



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

Weekly Water and Climate Update Thursday, February 5, 2015

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Photo: [Glenbrook #2 Snow Course, NV near Lake Tahoe.](#)

Photo by: Jim Gifford
District Conservationist
NRCS Minden Service Center

This snow course has been measured since 1942, and this year's monthly snow water equivalent (SWE) of 0.6 ties the lowest recorded value for February 1.

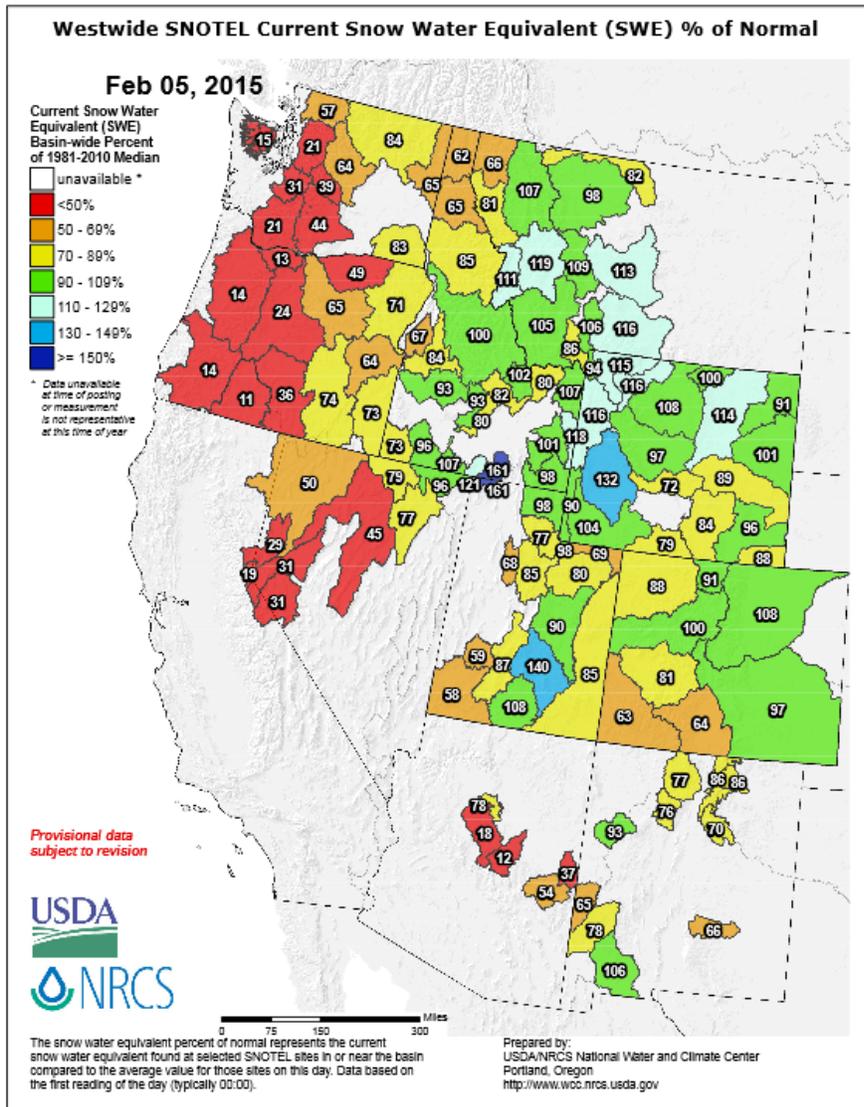
Outlook: “ During the next 5 days, a barrage of Pacific storms will result in heavy precipitation and possible flooding in the Pacific Northwest, the northern Rockies, and northern California. However, warmth accompanying the storminess will continue to limit snowfall in key watershed areas, including the Cascades and Sierra Nevada. In northern California, where 5-day totals could reach 4 to 12 inches (with isolated amounts near 18 inches), the bulk of the precipitation will fall in two major surges on February 6-7 and 8-9. Farther east, record-setting warmth will return to the nation’s mid-section, with weekend temperatures expected to top 80°F as far north as the central High Plains. Elsewhere, precipitation (mostly light snow) will be confined to the nation’s northern tier, except for some rain and snow showers early next week in the eastern U.S. The NWS 6- to 10-day outlook for February 10-14 calls for above-normal temperatures in the western half of the U.S., while colder-than-normal conditions will prevail east of the Mississippi River. Meanwhile, near- to below-normal temperatures across the majority of the country will contrast with wetter-than-normal weather in the southern Rockies and across much of the nation’s northern tier.”

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

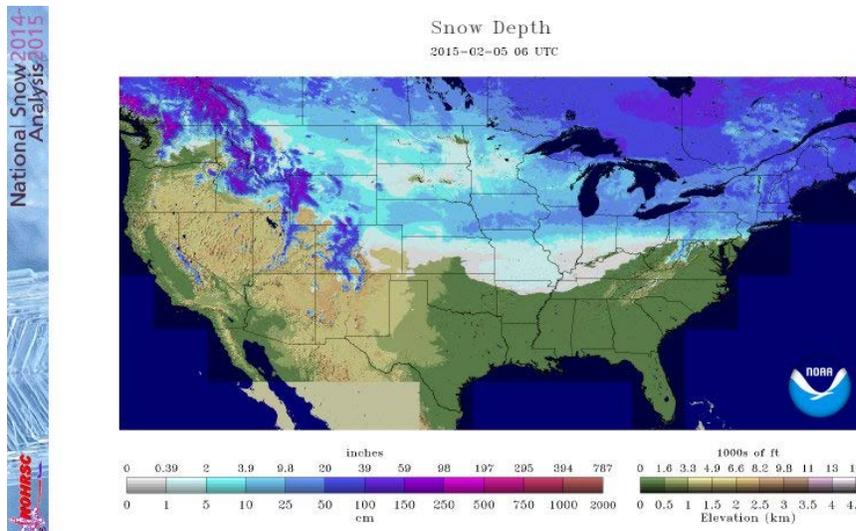
Weekly Water and Climate Update

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. Still less than normal, but not quite as dry, are snowpacks in parts of eastern Washington and Oregon, northern Idaho, Utah, Nevada, southwest Colorado, southeast 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).



Snow depth map for the U.S. as reported from [NWS NOHRSC](#) for February 5, 2015. Snow is reported across much of the mountains in the West, the upper Midwest, much of the northern Great Plains, and the Northeast. The recent snowfall across the mid-section and northeast parts of the country has increased the snow depth substantially.

Although showing substantial snow depth, snow is still not above average in much of the West.

Weekly Water and Climate Update

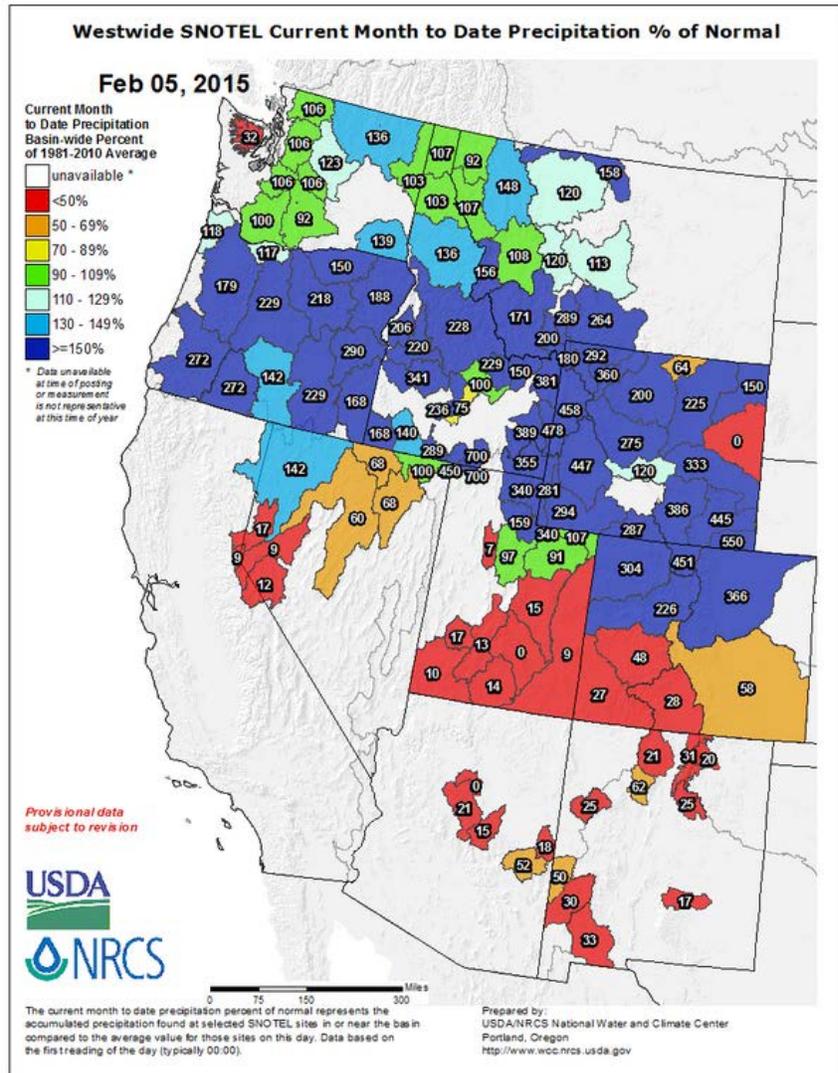
Precipitation

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

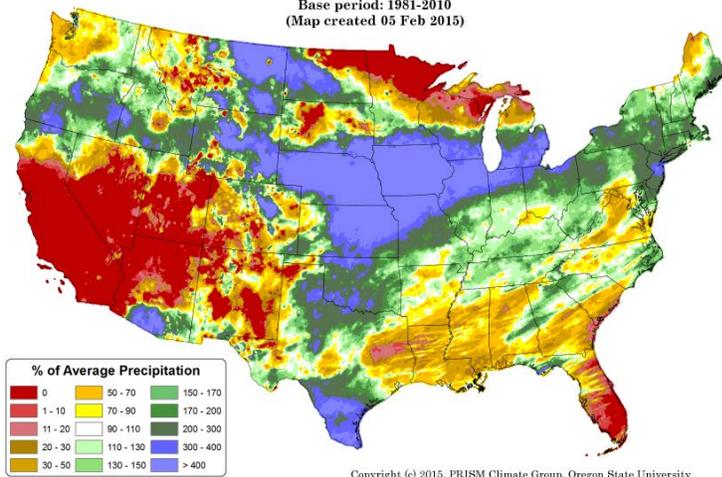
The distinct line of below normal precipitation occurred across most of California, Nevada, central and southern Utah, southern Colorado, Arizona, and New Mexico (orange and red areas).

The percent of average may be exaggerated over a very few days 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.



