weather covers the Great Lakes region, where widespread low temperatures in the range of 40 to 50°F were noted this morning. Elsewhere, showers and thunderstorms are overspreading westernmost production areas, including the Dakotas, benefiting summer crops but slowing the spring wheat harvest.
- In the **South**, lingering showers are limited to Florida and along the immediate Gulf Coast. Elsewhere, warm, dry weather favors summer crop development and fieldwork, including early-season corn harvesting.

**Outlook:** Hot weather will persist across the High Plains during the next several days and gradually return to the Southeast and Northwest. Near- to below-normal temperatures will linger, however, across much of the Midwest. Meanwhile, widespread showers in the West will shift eastward, quickly spreading across the northern and central Plains and parts of the Midwest. Five-day rainfall totals could reach 1 to 3 inches from northern portions of the Rockies and the Plains southeastward into the Ohio Valley. Elsewhere, mostly dry weather will prevail in the Far West and the western Gulf Coast region, but additional rainfall could reach 1 to 2 inches in Florida. The NWS 6- to 10-day outlook for August 19-23 calls for near- to above-normal temperatures nationwide, except for cooler-than normal conditions across northern portions of the Rockies and High Plains. Meanwhile, below-normal rainfall in a broad area stretching from Oregon to Texas will contrast with wetter-than-normal weather from the northern Plains into the Midwestern and Mid-Atlantic States.”

**Contact:** Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB, Washington, D.C. (202-720-2397)  
Website: <http://www.usda.gov/oce/weather/pubs/Daily/TODAYSWX.pdf>

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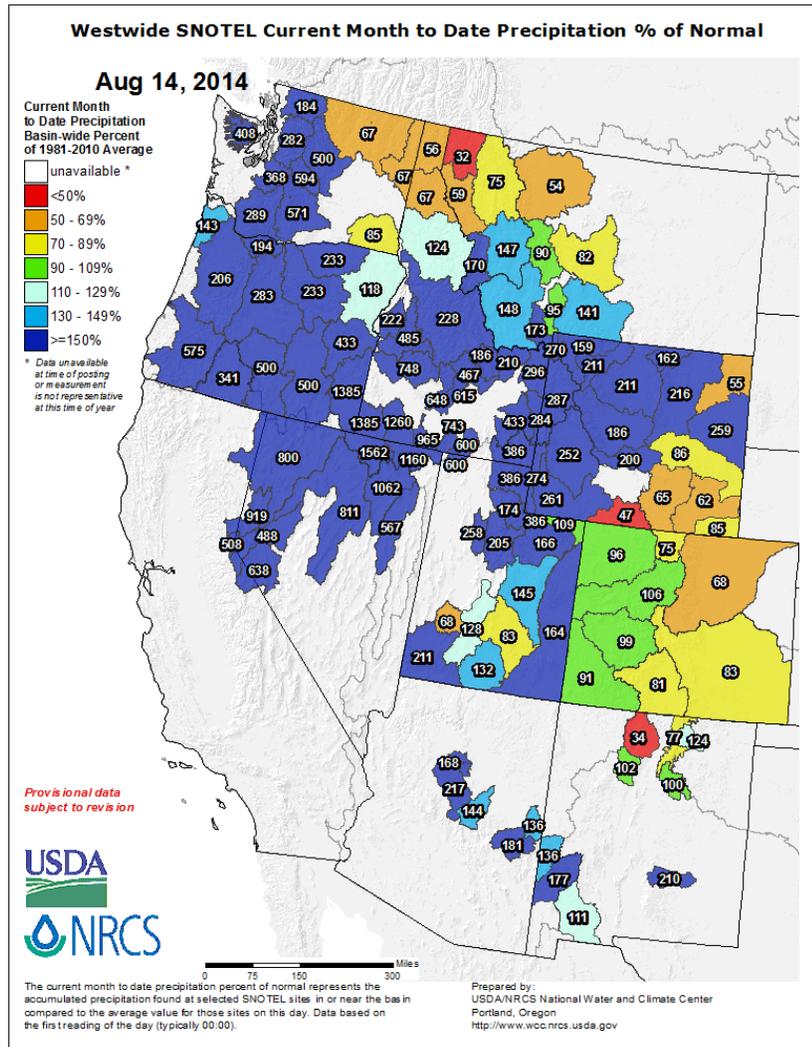
The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment

# Weekly Snowpack and Drought Monitor Update Report

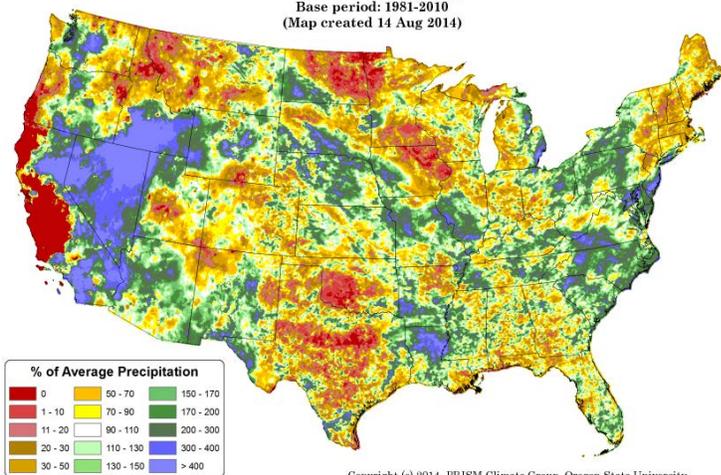
## Precipitation

In the West, the August 1 - 14 [SNOTEL](#) precipitation percent of normal map shows much of the West has received greater than 150% of normal for the period. There are a wide variety of conditions in Montana, northern Idaho, Washington, Wyoming, and Colorado where precipitation occurred only in select basins in each of the states. The percent of normal values (especially in the dark blue areas) may be amplified where normally very little precipitation falls at this time of year.

Click on most maps in this report to enlarge and see latest available update.



Total Precipitation Anomaly: 01 August 2014 - 13 August 2014  
 Period ending 7 AM EST 13 Aug 2014  
 Base period: 1981-2010  
 (Map created 14 Aug 2014)

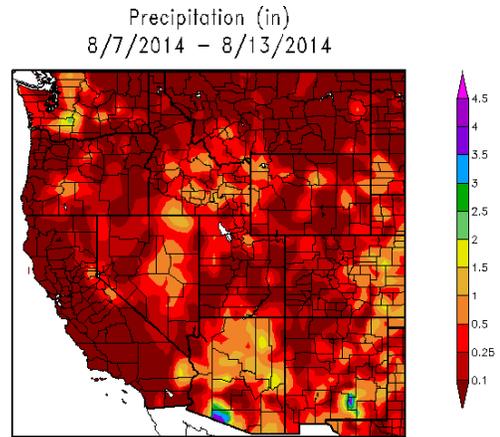


During the first two weeks of August 2014, the national [precipitation anomaly](#) pattern reveals some higher than normal precipitation across Nevada, southern California, the Southwest, Louisiana, southern Florida and the mid-Atlantic. Much of the West, especially coastal and northern California, the Pacific Northwest, northern Texas, Oklahoma, Kansas, and North Dakota have seen little or no precipitation.

*This preliminary daily PRISM precipitation anomaly map contains all available network data, including SNOTEL data, and is updated periodically as additional data become available and are quality controlled.*

## Weekly Snowpack and Drought Monitor Update Report

The [ACIS 7-day](#) total precipitation map for the western U.S. shows mainly dry conditions. Precipitation has fallen primarily in the northern Cascades, the Sierras into central Nevada through southern Idaho, and into Wyoming. Scattered thunderstorms and monsoon precipitation also occurred in the Southwest, the central and southern Rocky Mountains, Colorado, and into the southern Great Plains.

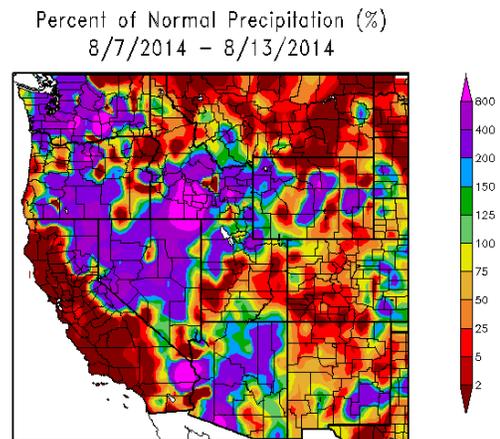


Generated 8/14/2014 at HPRCC using provisional data.

Regional Climate Centers

As would be expected based on the map above, this percent of normal [map](#) of the West reflects the heaviest scattered precipitation falling across the Cascades, the Sierra Nevada, most of Nevada, southern Idaho, the central and southern Rocky Mountains, Arizona and southern New Mexico, with some scattered precipitation elsewhere in the West.

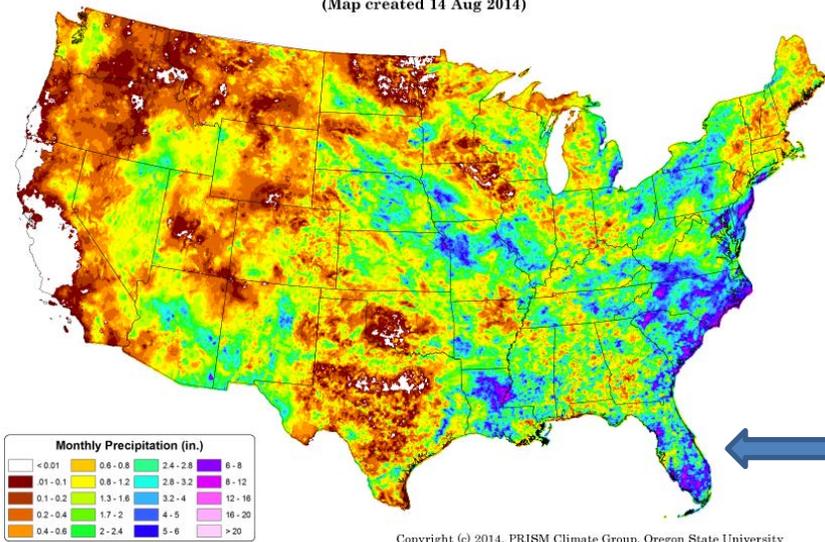
Percent of normal precipitation may be exaggerated in areas where the average for this period is at or near zero.



Generated 8/14/2014 at HPRCC using provisional data.

Regional Climate Centers

**Total Precipitation: 01 August 2014 - 13 August 2014**  
Period ending 7 AM EST 13 Aug 2014  
(Map created 14 Aug 2014)



Copyright (c) 2014, PRISM Climate Group, Oregon State University

So far in August 2014, the total precipitation across the continental U.S. was heaviest in the mid-Atlantic states, the Southeast, southern Florida, central Louisiana, and parts of the central U.S. In contrast, Texas, the Pacific coast, northern Rockies, and much of the north-central U.S. was mainly dry.

See [Go Hydrology](#) for current and forecast conditions over southern Florida.

