



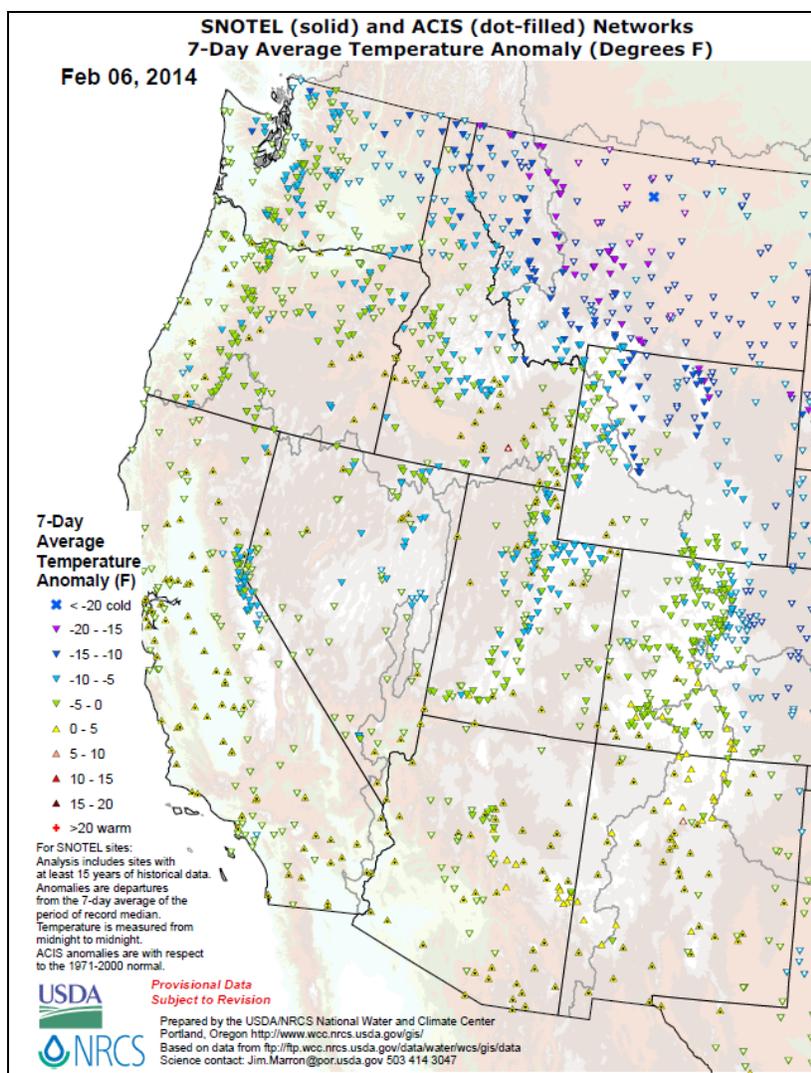
Natural Resources Conservation Service
 P.O. Box 2890
 Washington, D.C. 20013

Weekly Snowpack / Drought Monitor Update

February 6, 2014

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Temperature



SNOTEL and ACIS [7-day temperature anomaly](#) map shows temperatures below normal across most of the West and especially over western Montana.

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

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

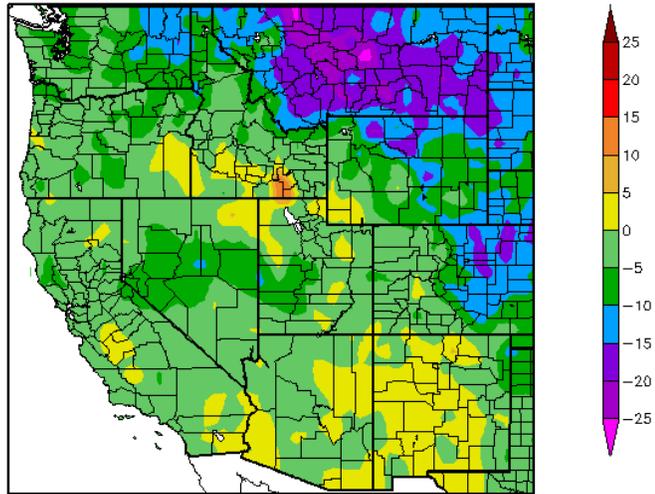
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Weekly Snowpack and Drought Monitor Update Report

[ACIS](#) 7-day average temperature anomalies, ending February 5, show the greatest negative temperature departures over Montana and northeastern Wyoming (< -15°F). The greatest positive temperature departures occurred over parts of the Southwest and over southern Idaho (>+2°F).

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

Departure from Normal Temperature (F)
1/30/2014 - 2/5/2014



Generated 2/6/2014 at HPRCC using provisional data.

Regional Climate Centers

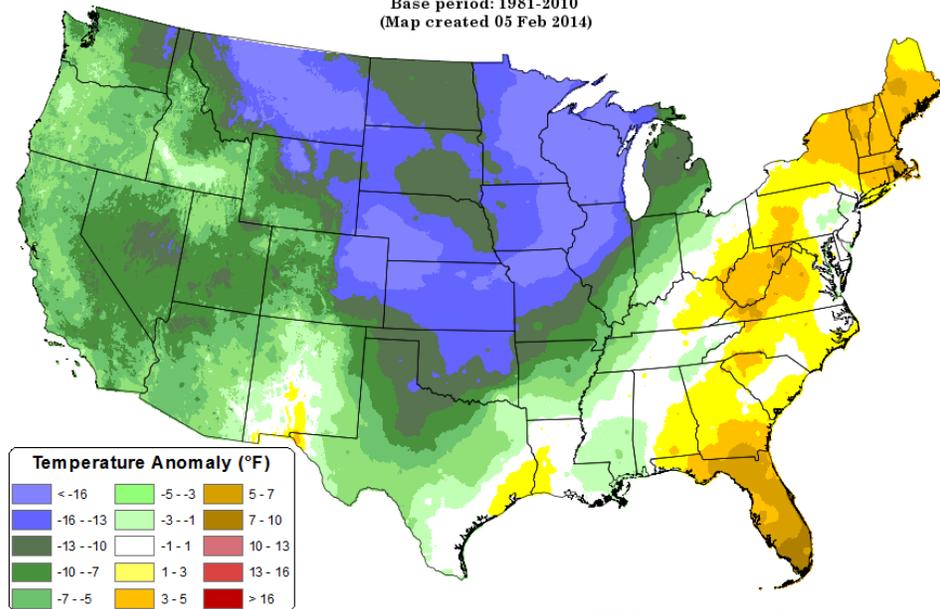
Daily Mean Temperature Anomaly: 01 February 2014 - 04 February 2014

Period ending 7 AM EST 04 Feb 2014

Base period: 1981-2010

(Map created 05 Feb 2014)

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.