Total Precipitation Anomaly: 01 February 2015 - 04 February 2015
 Period ending 7 AM EST 04 Feb 2015
 Base period: 1981-2010
 (Map created 05 Feb 2015)



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

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 parts of some northwestern states and the Northeast. There was little or no precipitation in the Southwest, northern Great Plains, and southern Florida (red and dark orange areas).

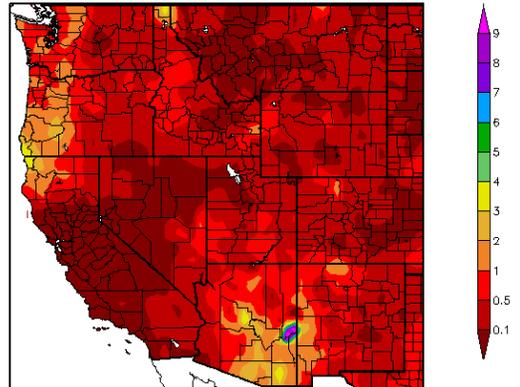
This preliminary daily PRISM precipitation anomaly map contains all available network data, including SNOTEL data, and is updated periodically as additional data become available and are quality controlled.

Weekly Water and Climate Update

The [ACIS 7-day](#) total precipitation map for the western U.S. shows precipitation scattered across most of the northwest and northern states as well as in the Southwest. This includes areas in Oregon, Washington, Idaho, Montana, Wyoming, Utah, Arizona, New Mexico, and Colorado. The highest areas of significant precipitation were along the Oregon/California border, in extreme northern Idaho, and in southern Arizona.

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

Precipitation (in)
1/29/2015 - 2/4/2015



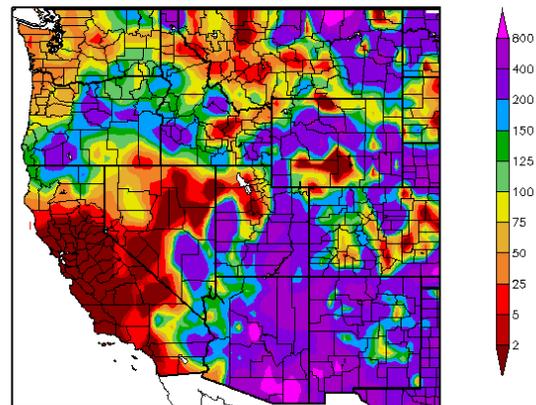
Generated 2/5/2015 at HPRCC using provisional data.

Regional Climate Centers

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 southern Arizona, New Mexico, and northeastern Montana (over 800%). Other significant rainfall was recorded in Colorado, Wyoming, southern California, southeast Nevada, Utah, and small areas of Oregon and Idaho (purple areas). Many areas of little to zero percent of normal precipitation occurred in California, Nevada, northern Utah, Wyoming, parts of Idaho, and western 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.

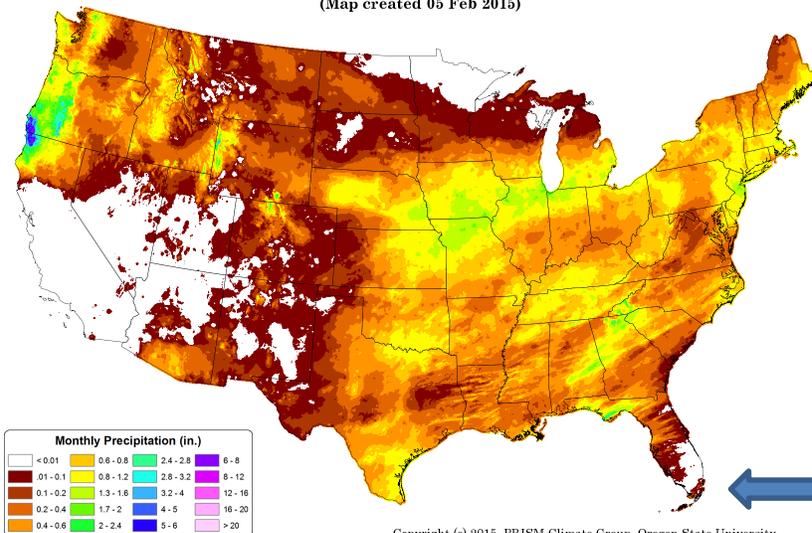
Percent of Normal Precipitation (%)
1/29/2015 - 2/4/2015



Generated 2/5/2015 at HPRCC using provisional data.

Regional Climate Centers

Total Precipitation: 01 February 2015 - 04 February 2015
Period ending 7 AM EST 04 Feb 2015
(Map created 05 Feb 2015)



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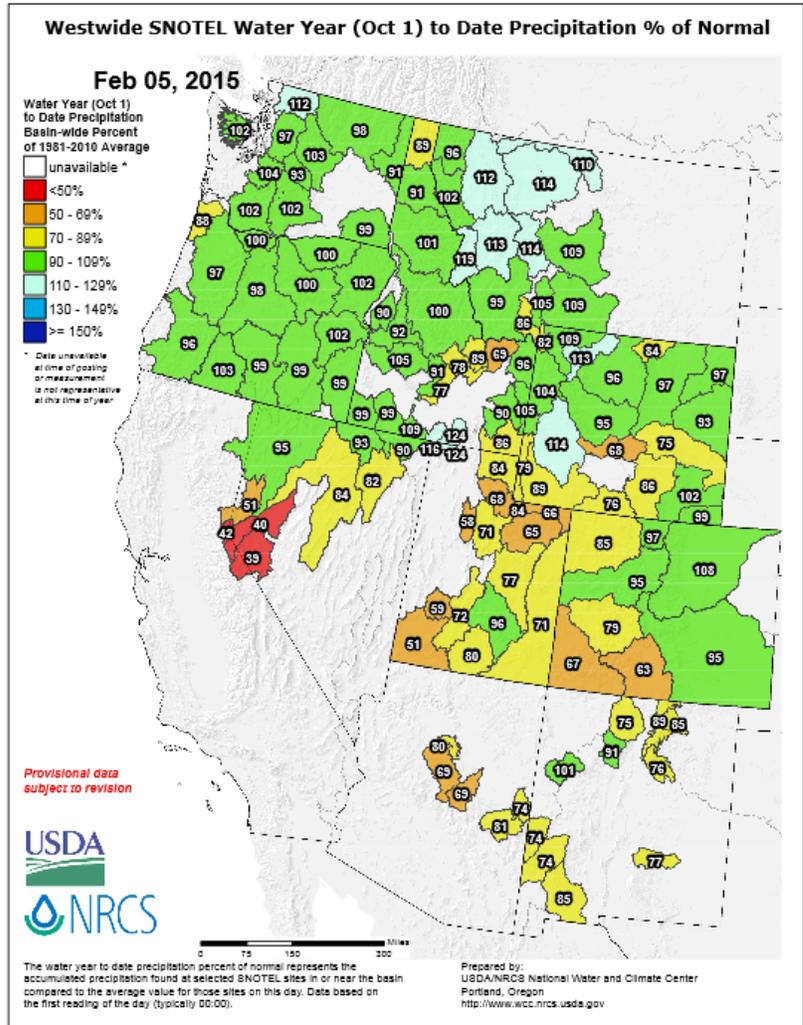
In the first 4 days February, 2015, the [total precipitation](#) across the continental U.S. was heaviest along the California/Oregon border. The southern Cascades in Oregon also had over 3.2 inches of precipitation. Precipitation from recent storms fell over the Midwest, South and Northeast. In contrast, much of California, Nevada, the Southwest, northern Great Plains, and southern Florida were mainly dry.

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

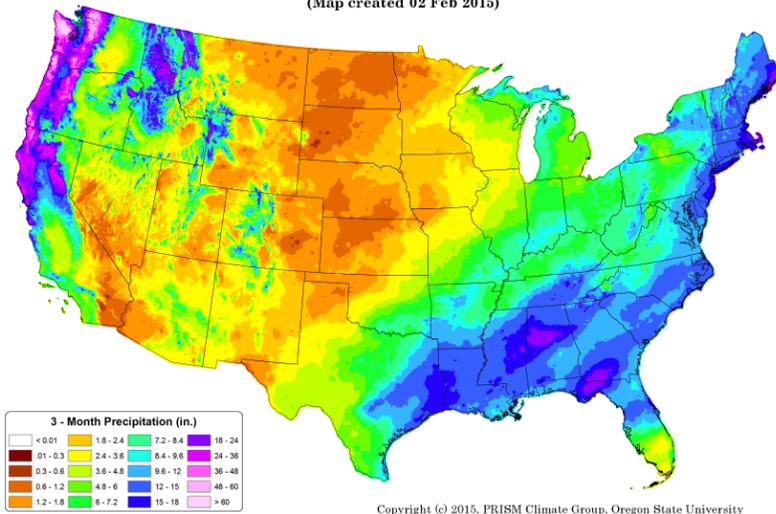
Weekly Water and Climate Update

For the [2015 Water Year](#) that began on October 1, 2014, the highest precipitation surpluses are reported in a few basins in central Montana. Two basins in western Wyoming, several basins in southern Idaho, and one basin in northwest Utah and western Washington are over 110% 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, Arizona, and New Mexico (mapped in yellow and orange). The central Sierra Nevada in Nevada and California contain basins with much below normal precipitation (red areas).



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.

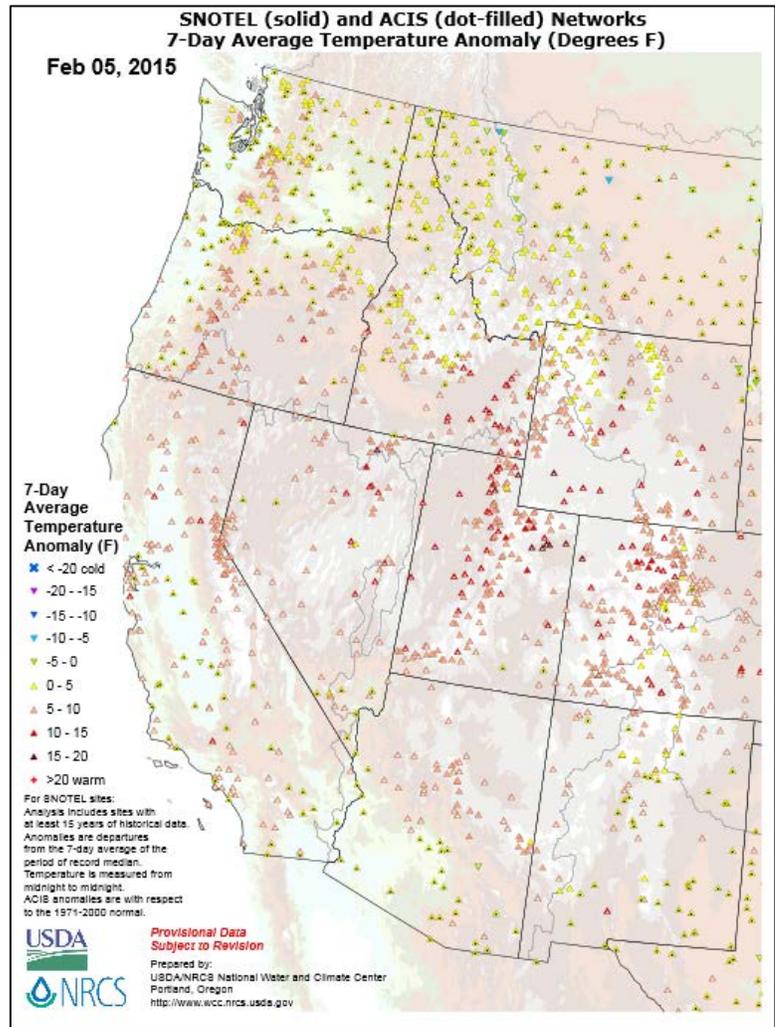
In contrast to the eastern U.S., parts of the West and much of the Midwest received totals of less than 1.8 inches.