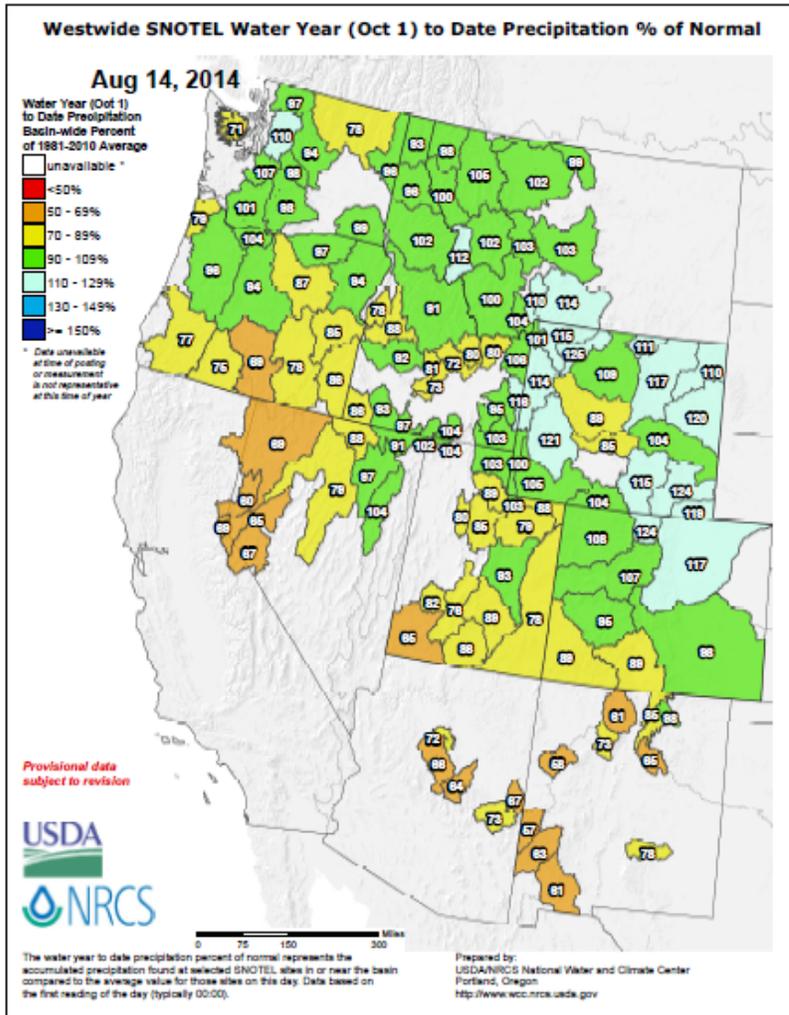
## Weekly Snowpack and Drought Monitor Update Report

For the [2014 Water Year](#) that began on October 1, 2013, surpluses in the western U.S. occurred in southern Montana, most of Wyoming, and northern Colorado.

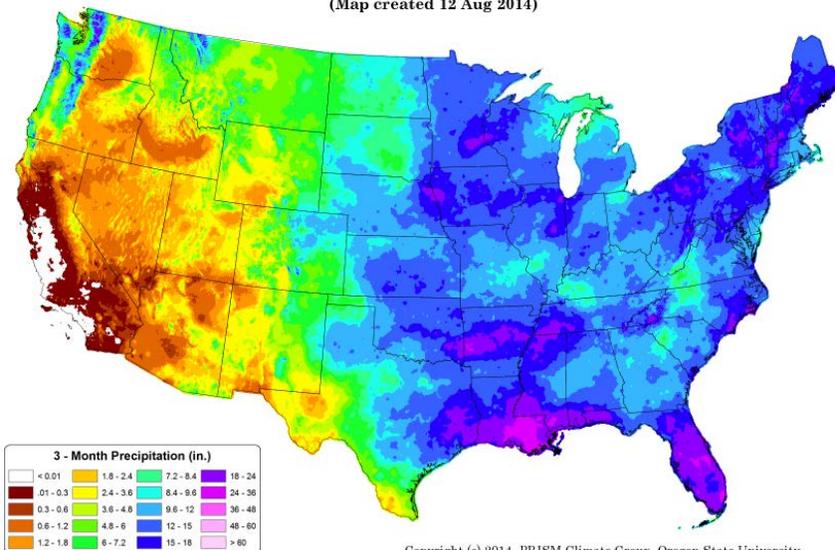
Near average conditions dominated the northern half of the Cascades, the northern half of Idaho, northwestern-most Montana, the Bear River in northern Utah and southeast Idaho, and parts of the southern half of Colorado.

The largest deficits were centered over southern Oregon, the Sierra Nevada in Nevada and California, southern and eastern Utah, Arizona, and New Mexico.

As the Water Year advances, it becomes more difficult for river basins to change bin categories.



**Total Precipitation: May 2014 - July 2014**  
Period ending 7 AM EST 31 Jul 2014  
(Map created 12 Aug 2014)



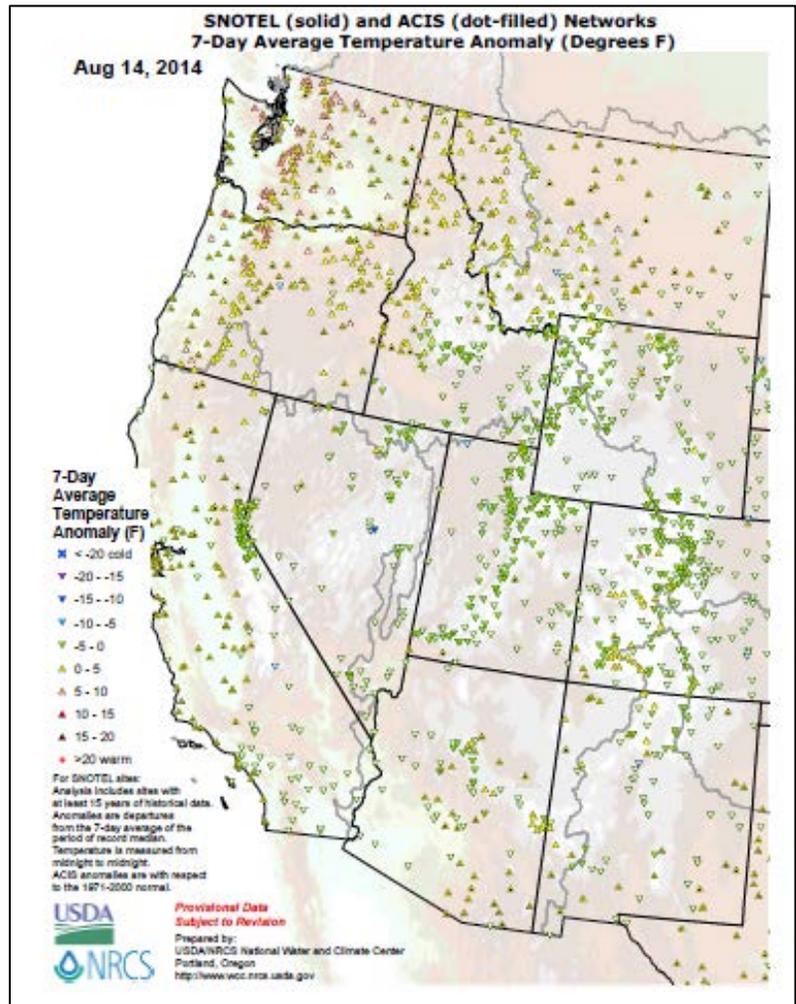
The national map of the [three-month period](#) (May - July) shows that the eastern half of the nation received precipitation in the range from 5 to greater than 36 inches along the Gulf Coast and Florida.

On the other hand, parts of the West received totals of less than 3 inches. The exceptions in the West were over the northern Rockies and Cascades, where totals exceeded 15 inches.

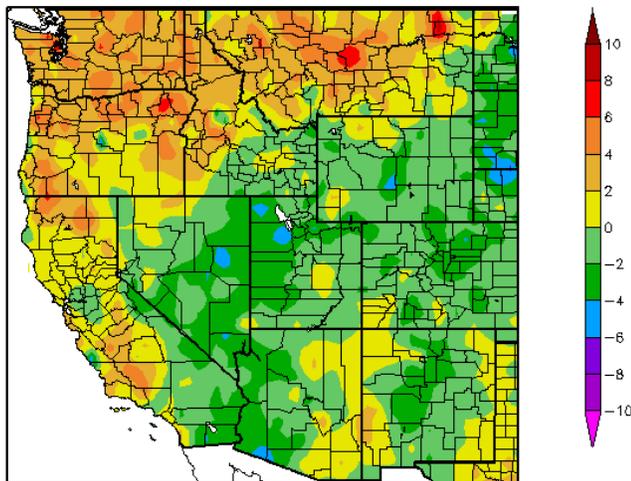
# Weekly Snowpack and Drought Monitor Update Report

## Temperature

The [SNOTEL](#) and [ACIS 7-day temperature anomaly](#) map for the western U.S. shows temperatures above normal in the Pacific Northwest, northern Idaho, and Montana. Below normal temperatures occurred in a few scattered locations California, Nevada and New Mexico. Most of the West was near normal for the week.



Departure from Normal Temperature (F)  
8/7/2014 – 8/13/2014



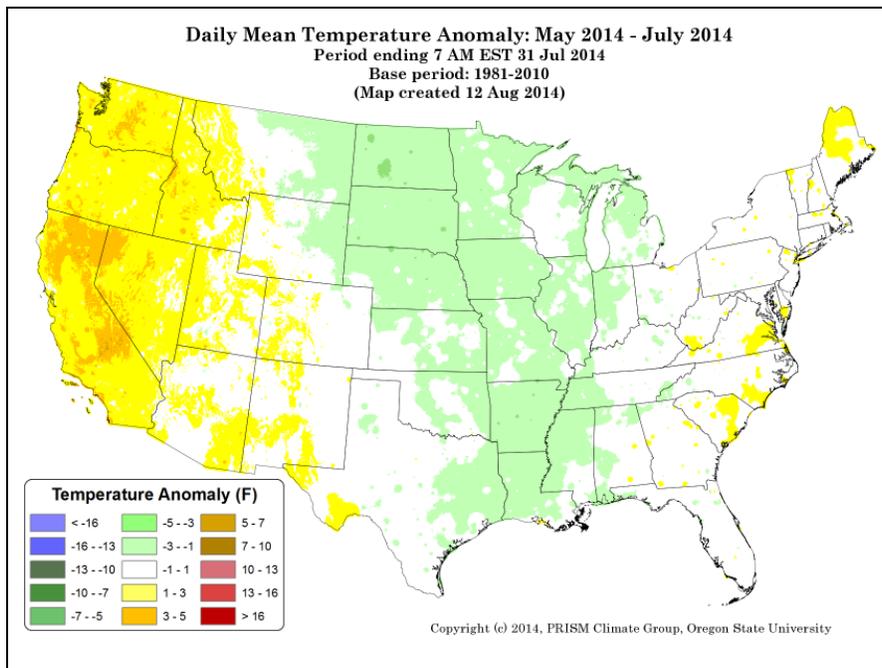
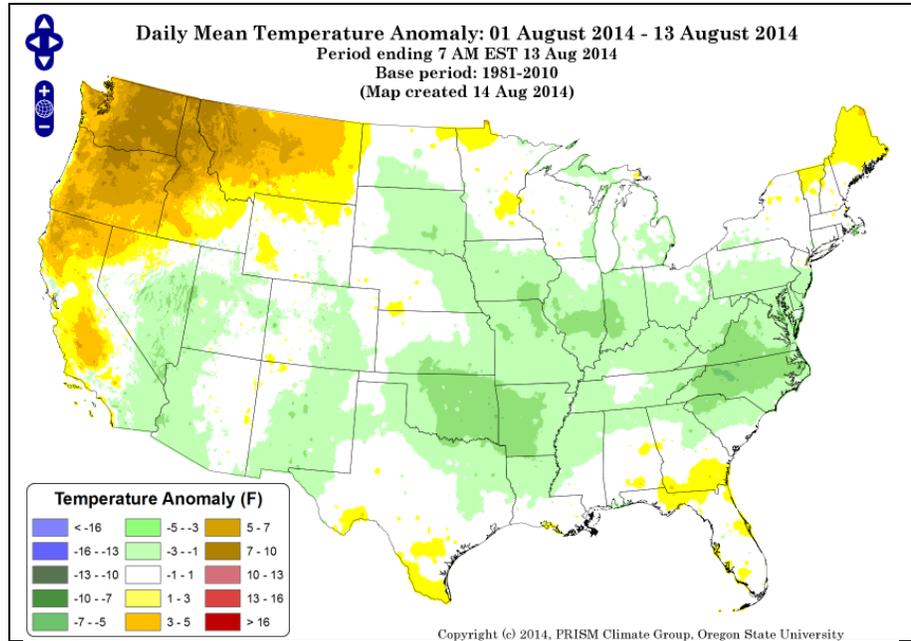
[ACIS](#) map of the 7-day average temperature anomalies in the West ending August 13, show the greatest negative temperature departures scattered over the Southwest, Nevada, Utah, and Wyoming ( $<-4^{\circ}\text{F}$ ). The greatest positive temperature departures occurred in northeast Oregon and Montana ( $>+6^{\circ}\text{F}$ ).

