



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

Weekly Water and Climate Update Thursday, February 12, 2015

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NRCS Snow Survey and Water Supply Forecasting [Photo Contest](#)

Photo: 2nd Place, Tie
Equipment: Independence
Mine Snow Course, Alaska

Photographer: Daniel Fisher
NRCS Alaska

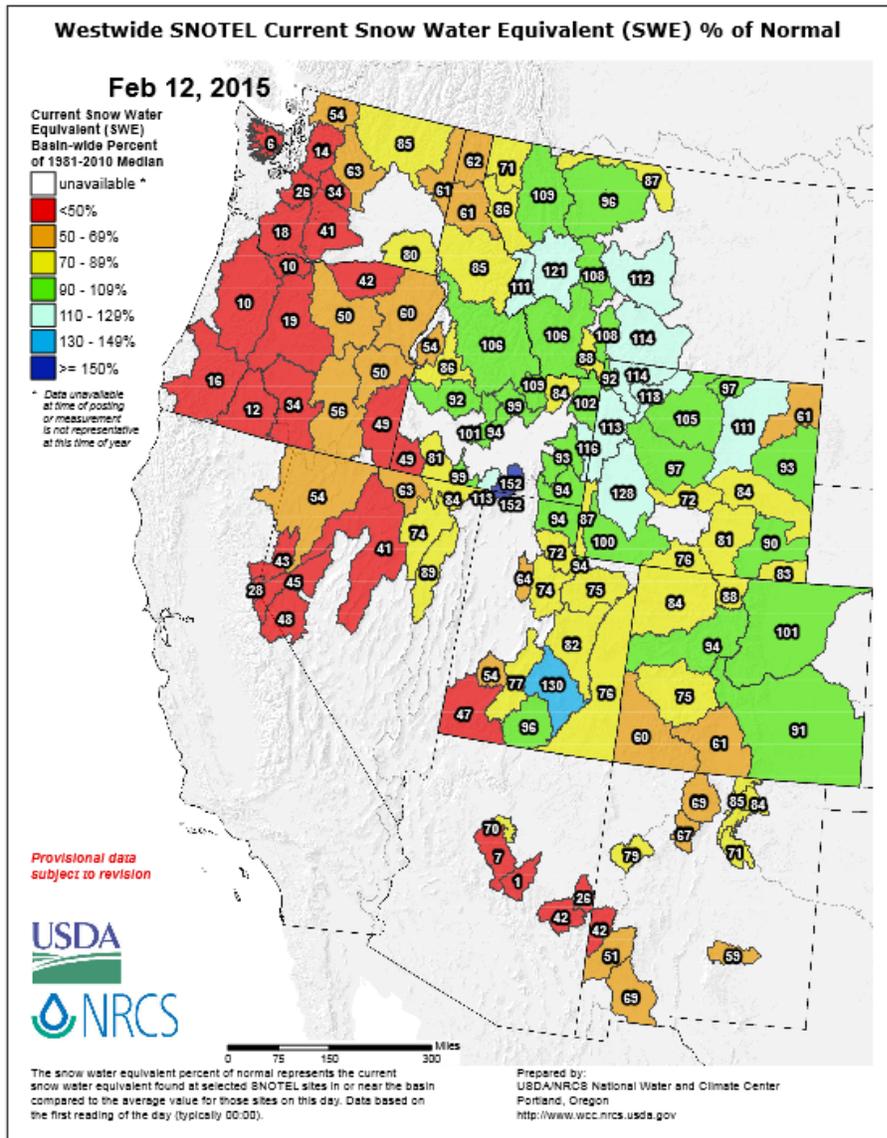
Outlook: “The passage of a pair of Arctic cold fronts will maintain frigid conditions across the Midwest and Northeast into next week. Widespread snow showers will accompany the surges of cold air, and squalls will linger in the vicinity of the Great Lakes. By early next week, cold conditions will spread westward to the Plains, but unusual warmth will persist in the West. Precipitation will be light during the next few days, except for some weekend snow in the winter-weary northern Atlantic region. By early next week, however, a storm will take aim on the Rockies, as well as the South, East, and lower Midwest—with a variety of precipitation types expected depending upon location. The NWS 6-10 day outlook for February 17-21 calls for a strong likelihood of below-normal temperatures from the Rockies to the East Coast, while warmer-than-normal weather will be confined to areas from California eastward to Arizona and Utah. Meanwhile, below-normal precipitation in the Far West and from the upper Midwest into the Great Lakes region will contrast with wetter-than-normal conditions in a broad area stretching from the central and southern Rockies into the southern and eastern U.S.”

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>

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

Snow

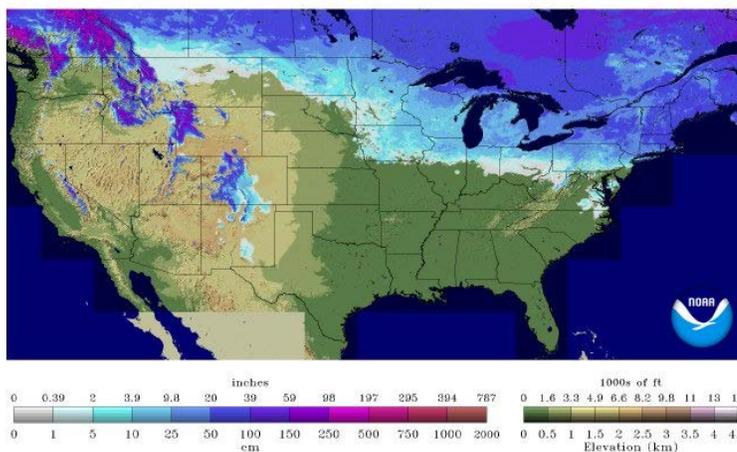


The [Westwide SNOTEL Current Snow Water Equivalent \(SWE\) % of Normal map](#) shows the largest snowpack deficits (red areas) in the Cascades and Olympics of Oregon and Washington, the Sierra Nevada in Nevada and California, as well as basins in Arizona, one in western New Mexico and one in southwest Utah. Still less than normal, but not quite as dry, are snowpacks in parts of eastern Washington and Oregon, northern Idaho, Utah, Nevada, southwest Colorado, Wyoming, much of New Mexico, and a few basins in Montana (orange and yellow areas).

Some basins in Wyoming, Montana, southern Idaho, and Utah have recorded above normal SWE values (blue areas).

National Snow 2014-2015 Analysis 2015

Snow Depth
2015-02-12 06 UTC



Weekly Water and Climate Update

Precipitation

2015, an unusual year...

So far this winter the snowpack in the Cascades and Sierra Nevada are at or near record lows. In the last several weeks, the precipitation in this same area is well above average. The overriding influence in these unusual circumstances is the persistent warm temperatures that have dominated the snowpack processes.

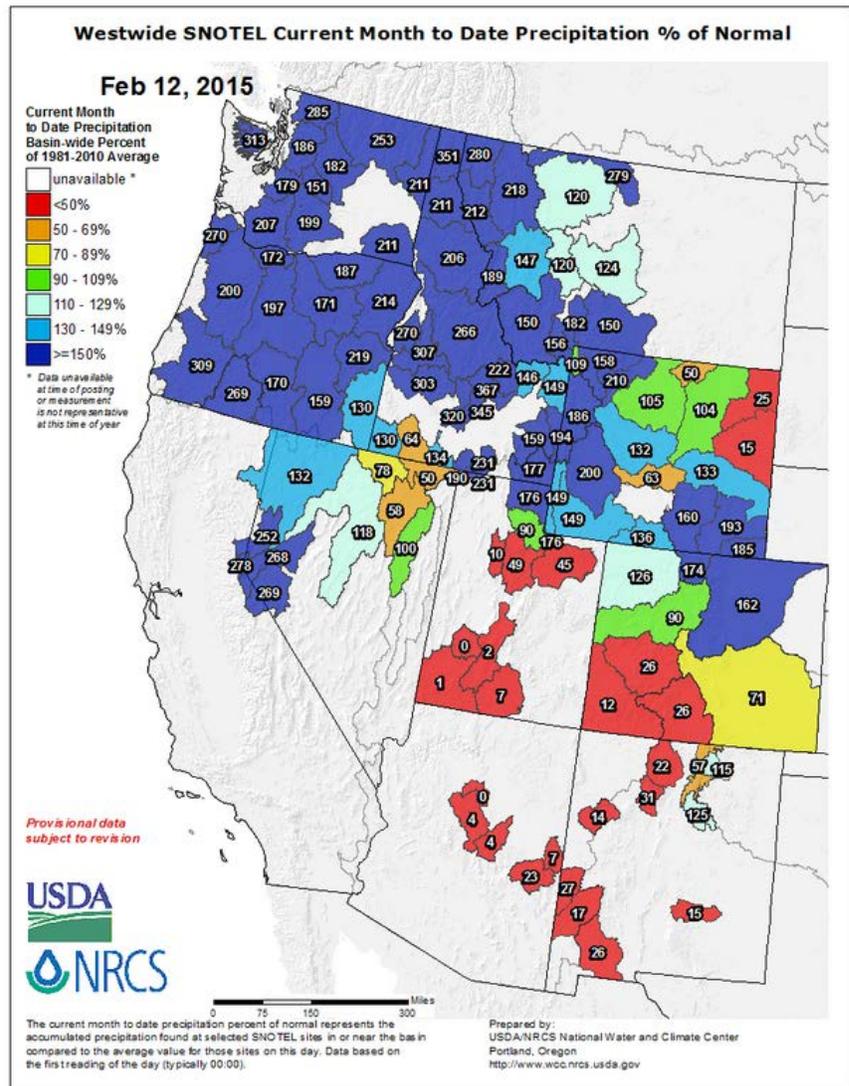
Freezing levels have remained well above the elevation of many SNOTEL sites, and snow has been confined to the highest elevations and in a very small area of the watersheds of the West. The recent heavy precipitation, especially in the Cascades of Oregon and Washington and down to the northern Sierra and Trinity Alps of California, has helped to alleviate any soil moisture, groundwater, and reservoir deficits. This has offset the current effects of the dire dry conditions that the area has experienced, but portends future deficits in spring and summer streamflow with little to no snow support to reserve water for the future.

In the West, the [SNOTEL](#) precipitation percent of normal map for the first part of February shows that much of the northern basins in the West have been very wet. Above normal precipitation occurred in Washington, Oregon, northern California and Nevada, Idaho, Montana, Wyoming, northern Utah, and northern Colorado (blue areas).

The distinct line of below normal precipitation occurred across central and southern Utah, southern Colorado, Arizona, and New Mexico (orange and red areas). Also lacking in precipitation is an area of northeast Nevada, southern Idaho, and a few basins in Wyoming.