Weekly Water and Climate Update

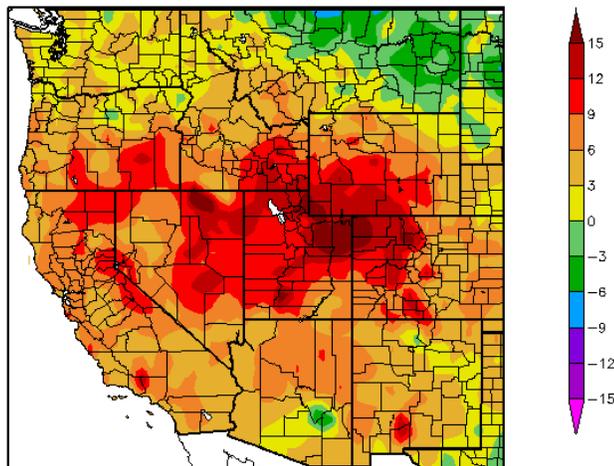
Temperature

The SNOTEL and ACIS [7-day temperature anomaly](#) map for the western U.S. shows most of the West was warmer than normal again this week. It was very warm across the central West, with the warmest recorded temperature anomalies in Utah, southern Idaho, western Nevada, Colorado, and southern Wyoming, where anomalies were above 10 degrees F. Some locations in northeast Utah, southwest Wyoming, and western Colorado had more than 15-degree departures from normal. Other scattered warmer than normal temperatures occurred in California, Oregon, Washington, southern Montana, Arizona, and New Mexico.

The coolest anomalies in the West were in northern Montana, where two stations had departures in the -5°F to -10°F range. A few other widely scattered stations were also very slightly cooler than normal.



Departure from Normal Temperature (F)
1/29/2015 – 2/4/2015



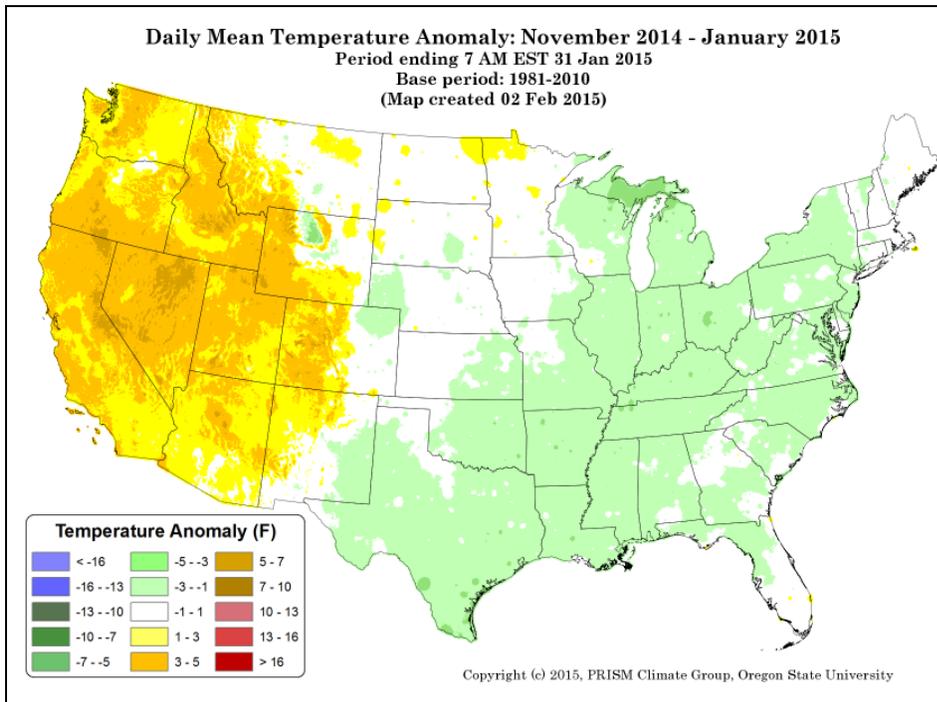
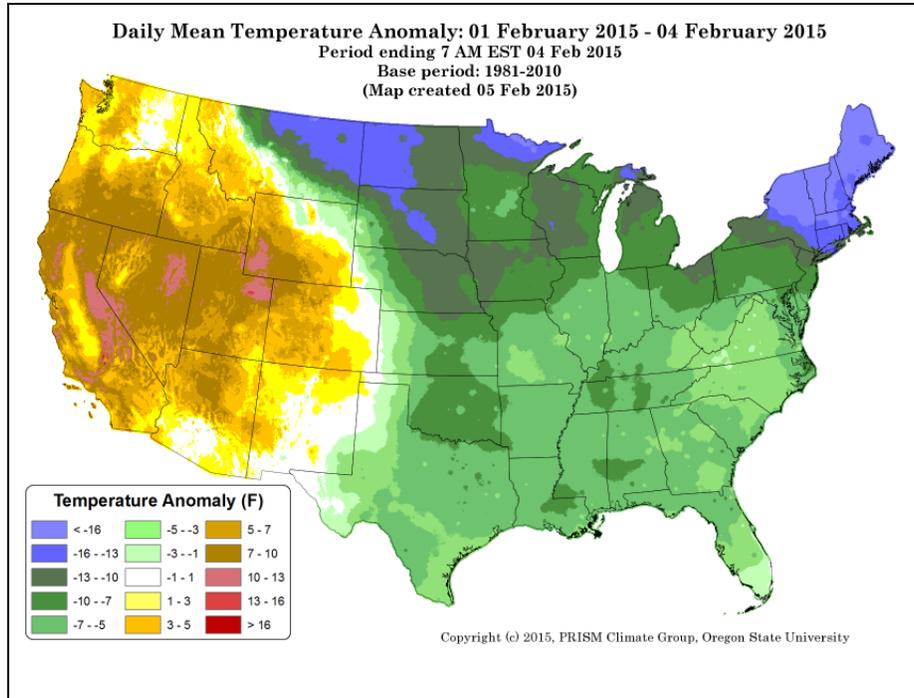
The [ACIS](#) map of the 7-day average temperature anomalies in the West ending February 4, shows that the greatest positive temperature departures occurred in eastern Utah, northwest Colorado, and southwest Wyoming (>+15°F). Other warm temperatures occurred in most of the West, including California, Nevada, Idaho, Oregon, Arizona, and New Mexico. There were slightly negative temperature departures concentrated in eastern and northern Montana. (<-6°F).

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

Weekly Water and Climate Update

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 early February 2015, the national daily mean temperature anomaly [map](#) shows a large, cool region over most of the eastern half of the country, with the coldest anomaly in northern New England (<-16°F). Above normal temperatures were recorded in much of the West, with the warmest anomalies in Utah and California (>+13°F).



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°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°F).

Weather and Drought Summary

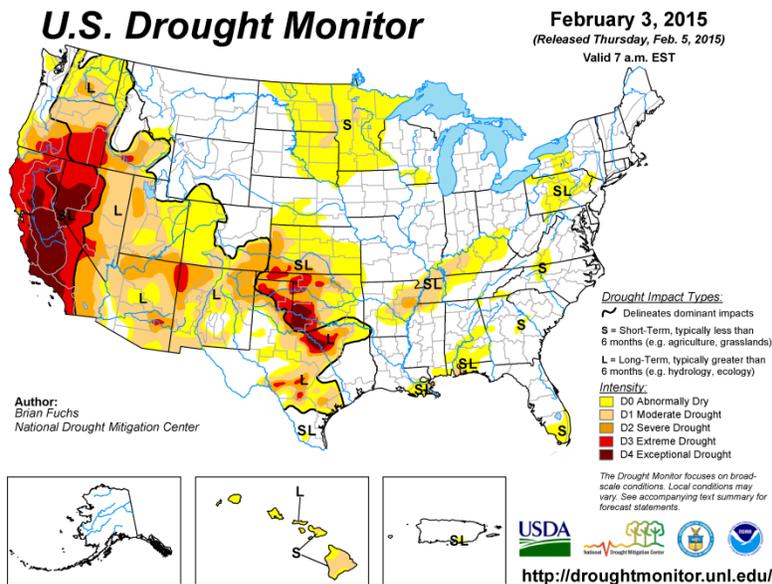
[National Drought Summary](#) – February 3, 2015

The following **Weather and Drought Summary** is provided by this week’s NDMC Drought Author, Brian Fuchs, National Drought Mitigation Center.

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

“For the contiguous 48 states, the U.S. Drought Monitor showed 28.44 percent of the area in moderate drought or worse, compared with 28.59 percent a week earlier. Drought now affects 65,865,942 people, compared with 65,881,294 a week earlier.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 23.85 percent of the area in moderate drought or worse, compared with 23.97 percent a week earlier. Drought now affects 66,019,615 people, compared with 66,034,968 a week earlier.”



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

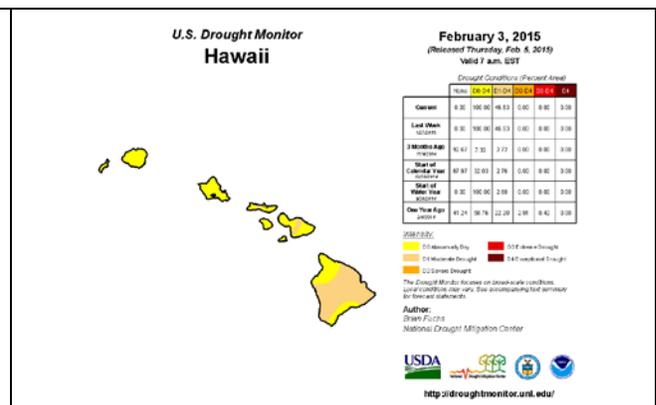
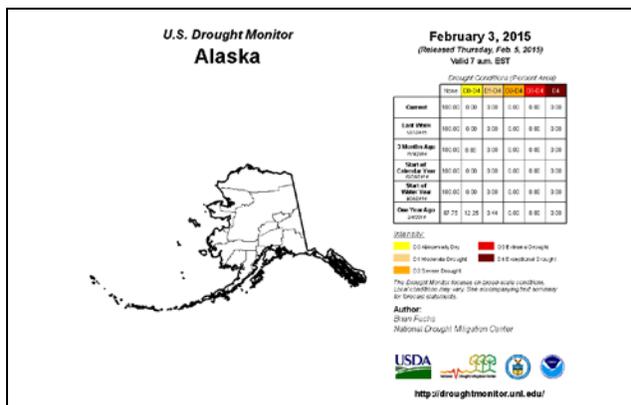
The latest [drought indicator blend and component percentiles](#) spreadsheet is a great resource for climate division drought statistics. This link is for the latest [Drought Outlook](#) (forecast). See [climatological rankings](#).