Also, see [Dashboard](#) and the [Westwide Drought Tracker](#)

## Weekly Snowpack and Drought Monitor Update Report

This preliminary [PRISM](#) temperature map contains all available network data, including SNOTEL data, and will be updated periodically as additional data become available and are quality controlled.

During August 2014, the national daily mean temperature anomaly [map](#) shows a cold pattern over the southern Great Plains and central Atlantic coast ( $<-7^{\circ}\text{F}$ ). Above normal temperatures dominated the West, centered in eastern Washington and the Columbia River Basin ( $>+7^{\circ}\text{F}$ ).



May - July national daily mean temperature anomalies for the U.S. in this [climate map](#) show the West had near normal to slightly to above normal temperatures, mainly in California, western Nevada, and eastern Washington ( $>+3^{\circ}\text{F}$ ). Most of the remainder of the country reported normal to cool temperatures this spring, with the coolest temperatures in North Dakota ( $<-5^{\circ}\text{F}$ ).

# Weekly Snowpack and Drought Monitor Update Report

## Weather and Drought Summary

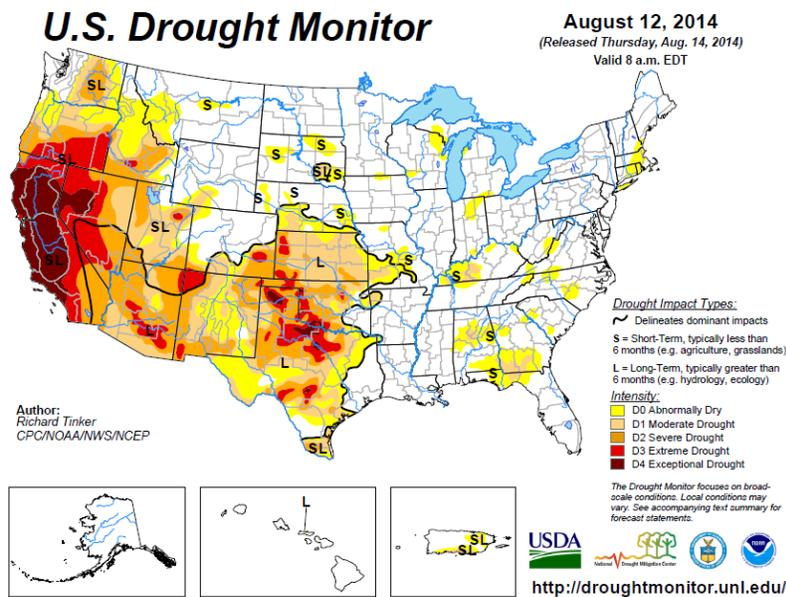
### National Drought Summary – August 12, 2014

The following **Weather and Drought Summary** is provided by this week's NDMC Drought Author, Rich Tinker, NOAA/NWS/NCEP/CPC

USDM Map Services: contains [archived maps](#)

“For the contiguous 48 states, the U.S. Drought Monitor showed 33.61 percent of the area in moderate drought or worse, compared with 33.94 percent a week earlier.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 28.09 percent of the area in moderate drought or worse, compared with 28.36 percent a week earlier.”



See: Latest Drought [Impacts](#) during the past week.

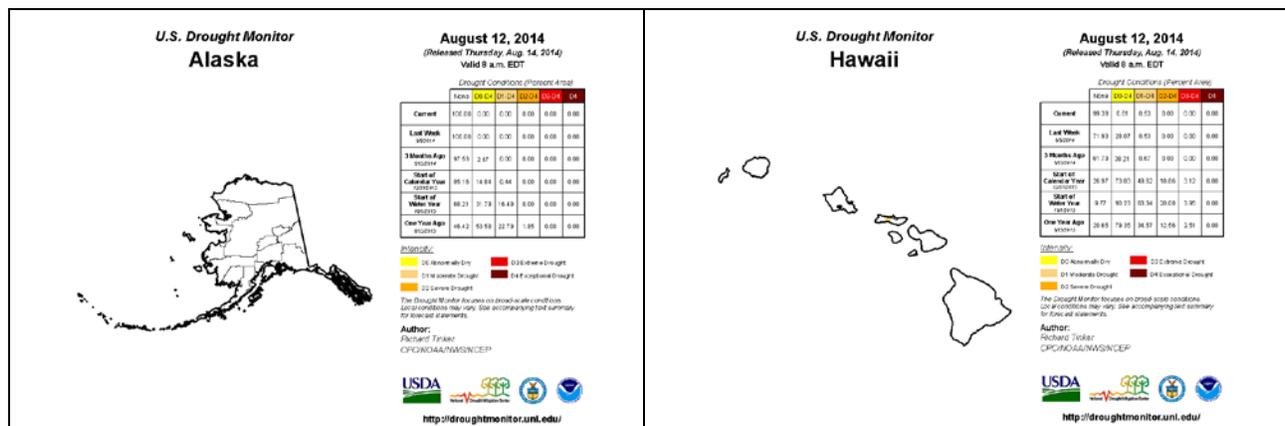
[Current Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, TX, and OK.

The latest [drought indicator blend and component percentiles](#) spreadsheet is a great resource for climate division drought statistics. This link is for the latest [Drought Outlook](#) (forecast). See [climatological rankings](#).

For more drought news, see [Drought Impact Reporter](#).  
New: [ENSO Blog](#).

### Drought Management Resources:

- ✓ <http://www.usda.gov/oce/weath er/Drought/AgInDrought.pdf>
- ✓ [Watch AgDay TV](#)
- ✓ [Drought Impacts Webinar Series](#)
- ✓ [NIDIS Quarterly Climate Impacts and Outlook](#)
- ✓ [The Spring 2014 edition of DroughtScope](#)



“The [49th](#) and [50th](#) States show relatively benign drought conditions. No changes noted for Alaska and Hawaii this week. A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions for the figures that follow, click [here](#).”

# Weekly Snowpack and Drought Monitor Update Report

## Risk Management Web Resources

Drought Monitor for the [Western States](#)  
 Drought Impact Reporter for [New Mexico](#)  
[California Data Exchange Center](#) & [Flood Management](#)  
[Intermountain West Climate Dashboard](#)  
[California Sierra Nevada-related snow pack](#)

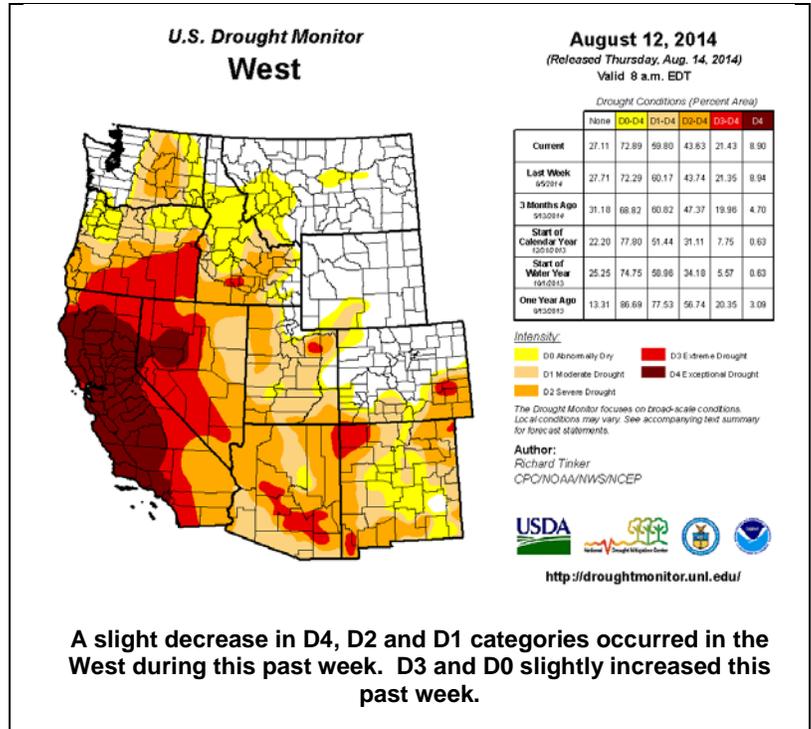
## U.S. Impacts during the past week:

U.S. - [Cargill's Annual Profits Slide 19%; Revenue Drops Too](#) – Aug 7

OR - [Left high and dry: Food Bank feels shortage](#) – Aug 6

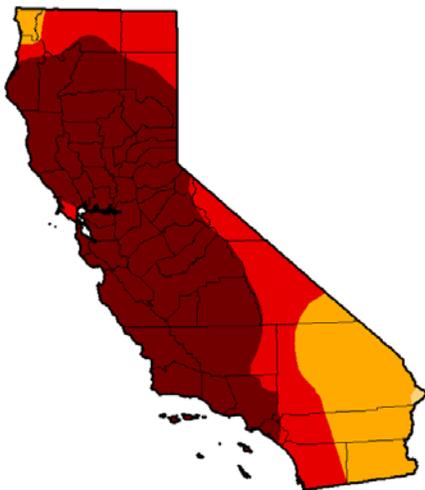
UT - [Drought forces some boats from shrinking Great Salt Lake in Utah](#) – Aug 5

[Click to enlarge maps](#)



## State with D-4 Exceptional Drought

### U.S. Drought Monitor California



No change occurred in California this past week.