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

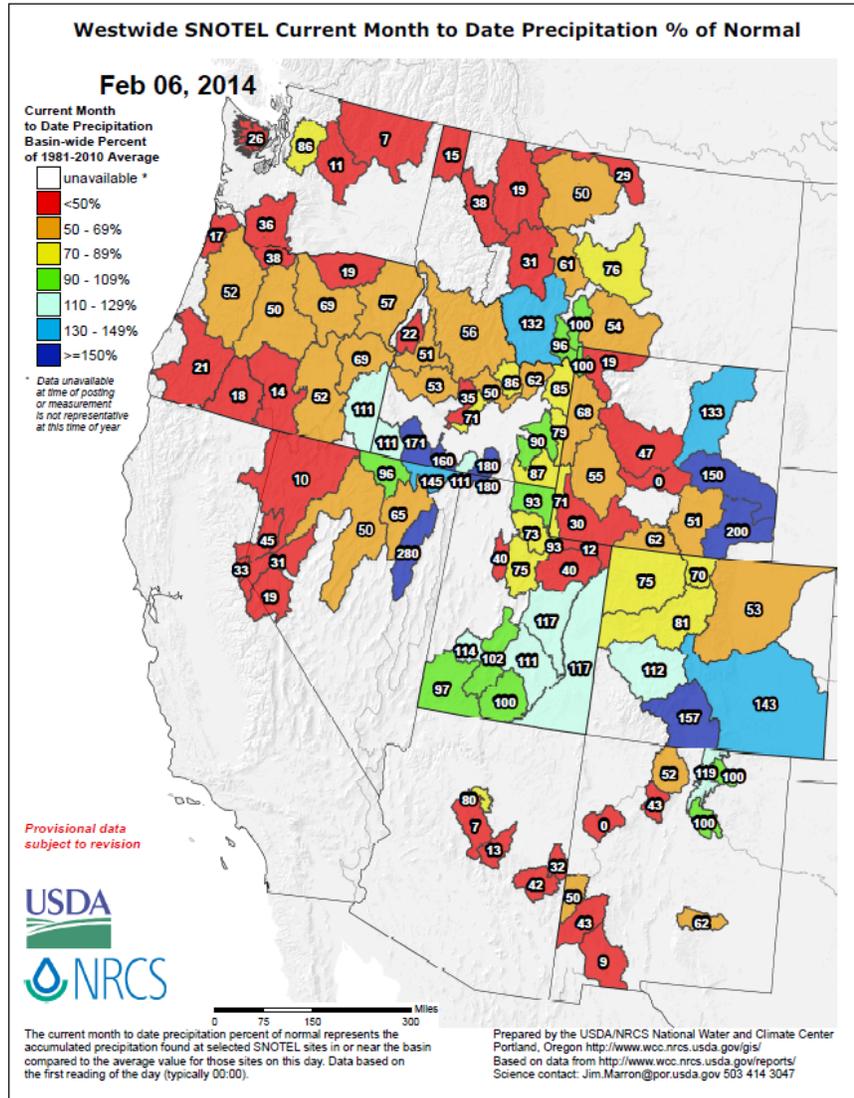
For early February, it has been very cold over the northern Great Plains and western Great Lakes regions (<-16°F departures). Warmer than normal temperatures have occurred over the east coast (>+7°F departures over Florida and parts of New England).

Weekly Snowpack and Drought Monitor Update Report

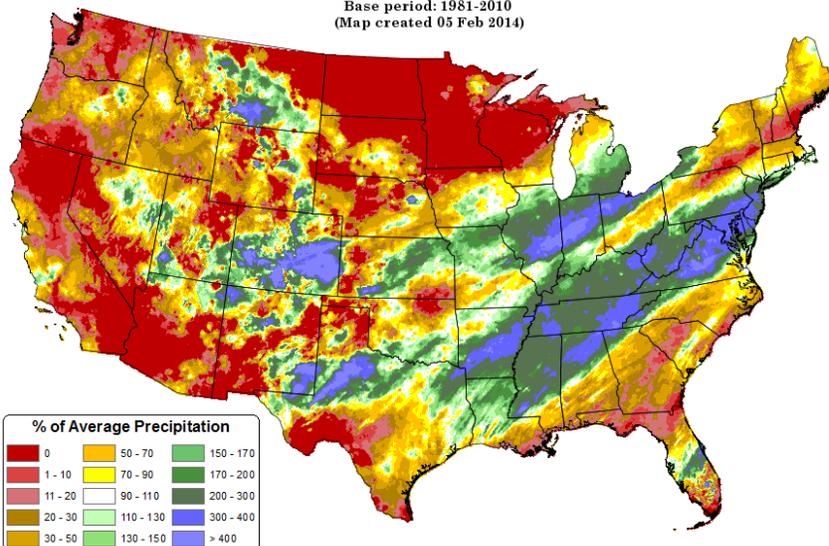
Precipitation

SNOTEL [month to date](#) precipitation percent of normal shows most of the West drier than normal with the exception of a few river basins in the northeast corner of the Great Basin (i.e., SE Oregon, SW Idaho, and NE Nevada), southern Utah and Colorado, and eastern Wyoming.