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](#)

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

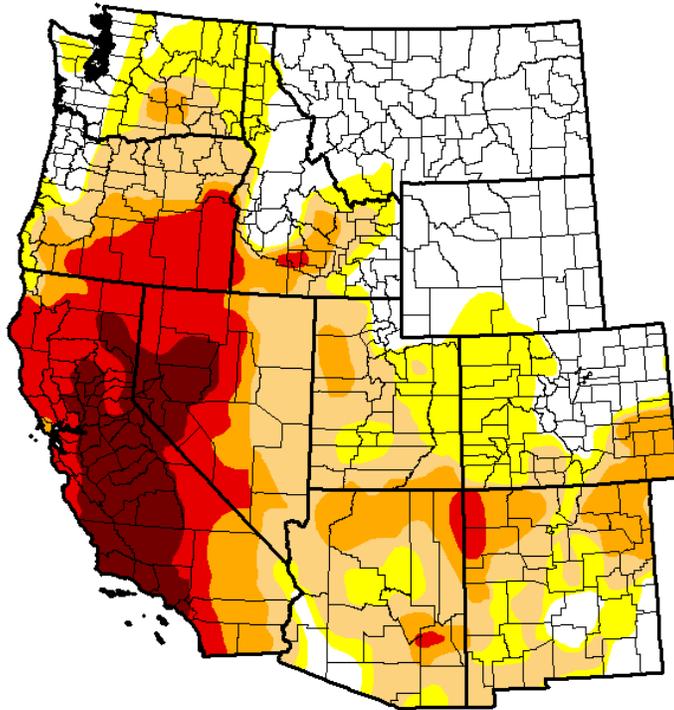


“The [49th](#) and [50th](#) States show normal to moderate drought conditions. No changes were noted for Alaska or Hawaii this week. A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions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

Weekly Water and Climate Update

U.S. Drought Monitor West

February 3, 2015
(Released Thursday, Feb. 5, 2015)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	30.68	69.32	52.74	31.35	18.51	6.96
Last Week <i>1/27/2015</i>	31.10	68.90	53.77	33.36	18.72	6.96
3 Months Ago <i>11/4/2014</i>	34.59	65.41	54.48	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>2/4/2014</i>	17.00	83.00	63.49	39.68	15.29	1.94

Intensity



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

Author:

*Brian Fuchs
National Drought Mitigation Center*



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

There was a slight increase in D0 – D3 drought categories in the West this week. D4 remained the same and the drought-free areas decreased 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:

OR - [Oregon snowpack at record lows](#) – Jan 30

CA- [California Likely Headed Into Fourth Year Of Drought As State Suffers One Of Driest Januarys On Record](#) – Feb 1

U.S. - [NASA's SMAP Observatory To Improve Drought Prediction, Planning For Natural Disasters](#) – Feb 1

Weekly Water and Climate Update

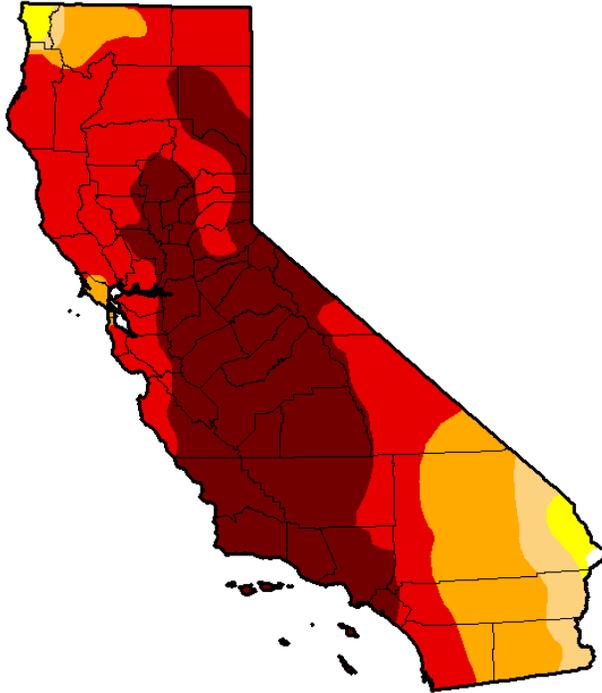
State with D-4 Exceptional Drought

U.S. Drought Monitor California

February 3, 2015

(Released Thursday, Feb. 5, 2015)

Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.16	99.84	98.13	93.57	77.46	39.99
Last Week <i>1/27/2015</i>	0.00	100.00	98.13	94.34	77.52	39.99
3 Months Ago <i>11/4/2014</i>	0.00	100.00	99.71	94.42	79.69	55.08
Start of Calendar Year <i>12/31/2014</i>	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year <i>9/30/2014</i>	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago <i>2/4/2014</i>	1.43	98.57	94.18	89.91	67.13	9.81

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:

Brian Fuchs
National Drought Mitigation Center



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

There was a slight decrease in D1, D2, and D3 in California this past week. D1 and D4 remained unchanged. For the first time in a long time, a small area in southeast CA is now drought-free.

[CA Drought Information Resources](#)

[Drought News from California:](#)

[Driest January in history: Bay Area swings from boom to bust after wettest December](#) – Jan 29

[Biologists: Raising California dam would harm salmon](#) – Jan 28

[California may dam 3 Delta channels, if drought persists](#) – Jan 26

[Satellite mission poised to help farmers and water managers, NASA says](#) – Jan 28

[February's drought emergency food distribution announced](#) – Jan 27

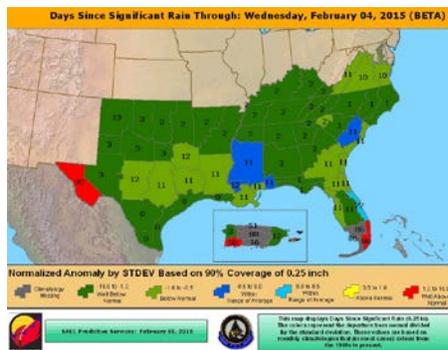
[California snow survey shows little to be happy about](#) – Jan 29

See conditions at: <http://www.water.ca.gov/waterconditions/waterconditions.cfm>

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:
[Climbing beef prices doing little to curb consumers' taste for cow, area experts say](#) – Jan 24
[Company says evaporation suppression worked](#) – Jan 28
[Quenching Our Future, Part 6: Texas drought diminishes, but enormous water loss persists, satellites show](#) – Jan 25



[Days since Significant Rain Summary](#)

State with D-4 Exceptional Drought

U.S. Drought Monitor Texas

February 3, 2015
(Released Thursday, Feb. 5, 2015)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.52	96.48	98.57	22.76	11.24	2.82
Last Week 1/27/2015	41.42	98.58	99.22	23.93	11.24	3.05
3 Months Ago 10/03/2014	26.33	73.67	48.40	26.39	10.01	3.62
Start of Calendar Year 12/01/2014	24.27	65.63	44.60	25.73	11.70	3.17
Start of Water Year 9/30/2014	28.92	71.08	48.95	29.54	11.26	2.69
One Year Ago 2/03/2014	14.95	65.05	51.60	22.34	7.95	0.71

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:
Brian Fuchs
National Drought Mitigation Center

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

There was a decrease in D0 – D2 and D4 in Texas this past week. The D3 category did not change, and drought-free areas increased.

State with D-4 Exceptional Drought

U.S. Drought Monitor Nevada

February 3, 2015
(Released Thursday, Feb. 5, 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	63.08	47.95	17.43
Last Week 1/27/2015	0.00	100.00	99.93	68.25	50.06	17.43
3 Months Ago 10/03/2014	0.00	100.00	97.07	69.69	48.38	11.89
Start of Calendar Year 12/01/2014	0.00	100.00	96.98	68.25	48.38	11.89
Start of Water Year 9/30/2014	0.00	100.00	97.04	69.09	48.20	11.09
One Year Ago 2/03/2014	0.00	100.00	96.80	80.30	38.17	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:
Brian Fuchs
National Drought Mitigation Center

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

There was a very slight decrease in D2 and D3 in Nevada this past week. D0, D1, and D4 remained unchanged for the week.

Nevada Drought News:

[State engineer cuts supplemental water rights by 50%](#) - Jan 27

Weekly Water and Climate Update

Related Area News:

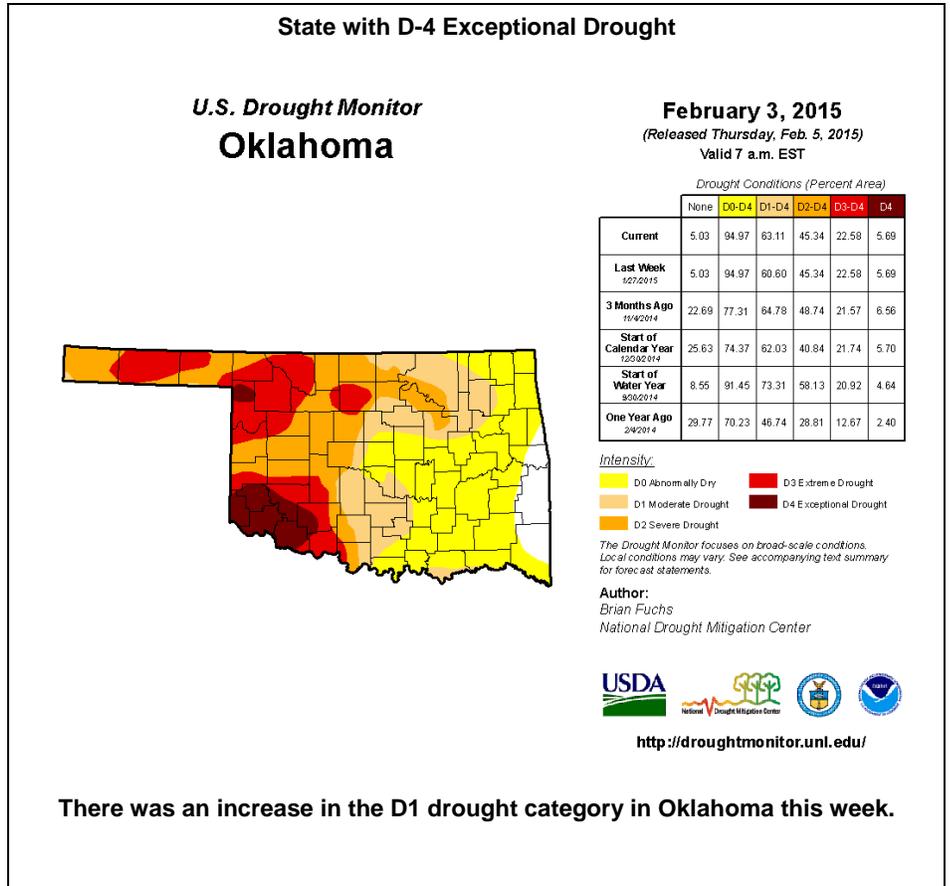
[2014 Kansas Drought Report and Summary](#)