## CA Drought Information Resources

### Drought News from California:

[Irrigation cut off to some Klamath Project farms](#) – Aug 5

[PG&E's Helms hydroelectric plant has advantage during drought](#) – Aug 3

[California wildfires: Storms curb blazes as lightning starts new ones](#) – Aug 5

[California drought: Strong El Niño, which could bring soaking winter storms, fizzling out](#) – Aug 7

[Drought reduces steelhead in Napa River](#) – Aug 3

[Drought watering regulations may leave trees high and dry](#) – Aug 4

[Geese Stuck in Drought-Depleted California Pond Are Rescued](#) – Aug 6

[Jake Owen Encourages Urine Consumption on 'Kimmel'](#) – Aug 6

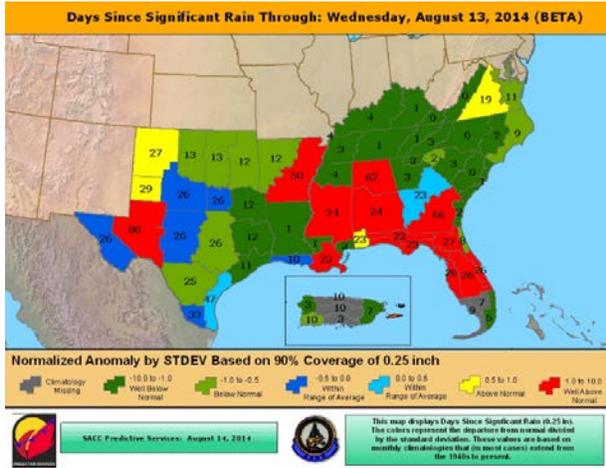
[Cities running out of water](#) – Aug 4

[Well water levels drop dramatically on UC Davis campus](#) – Aug 7

# Weekly Snowpack and Drought Monitor Update Report

Texas Drought [Website](#).  
 Texas Reservoirs.  
[Texas Drought Monitor Coordination Conference](#)  
**Call: on Monday's 2:00 PM - 3:00 PM CST**

[Parched Texas city hopes water additive will cut lake evaporation](#) – Aug 4

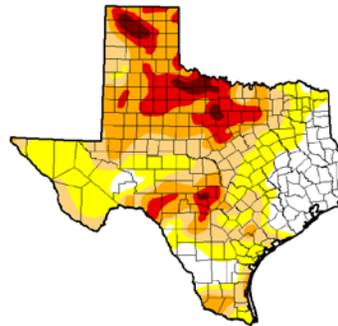


[Days since Significant Rain Summary](#)

## State with D-4 Exceptional Drought

### U.S. Drought Monitor Texas

**August 12, 2014**  
 (Released Thursday, Aug. 14, 2014)  
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	17.29	82.74	51.89	26.71	14.06	2.62
Last Week (8/5/14)	17.23	82.83	56.89	26.52	13.87	2.85
3 Months Ago (5/12/14)	8.92	91.11	73.05	56.10	38.88	23.73
Start of Calendar Year (1/1/14)	28.49	71.52	43.84	21.15	5.82	8.79
Start of Water Year (9/1/13)	6.82	93.28	79.95	25.98	4.01	8.12
One Year Ago (8/13/13)	2.92	97.18	87.92	65.92	29.64	3.94

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:  
 Richard Tinker  
 CPC/NOAA/NWS/NCEP

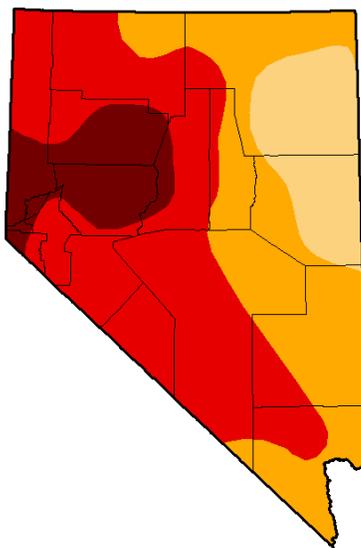
USDA National Drought Mitigation Center  
<http://droughtmonitor.unl.edu/>

Decrease in D0 and D4 drought categories occurred this past week. An increase in D1 – D3 occurred this past week.

## State with D-4 Exceptional Drought

### U.S. Drought Monitor Nevada

**August 12, 2014**  
 (Released Thursday, Aug. 14, 2014)  
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	86.92	55.21	11.89
Last Week (8/5/14)	0.00	100.00	100.00	86.92	55.21	11.89
3 Months Ago (5/12/14)	0.00	100.00	100.00	87.03	38.73	8.24
Start of Calendar Year (1/1/14)	0.39	99.61	96.81	77.66	28.55	5.37
Start of Water Year (9/1/13)	0.39	99.61	96.79	79.11	28.55	5.37
One Year Ago (8/13/13)	0.00	100.00	100.00	90.11	42.65	5.37

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:  
 Richard Tinker  
 CPC/NOAA/NWS/NCEP

USDA National Drought Mitigation Center  
<http://droughtmonitor.unl.edu/>

No change occurred in Nevada this past week.

## Nevada Drought News:

[Thousands of Stranded Fish Rescued in Dry Nevada](#) – Aug 7

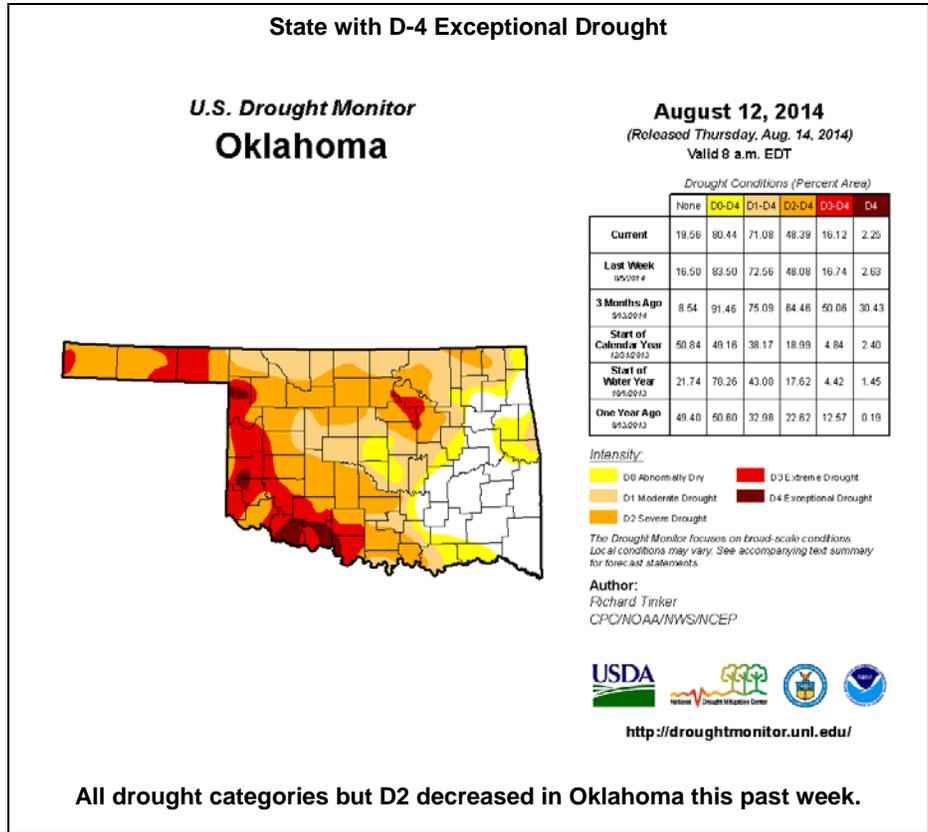
[300 rescued after Lake Tahoe boat hits sand barn-](#) Aug 4

# Weekly Snowpack and Drought Monitor Update Report

## Related Area News:

[2014 Kansas Drought Report and Summary](#)

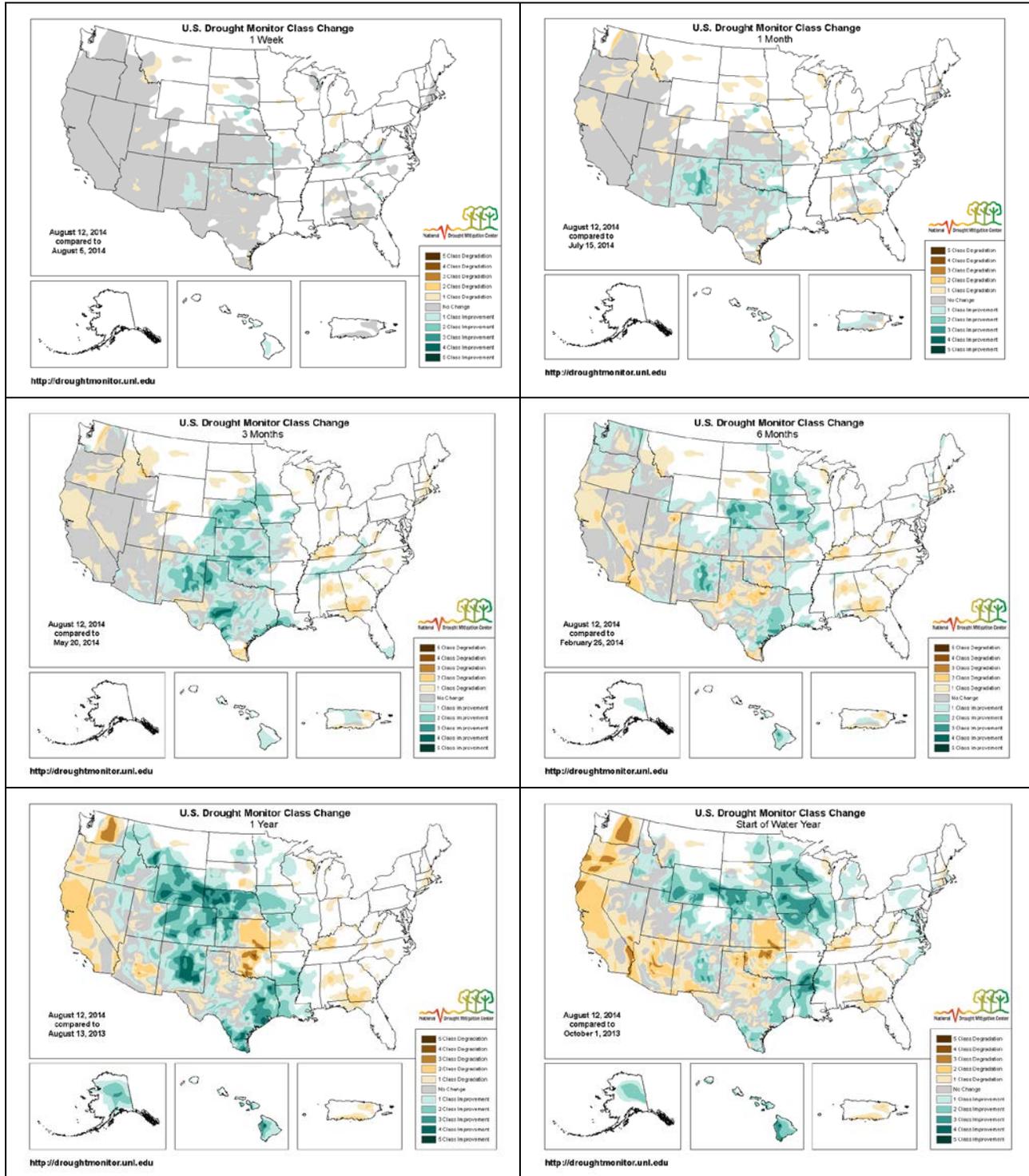
- [Past 30 days precipitation totals](#)
- [Past 30 days precipitation percent of normal](#)
- [Calendar Year precipitation totals](#)
- [Calendar Year Precip percent of normal](#)
- [Short Crop ET](#)