Note that it takes only a few winter storms to help increase values to near normal over the Southwest, whereas it requires more storms to have the same impact over the Pacific Northwest.



Total Precipitation Anomaly: 01 February 2014 - 04 February 2014
 Period ending 7 AM EST 04 Feb 2014
 Base period: 1981-2010
 (Map created 05 Feb 2014)



← For early February, the precipitation pattern has not favored much of the West and northern High Plains with moisture. However, parts of the Rockies, northwest Texas, and the Midwest have experienced some surplus moisture.

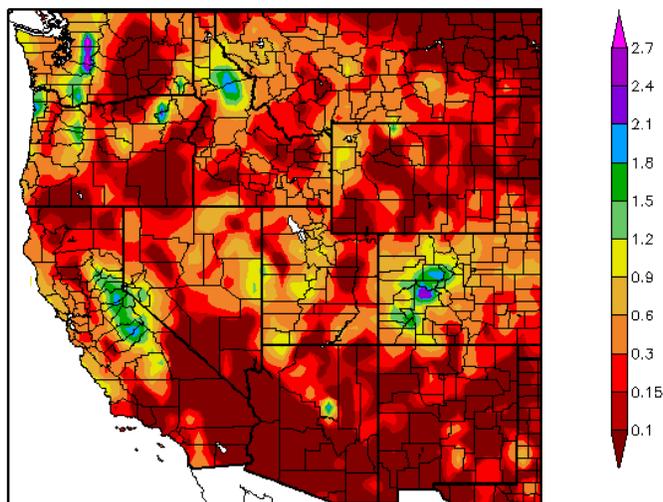
This preliminary daily PRISM precipitation map contains all available network data, and is updated periodically as additional data become available and are quality controlled.

Weekly Snowpack and Drought Monitor Update Report

[ACIS 7-day](#) average precipitation amounts show very limited precipitation falling across the West. Areas with the highest totals were over the Washington Cascades, Sierra Nevada, Idaho Panhandle, and the high country in west-central Colorado. →

The effect of the strong high pressure ridge over the West has finally broken down allowing for the westerlies to bring in low pressure systems from the Pacific.

Precipitation (in)
1/30/2014 – 2/5/2014

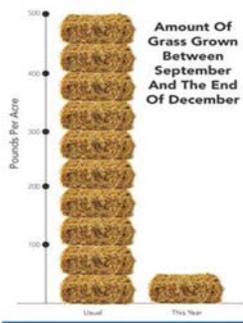


Generated 2/6/2014 at HPRCC using provisional data.

Regional Climate Centers

Drought news from California

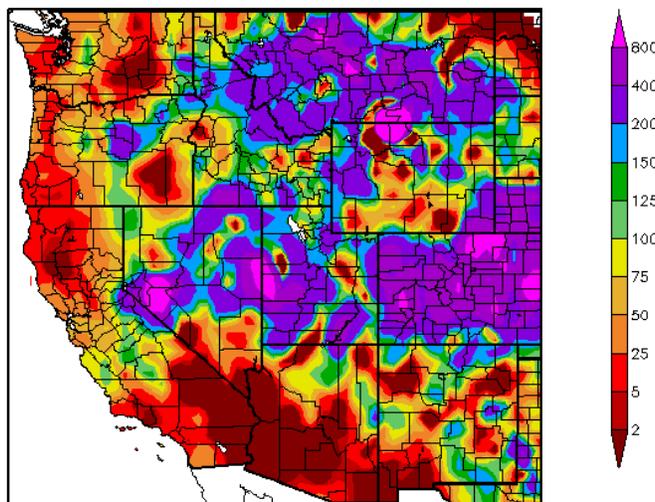
[California drought has ranchers selling cattle](#) - Jan 26,
[Drought Forces Ranchers To Make Tough Decisions](#) - Jan 27



Difference between normal grass production and this year's grass production.

Graphic produced by the UC Sierra Foothill Research and Extension.

Percent of Normal Precipitation (%)
1/30/2014 – 2/5/2014



Generated 2/6/2014 at HPRCC using provisional data.

Regional Climate Centers

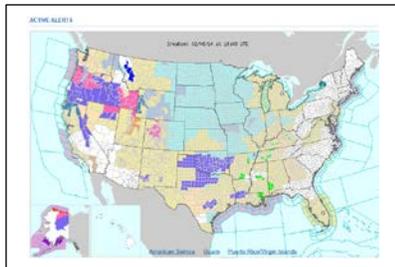
This [map](#) shows that the bulk of precipitation by percent of normal occurred over areas of the West.

Note that these ACIS maps reflect only low-elevation stations, where precipitation is typically light this time of year. Under average conditions (based on long-term climatology), precipitation tends to increase in the coming weeks for the Interior West.