- [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 received \\$883 million in federal drought relief, most in the nation](#) – Jan 28

[State's deer harvest up, but drought-stricken west suffers](#) – Jan 25



U.S. Population in Drought

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
2015-02-03	195,776,592	109,620,863	65,865,942	47,524,725	37,729,999	21,090,871
2015-01-27	184,361,350	121,036,105	65,881,295	48,755,074	38,106,927	21,093,404

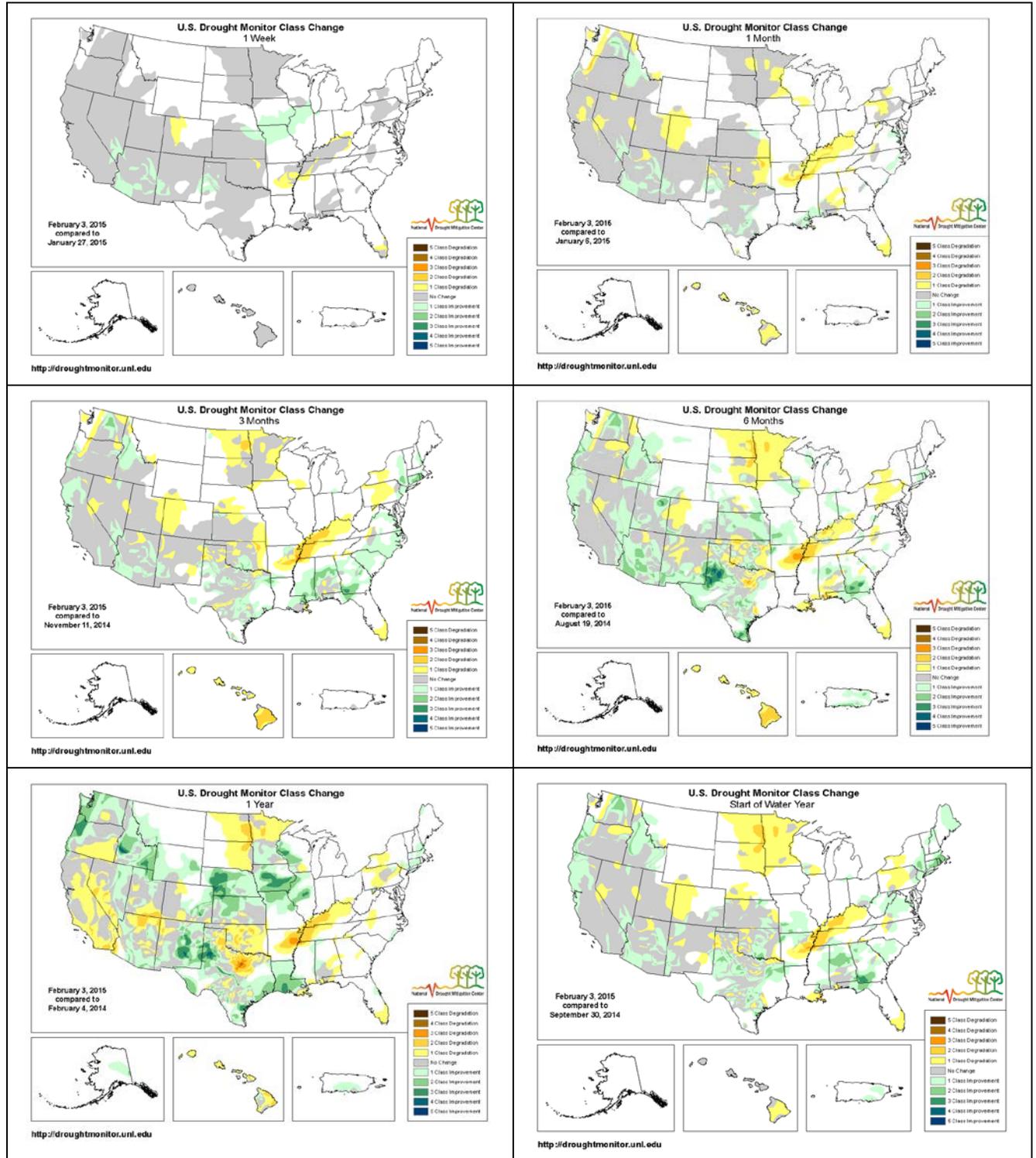
Population figures affected by drought in the U.S. Drought Monitor website show that, for this week, more than 65,800,000 people in the United States were in a drought-affected area, which is a slight change from last week.

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

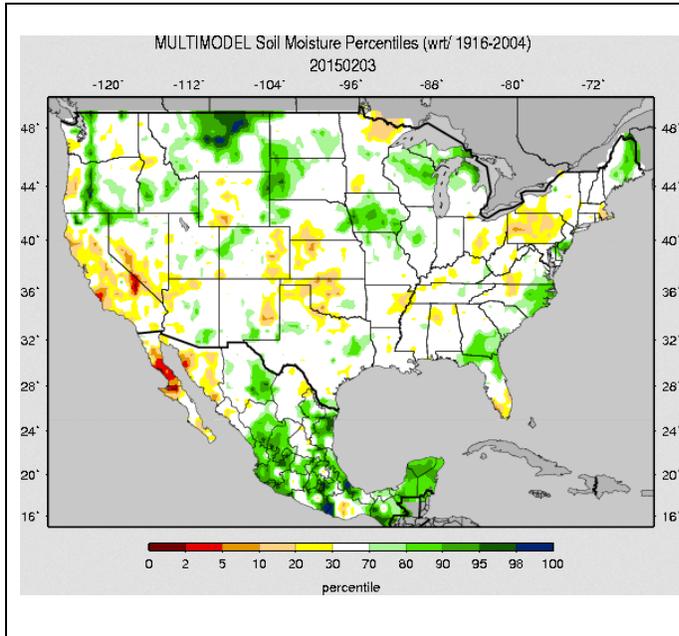
Over Various Time Periods



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

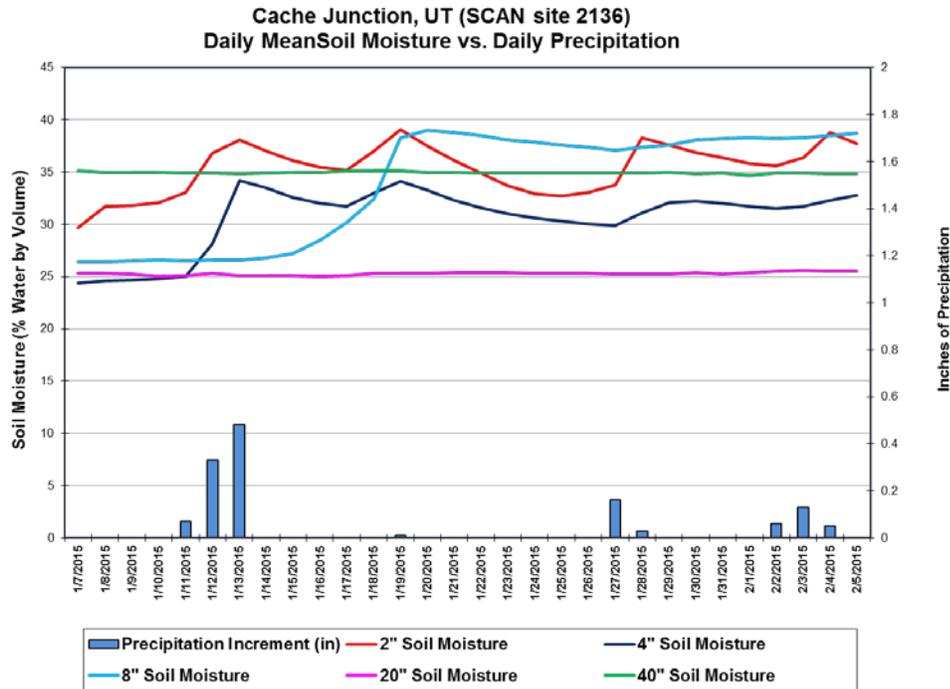
Soil Moisture



The national soil moisture model ranking in [percentile](#) as of February 3, 2015, shows dryness over most of the south central and southwest U.S. The driest areas are in southern Nevada, 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, 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)

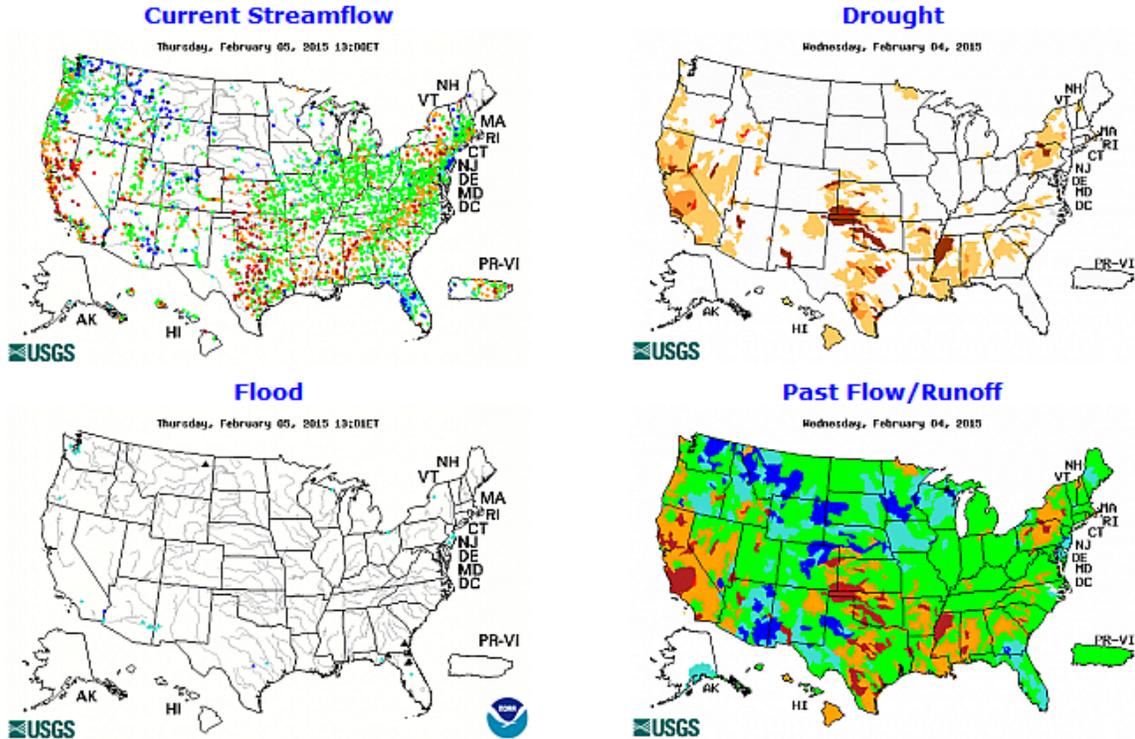


This NRCS resource shows soil moisture data for the last month at [Cache Junction SCAN site \(2136\)](#) in Utah. The area had precipitation several times this past month (blue bars). This rainfall resulted in an increase in soil moisture, primarily at the 2-, 4-, and 8- inch depths. The other deeper depth sensors reported little change in soil moisture 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](#).