# Weekly Snowpack and Drought Monitor Update Report

## Changes in Drought Monitor Categories

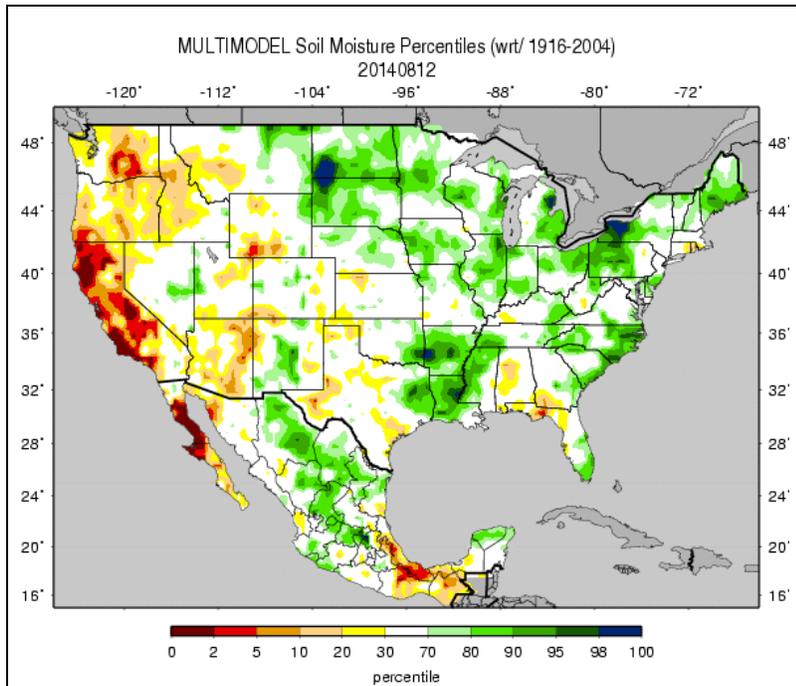
### Over Various Time Periods



Click on any of these maps to enlarge. Note how the conditions over the Rockies and northern Great Plains have improved between 6 to 12 months (middle right to lower left maps). However, also note that since the start of the 2014 Water Year last October, conditions over the middle and southern Great Plains and the Pacific coast states have deteriorated significantly (lower right map).

# Weekly Snowpack and Drought Monitor Update Report

## Soil Moisture

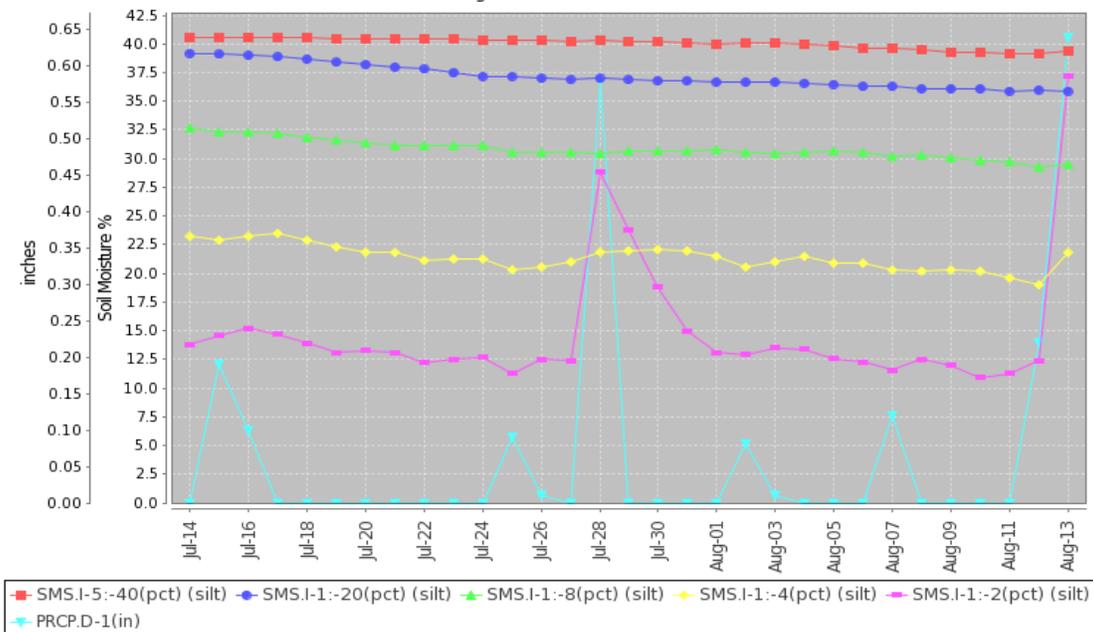


The national soil moisture model ranking in [percentile](#) as of August 12 shows dryness over California, Arizona, Washington, Oregon, Idaho, and southwest Wyoming. Scattered dryness was also reported in other areas west of the Rockies, Texas, and the Florida gulf coast. Moist soils dominated eastern Montana to the Great Lakes, where the wettest locations were centered in the western area of the Dakotas. The soils in the lower Mississippi River Basin, western New York, the New England states, and the Carolinas also had high moisture content.

Useful Hydrological Links: [Crop Moisture Index](#); [Palmer Drought Severity Index](#); [Standardized Precipitation Index](#); [Surface Water Supply Index](#); [Weekly supplemental maps](#); [Minnesota Climate Working Group](#); [Experimental High Resolution Drought Trigger Tool](#); [NLDAS Drought Monitor](#); [Soil Moisture](#)

## Soil Climate Analysis Network (SCAN)

Station (2039) MONTH=2014-07-14 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Wed Aug 13 08:32:14 PDT 2014

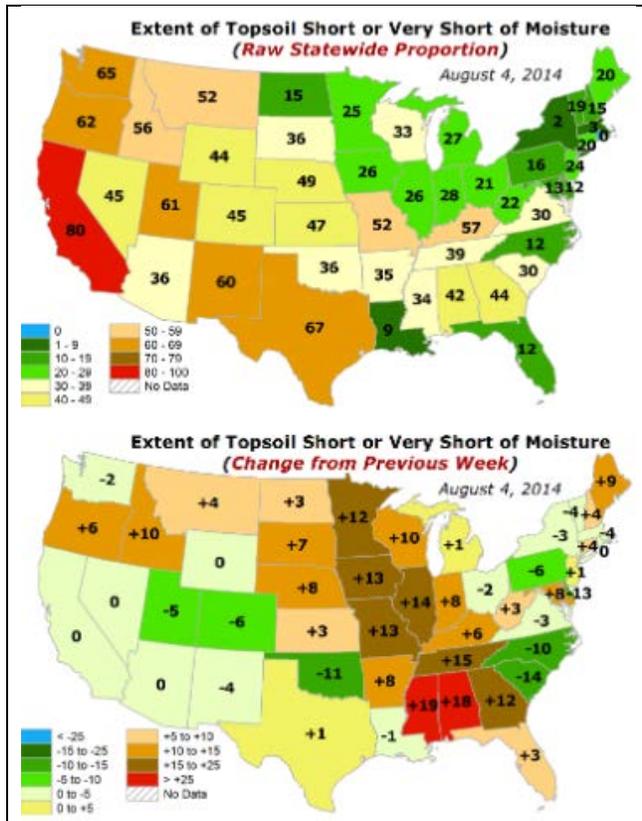


This NRCS resource shows soil moisture data at the [N Piedmont AREC SCAN Station 2039](#) located in Virginia. The recent precipitation in the area is graphed in light blue. The August 11-12 precipitation has increased the 2- and 4-inch depth soil moisture, while the deeper soil sensors at 8, 20, and 40 inches depth (green, blue, and red traces) don't show an increase from the recent precipitation at this time.

Useful Agriculture Links: [Vegetation Drought Response Index](#); [Evaporative Stress Index](#); [Vegetation Health Index](#); [NDVI Greenness Map](#); [GRACE-Based Surface Soil Moisture](#); [North American Soil Moisture Network](#). [Monthly Wild Fire Forecast Report](#).

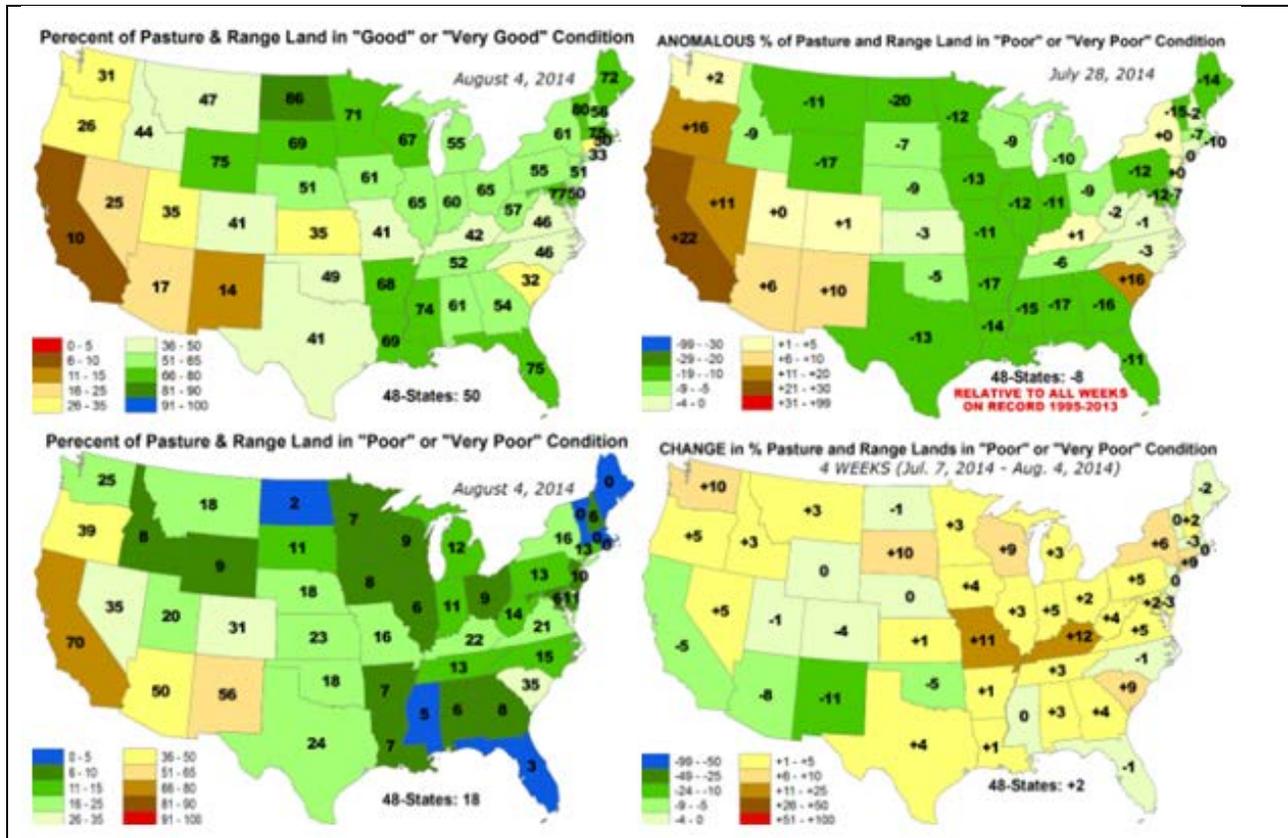
# Weekly Snowpack and Drought Monitor Update Report