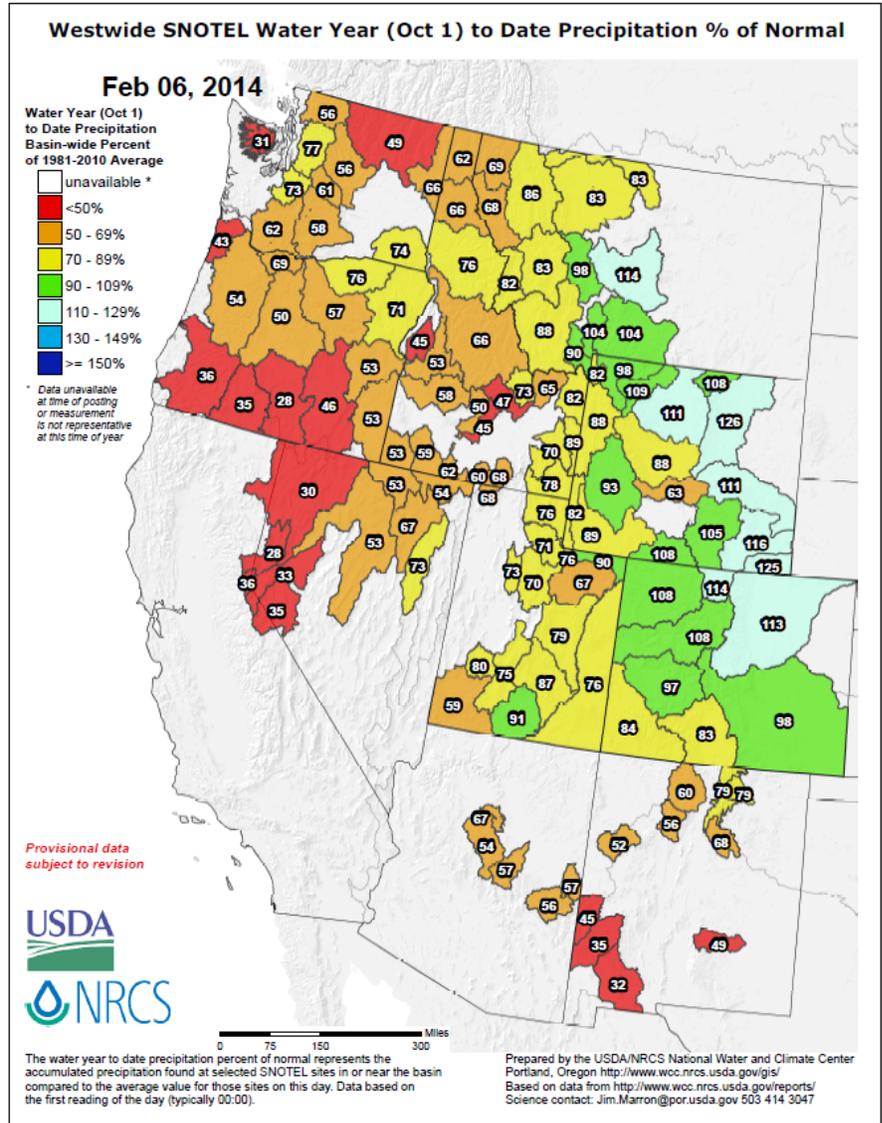
Weekly Snowpack and Drought Monitor Update Report

For the [2014 Water Year](#) that began on October 1, 2013, the neutral ENSO pattern is quite dry over the western half of the West, including Arizona and New Mexico. Areas east of the Continental Divide (e.g., south-central Montana, Wyoming, and north-central Colorado) have fared better.

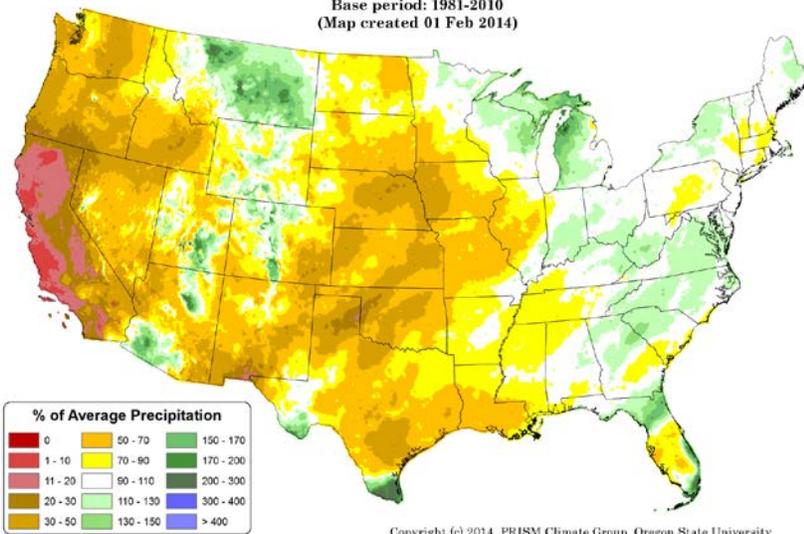
The current forecast and winter weather warnings should help parts of the Pacific Northwest and Sierra Nevada during the next two days:



Click to enlarge and update



Total Precipitation Anomaly: November 2013 - January 2014
 Period ending 7 AM EST 31 Jan 2014
 Base period: 1981-2010
 (Map created 01 Feb 2014)



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

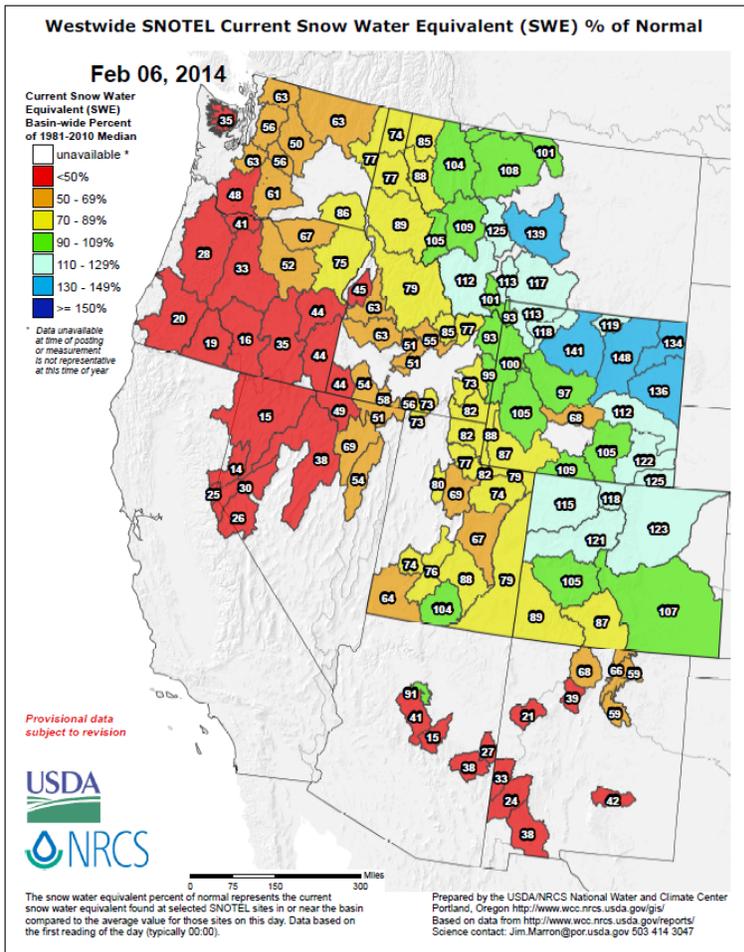
In this [PRISM](#) map, preliminary data show the **percent of average** (rain and snow water equivalent) for the past three months.