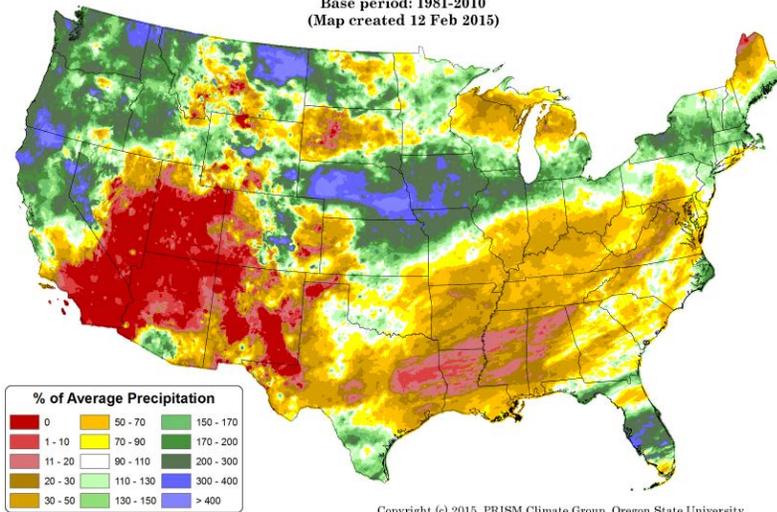
The percent of average may be exaggerated over a short period of time and dependent on normal conditions for this time of year.

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



Weekly Water and Climate Update

Total Precipitation Anomaly: 01 February 2015 - 11 February 2015
 Period ending 7 AM EST 11 Feb 2015
 Base period: 1981-2010
 (Map created 12 Feb 2015)



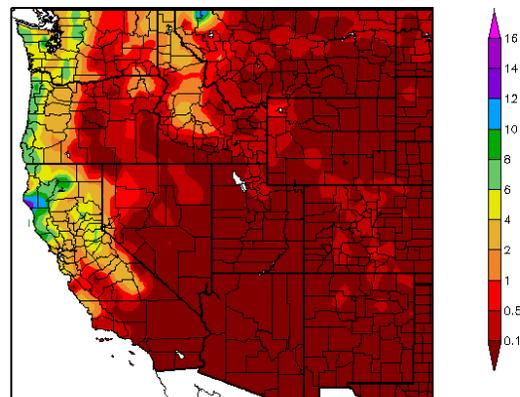
Thus far in early February 2015, the national total [precipitation anomaly](#) pattern reveals some higher than normal precipitation, primarily in the central U.S., but also includes some northwestern states, the Northeast, and Florida. There was little or no precipitation in the Southwest, parts of the northern Great Plains, the southern Mississippi Valley, and northern Maine (red and dark orange areas).

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.

The [ACIS 7-day](#) total precipitation map for the western U.S. shows precipitation scattered across most of the west coast, the Northwest, and northern states. This includes areas in Oregon, Washington, California, Nevada, Idaho, and Montana. The highest areas of significant precipitation were in northern California.

Little to no precipitation fell across most of Arizona, New Mexico, southern California, Utah, and Wyoming this week (dark red). In addition, scattered basins in Montana, Wyoming, and Colorado also received little or no precipitation.

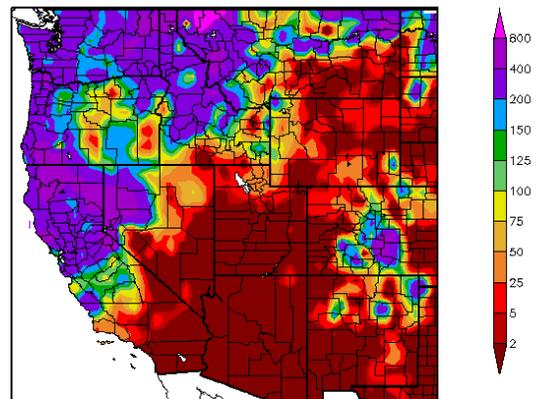
Precipitation (in)
2/5/2015 - 2/11/2015



This percent of normal [map](#) of the West for the last seven days reflects precipitation scattered across many parts of the region. The heaviest percent of normal precipitation fell in northern Montana (over 800%). Other significant rainfall was recorded in a large area of Washington, Oregon, California, western Nevada, Idaho, Montana, and parts of Colorado and New Mexico (purple areas). There were a few areas of little to zero percent of normal precipitation in southern California, Nevada, Utah, Arizona, New Mexico, and parts of Colorado, Wyoming, and Montana (red areas).

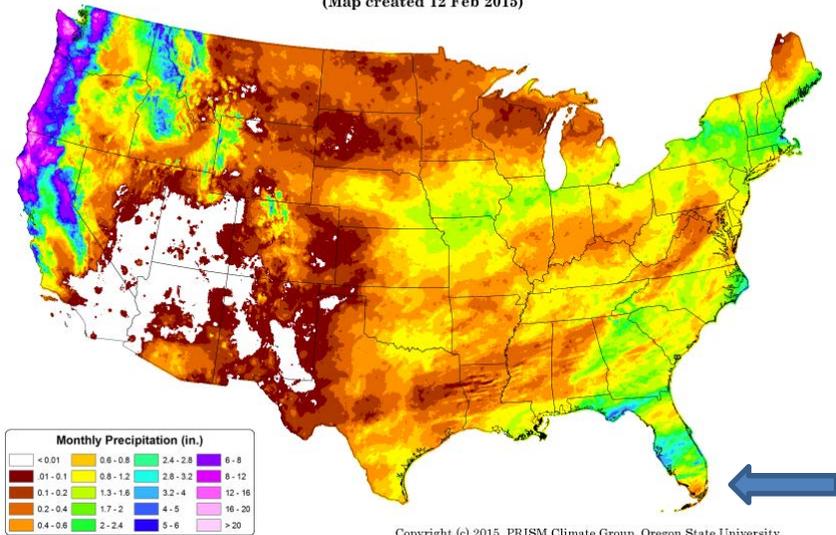
Percent of normal precipitation may be exaggerated in areas where the average for this seven day period is at or near zero.

Percent of Normal Precipitation (%)
2/5/2015 - 2/11/2015



Weekly Water and Climate Update

Total Precipitation: 01 February 2015 - 11 February 2015
 Period ending 7 AM EST 11 Feb 2015
 (Map created 12 Feb 2015)



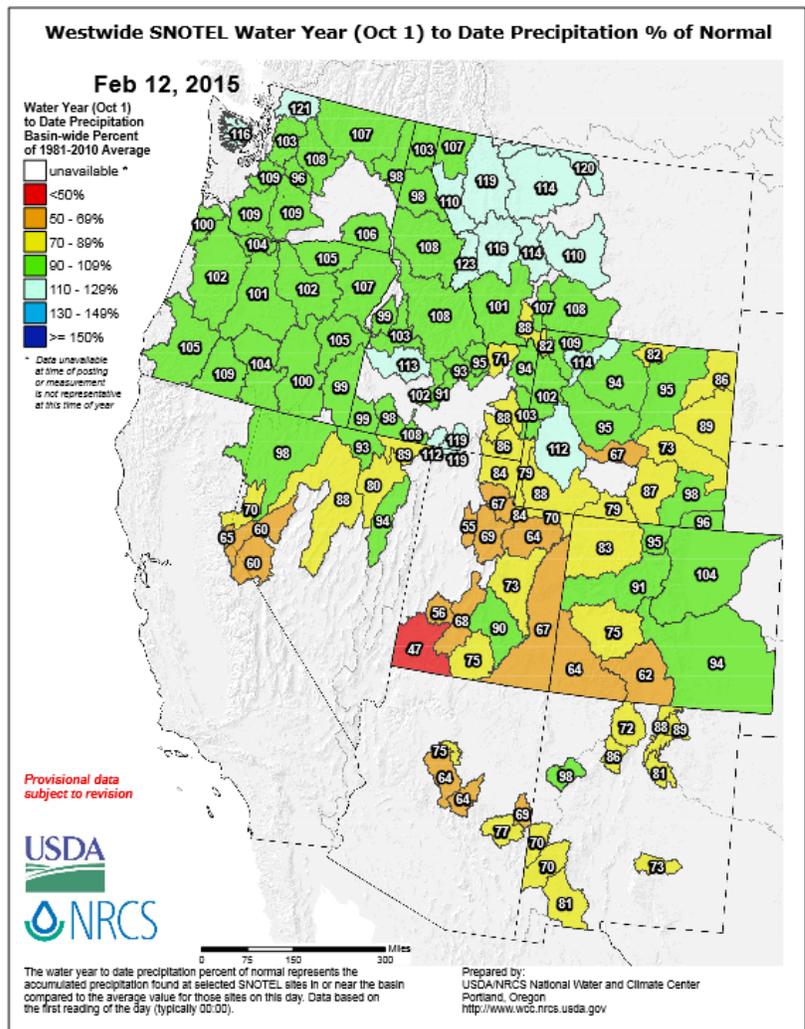
Copyright (c) 2015, PRISM Climate Group, Oregon State University

In the first 11 days February 2015, the [total precipitation](#) across the continental U.S. was heaviest along the Pacific coast. The southern coastal mountains of Oregon and California had over 16 inches of precipitation. Precipitation also fell over other parts of the Northwest, Midwest, South, and Northeast. In contrast, much of southern California, Nevada, Utah, the Southwest, parts of the South, northern Great Plains into the upper Midwest, and northern Maine were mainly dry.

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

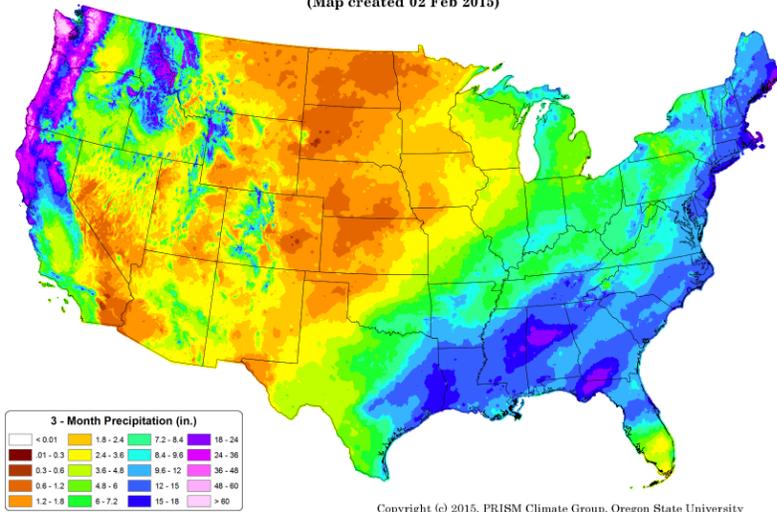
For the [2015 Water Year](#) that began on October 1, 2014, the highest precipitation surpluses in the West are only slightly higher than average. Most of central Montana, two basins in western Wyoming, several basins in southern Idaho, one basin in northwest Utah, and two basins in western Washington are above 110 percent at this time.

Many basins across the West have near normal conditions for this part of the Water Year (mapped in green). A few areas have less than normal precipitation for the Water Year. These include basins in eastern Idaho, parts of Wyoming, most of Utah, western Colorado, California, parts of Nevada, Arizona, and New Mexico (mapped in yellow and orange). Southwest Utah has one basin with much below normal precipitation (red area).