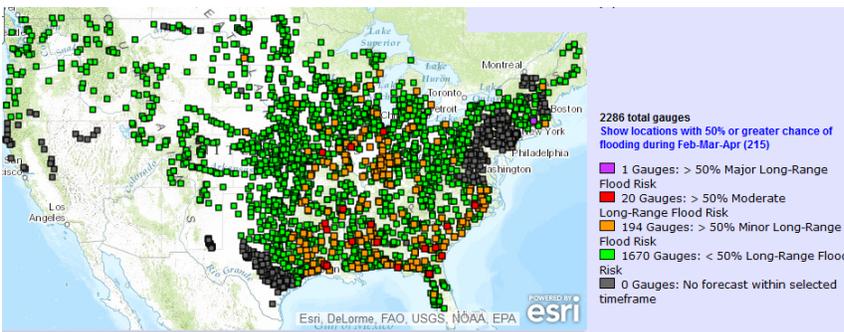
Weekly Water and Climate Update

Streamflow



Scattered gages in many parts of the U.S. are reporting much above normal streamflow. 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 Poplar River near Poplar, MT, Satilla River at Atkinson, GA, Aucilla R at Lamont, FL, St. Johns R at Jacksonville, FL, St. Johns R at Buffalo Bluff near Satsuma, FL, Dunns Ck near Satsuma, FL, and Ocklawaha R near Orange Springs, FL.

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 gauges with a slight to higher risk of flooding. Currently, **1** gauge has a greater than 50% chance to experience major flooding; **20** gauges for moderate flooding; and **194** gauges for minor flooding.

These numbers represent a **44** gage increase in the greater than 50 percent chance of minor flooding category since last week.

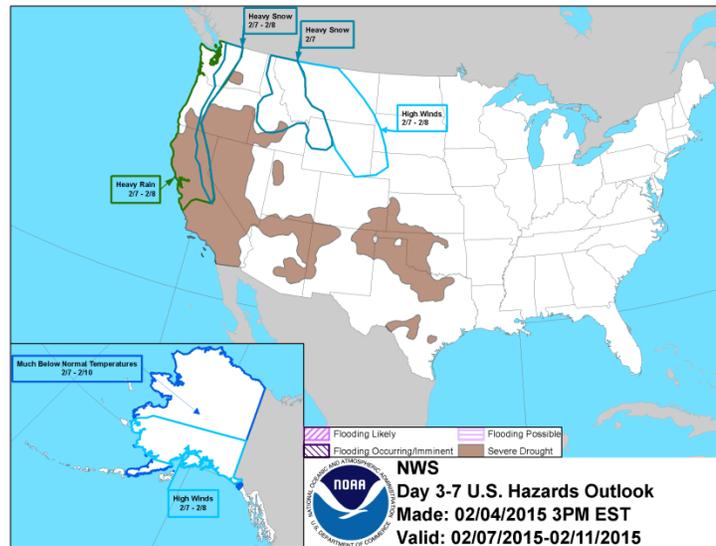
Weekly Water and Climate Update

National [Weather Hazards](#)

Heavy snow is expected in the Cascades of Oregon and Washington, in the northern Sierra Nevada in California (2/7-8), and in the northern Rockies (2/7) (medium blue). High winds are expected in central Montana and Wyoming (2/7-8). Heavy rain is expected along the Pacific coast in northern California, Oregon, and Washington (2/7-8).

In Alaska, high winds are expected for several days in the southern part of the state (2/7-8), with cold temperatures across most of the state (2/7-10).

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



[National Drought Summary for February 3, 2015](#)

Prepared by the Drought Monitor Author: Brian Fuchs, National Drought Mitigation Center.

Summary

“Temperatures were normal to above normal for most areas west of the Missouri River. The greatest departures from normal were over the central Rocky Mountains, where temperatures were 9-12 degrees Fahrenheit above normal. The eastern United States recorded temperatures below normal, with most areas 3-6 degrees Fahrenheit below normal for the week, and in New England, temperatures were 9-12 degrees Fahrenheit below normal. A strong storm system developed in the southwest and ejected onto the southern plains and into the Midwest. This was a storm with a great deal of moisture and it brought above-normal precipitation from Arizona up to Illinois. Portions of eastern Iowa to Chicago recorded over 12 inches of snow, with some areas approaching 20 inches for the event. The southeast, Mid-Atlantic, upper Midwest, and west coast remained dry with most areas slightly below normal for precipitation this week.

Hawaii, Alaska and Puerto Rico

No changes were made in Alaska, Hawaii, or Puerto Rico this week. The warm temperatures are impacting snow levels in Alaska and the state is being monitored closely for possible introduction of abnormally dry conditions.

Mid Atlantic and Southeast

A cool and dry week over much of this region. Temperatures were generally 4-6 degrees Fahrenheit below normal. Dry conditions prevailed, with only a few isolated showers in the region. With the dry conditions prevalent over the last 60-90 days over much of the region, discussions have centered on when and where to introduce abnormally dry conditions. For the most part, the cool season has allowed us to be slower with this introduction. In south Florida, D0 conditions were expanded to include all of south Florida this week as the dryness here has been ongoing for a longer period of time.

Midwest

Temperatures were above normal over most the region this week except for the eastern portions of the Midwest, where they ended up cooler than normal. The storm that came out of the southwest impacted the region over the weekend with rain followed by wet snow. The large expansion of abnormally dry conditions introduced last week was pretty much removed this week in response to the precipitation amounts of 1.0-1.50 inches over the area. Snow amounts were impressive, with Chicago recording a storm total of 19.3 inches, making it a top-five event all time. Rockford, IL, also recorded 11.9 inches with this storm, making it a top-ten event for them. Both locations more than doubled their seasonal snowfall with this storm. Even with some precipitation this week, Kentucky is falling behind on precipitation quickly. This week, D0 conditions were expanded slightly and there were discussions of introducing more D1 over the state.

Weekly Water and Climate Update

South and Gulf Coast

The region was warm this week, with most areas recording temperatures above normal. Departures were generally 3-6 degrees Fahrenheit above normal for the week, except along the coastal regions of Mississippi and Alabama. Most of the Gulf Coast was dry for the week as well as east Texas. Areas of Oklahoma into the Texas panhandle did have a wet week with the storm that came out of the southwest. Some slight improvements were made to the D4 conditions in the Texas panhandle as well as slight reductions of D0, D1, and D2 conditions. In northeast Oklahoma, D1 was expanded to the east as the long-term drought impacts are starting to become more apparent over this region. In Arkansas, the area of D1 was expanded to the south and a new area of D2 was introduced as the short-term dryness is the driver in these changes.

The High Plains

A warm week over the region, with temperature departures of 3-6 degrees Fahrenheit above normal common over the entire region. Much of Kansas and Nebraska were impacted by the same storm that brought precipitation to the southern plains and Midwest. The greatest precipitation was recorded over southeast Nebraska and northeast Kansas, which allowed for the improvement of D0 conditions this week.

The Northeast

A cool and fairly wet week over much of the region held status quo for the drought conditions this week. Temperatures were 6-12 degrees Fahrenheit below normal over most of the region and precipitation was normal to slightly above normal for the region. No changes were made to the abnormally dry areas this week.

The West

Consistent with what has been all too common over the west, temperatures were again well above normal for the week. The greatest departures from normal were over Wyoming, Colorado, Utah, and Nevada, where temperatures were 9-12 degrees Fahrenheit above normal for the week. Most other areas were 3-6 degrees Fahrenheit above normal. Arizona and New Mexico picked up some good precipitation, but this did little for snow accumulation in the upper elevations as there was more rain than snow. California remained dry as well as much of Washington and Oregon. The consistent issue in the west this current water year is the lack of snowfall, even in the highest elevations. The majority of the precipitation has fallen as rain, which has impacted many groups who count on snow for their livelihoods. Many valley locations are showing adequate rain this winter, but the same cannot be said for the upper elevations and their snow totals. This has made depicting drought quite difficult, as the runoff associated with the upper elevation snowpack is vital. With the precipitation in the region this week, improvements were made to southwest Arizona, southern Nevada, and southern California, where the impact of the summer monsoon along with the current precipitation has allowed for improvements. Areas of southwest New Mexico also were improved as the short-term precipitation has allowed conditions to start improving in the long term as well. D0 was expanded in Colorado this week to include more of the central portion of the state.

Looking Ahead

Over the next 5-7 days, the warm temperatures over the western half of the United States will continue. Much of the area will see daily high temperatures 6-12 degrees Fahrenheit above normal, with the greatest departure from normal high temperatures over eastern Colorado and western Kansas. Overnight lows are also expected to be above normal over most of the United States with overnight lows 6-18 degrees Fahrenheit above normal. The greatest departures from normal are expected over the northern Rocky Mountains. The area around the Great Lakes and New England is expected to be cooler than normal during this time with departures of 3-6 degrees Fahrenheit below normal for maximum and minimum temperatures. Precipitation chances look impressive from central California north toward Oregon and Washington. Amounts are projected to be quite high at this time, but with the warm weather, much of this precipitation is expected as rain, except at the highest elevations. This system is expected to impact most of the northwestern United States and into the northern Rocky Mountains. Precipitation is also expected to impact the Gulf Coast and along the eastern seaboard, into New England. Amounts of up 1-2 inches are projected at this time.