Resolution for this PRISM map is 4x4 km.

What is most striking about this map is the lack of precipitation across California. Montana, on the other hand, stands out as the wettest state in the West. Elsewhere, the Plains have been quite dry and the eastern third of the nation has experienced mostly average conditions.

Weekly Snowpack and Drought Monitor Update Report

Snow



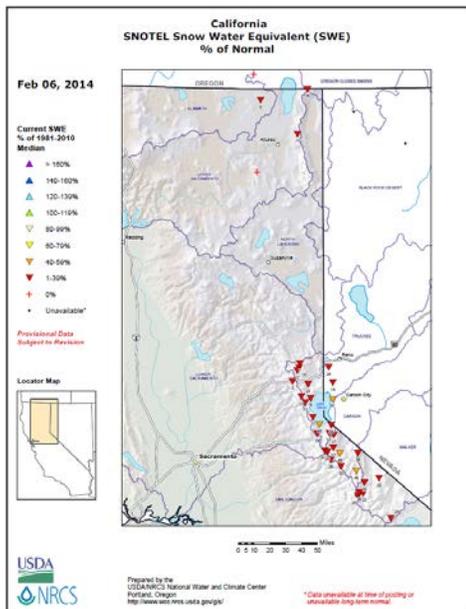
[Snow Water Equivalent \(SWE\)](#) values are higher east of the Continental Divide. The only significant improvement over last week has been over southern Colorado

Conditions west of the Continental Divide and over the Southwest continue to deteriorate.

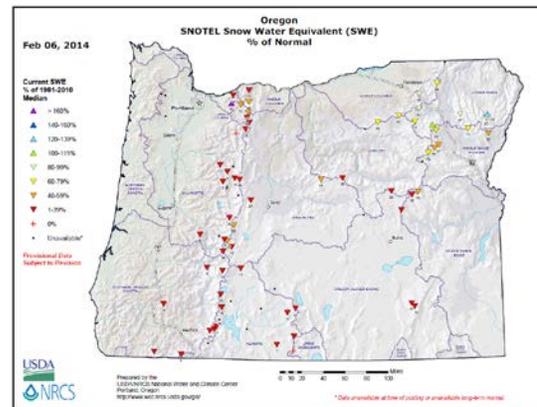
The all-important April 1 SWE date will best determine the water supply forecasts issued by the [National Water and Climate Center](#).

See latest [National Snow Analysis](#)

See westwide [water supply forecast tables](#)



[California-Nevada SWE map by station](#)



[Oregon SWE map by station](#)

[California drought prompts first-ever 'zero water allocation' - Jan 31](#)

Weekly Snowpack and Drought Monitor Update Report

Weather and Drought Summary

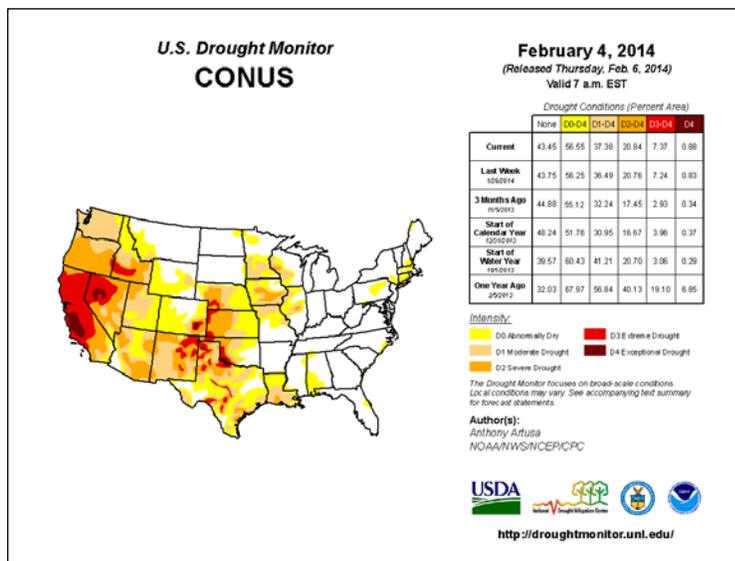
National Drought Summary – February 4, 2014

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

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

D-4 Exceptional drought only encompasses 0.88% of the U.S.

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



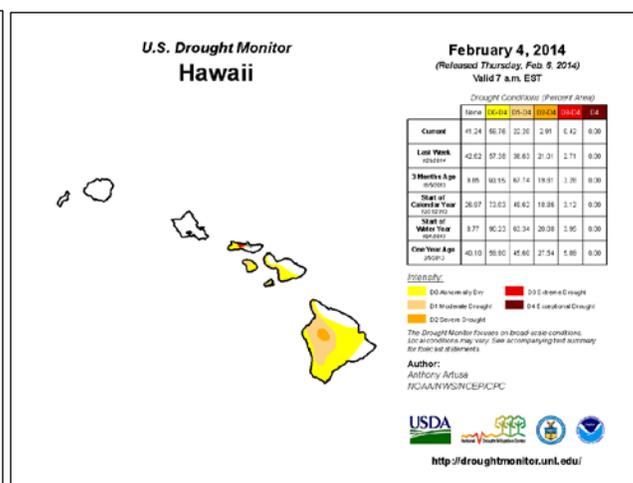
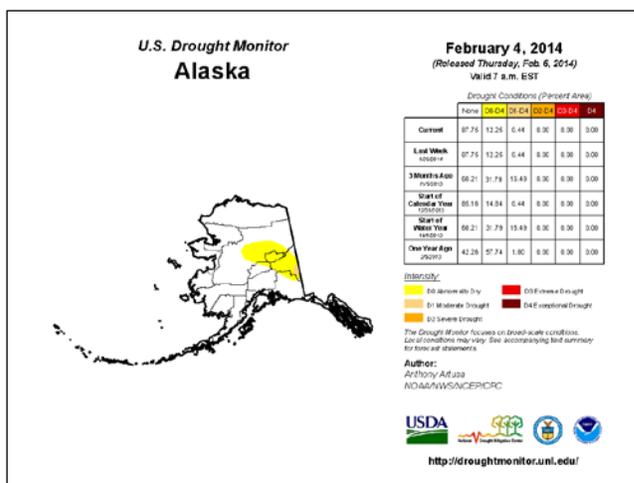
The latest [drought indicator blend and component percentiles](#) spreadsheet is a great resource for climate division drought statistics. This link is for the latest [Drought Outlook](#) (forecast). See [climatological rankings](#).