Weekly Water and Climate Update

Total Precipitation: November 2014 - January 2015
 Period ending 7 AM EST 31 Jan 2015
 (Map created 02 Feb 2015)



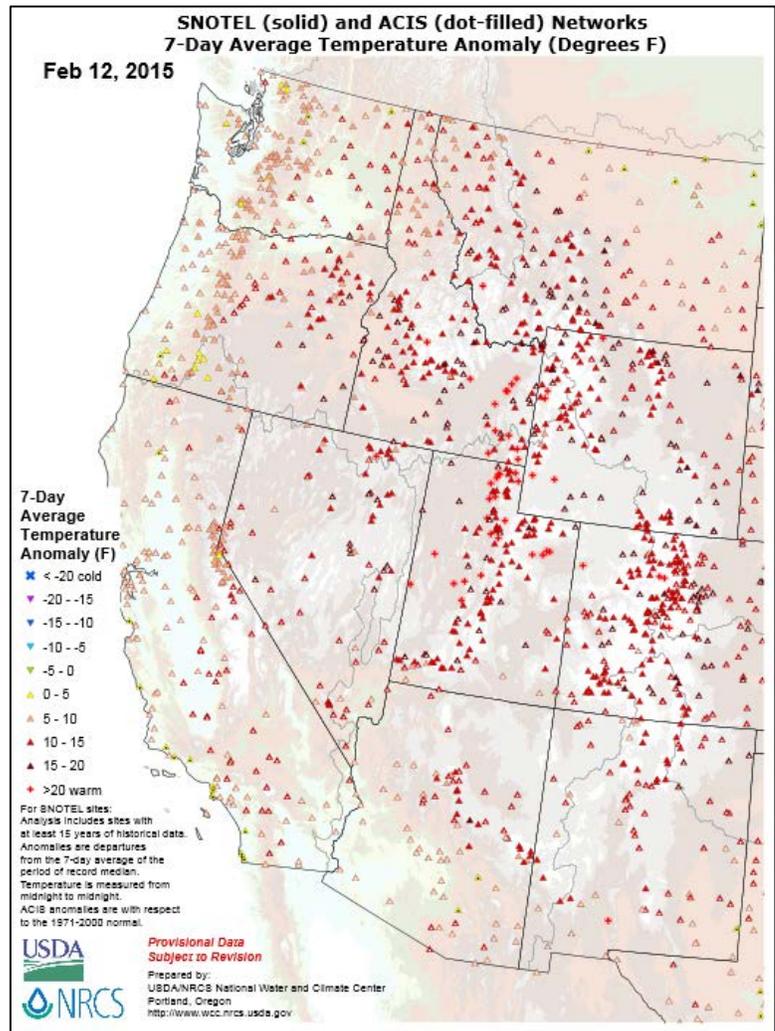
The national map of the [three-month period](#) (November - January) shows that the eastern half of the nation received precipitation in the range from 6 inches to greater than 18 inches. Parts of the West, especially in the mountains, also received significant precipitation. The highest amounts over 48 inches were recorded in Oregon and Washington.

In contrast to the eastern U.S. and Pacific coast, parts of the West and much of the Midwest received totals of less than 1.8 inches.

Temperature

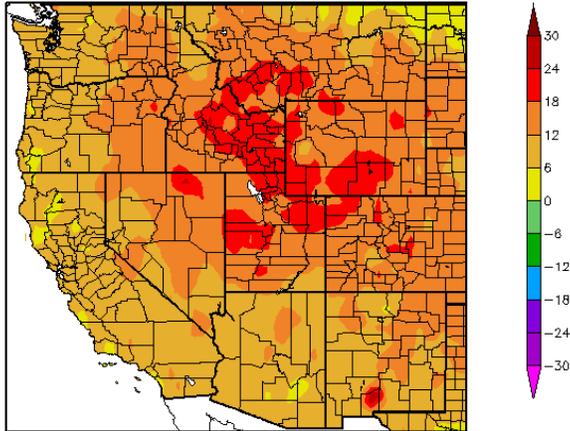
The SNOTEL and ACIS [7-day temperature anomaly](#) map for the western U.S. shows most of the West was much warmer than normal again this week. It was very warm everywhere, with the warmest recorded temperature anomalies centered in Utah, southern Idaho, eastern Nevada, western Colorado, and western Wyoming, where anomalies were above 20 degrees F. These states and most of the surrounding states, including Montana, Oregon, Arizona, and New Mexico had temperature departures from normal to more than 15 degrees. Other scattered warmer than normal temperatures occurred in California, Oregon, and Washington.

There were a few stations with near normal temperatures in western Oregon, western Washington, western California, and in southern Arizona and northeast Montana. There were no cool anomalies in the region.



Weekly Water and Climate Update

Departure from Normal Temperature (F)
2/5/2015 – 2/11/2015



The [ACIS](#) map of the 7-day average temperature anomalies in the West ending February 11, shows that the greatest positive temperature departures occurred in northern Utah, northwest Colorado, western Wyoming, eastern Idaho, and southern Montana (>+18°F). Other warm temperatures occurred in the entire West, including California, Nevada, Idaho, Oregon, Washington, Arizona, and New Mexico. There were no negative temperature departures.

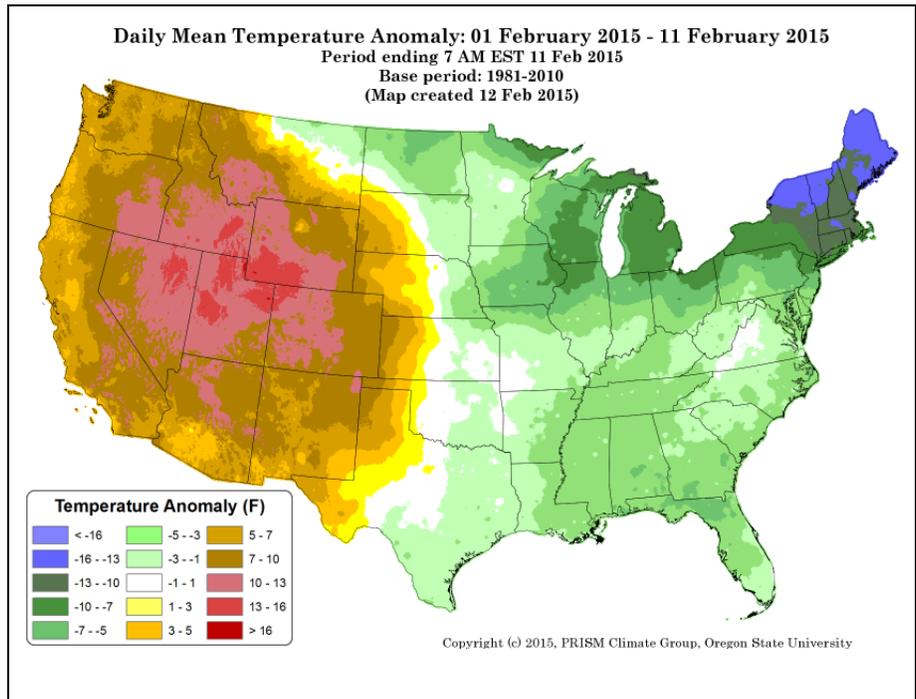
Also, see [Dashboard](#) and the [Westwide Drought Tracker](#)

Generated 2/12/2015 at HPRCC using provisional data.

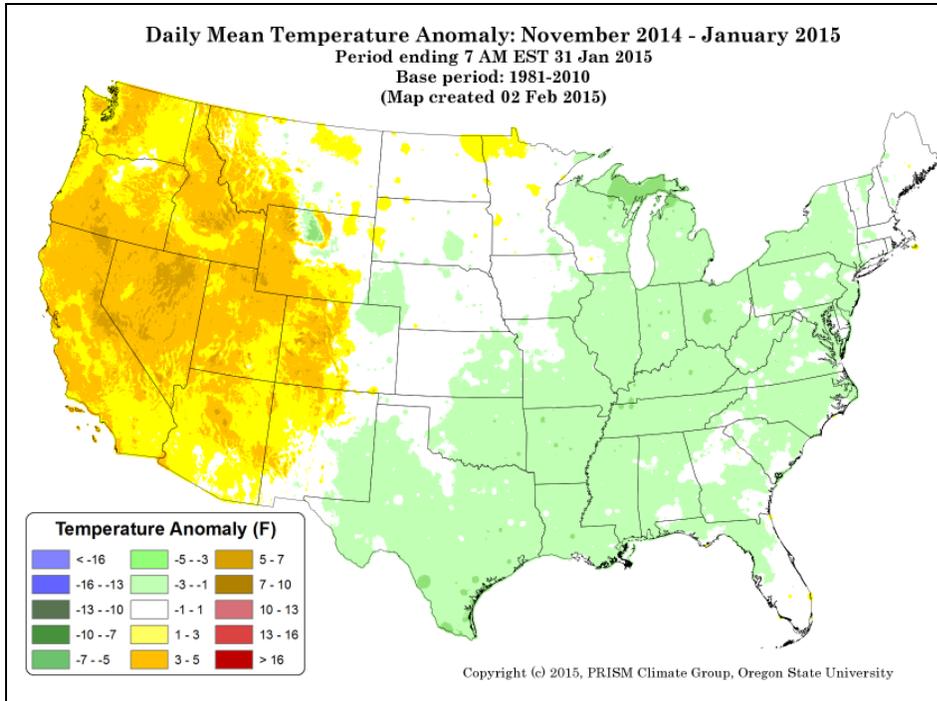
Regional Climate Centers

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.

Thus far in February 2015, the national daily mean temperature anomaly [map](#) shows a large, cool region over the eastern half of the country, with the coldest anomaly in northern New England (<-13°F). In contrast, above normal temperatures were recorded in all of the West, with the warmest anomalies in northern Utah, eastern Nevada, southern Idaho, western Wyoming, and northwest Colorado (>+13°F).



Weekly Water and Climate Update



The November - January national daily mean temperature anomalies for the U.S. in this [climate map](#) shows the western U.S. had slightly to above normal temperatures ($>+5^{\circ}\text{F}$). The central and northern Great Plains reported normal to slightly cooler than normal temperatures for this period, with the coolest temperatures in a large area covering most of the Midwest and eastern U.S. ($<-3^{\circ}\text{F}$).