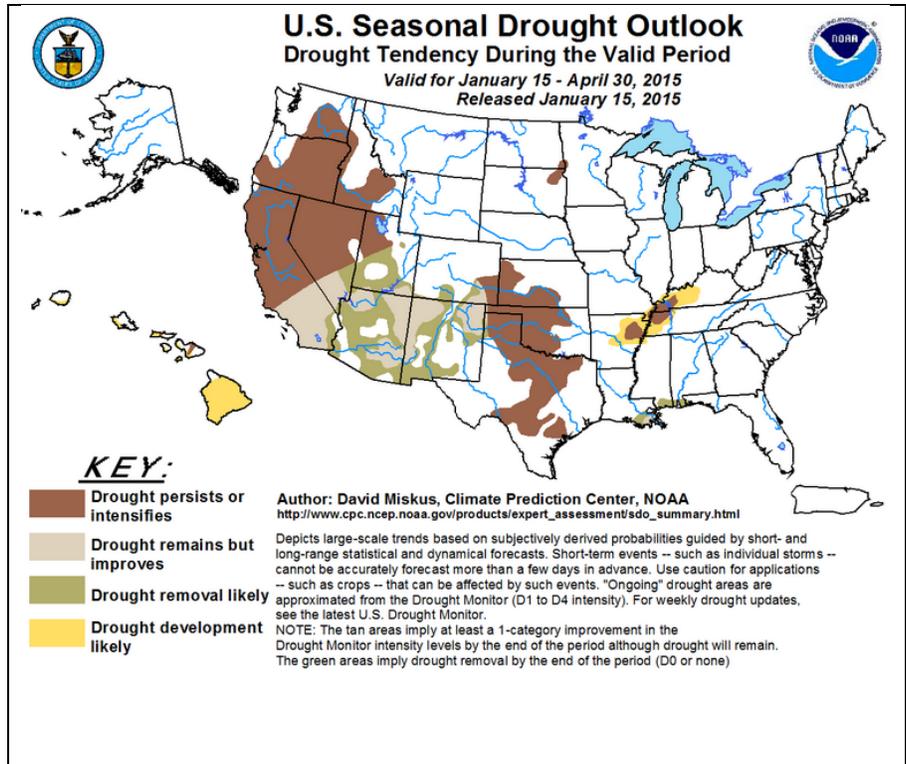
The 6-10 day outlook has warm temperatures likely to continue over the western two-thirds of the country while the best chances for below normal temperatures is expected over Alaska, New England, the Great Lakes region and along the east coast. Precipitation projections are showing that the greatest chance of above normal precipitation is over the northern plains and upper Midwest. The best chances for below normal precipitation take place over the southeastern United States and northern Alaska, especially over the lower Mississippi valley and Gulf Coast as well as in California and the Great Basin.”

Supplemental Drought Information

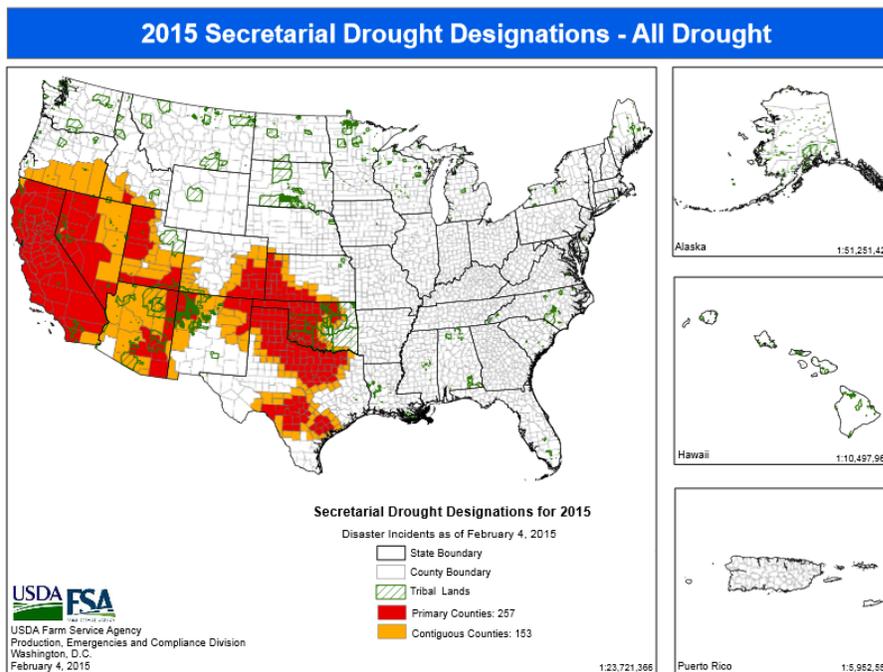
National Seasonal Drought Outlook

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.



2015 USDA Secretarial Drought Designations, as of February 4, 2015



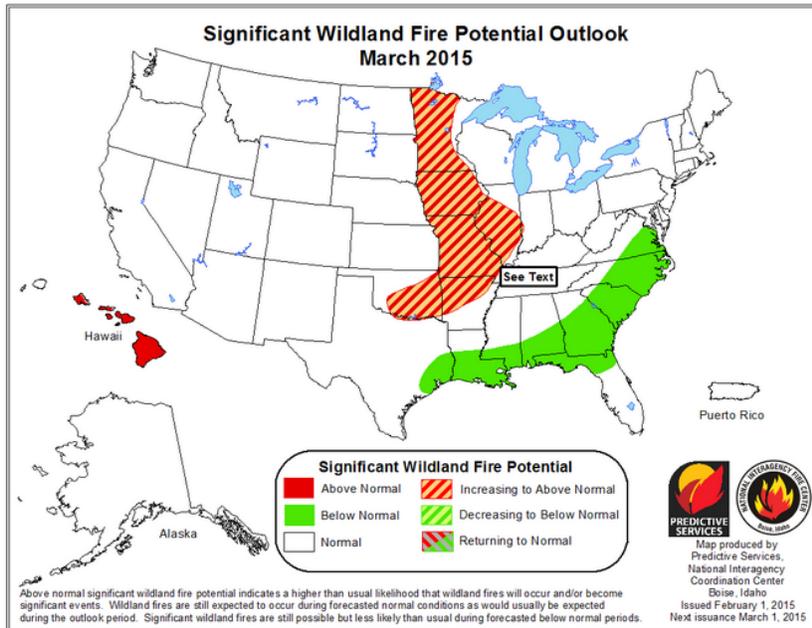
Refer to the USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#).

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

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

Weekly Water and Climate Update

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.

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.

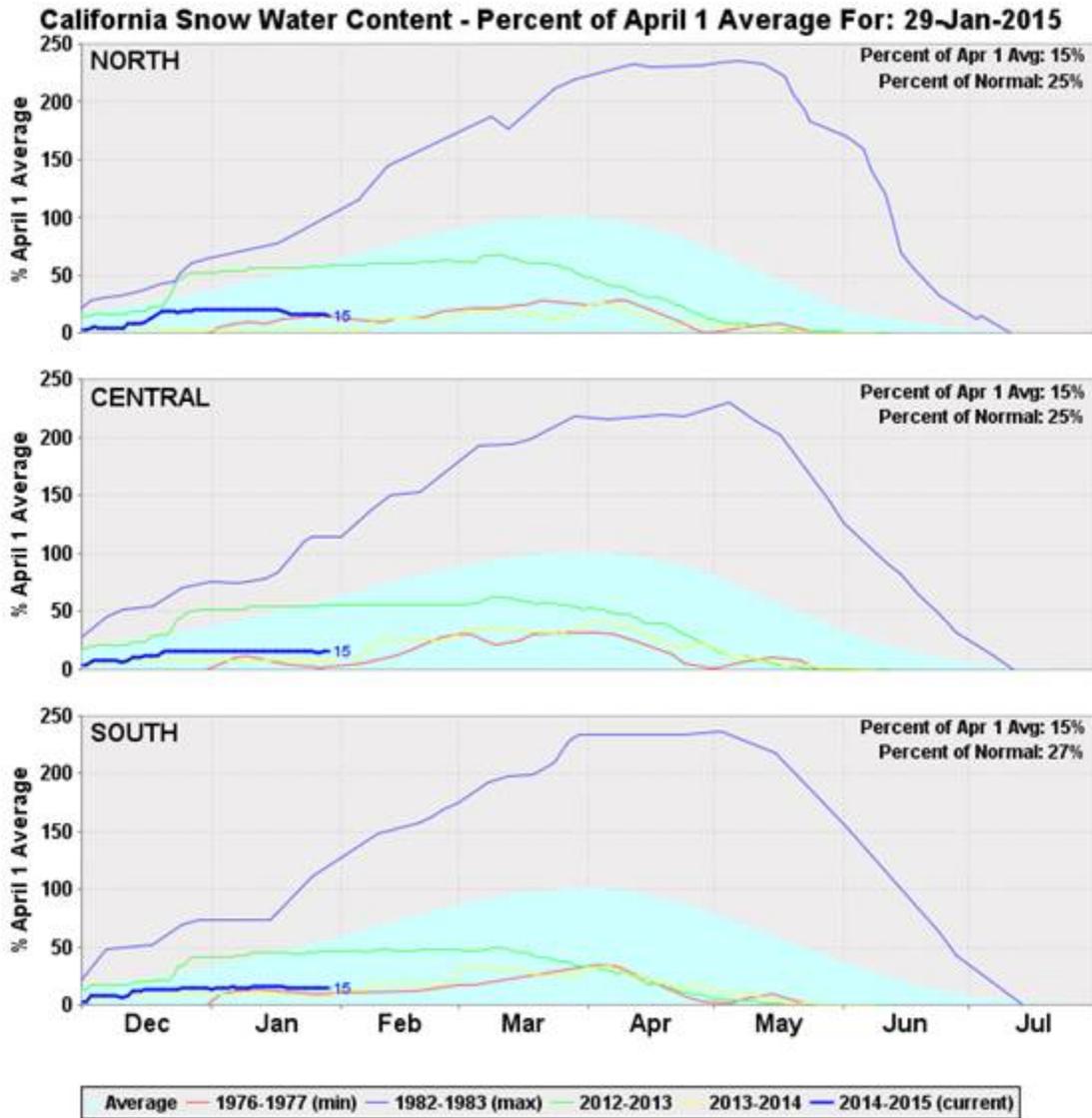
“Dismal California snow survey

The second snow survey of the year at Echo Summit revealed a water equivalent of 2.3 inches or 12 percent of average on Jan. 29.

* The [California Dept. of Water Resources](#) gives a good summary of the water situation in the state as of Jan. 29. See <http://www.water.ca.gov/waterconditions/waterconditions.cfm>

The snow water content for other parts of the Sierra Nevada as of Jan. 29
<http://cdec.water.ca.gov/cdecapp/snowapp/swcchart.action>

Weekly Water and Climate Update



Triple the number of salmon released on Sacramento River near Redding, California

Three times as many or about 600,000 Chinook salmon will be released into the Sacramento River below Keswick Dam by the U.S. Fish and Wildlife Service. Warm water allowed a massive fish die-off to occur in 2014 when about 95 percent of the salmon eggs and newly hatched fish died. Only 5 percent of the juvenile salmon survived in 2014, compared with a typical survival rate of about 27 percent.