For more drought news, see [Drought Impact Reporter](#).

Drought Management Resources (✓):

- ✓ [Watch AgDay TV](#)
- ✓ [Drought Impacts Webinar Series](#)

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



"The 49th and 50th States show benign drought conditions with the exception of the Big Island of Hawaii and leeward sides of the central island group of the state."

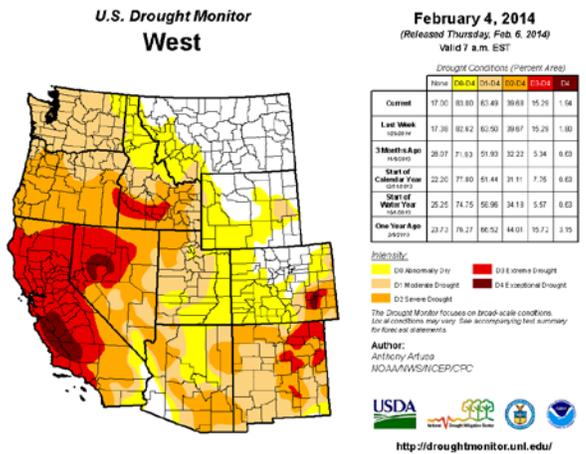
A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions for the figures below, click [here](#).

Weekly Snowpack and Drought Monitor Update Report

- ✓ Drought Monitor for the [Western States](#)
- ✓ Drought Impact Reporter for [New Mexico](#)
- ✓ [California Data Exchange Center & Flood Management](#)
- ✓ [Intermountain West Climate Dashboard](#)
- ✓ [Great Basin Dashboard](#)
- ✓ [CLIMAS January 2014 Climate Summary](#)

Drought News Across the West

- [Low and slow](#) - Jan 24, **OR**
- [Los Alamos County might take over beleaguered Pajarito Ski Area](#) - Jan 27, **NM**
- [Drought fears grow in Blanding](#) - Jan 22, **UT**
- [Hurt by drought, NM farmers are selling off water intended for irrigation to oil & gas companies -- for fracking](#) - Jan 29, **NM**
- [Low water year, high fire risk dominates legislative discussion](#) - Jan 29, **UT**
- [Irrigation Permits Soar In South Dakota In 2013](#) - Jan 28, **SD**

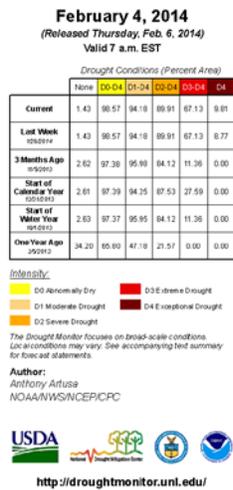
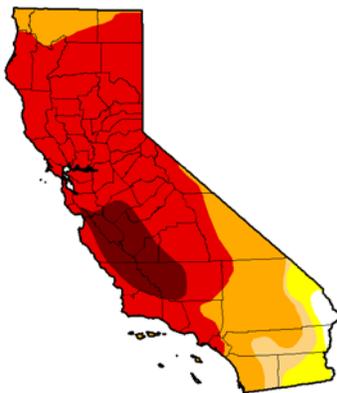


No significant changes have occurred during the past week. - Click to enlarge

More Drought News from California

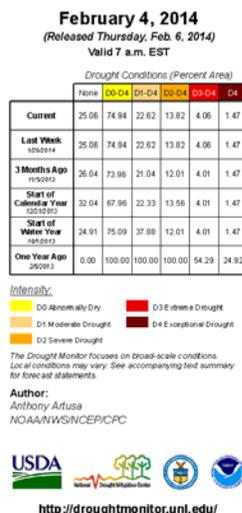
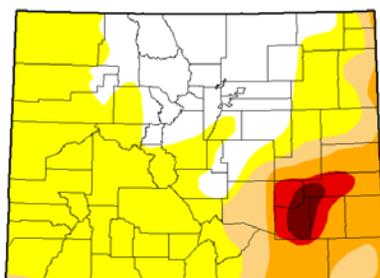
- [Drought parches pastures on organic dairies](#) - Jan 29th
- [Drought starving farms in California](#) - 30th
- [Rare 'curtailment' notice underlines depth of drought](#) - 29th
- [Sonoma, Napa grape growers see signs of drought](#) - 29th
- [CAL FIRE increases staffing across state due to drought](#) - 28th
- [Long-awaited rain falls in Sacramento, ending 52-day dry streak](#) - 29th
- [Barack Obama calls Jerry Brown for drought update](#) - 29th
- [Brown tells Californians to conserve amid drought](#) - 30th
- [California drought lessons - what works, what doesn't](#) - 26th
- [Gold prospectors take advantage of Calif. drought](#) - 27th
- [The Emotional Toll of Drought](#) - 24th
- [Local rivers closed to fishing by state](#) - 29th
- [As drought continues, feds could seize San Luis Reservoir water](#) - 28th
- [Westside farmers get to keep water they had stored away](#) - 30th
- [California drought: 17 communities could run out of water within 60 to 120 days, state says](#) - 28th
- [California drought: Meager snowpack sets record](#) - 30th

U.S. Drought Monitor California



Slight deterioration in D-4 this week.