Weather and Drought Summary

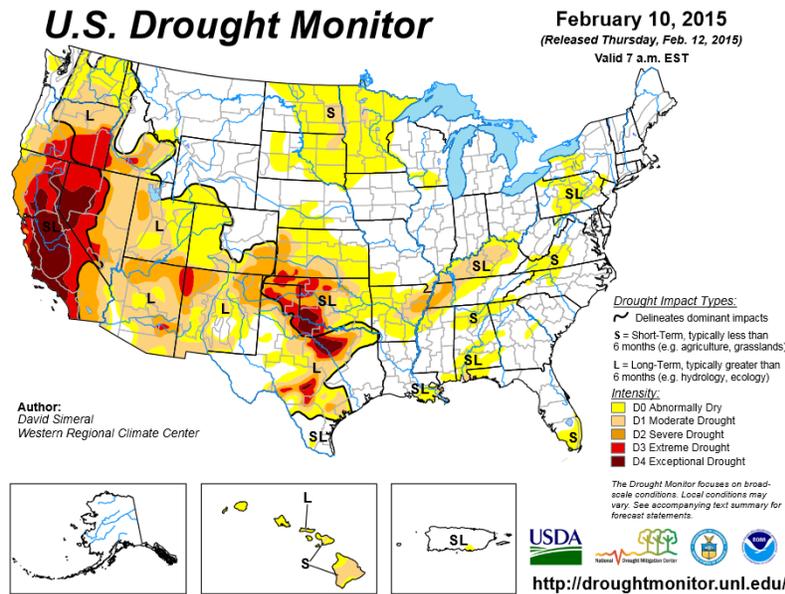
National Drought Summary – February 10, 2015

The following **Weather and Drought Summary** is provided by this week's NDMC Drought Author, David Simeral, Western Regional Climate Center.

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

“For the contiguous 48 states, the U.S. Drought Monitor showed 29.00 percent of the area in moderate drought or worse, compared with 28.44 percent a week earlier. Drought now affects 69,224,225 people, compared with 65,865,942 a week earlier.”

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 24.31 percent of the area in moderate drought or worse, compared with 23.85 percent a week earlier. Drought now affects 69,377,898 people, compared with 66,019,615 a week earlier.”



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

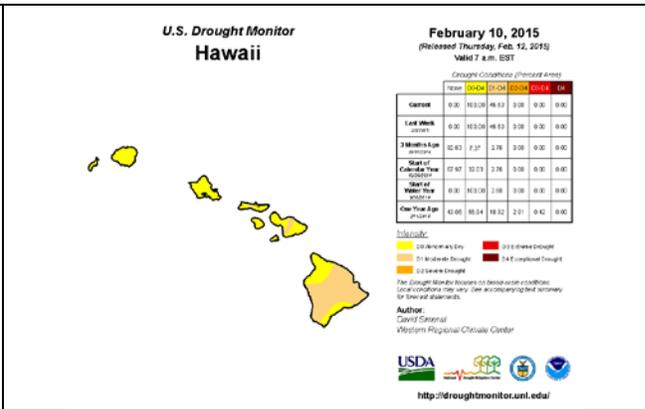
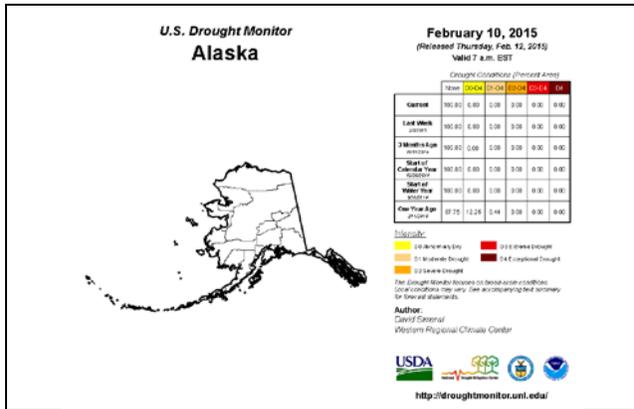
[Current Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, TX, and OK.

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/weather/Drought/AgInDrought.pdf>
- ✓ [Watch AgDay TV](#)
- ✓ [Drought Impacts Webinar Series](#)
- ✓ [NIDIS Quarterly Climate Impacts and Outlook](#)
- ✓ [The Spring 2014 edition of DroughtScope](#)
- ✓ [U.S.Crops in Drought](#)

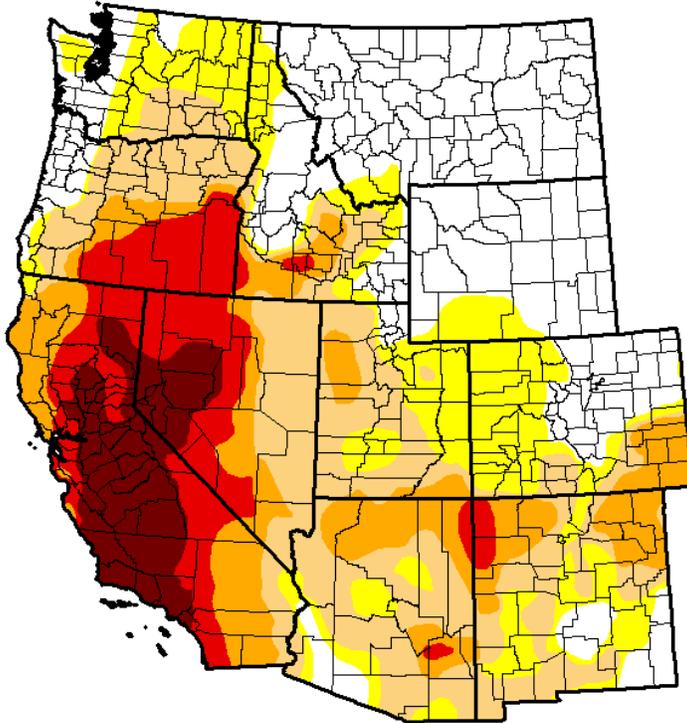


“The [49th](#) and [50th](#) States show normal to moderate drought conditions. No changes were noted for Alaska or Hawaii this week. A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions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

Weekly Water and Climate Update

U.S. Drought Monitor West

February 10, 2015
(Released Thursday, Feb. 12, 2015)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	30.41	69.59	52.65	30.63	17.10	6.96
Last Week <i>2/9/2015</i>	30.68	69.32	52.74	31.35	18.51	6.96
3 Months Ago <i>11/11/2014</i>	34.62	65.38	54.45	34.16	18.75	8.45
Start of Calendar Year <i>12/31/2014</i>	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year <i>9/30/2014</i>	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago <i>2/11/2014</i>	17.62	82.38	64.47	41.04	13.94	1.94

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:

David Simeral
Western Regional Climate Center



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

There was a slight decrease in D1 – D3 and the drought-free categories in the West this week. D4 remained the same and there was a slight increase in D0 areas for the week.

Click to enlarge maps

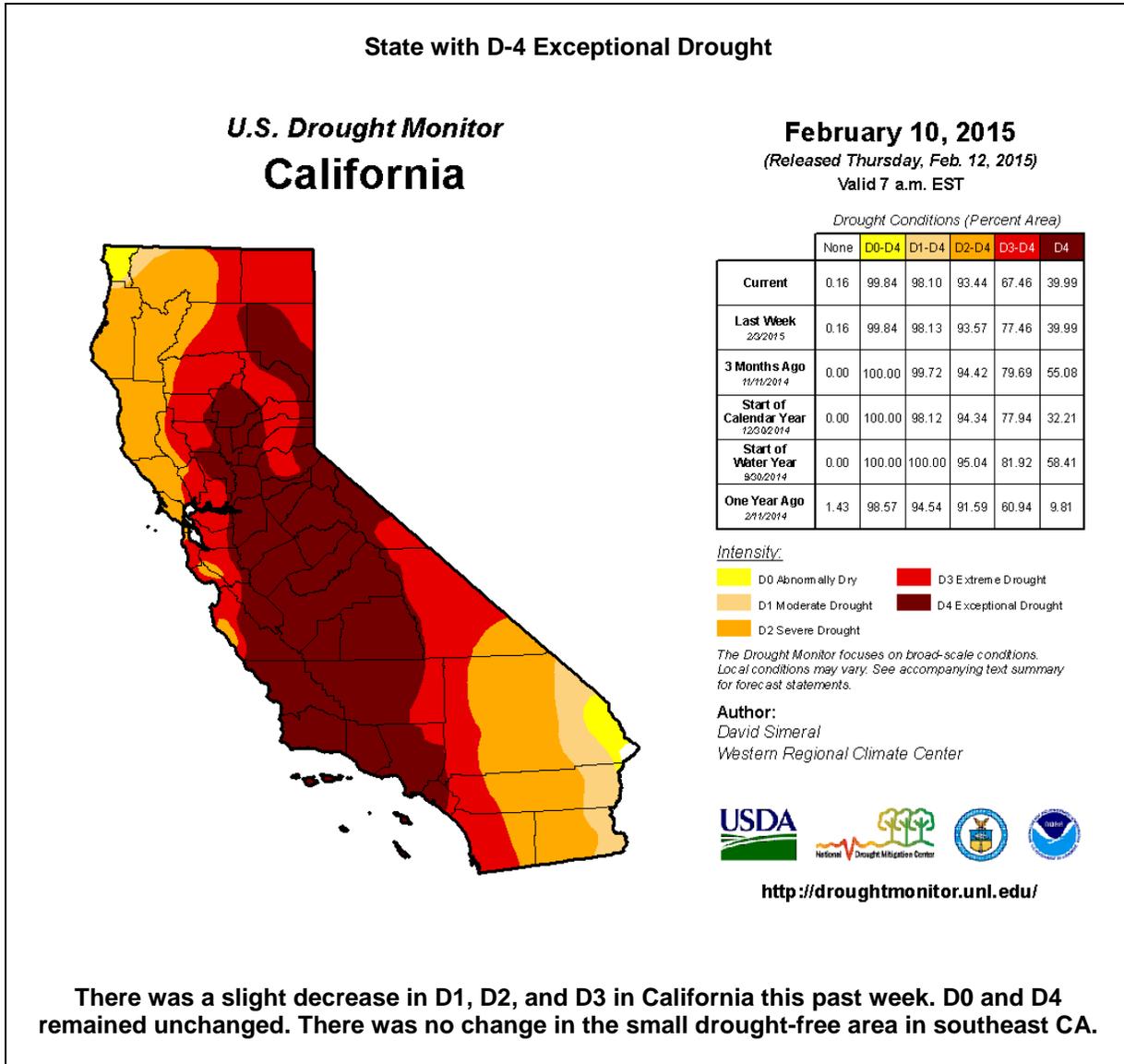
Risk Management Web Resources

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. - [Nation's cattle herd rebuilding, first gain since 2007](#) – Feb 6
- N.M. - [Dim water year shapes up for Doña Ana County farmers](#) – Feb 5
- N.E. - [Report reveals continued declines, some rises in statewide groundwater levels](#) – Jan 29
- N.M. - [Water managers bracing for another dry year in NM](#) – Feb 1

Weekly Water and Climate Update



[CA Drought Information Resources](#)

[Drought News from California:](#)

[Satellite Images 1 Year Apart Paint Grim Picture Of Sierra Snowpack – Feb 2](#)

[Satellites Spot Fields Idled by Drought – Jan 30](#)

[Can scientists engineer drought-tolerant plants? – Feb 4](#)

[Kern Water Agency accuses state of ignoring farmers' water needs – Feb 4](#)

[Organizers eye Santa Cruz for 1,000-foot long water slide event- Feb 2](#)

[Voices From The Drought – Feb 4](#)

[Skimpy Sierra Snowpack Brings Warning To Lake Tahoe Snowmobile Users – Feb 5](#)