## Topsoil and Pasture & Rangeland National Conditions



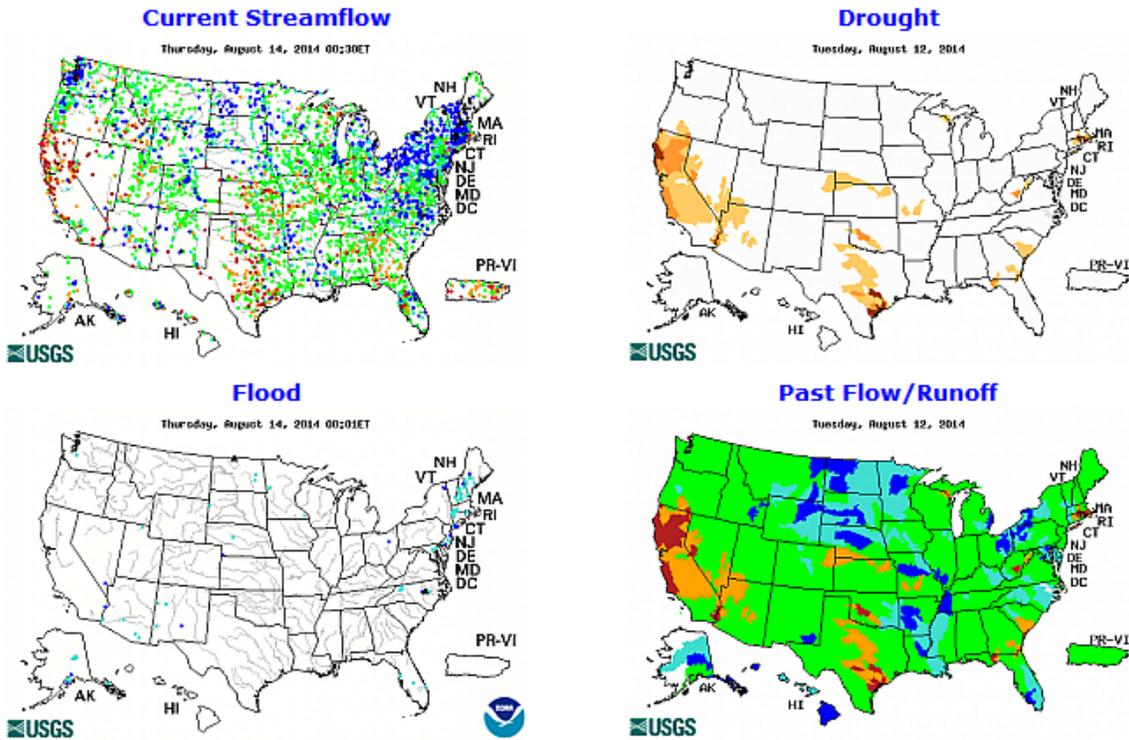
☞ Topsoils are exceptionally poor (top) over Texas, New Mexico, California, Utah, Oregon, and Washington with values representing more than 60 percent poorer conditions than the median for this time of year (bottom panel). Locations in the northern Great Plains across to New England, Louisiana and Florida have good soil moisture conditions.

☞ Many of the states east of the Mississippi River are doing well, as noted below. These conditions also extend across the northern Great Plains and northern Rockies. Pasture and rangelands are stressed over California, the Great Basin, and the Southwest. Conditions have improved in the Southwest over this past week.



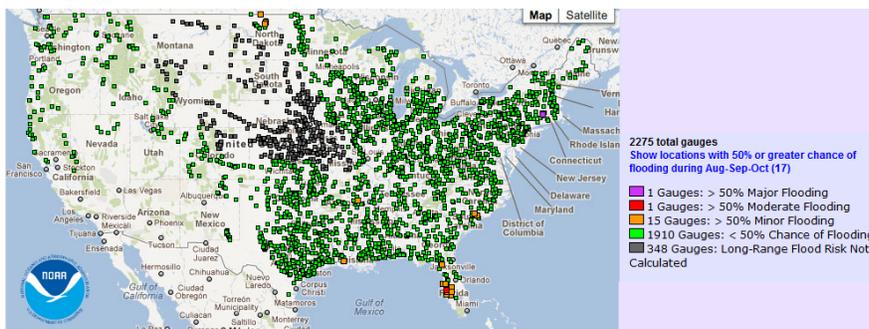
# Weekly Snowpack and Drought Monitor Update Report

## Streamflow



The streams are high over much of the Mississippi River Basin, the central Rockies, the Southwest, Florida, the Pacific Northwest, and the Northeast due to recent precipitation (left maps). Southern and central Alaska are also reporting some high streamflow. Flooding is occurring along the Souris River in North Dakota and the Neuse River in North Carolina, where the rivers are above flood stage (lower left map).

## National Long-Range Outlook



Click maps to enlarge and update

Currently the Upper Midwest part of the map has not been calculated for the long range flood outlook (dark gray dots).

During the next three months, there is a risk of flooding in many areas of the upper Mississippi and Missouri Rivers, west-central Florida, and the Connecticut River. Currently, **1** gage has a greater than 50% chance to experience major flooding; **1** gage for moderate flooding; and **15** gages for minor flooding.

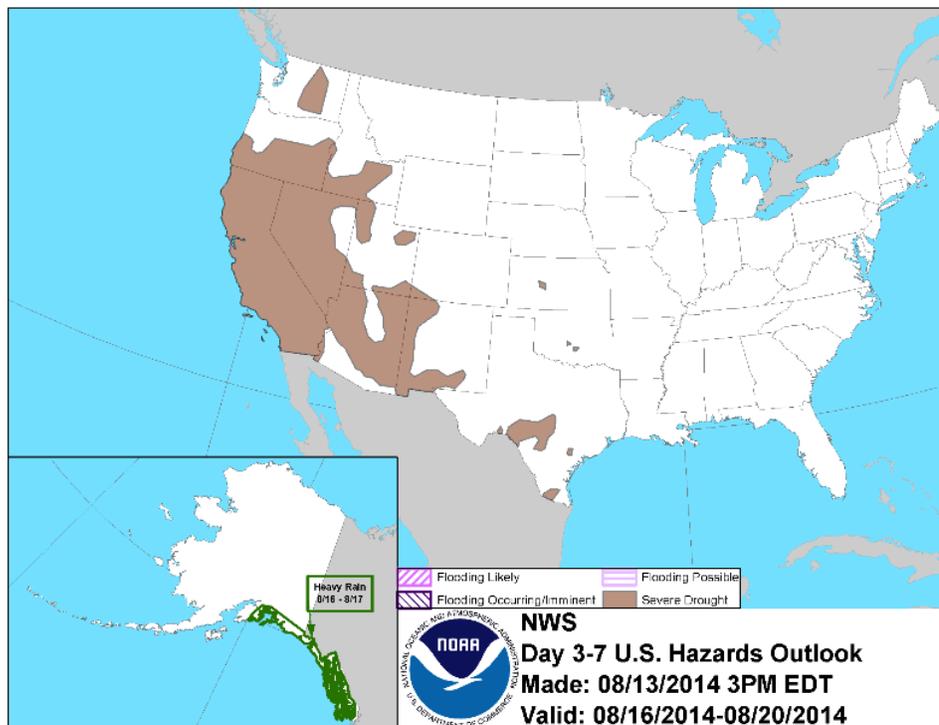
These numbers represent a 1-gage increase in minor flooding since last week.

## Weekly Snowpack and Drought Monitor Update Report

### National [Weather hazards](#)

Very little hazards are expected for the coming week. Severe drought remains a large issue in much of the western U.S.

Heavy rain is expected in southern and southeast Alaska.



### [National Drought Summary for August 12, 2014](#)

Prepared by the Drought Monitor Author: Richard Tinker, NOAA/NWS/NCEP/CPC

#### **Hawaii and Puerto Rico**

"In Hawaii, heavy rains fell on most locations, primarily associated with then Tropical Storm Iselle. This brought an end to whatever dryness existed statewide, except for that associated with low reservoir levels in north-central Molokai.

In Puerto Rico, light to moderate rain fell on the area of dryness and drought, keeping conditions roughly unchanged from last week.

#### **The Far West**

It was seasonably dry along the West Coast, with measurable precipitation limited to parts of the Sierra Nevada and northeastern California. To wit, areas of dryness and drought remained unchanged. The major reservoirs in California are in aggregate at 59% of the historical average, still above the 41% of average recorded during the 1976-77 drought. But some reservoirs are below 1977 levels, especially in west-central parts of the state, and water restrictions have been imposed statewide.

#### **The Northeast**

Light to moderate rain fell on the dry area in the Northeast, with a few locations reporting more than an inch of rain. No changes were made to the D0 area, where many locations are 2 to almost 4 inches below normal for the last 60 days.

#### **The Rockies and Intermountain West**

Generally moderate to heavy rains of 0.5 to locally over 3.0 inches fell from central Idaho and northwestern Wyoming southward through northeastern Nevada and adjacent Utah. Farther north, little or no rain fell, and across the southern

## Weekly Snowpack and Drought Monitor Update Report

half of the Rockies and Intermountain West, only scattered totals of over 0.5 inch and isolated reports topping one inch were noted.

Monsoonal rainfall was relatively light in most locations, and with little or no rain affecting the southern deserts of Arizona, D3 conditions were expanded throughout that region. Farther north, increasing deficits led to deterioration in several areas of Utah, and dryness and drought expanded in central and western Montana, where streamflows and vegetative health were declining. Across Utah, most of Arizona, and adjacent sections of New Mexico and southwestern Colorado, only one-half to two-thirds of normal precipitation has fallen during the last 6 to 9 months.

The elevation of the Lake Mead water level has dropped to 1080 ft. (54% of the historical average), the lowest since the lake was being filled in the 1930's. This is closest Lake Mead has come to dropping to its "ration level one" of 1075 ft. It has been below its "drought" level of 1125 ft. for 28 of the past 33 months.

Lake Powell is low, but faring better. After reaching a level of 3574 ft. in mid-April (just over the 3rd percentile since 1964, and 64% of the historical average), the lake rebounded to 3608 ft. at the end of July (20th percentile).

### The Southeast

As in areas farther north, a highly variable rainfall pattern, but most locations received an inch or more of rainfall, with 4 to locally 6 inches reported in parts of the central and southern Appalachians and at scattered locations from southwestern Virginia southward through Georgia. In contrast, amounts under an inch were also scattered through the same region, especially prevalent in eastern North Carolina, the west-central Carolinas, and much of Georgia. This resulted in a number of relatively local changes to the Drought Monitor, among them the removal of D0 in parts of southwestern Virginia, western South Carolina, and eastern Georgia. However, abnormal dryness and moderate drought was expanded in southern Georgia and adjacent Florida, and across central Alabama. Most areas across south-central and southwest Georgia, northwestern Florida, and both central and far southern Alabama received 4 to locally 8 inches less than normal rainfall in the last 60 days.