U.S. Drought Monitor Colorado



No changes have occurred during the past week.

Weekly Snowpack and Drought Monitor Update Report

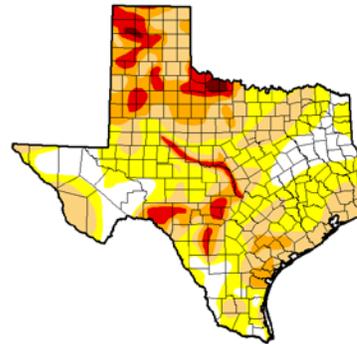
State with D-4 Exceptional Drought

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

Texas [Impacts](#) during the past week

- [Dry weather promotes fieldwork, slows winter forage growth](#) - Jan 26, TX

U.S. Drought Monitor Texas



February 4, 2014
(Released Thursday, Feb. 6, 2014)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D3-D4	D4	D4
Current	14.95	85.05	51.68	22.34	7.95	0.71
Last Week 1/29/14	19.30	80.70	49.37	22.83	7.14	0.79
3 Months Ago 10/29/13	20.37	79.93	50.49	23.81	5.43	0.49
Start of Calendar Year 1/1/14	28.48	71.52	43.84	21.15	5.92	0.79
Start of Water Year 10/1/13	6.42	93.38	70.95	25.88	4.01	0.12
One Year Ago 2/5/13	9.52	90.48	77.28	52.84	23.72	7.79

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.

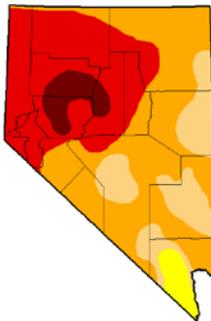
Author:
Anthony Artusa
NOAA/NWS/NCEP/CI/CPC



Slight deterioration has occurred in D-3 during the past week.

State with D-4 Exceptional Drought

U.S. Drought Monitor Nevada



February 4, 2014
(Released Thursday, Feb. 6, 2014)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D3-D4	D4	D4
Current	0.00	100.00	99.83	80.33	26.11	5.37
Last Week 1/29/14	0.00	100.00	99.83	80.33	26.11	5.37
3 Months Ago 10/29/13	0.29	99.61	98.91	79.11	26.95	5.37
Start of Calendar Year 1/1/14	0.39	99.91	99.81	77.63	26.95	5.37
Start of Water Year 10/1/13	0.29	99.81	99.79	79.11	26.95	5.37
One Year Ago 2/5/13	0.11	99.99	99.71	98.89	8.38	0.30

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:
Anthony Artusa
NOAA/NWS/NCEP/CI/CPC



No changes have occurred during the past week.

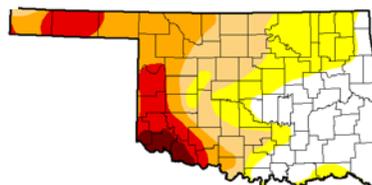
- [Ski Resorts Seen as Buyout Targets Amid U.S. West Drought](#) - Jan 27
- [California Drought to Affect Lake Mead Levels](#) - Jan 27

State with D-4 Exceptional Drought

- [Fallin Advocates Water Conservation as Drought Engulfs State](#) - Jan 24, OK
- [Lake Texoma Residents Say They Don't Want To Horde Water, But Feel Ignored](#) - Jan 28, OK

deterioration in D-3 has occurred this week.

U.S. Drought Monitor Oklahoma



February 4, 2014
(Released Thursday, Feb. 6, 2014)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D3-D4	D4	D4
Current	29.77	70.23	46.74	28.81	12.67	2.40
Last Week 1/29/14	29.84	70.16	46.74	28.80	10.12	2.40
3 Months Ago 10/29/13	47.05	52.15	30.50	14.58	4.40	2.00
Start of Calendar Year 1/1/14	50.84	49.16	38.17	18.99	4.94	2.40
Start of Water Year 10/1/13	21.74	78.26	43.00	17.62	4.42	1.45
One Year Ago 2/5/13	0.00	100.00	100.00	100.00	89.64	39.58