[Californians use 22 percent less water, but more cuts loom – Feb 3](#)

[LAKE PERRIS: Lowered level reveals famed tire reef – Feb 4](#)

[Santa Barbara Desalination Plant Permit Approved – Feb 5](#)

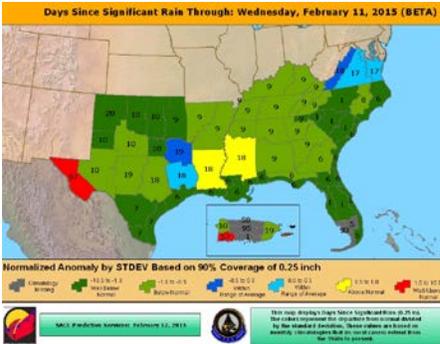
[State let oil companies taint drinkable water in Central Valley – Feb 2](#)

[Federal government to boost drought funding by \\$50 million – Feb 6](#)

Weekly Water and Climate Update

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

Texas Drought News:
[Austin officials concerned about plans for 1,000-foot water slide – Feb 5](#)
[DPR Project Reaches 1 Billion Gallons – Feb 5](#)

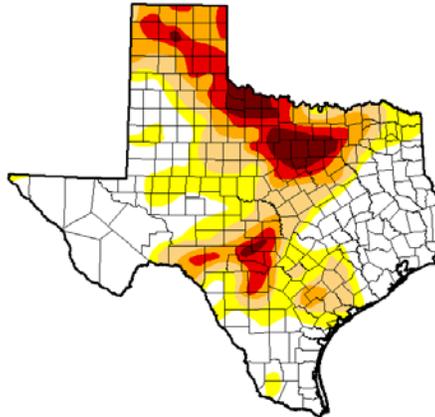


[Days since Significant Rain Summary](#)

State with D-4 Exceptional Drought

U.S. Drought Monitor Texas

February 10, 2015
 (Released Thursday, Feb. 12, 2015)
 Valid 7 a.m. EST



	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.30	56.70	39.19	24.71	13.21	4.46
Last Week 2/2/2015	43.52	56.48	38.57	22.76	11.24	2.92
3 Months Ago 10/10/2014	30.29	69.71	43.91	23.89	9.82	3.45
Start of Calendar Year 1/2/2015	34.37	65.63	44.60	25.73	11.70	3.17
Start of Water Year 8/2/2014	28.92	71.08	48.95	29.54	11.26	2.69
One Year Ago 2/10/2014	12.49	87.51	54.43	32.97	8.33	0.71

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

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

Author:
 David Simeral
 Western Regional Climate Center



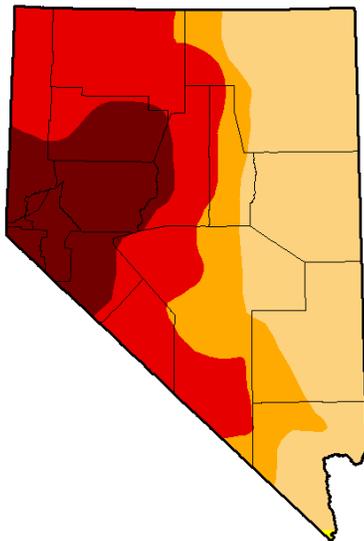
<http://droughtmonitor.unl.edu/>

There was an increase in all drought categories in Texas this past week. The drought-free areas decreased slightly.

State with D-4 Exceptional Drought

U.S. Drought Monitor Nevada

February 10, 2015
 (Released Thursday, Feb. 12, 2015)
 Valid 7 a.m. EST



	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.93	63.19	47.96	17.43
Last Week 2/2/2015	0.00	100.00	99.93	63.08	47.95	17.43
3 Months Ago 10/10/2014	0.00	100.00	97.04	69.89	49.38	11.89
Start of Calendar Year 1/2/2015	0.00	100.00	96.98	68.25	48.38	11.89
Start of Water Year 8/2/2014	0.00	100.00	97.04	69.89	48.38	11.89
One Year Ago 2/10/2014	0.00	100.00	96.84	80.30	33.97	5.37

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

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

Author:
 David Simeral
 Western Regional Climate Center



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

There was a very slight increase in D2 in Nevada this past week. All other categories remained unchanged for the week.

Nevada Drought News:

- [Satellite Images 1 Year Apart Paint Grim Picture Of Sierra Snowpack – Feb 2](#)
- [WWII-era bomber beneath Lake Mead – Feb 6](#)
- [Skimpy Sierra Snowpack Brings Warning To Lake Tahoe Snowmobile Users – Feb 5](#)

Weekly Water and Climate Update

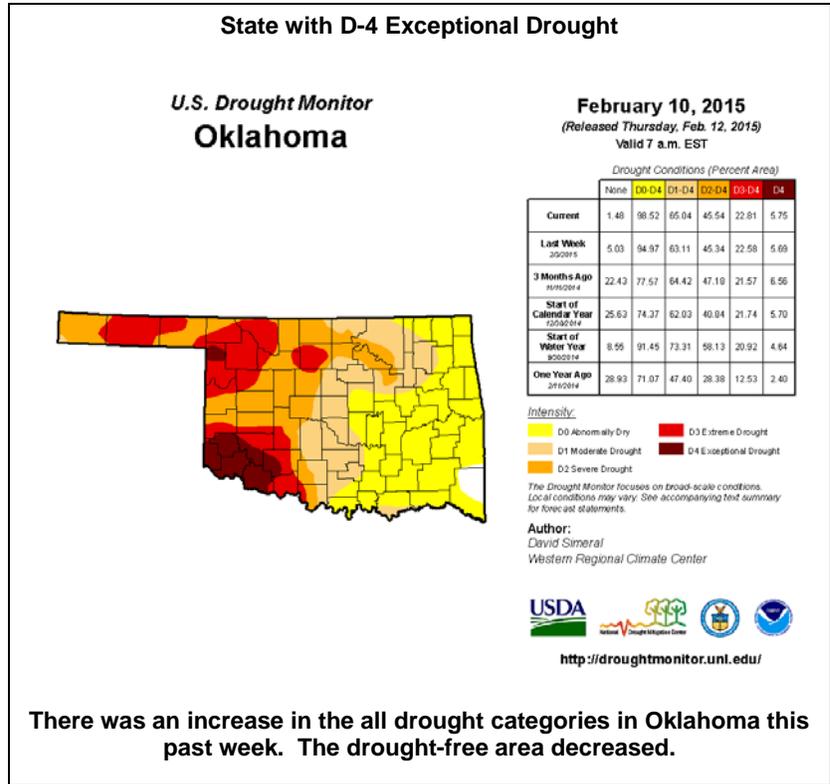
Related Area News:

[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](#)

Oklahoma Drought News:

[Oklahoma Ranchers Lead Nation in USDA Drought-Relief](#) – Jan 29



U.S. Population in Drought

Number of people in each drought category in the U.S. for the week ending January 27, 2015						
Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
2015-02-10	189,593,730	115,803,725	69,224,225	48,988,937	37,771,526	24,335,429
2015-02-03	195,776,592	109,620,863	65,865,942	47,524,725	37,729,999	21,090,871

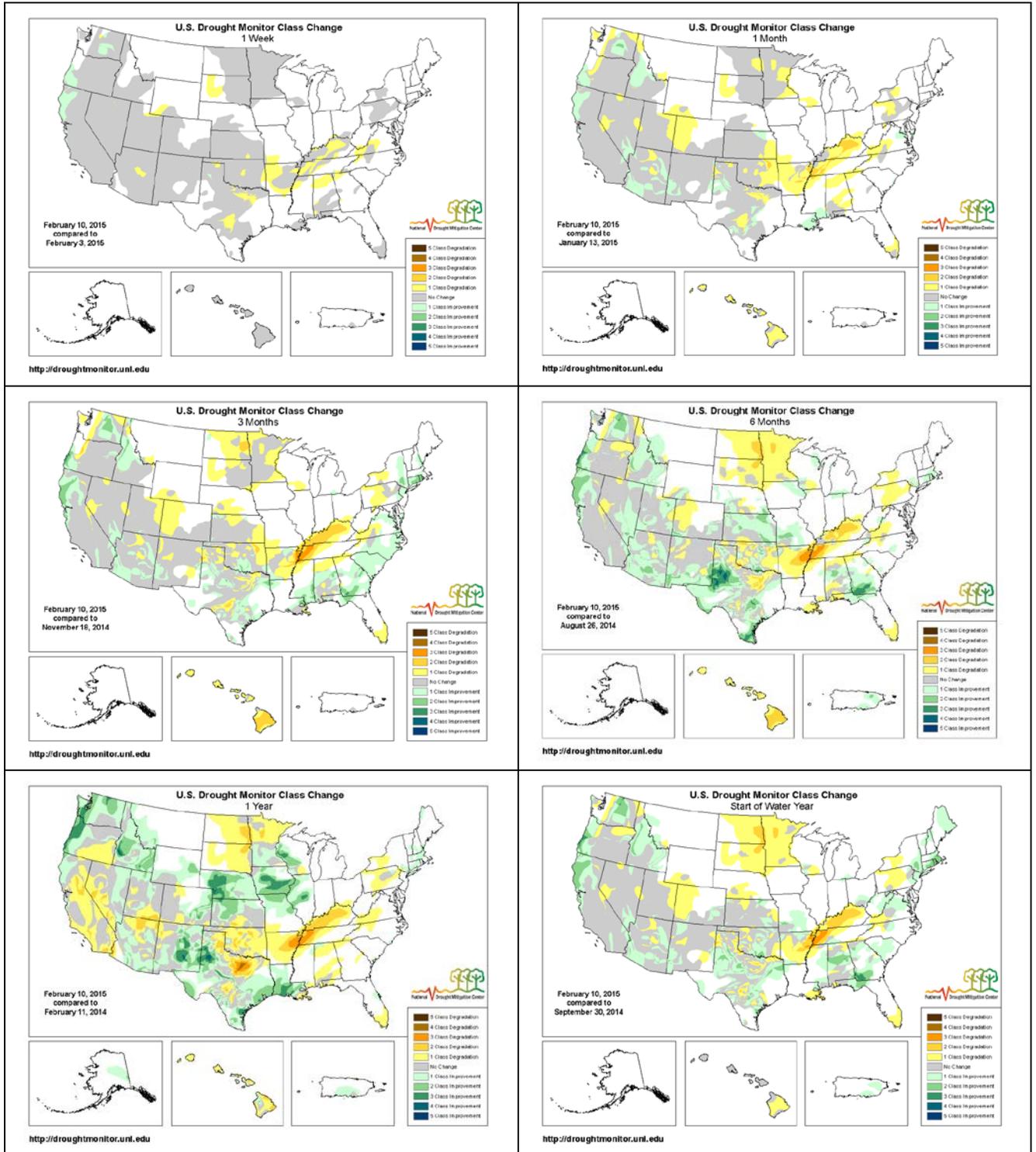
Population figures affected by drought in the U.S. Drought Monitor website show that, for this week, more than 69,200,000 people in the United States were in a drought-affected area, which is an increase by over 3.3 million people from last week.