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

The evaporation suppression powder used on Arrowhead Lake during the 2014 summer was found to be successful. A report by the Texas Water Development Board said the measure may have reduced normal evaporation by 15 percent. Wichita Falls spent about \$294,000 on the project.

USDA payments to livestock producers

Livestock producers in Oklahoma, Texas, Nebraska, Kansas and Missouri altogether received over \$2.7 billion in payments from the USDA's Livestock Forage Disaster Program for losses stemming from drought between Oct. 1, 2011 and Dec. 1, 2014. Oklahoma led the pack with \$883 million in payments, Texas followed with \$592.36 million, Nebraska got \$512.89 million, Kansas received \$461.26 million, and Missouri producers got \$303.58 million.

Weekly Water and Climate Update

Satellite mission to track California soil moisture

A satellite for the NASA Soil Moisture Active Passive project will be launched on Jan. 30 from Vandenberg Air Force Base. The project will use radar to determine soil moisture in California fields within the top inch every two to three days and map it. The soil moisture information will be invaluable to Valley farmers and water resource managers trying to cope with prolonged drought.

Texas' ongoing water deficit

Since early 2011, Texas lost 84 million acre-feet of water, but has regained just 10 percent of that, said scientists at UT Austin's Center for Space Research. The data came from the Gravity Recovery and Climate Experiment.

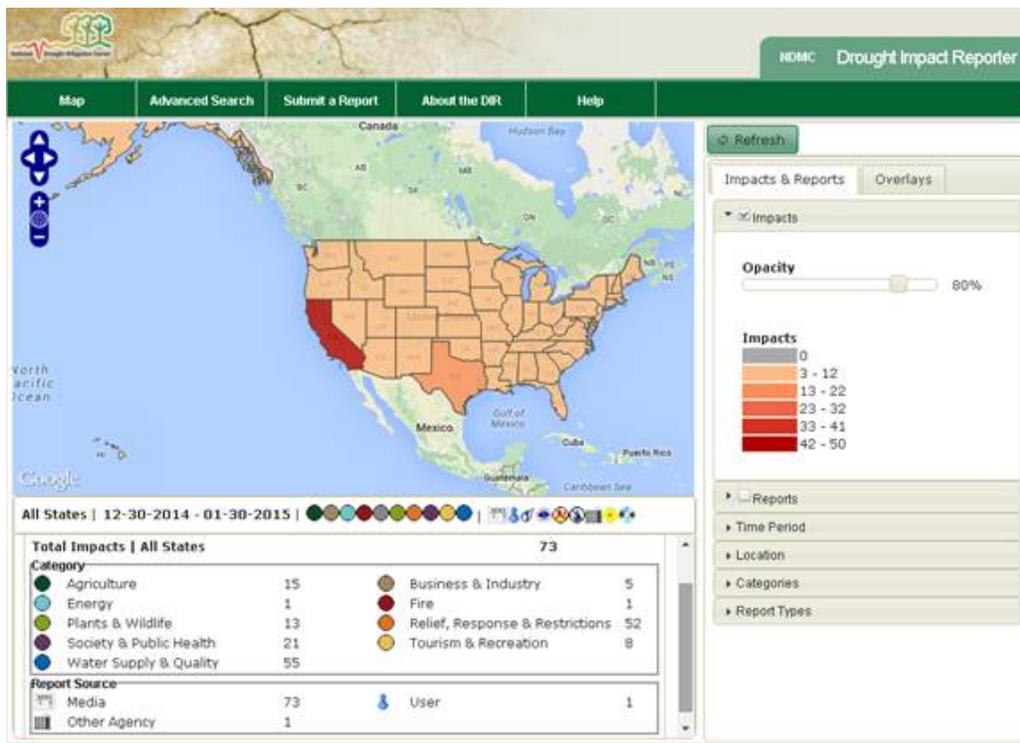
Curtailment of 50 percent on supplemental water rights in northwestern Nevada

A curtailment of 50 percent on supplemental water rights in Smith and Mason valleys was announced by the state engineer. Supplemental water is well water used to make up for surface water when supplies are short. Nevada Division of Water Resources staff will put tags on irrigation wells to let permittees know how much water they can pump.

Poor deer harvest in western Oklahoma

Smaller deer populations led to lower hunter success in northwestern and southwestern Oklahoma. The Wildlife Division southwest region supervisor thought that drought led to low reproduction numbers in 2011 and 2012 when fawn survival was poor. Deer populations in southwestern Oklahoma were likely to remain low until drought abates.

[Drought Impact Reporter](#)



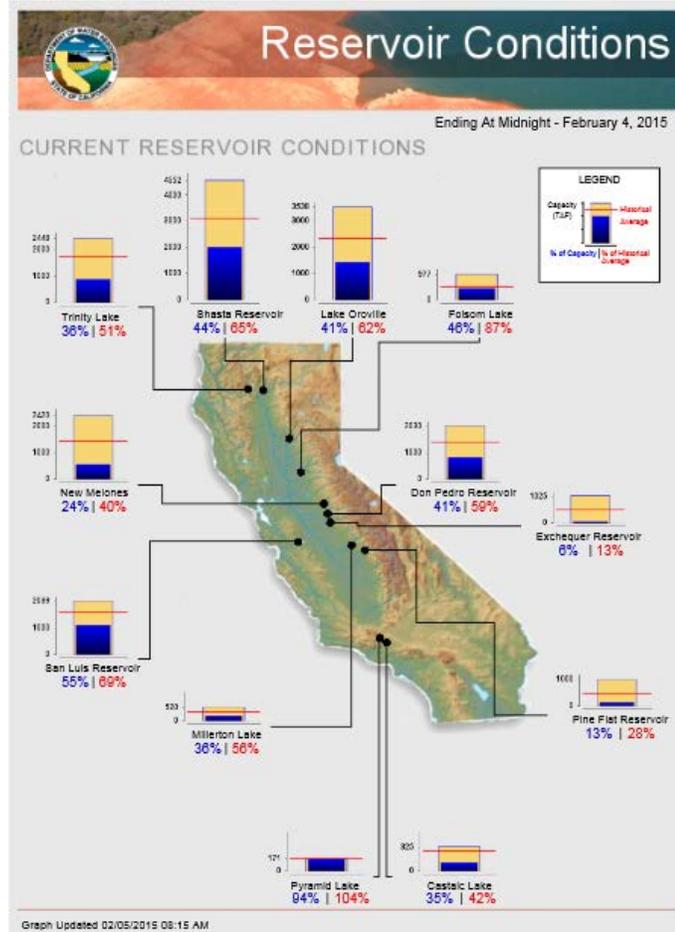
Tea Cup Reservoir Depictions

- <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)

Weekly Water and Climate Update

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](#).

U.S. Crops in Drought updated through February 3, 2015

<http://www.usda.gov/oce/weather/Drought/AgInDrought.pdf>

Brad Rippey, USDA Meteorologist

Office of the Chief Economist; World Agricultural Outlook Board; Washington, D.C.

“During the 4-week period ending on February 3, 2015, contiguous U.S. drought coverage increased slightly to 28.44%—a one-third of a percentage point climb.

January featured very warm weather in the West, dramatic temperature fluctuations on the Great Plains, and cold conditions in the Northeast. California experienced not only warm weather, but also had near-record January dryness, following a wet December. California’s U.S.-leading coverage of exceptional drought (D4) rose to 40% by February 3, up from 32% on January 6. In contrast, January storms provided local drought relief across the southern Plains and the Southwest. Arizona’s coverage of severe to extreme drought (D2 to D3) fell to 28% by February 3, down from 39% on January 20.

Weekly Water and Climate Update

However, drought still covers a substantial portion of the southern Plains and the western U.S. On January 6, the highest level of drought—D4, or exceptional drought—was noted in portions of California (40%, as mentioned above), Nevada (17%), Oklahoma (6%), and Texas (3%). California also continued to lead the nation with 77% coverage of extreme to exceptional drought (D3 to D4). One of the biggest concerns facing California is the lack of high-elevation snowpack in primary watersheds. By early February, the Sierra Nevada snowpack contained an average of just 4 inches of liquid, only about one-fifth of normal for this time of year. Concern about meager snowpack extend beyond California, stretching eastward into Arizona and the western Great Basin, and northward through the Cascades

According to the latest “agriculture in drought” statistics (attached), based on the February 3 Drought Monitor, 19% of the domestic hay acreage and 26% of the U.S. cattle inventory were located in a drought-affected area.

On February 3, more than one-third (37%) of the nation’s winter wheat production area—mainly across the southern Plains, mid-South, and interior Northwest—was located within a drought-affected region. According to USDA, winter wheat conditions declined in several states during January, in part due to drought and possibly due to the adverse effects of winter weather extremes. In Oklahoma, 41% of the winter wheat was rated in good to excellent condition at the end of January, down from 54% a month earlier. On the same date, more than one-tenth of the winter wheat was rated in very poor to poor condition in several states, including Texas (16% VP to P), Colorado (14%), Oklahoma (13%), and Kansas (13%).

The Midwest remains mostly drought-free, although a large area of abnormal dryness (D0) has developed across the upper Midwest—stretching from the Dakotas into Minnesota. On February 3, drought covered 8% of the U.S. corn production area and 9% of the soybean area. In late January and early February, a large winter storm produced heavy snow from Nebraska into the Northeast, but bypassed the driest areas of the upper Midwest. In North Dakota’s Red River Valley, less than 10 inches of snow has fallen this season in locations such as Grand Forks (9.6 inches through February 4; just 30% of normal) and Fargo (8.3 inches; 26%).

Weather outlook: Dramatic change is on the way for northern California, which has been mostly dry for the last 6 weeks. During the next 5 days, a barrage of Pacific storms will result in heavy precipitation and possible flooding in the Pacific Northwest, the northern Rockies, and northern California. However, warmth accompanying the storminess will continue to limit snowfall in key watershed areas, including the Cascades and Sierra Nevada. In northern California, where 5-day totals could reach 4 to 12 inches (with isolated amounts near 18 inches), the bulk of the precipitation will fall in two major surges on February 6-7 and 8-9. Farther east, record-setting warmth will return to the nation’s mid-section, with weekend temperatures expected to top 80°F as far north as the central High Plains. Elsewhere, precipitation (mostly light snow) will be confined to the nation’s northern tier, except for some rain and snow showers early next week in the eastern U.S.”

The next issuance of this emailed drought update will be Thursday, March 5, 2015, unless conditions warrant an earlier release. Archived “U.S. Crops in Drought” files can be downloaded from this link: <http://drought.unl.edu/Planning/Impacts/USAginDroughtArchive.aspx>

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