### The Southern Great Lakes, and the Ohio and Tennessee Valleys

Showers and thunderstorms resulted in a lot of spatial variability in rainfall totals. Moderate to heavy rains fell on a swath from southern Illinois eastward and southeastward through central and eastern Kentucky and the eastern half of Tennessee. In contrast, only light rain fell on much of western Kentucky, northwestern Tennessee, western Ohio, and most of Indiana. As a result, a new abnormally dry area was introduced from central Indiana into south-central Michigan, where less than half of normal rainfall was reported over the past 30 days, and deficits of 2 to almost 4 inches accumulated since mid-June. Farther south, in the swath of dryness and moderate drought in western Kentucky and northwestern Tennessee, the variable precipitation pattern essentially shifted these areas slightly westward toward the confluence of the Ohio and Mississippi Rivers. Deficits exceed 4 inches over the past 60 days in part of southwestern Kentucky and adjacent Tennessee.

### The Western Great Lakes and the Plains States

Moderate to very heavy rain, 4 to 8 inches in some areas, fell on many locations from the northeastern half of Oklahoma, Kansas, and southern Missouri northward through southern South Dakota, southwestern Minnesota, and the southwestern half of Iowa. Moderate rain was more scattered through the rest of this large region, with 0.5 inch or less falling on most of the upper Midwest, the central High Plains, southwestern Oklahoma, and central through northeastern Texas.

As a result, areas of dryness and drought improved significantly across south-central South Dakota, central Nebraska, central Missouri, southeastern Kansas, central through eastern Oklahoma, and parts of central and northern Texas, plus a few smaller, isolated locations. The small area of exceptional drought was removed in eastern Colorado, and extreme dryness was eliminated in southern New Mexico, with additional improvements in other central and eastern

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parts of the state. However, in areas that missed the heavier precipitation, some areas of abnormal dryness were introduced, specifically in western Nebraska, western South Dakota, southwestern Wisconsin, north-central Iowa and adjacent Minnesota, and north-central Missouri. These areas generally received well under half of normal rainfall since mid-July, and 60-day shortages of 2 to almost 4 inches affect north-central Missouri, north-central Iowa and adjacent Minnesota, and southwestern Wisconsin.

### Looking Ahead

*August 14 – 18, 2014 is expected to bring a swath of moderate to locally heavy rain (0.5 to 2.5 inches) from the northernmost reaches of the Cascades, Intermountain West, and Rockies southeastward through most of the Dakotas, the upper Mississippi Valley, the southern Great Lakes Region, and the Ohio Valley. Light rainfall is expected for most other regions of dryness and drought, with scattered moderate rains dampening the Rockies. Little if any precipitation is expected in much of Georgia and South Carolina, central and southern Texas, the Great Basin, and the Far West south of the Cascades.*

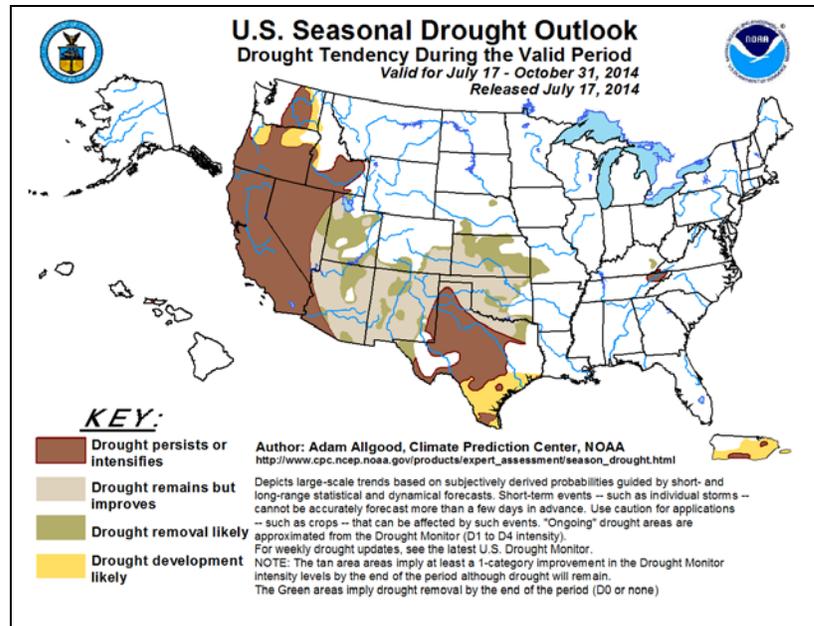
*The ensuing 5 days (August 19 – 23) favor above-median rainfall from the northern Rockies eastward through the northern Plains, the middle and upper Mississippi Valley, the Great Lakes, the Ohio Valley, the upper South, and the Northeast outside of New England. Below-median precipitation is anticipated for Oregon, Nevada, Utah, the Four Corners States, Texas, and adjacent parts of neighboring states. Elsewhere, neither unusually dry nor wet weather is favored.”*

### Supplemental Drought Information

#### National Seasonal Drought Outlook

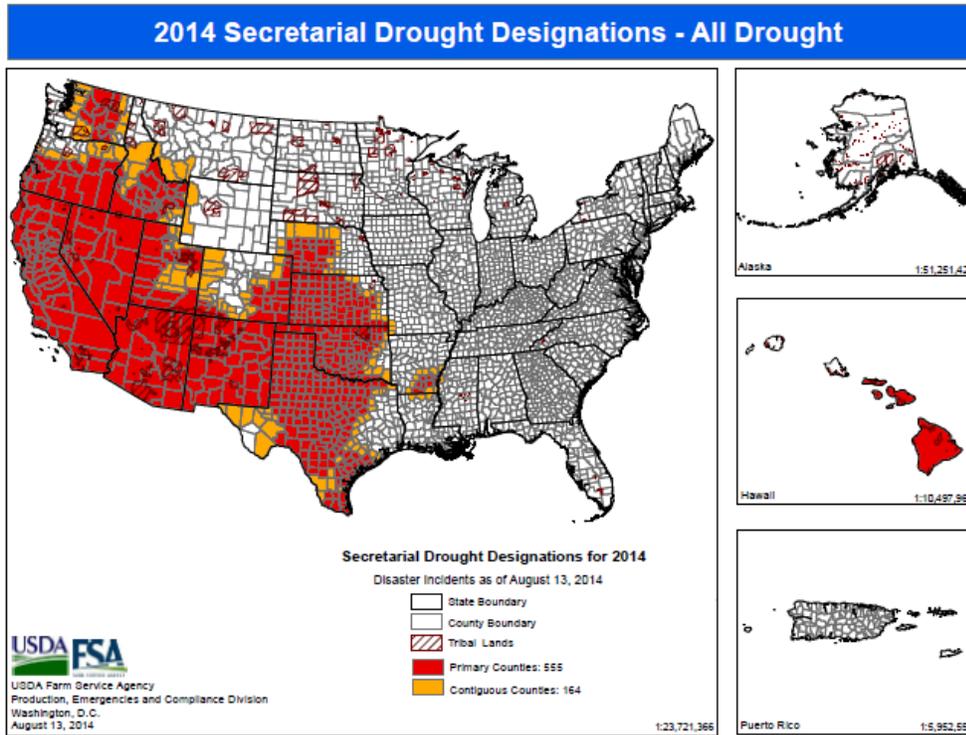
[Drought](#) is expected to persist over much of the West and the southern Great Plains. Improvements are expected from the Southwest to the central Great Plains.

Also see: [National Significant Wildland Fire Potential Outlook](#) (updated on the **first** of each month) contains a content summary of the previous month's conditions.



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## 2014 USDA Secretarial Drought Designations

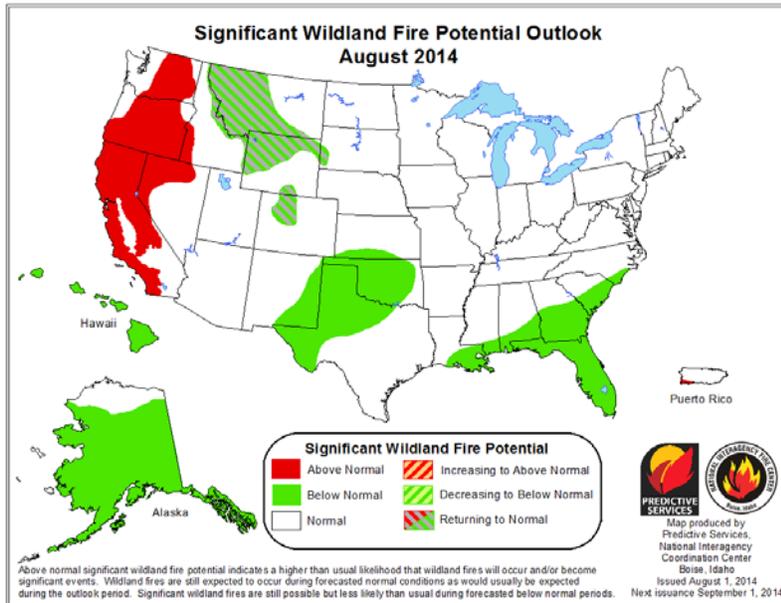


Refer to the USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#).

Read about the new [USDA Regional Climate Hubs](#).

[New useful resource: NASS Quick Stats](#)

## National Fire Potential Outlook



### August Forecast

Above normal [fire potential](#) continues in California, Nevada, Oregon, Washington, and western Idaho. The southwest tip of Puerto Rico also has above normal fire potential.

Fire potential is returning to normal in the northern Rockies of Idaho, Montana, Wyoming, and Colorado.

The below normal fire potential area is forecast in the lower Mississippi River Basin east to Florida, eastern New Mexico through northern Texas, and most of Oklahoma. Below normal conditions are also reported in all of Hawaii and all but northern Alaska.

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### Additional Maps

U.S. Maps PowerPoint presentation: <http://dmcommunity.unl.edu/maps/US-Maps.ppt>.

Regional zooms of ACIS station data percent-of-normal precipitation:  
<http://dmcommunity.unl.edu/maps/All-CONUS-ACIS-PNP.pptx>.

National Water and Climate Center (NWCC) Surface Water Supply Index (SWSI) maps:  
<http://www.wcc.nrcs.usda.gov/wsf/swsi.html>

### Supplemental Drought-Agriculture News

Download [archived](#) "U.S. Crops in Drought" files

The following is a collection of drought-related news stories from the past seven days or so. Impact information from these articles is entered into the [Drought Impact Reporter](#). A number of these articles will also be posted on the [Drought Headlines](#) page at the NDMC website. The list is compiled by Denise D. Gutzmer, Drought Impact Specialist, and National Drought Mitigation Center.

"As drought continues its squeeze on the Southwest, more wildlife issues were emerging because animals can only adapt so much and cannot relocate easily.

### Wildlife

#### Flightless geese rescued from dry pond near Sacramento

About 50 flightless geese were rescued from a drying pond in Woodland, where foxes and coyotes were devouring the geese. The director of Carolina Waterfowl Rescue and two other colleagues flew from Charlotte, North Carolina to take care of the geese and move them to wetter sites in Santa Cruz, Orland and Bakersfield.