Population Statistics Methodology:
The U.S. Drought Monitor population statistics are calculated at the county level, and aggregated to the state, regional, and national levels. The population densities have been calculated for each county. The proportion of the physical area of the county that is in drought is multiplied by the uniform population density in order to obtain a number for each county. The county values are then summed at the state, regional, and national level.

Weekly Water and Climate Update

Changes in Drought Monitor Categories

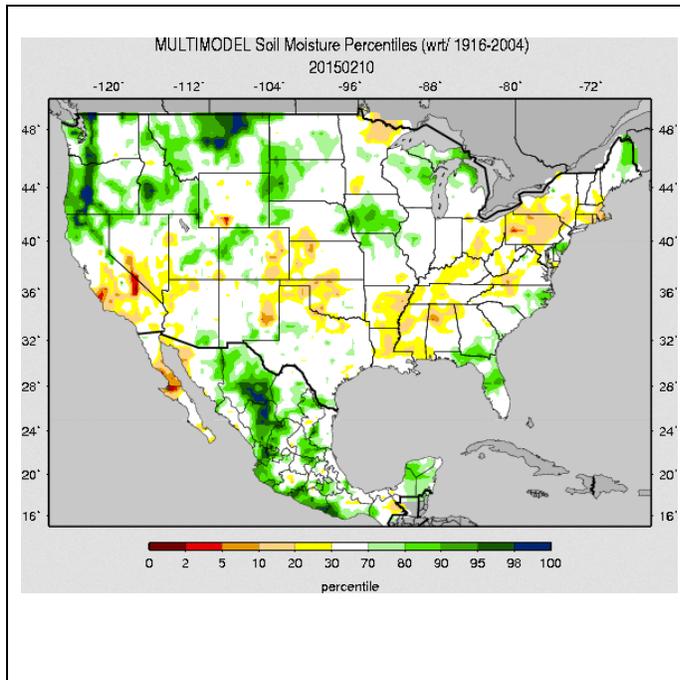
Over Various Time Periods



Click on any of these maps to enlarge. Note how the conditions over the Rockies and central Great Plains have improved between 6 to 12 months (middle right to lower left maps). However, also note that since a year ago, conditions over parts of the Northeast, the South, parts of the southern Great Plains and the Pacific coast states have deteriorated significantly (lower left map).

Weekly Water and Climate Update

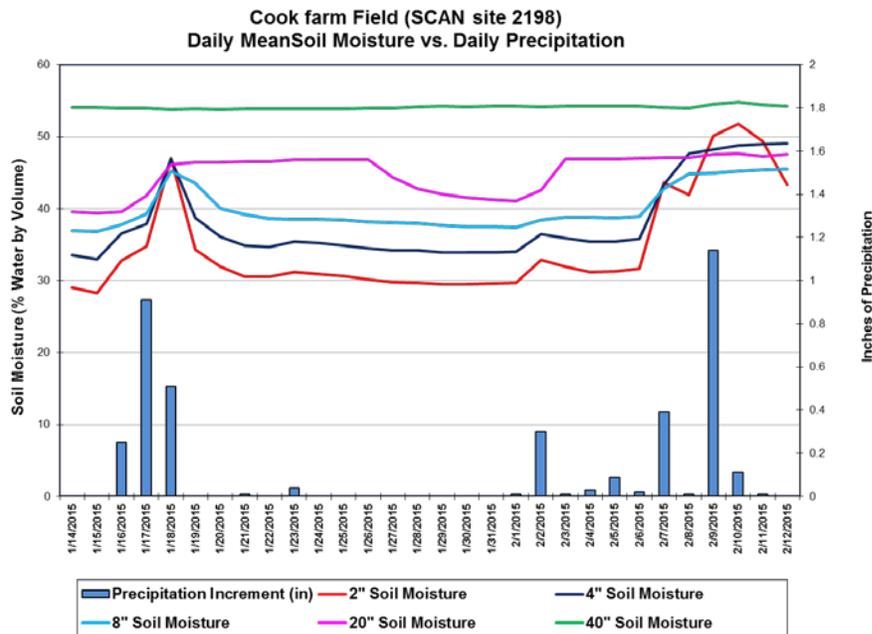
Soil Moisture



The national soil moisture model ranking in [percentile](#) as of February 10, 2015, shows dryness over most of the south central and southwest U.S. The driest areas are in southern Nevada, central and southern California, eastern New Mexico through central Oklahoma, Nebraska, southern Wyoming, northern Minnesota, and Pennsylvania. There were additional dry areas elsewhere. Moist soils dominated north central Montana, in the Cascades of Washington and Oregon, areas of northern California and the northern Sierra Nevada, western South Dakota, Iowa, northern Wisconsin, northern Michigan, Maine, eastern North Carolina, northern Florida, and southern Georgia. Slightly moist soils were also scattered elsewhere throughout the country.

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)

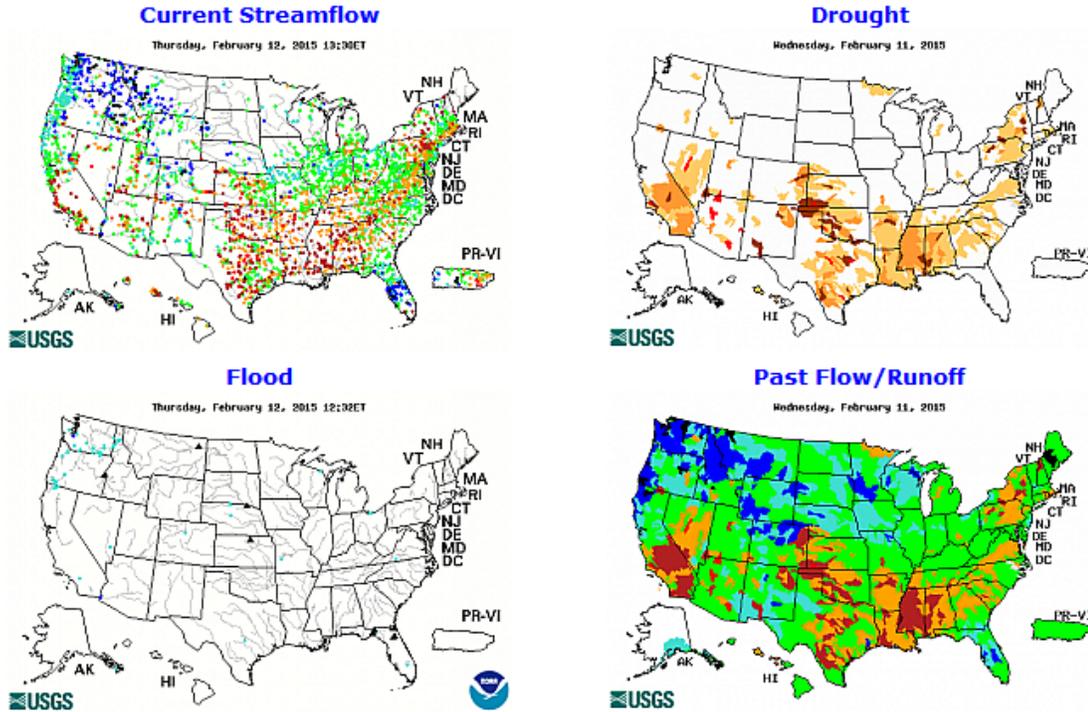


This NRCS resource shows soil moisture data for the last month at [Cook Farm Field D \(SCAN site # 2198\)](#) in Washington. The area had precipitation several times this past month (blue bars). This rainfall resulted in an increase in soil moisture, primarily at the 2-, 4-, 8-, and 20-inch depths. The 40-inch soil moisture depth sensor reported little change from the precipitation events.

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 Water and Climate Update

Streamflow



Gages in many parts of the U.S. are reporting much above normal streamflow. Many streams in Oregon, Washington, and northern Idaho are flowing high due to recent heavy rain. Some gages in the northern states are now frozen, so may not relate to the precipitation and snow conditions in that area. The rivers above flood stage are the Malheur River near Vale, OR, Poplar River near Poplar, MT, Niobrara River at Niobrara, NE, Republican River at Concordia, KS, Potomac River at Alexandria, VA, and 6 river gages in northern Florida.

National Long-Range Outlook



[Click map 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 much of the eastern U.S. The Southeast and the Midwest have gages with a slight to higher risk of flooding. Currently, **1** gage has a greater than 50% chance to experience major flooding; **16** gages for moderate flooding; and **211** gages for minor flooding.

These numbers represent a **21** gage increase in the greater than 50 percent chance of minor flooding category since last week.

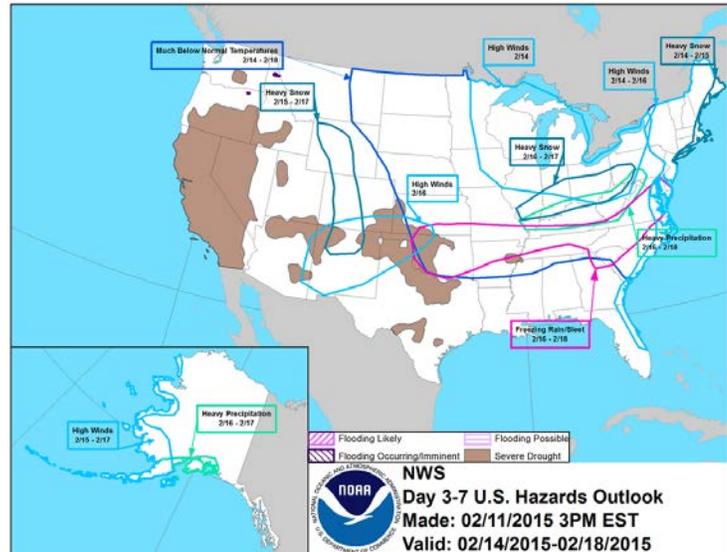
Weekly Water and Climate Update

National [Weather Hazards](#)

Heavy snow is expected in the Rockies, central Midwest, and along the Northeast Coast (2/14-17) (medium blue). High winds are expected in the upper Midwest and southern Rockies into the southern Great Plains and all along the Atlantic Coast (2/14-16). Heavy precipitation is expected in the central Midwest (2/16-17). A large area of the eastern U.S. is expected to have much below normal temperatures, as well (2/14-18)

In Alaska, high winds are expected along the western coast (2/15-17), and heavy precipitation along the south (2/16-17).

Severe drought remains a large issue in much of the south central and western U.S.



[National Drought Summary for February 10, 2015](#)

Prepared by the Drought Monitor Author: David Simeral, Western Regional Climate Center.

Summary

“This U.S. Drought Monitor week saw improvements along the West Coast as a series of strong Pacific storms produced substantial rainfall accumulations in northern California and western portions of Oregon and Washington. The storms were the first significant precipitation event to affect California since mid-December. Since the moisture associated with these storms was subtropical in origin, the vast majority of the precipitation fell as rain while snowfall was restricted to the higher elevations. Overall, the storms had little impact on the well-below-normal snowpack conditions across the Sierra Nevada and Cascades ranges. Elsewhere in the West, mountain snowpack conditions are currently below normal across the Great Basin and Southwest as well as in parts of the Intermountain West and Central Rockies. Reservoir storage remains below normal in Arizona, California, Nevada, New Mexico, Oregon, and Utah in contrast to slightly above average conditions in Colorado, Idaho, Montana, Washington, and Wyoming. Temperatures during the past week were well above normal in the western half of the conterminous U.S. with record high temperatures observed across the West and Central Plains. In contrast, the Northeast remained in a cold, snowy pattern with areas of Massachusetts, New York, New Hampshire, and Vermont receiving more than a foot of new snowfall.

Hawaii, Alaska, and Puerto Rico

On this week’s map, conditions remained status quo in Hawaii, Alaska, and Puerto Rico. In the Hawaiian Islands, temperatures during the past week were slightly above normal and precipitation was slightly below normal. In Alaska, temperatures were generally below normal across most of the state, and precipitation was below normal. According to the NRCS, the snowpack in Alaska is well below normal across most of Alaska with the exception of northern portions of Southcentral Alaska and eastern portions of the Interior.

Mid-Atlantic

The Mid-Atlantic remained drought-free on this week’s map. Overall, the region was dry and temperatures during the past week were slightly below normal along the Mid-Atlantic seaboard, while areas in the western half of Virginia saw temperatures two-to-six degrees above normal. During the weekend, the National Weather Service Forecast Office in Baltimore/Washington D.C. reported a record daily high temperature of 68°F at Washington National Airport. On the map, short-term precipitation deficits and below-normal streamflows led to the expansion of areas of Abnormally Dry (D0) in southwestern Virginia and northwestern North Carolina.

Midwest

During the past week, temperatures were well below normal across northern Illinois, Michigan, northern Ohio, and Wisconsin while Minnesota and Missouri experienced temperatures well above normal. On Saturday,

Weekly Water and Climate Update

unseasonably high temperatures were observed in Missouri including record high temperatures in Springfield (74°F) and St. Louis (71°F), according to the National Weather Service. The region was generally dry with the exception of snowfall in northern Michigan and northern Ohio. According to the NWS National Operational Hydrologic Remote Sensing Center, the total area covered by snow in the northern Great Lakes region was 99.2% as of February 11, 2015. On this week's map, short-term precipitation deficits during the last 90-days led to expansion of areas of Abnormally Dry (D0) and Moderate Drought (D1) across central and eastern Kentucky as well as areas of Abnormally Dry (D0) in southwestern Missouri where streamflow and stock pond levels continued to drop.

The Northeast

The Northeast remained drought-free on the map this week as a cold and snowy pattern persisted across the region. Average temperatures for the week were six-to-twelve degrees below normal across the region, and significant snowfall accumulations in excess of a foot were observed in parts of Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. According to the National Weather Service National Operational Hydrologic Remote Sensing Center (NOHRSC) snow analysis, the Northeast is currently 99.2% covered by snow.

The Plains

Across the northern and southern Plains states, temperatures were well above normal for the period. During the weekend, record high temperatures were observed in Kansas and South Dakota. In western Kansas, temperatures soared into the high 70s and low 80s, while portions of South Dakota reached the mid-60s. On this week's map, changes included expansion of Abnormally Dry (D0) into western South Dakota in response to above normal temperatures and precipitation deficits during the past 30 days. In southeastern Kansas, some minor expansion in an area of Moderate Drought (D1) occurred in response to warmer temperatures and deterioration in local stock pond levels.

The South

During the past week, generally dry conditions prevailed across most of the region with the exception of some light shower activity (less than one inch of accumulation) along the Gulf Coast regions of Louisiana and Texas. Temperatures across the region were well above normal in the western portions of Texas, while southeastern Texas and most of Louisiana and Mississippi experienced below-normal temperatures. During the weekend, well-above-normal temperatures were observed in the Texas Panhandle including record high temperatures in Amarillo (83°F) and Lubbock (84°F), according to the National Weather Service. On the map, unseasonably warm temperatures during the last 30 days led to some minor degradation of areas of Moderate Drought (D1) and Severe Drought (D2) in the northern portion of the Texas Panhandle. In north-central Texas and the Hill Country, many of the area reservoirs are at or near historic lows for this time of year. According to Water Data for Texas, the Austin area reservoirs are currently 38% full. In response, one-category degradations were made in these areas to reflect long-term hydrological impacts. Elsewhere in the region, short-term precipitation deficits and below-normal streamflow activity led to expansion of areas of Abnormally Dry (D0) in Arkansas and northern Mississippi as well as areas of Moderate Drought (D1) and Severe Drought (D2) in Tennessee.

The Southeast

During the past week, the Southeast continued in a dry pattern with the exception of some shower activity in north-central and west-central Florida. Average temperatures for the period were slightly below normal. In northern Alabama and Georgia, short-term precipitation deficits and below-normal streamflow activity led to the expansion of areas of Abnormally Dry (D0). During the last 30 days, precipitation deficits across Alabama and Georgia ranged from two-to-five inches.

The West

During the past week, a series of strong Pacific storms came ashore late last week and continued throughout the weekend. This storm system – which tapped a conveyor-belt of warm, moist air from the subtropics – delivered widespread, heavy rainfall to northern California and the western portions of Oregon and Washington. In northern California, liquid precipitation accumulations ranged from three-to-fifteen inches, with the highest accumulations centered over the mountains of northwestern and north-central California as well as further south in the Santa Cruz and Santa Lucia ranges. In the northern half of the Sierra Nevada Range, rainfall accumulations ranged from three-to-ten inches, and the greatest accumulations occurred on the western slope between 2000 and 7000 feet in elevation. Snow levels were generally high (above 8000 feet) throughout the storms, and the cumulative effect of the snowfall received did not have a significant impact on the poor snowpack conditions across the range. According to the California Department of Water Resources, California's

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snowpack (snow water equivalent) is currently at 27% of normal. On a more positive note, runoff associated with the event provided the addition of approximately 500,000 acre feet of inflow to the four major reservoirs (Folsom, Oroville, Shasta, and Trinity) in northern California. In response to the storm, a one-category improvement was made to areas of Extreme Drought (D3) in northwestern California as well as in the Santa Cruz Mountains (between San Francisco and Santa Cruz) and in the northern half of the Santa Lucia Range along the Central Coast. No changes were made on the map in the Sierra Nevada Range because snowpack conditions remain well below normal. In the Pacific Northwest, the same series of storms brought heavy rains (four-to-eight inches) to western portions of Oregon and Washington leading to one-category improvements in southwestern Oregon. According to the National Resource Conservation Service (NRCS) SNOTEL network, the snowpack in the Cascades of Oregon and Washington remains well below normal for this time year with snow water equivalent (SWE) percentages ranging from 7 to 64% of normal with the lowest values being observed in Oregon. Overall, the past week was unseasonably warm (three to fifteen degrees above normal) across the entire West with record high temperatures observed in California, Colorado, Idaho, Nevada, Utah, Washington, and Wyoming.

Looking Ahead

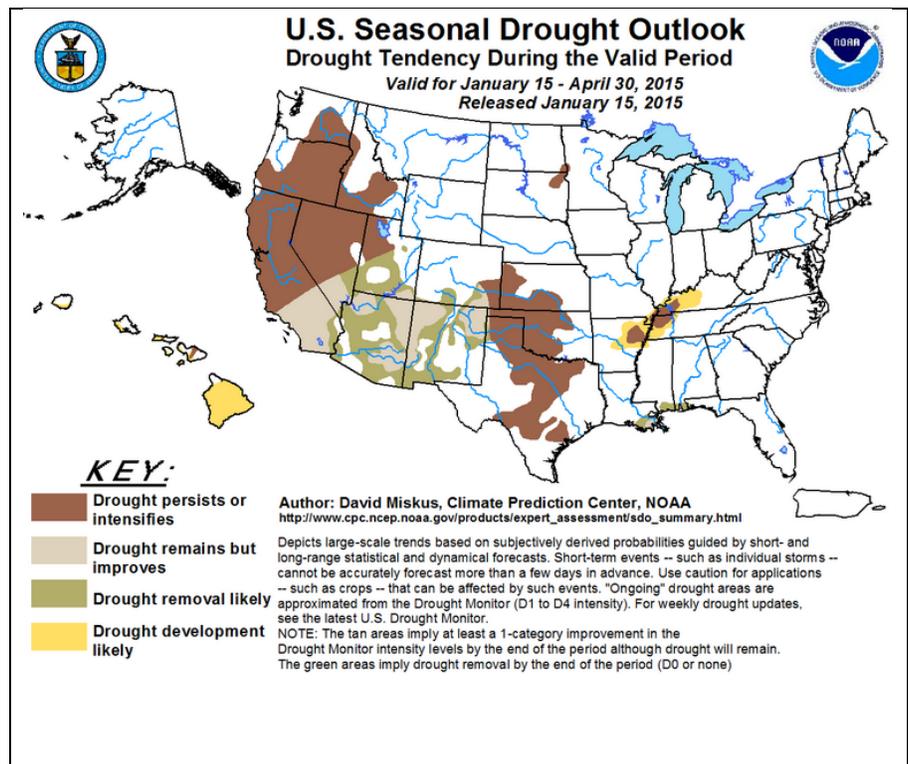
The NWS HPC 7-Day Quantitative Precipitation Forecast (QPF) calls for light precipitation accumulations (generally less than one inch) across the eastern half of the country while portions of the central and southern Rockies are forecasted to receive between one and two inches of liquid accumulation. The 6–10 day outlooks call for a high probability of above-normal temperatures across the West while below-normal temperatures are forecasted for the eastern half of the country. A high probability of above-normal precipitation is forecasted across eastern portions of the West, Plains, South, Southeast, and the Mid-Atlantic regions while below-normal precipitation is expected in the Pacific Northwest, northern California, Great Basin, and the Upper Midwest.”