#### Low water impeding fish movement in Napa River in California

Fewer young steelhead trout were moving down the Napa River to the ocean as measured by an annual count of the native fish. Biologists and volunteers with the Napa County Resource Conservation District counted just 31 steelhead smolts and no young Chinook salmon between March and June, for the lowest number in six years. Drought has reduced the flow of the Napa River, making it difficult for the fish to make it down the river.

#### Trees succumbing to dry weather

Drought was stressing and killing trees in Davis, said the Davis urban forest manager. The number of tree failures has increased from 152 in 2012 to 203 in 2013. Modesto ash species and pear trees were manifesting the most stress.

#### Oyster production affected by drought, other factors

Oyster production was down along the Texas Gulf Coast as sediment from Hurricane Ike in 2008, warmer water temperatures, higher salinity due to drought, and greater water consumption have all contributed to the decline in the oyster population. Parasites and disease pose more of a problem for oysters when the salinity is higher. Fewer oysters mean higher prices.

### Ongoing wildfires

#### State of emergency due to wildfires in California

The governor of California issued an emergency proclamation of a state of emergency on Aug. 2 as lightning-sparked wildfires blazed in El Dorado, Amador, Butte, Humboldt, Lassen, Madera, Mariposa, Mendocino, Modoc, Shasta and Siskiyou counties. On Aug. 1, there were 17 wildfires burning in the state and had scorched thousands of acres. The emergency proclamation allowed all agencies of the state government to utilize and employ state personnel, equipment and facilities for the performance of activities related to fire fighting.

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### Water shortage concerns

#### Water shortage in Klamath Basin in southern Oregon, northern California

About a third of the irrigators in the Klamath Basin of Oregon and California received notice from the U.S. Bureau of Reclamation that water was at an end this year. Letters from Reclamation said that inflows to the Klamath Reclamation Project's primary reservoir were below pre-season forecasts from the Natural Resources Conservation Service, resulting in a reduction in water releases to districts with junior water rights so that minimum levels for endangered fish could be met. Fifty thousand acres of land will not receive any more water this year. Since most of those farms grow hay, those farmers may lose up to half of their crop for the year.

#### Low groundwater level bringing changes to UC Davis campus

The water level in one well on the University of California Davis campus dropped by 82 feet between April and June as drought draws down water supplies. The pumping rate was lowered to reduce the strain on Domestic Well No. 7A, which usually provides about 60 percent of the drinking water for the campus, and allow it to recover, but the water level dropped an additional 14 feet in July, said the UC Davis director of utilities. Other campus wells have dropped by an average of 35 feet.

Students and employees were asked to cut water use by 20 percent, but the goal had not been reached. Decreases in landscape irrigation have greatly exceeded 20 percent, and work was underway to use the water in the cooling towers more efficiently.

#### Hydropower production in California

The Pacific Gas and Electric Company held back water during the spring of 2014 and generated less hydropower, with the expectation that the water would be needed for electricity production during the summer when demand for power would be higher. The California Energy Commission estimated that hydroelectric production in the Sierra Nevada in 2014 would be roughly half the production in 2010, which was a normal hydroelectric year. Powerhouses along 16 rivers in the Sierra region generated about 31.7 million megawatt-hours of electricity in 2010, but in 2014, these powerhouses are expected to produce just 17 million MWh.

#### Great Salt Lake in Utah becoming too shallow

At least 70 boats had been removed from the Great Salt Lake Park Marina as the lake dips to its lowest level in more than 50 years.

#### Water conservation in Western Nevada

The Truckee Meadows Water Authority has asked customers to curb water use by 10 percent and has ended irrigation deliveries. The TMWA will begin using water from its reserves, something the agency has not done since 1994.

#### Drought dented Cargill's yearly profit

Cargill, producer of food and agricultural products, saw a 12 percent decline in its net earnings of \$424 million for the fourth quarter, ending May 31, compared to \$483 million for the fourth quarter in 2013. Revenue, however, was up 2 percent for the quarter to \$36.2 billion, in comparison with \$35.4 billion in 2013. The drop in fourth quarter earnings can be traced to adjustments the company made to cope with Venezuela's change in currency exchange rates.

Cargill's profits for the year were \$1.87 billion, 19 percent lower than last year. The decrease occurred due to China's rejection of some U.S. corn shipments, drought in the U.S. in 2013 and higher transportation expenses related to the railcar shortage.

#### Another beef plant closing

L. and H. Packing Company in San Antonio announced plans to close due to drought and the smaller cattle herd. Cargill revealed its plans to close a beef plant in Milwaukee last week.

#### Biodegradable product in use to reduce evaporation near Wichita Falls, Texas

Wichita Falls water authorities began using a biodegradable palm oil- and lime-based product to reduce evaporation from Arrowhead Lake, which has dropped to 22 percent of capacity. The pilot project, which

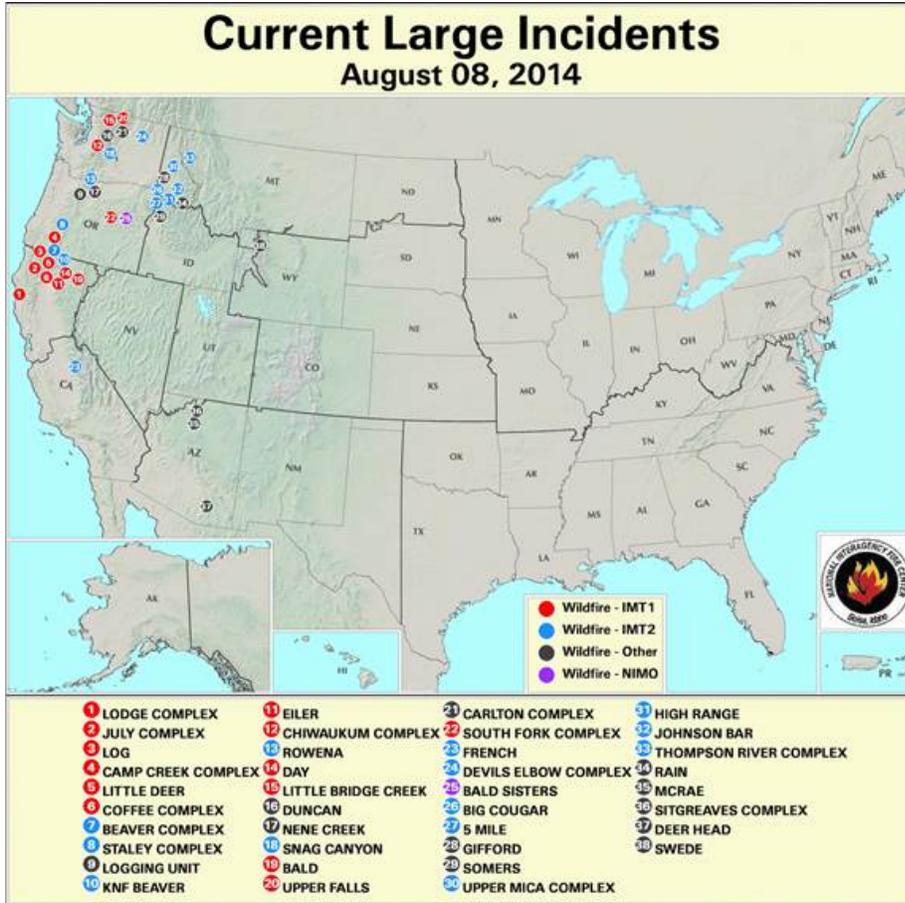
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started on July 23 and will last for 75 days, will cost the city \$375,000. Crews must reapply 5,700 pounds of the mixture every three days to replace the material as it breaks down.

### Paddle wheel boat ran aground on sand bar on Lake Tahoe, nearly 300 people ferried to shore

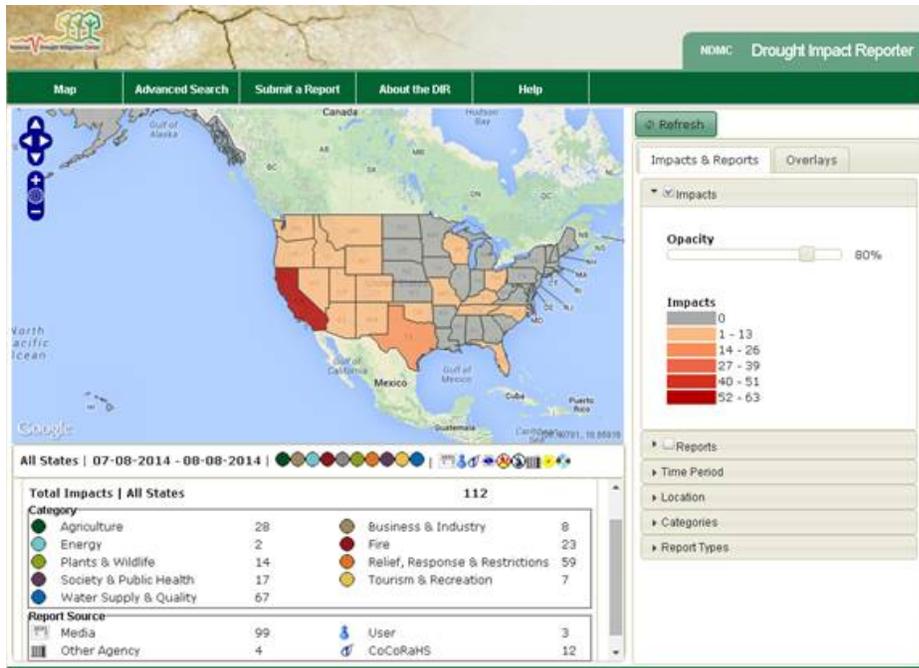
About 300 people were rescued on South Lake Tahoe on Aug. 4 after the paddle wheel boat they were on ran aground onto a sand bar. The boat, its crew and 257 passengers were stranded roughly 600 yards from Regan Beach.

Plenty of wildfires were charring parts of the Northwest. From the [Active Fire Mapping Program](#)



Most of the impacts in the [Drought Impact Reporter](#) are found in the West, but more impacts are popping up in the East.

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### Tea Cup Reservoir Depictions

- <http://www.usbr.gov/uc/water/basin/> ← Upper Colorado
- [http://www.usbr.gov/uc/wcao/water/basin/tc\\_gr.html](http://www.usbr.gov/uc/wcao/water/basin/tc_gr.html); ← Upper Snake
- <http://www.usbr.gov/pn/hydromet/burtea.html> ← Upper Colorado
- [http://www.usbr.gov/uc/water/basin/tc\\_cr.html](http://www.usbr.gov/uc/water/basin/tc_cr.html) ← Upper Colorado
- <http://www.usbr.gov/pn/hydromet/select.html> ← Pacific Northwest
- <http://www.sevierriver.org/reservoirs/teacup-diagram-of-reservoirs/> ← Sevier River Water (UT)

### State Activities

[State government drought activities](#) can be tracked through their drought plans. NRCS Snow Survey and Water Supply Forecasting (SSWSF) Program State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SSWSF information. Additional information describing the [tools](#) available from the Drought Monitor can also be found at the [U.S. Drought Portal](#).

### More Information

The National Water and Climate Center (NWCC) [Homepage](#) provides the latest available snowpack and water supply information. This document is available [weekly](#). CONUS Snowpack and Drought Reports from 2007 are available online. Reports from 2001-2006 are available on request.

This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

David W. Smith

Deputy Chief, Soil Science and Resource Assessment