Supplemental Drought Information

National Seasonal Drought Outlook

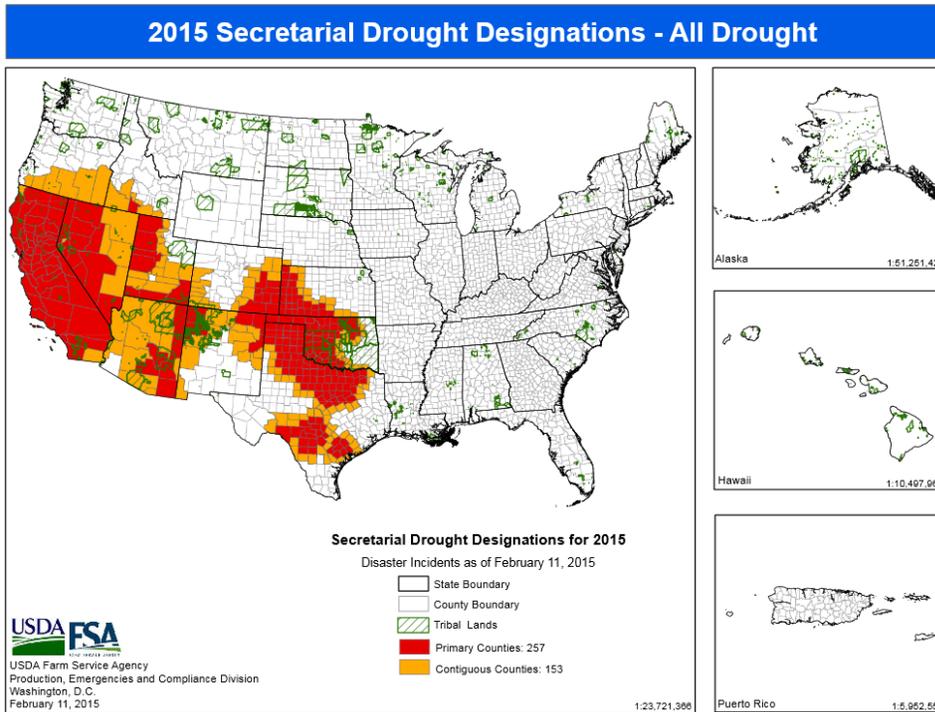
Nationally, [drought](#) is expected to persist or intensify over much of the West and south central U.S., including Nevada, Oregon, Washington, Idaho, Utah, Arizona, New Mexico, Texas, Oklahoma, Nebraska, and Colorado. Improvements are expected in southern California and in parts of the Southwest and Texas. The areas of drought in Arkansas, Tennessee, and Kentucky are likely to develop further. Hawaii drought development is also likely.

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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2015 USDA Secretarial Drought Designations

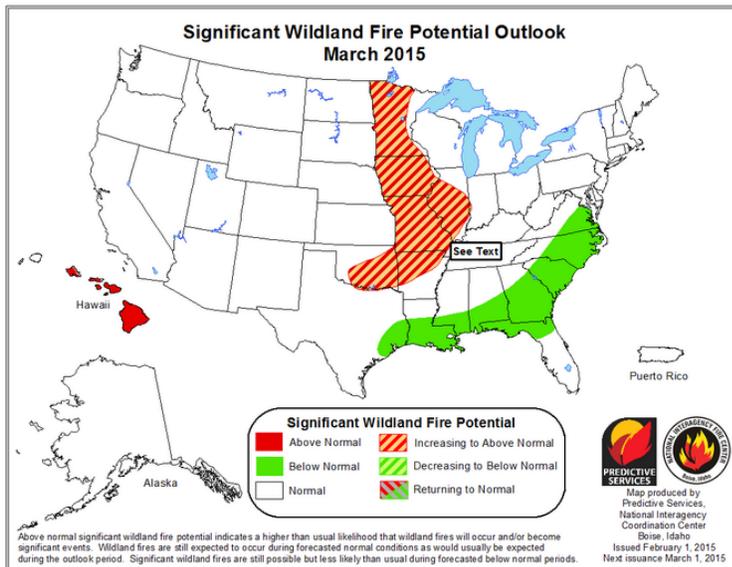


Refer to the USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#).

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

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

National Fire Potential Outlook



March Fire Forecast

In February, much of the U.S. has normal [fire potential](#).

The central U.S. has increasing to above normal fire potential for March. Below normal fire potential area for March 2015 (in green on the map) is forecast for Texas and the Southeast to the mid-Atlantic states.

Hawaii has above normal fire potential on most of the islands.

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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.

"U.S. cattle numbers rebounding

Drought reduced the national cattle herd in recent years, but the number of cattle in the country climbed over the last year from 87.7 million to 89.8 million on Jan. 1, 2015, for an increase of one percent. This is the first uptick in cattle numbers since 2007 and shows that herds are being rebuilt faster than expected.

Beef prices continue to set new highs.

Water conservation exceeds Gov. Brown's 20 percent request

Abundant December rainfall helped Californians cut their water use by 22 percent, allowing residents to finally bring their water conservation above the 20 percent mark as requested by Gov. Brown in January 2014.

Per capita water use in California

Californians have done an impressive job of lowering their per capita water use in the past six months. In June, California per capita water use was 140 gallons per day, but in December, that number was down to an average of 67 gallons per day. Cities among the lowest water users in December were San Diego with a per capita water use of 46 gallons per day and San Francisco with a daily use of 40 gallons per day.

Central Valley well water threatened by wastewater from energy companies

Aquifers in California's Central Valley have long been repositories of wastewater from oil companies, and the wastewater has tainted the precious wells that communities rely upon when surface water is scarce. The water contamination, coupled with drought, has limited available potable water.

Water-conscious public opposes waste

Slide the City promoters have picked Santa Cruz as a potential site for the 1,000 foot water slide event in July, but the public is opposed to the activity because water is scarce while drought persists. An online petition to stop the event got more than 1,200 signatures in the first 48 hours it was posted.

Slide the City is also receiving pushback in Austin, Texas as drought and a ban on closing certain streets make the event unwelcome.

Water prospects grim for New Mexico farmers

With snowpack in southern Colorado and northern New Mexico on the low side, farmers who receive water from the Elephant Butte Irrigation District were cautioned that they may get less than 6 acre-inches or about one-sixth of a full allotment and to plan accordingly.

Further up the Rio Grande River, recipients of San Juan-Chama Project water were warned that deliveries may be short again this year.

[Satellite Images 1 Year Apart Paint Grim Picture Of Sierra Snowpack](#)

CBS13 Sacramento (Calif.)

Feb 2, **Sierra Nevada mountains in California.** One year ago (image on left), California was mostly brown, but more snow covered the Sierra Nevada and western Nevada. This year (image on right), the state is greener, due to December precipitation, but the snowpack is miniscule.

Weekly Water and Climate Update



[Satellites Spot Fields Idled by Drought](#)

NASA Earth Observatory

Jan 30, **California**. The satellite images show that far more farmland was idled in 2014 than in 2011.

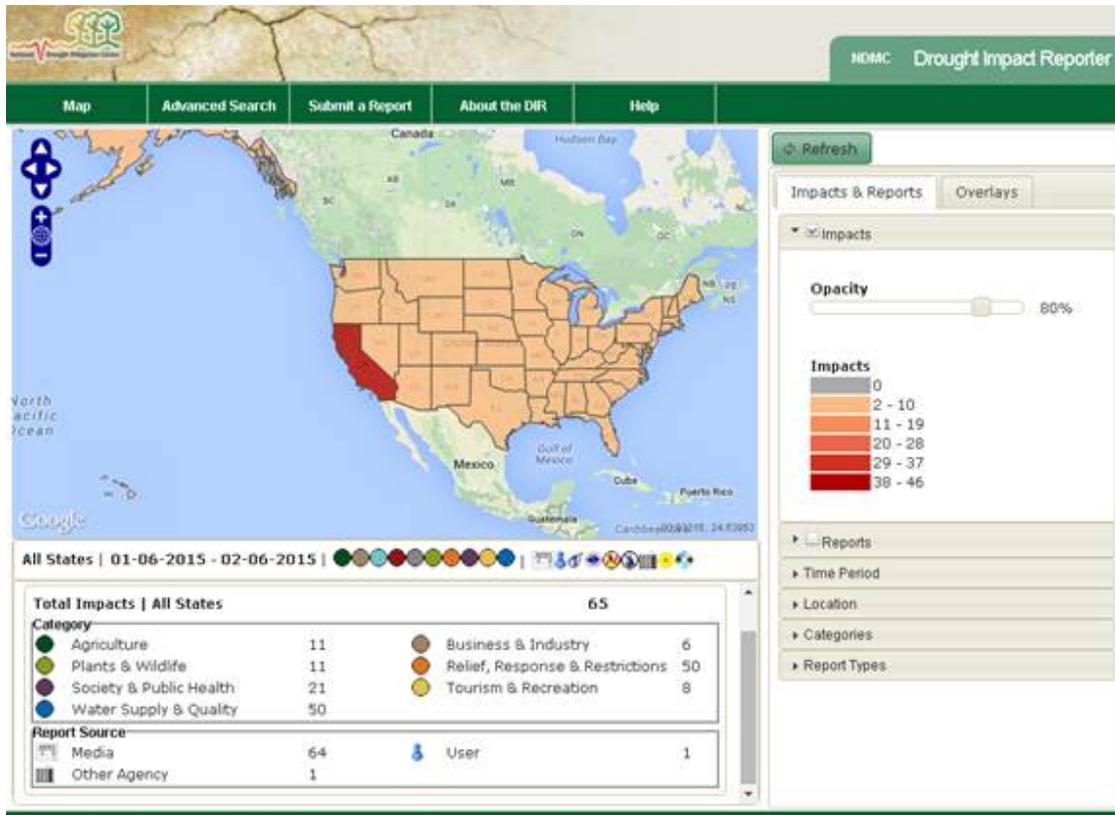
Image from 2011

Image from 2014



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The [Drought Impact Reporter](#) shows California in red with 46 impacts, while all other states have 10 or fewer impacts. While water remains an urgent concern in many Texas communities, the state has just 10 impacts currently listed. Drought fatigue may play a role in this as dry conditions become the norm in parts of Texas.



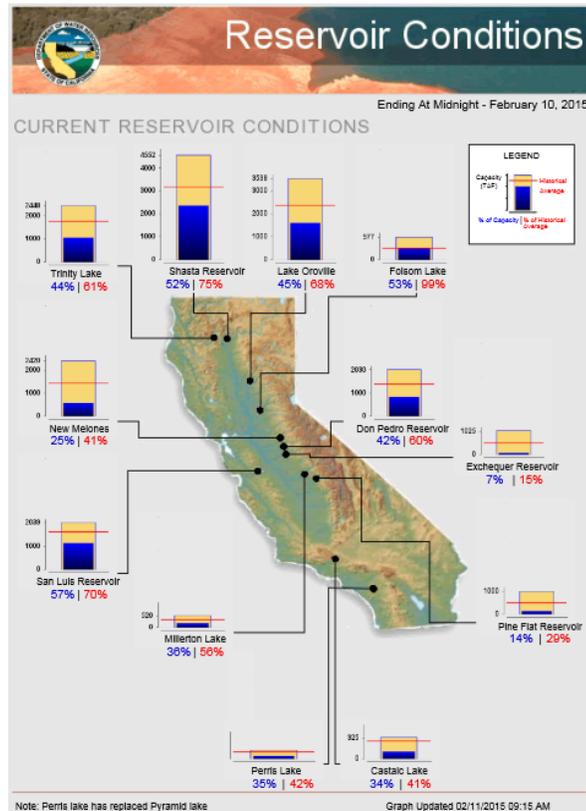
Tea Cup Reservoir Depictions

- <http://www.usbr.gov/uc/water/basin/> ← Upper Colorado
- 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 ← 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)

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California Reservoir Conditions

[California Major Reservoir conditions from the CA Department of Water Resources](#)



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 Water and Climate Updates 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