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

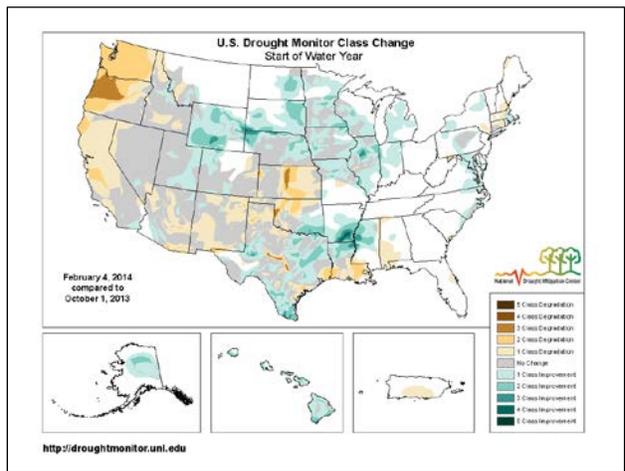
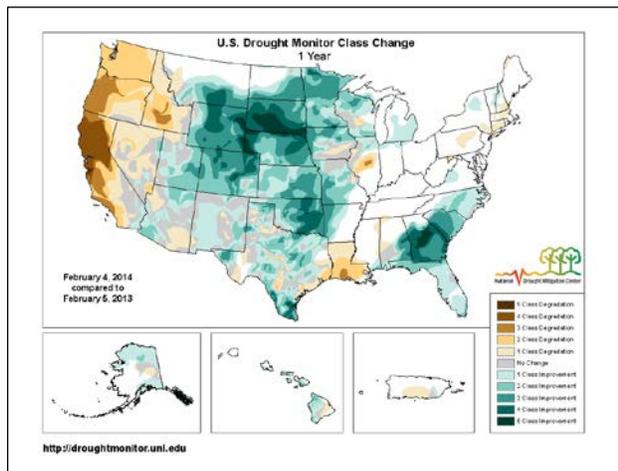
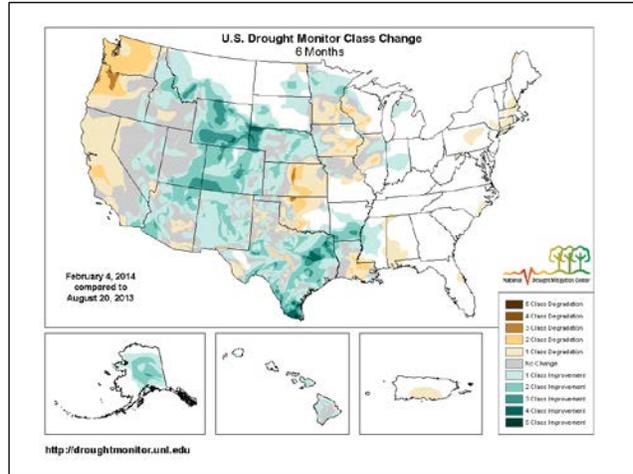
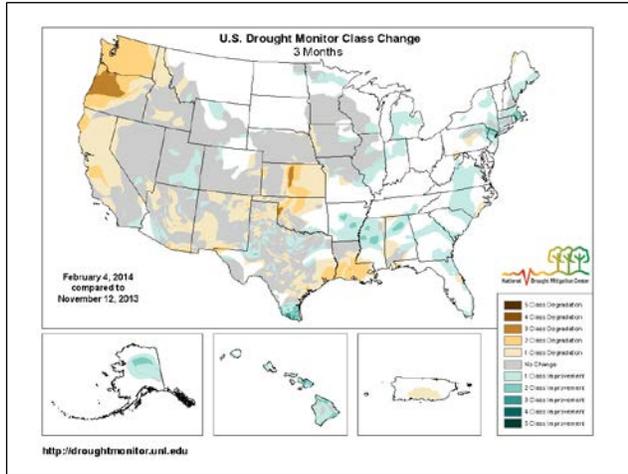
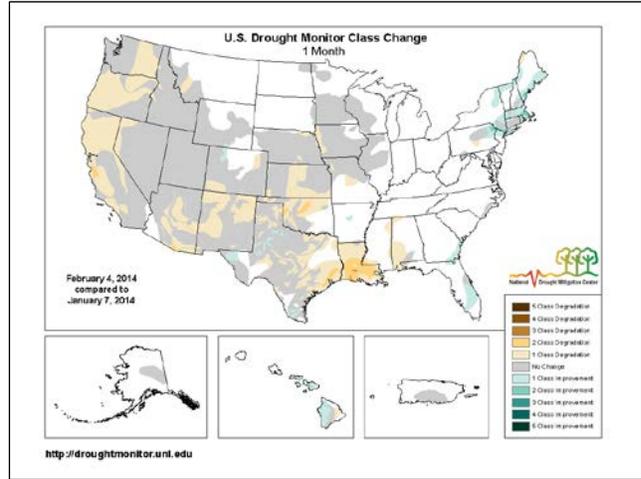
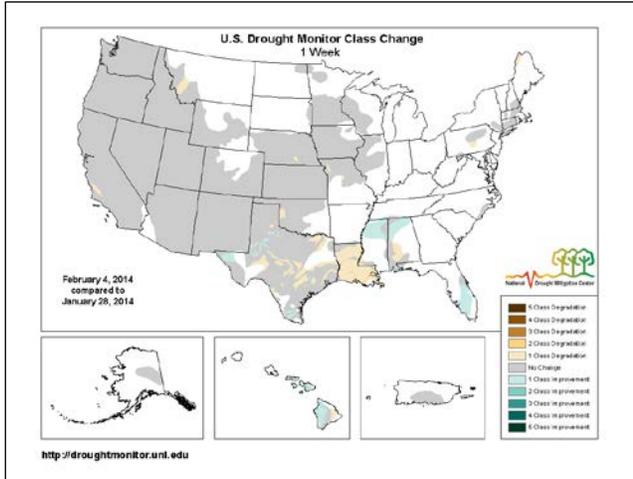
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Anthony Artusa
NOAA/NWS/NCEP/CI/CPC



Weekly Snowpack and Drought Monitor Update Report

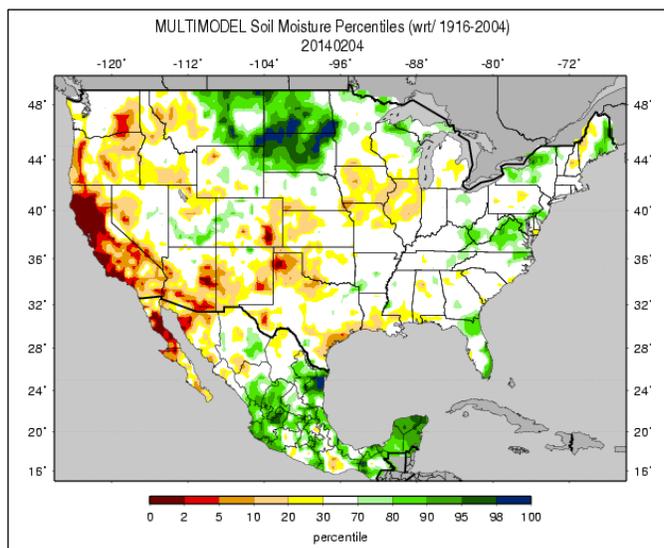
Changes in Drought Monitor Categories (over various time periods)



Winter time changes to the drought monitor are usually minimal. However, over the past one to three months, drought conditions have significantly worsened over the Pacific Northwest.

Weekly Snowpack and Drought Monitor Update Report

Soil Moisture



Soil moisture ranking in [percentile](#) as of February 4 shows considerable dryness over California, Arizona, parts of Oregon, Washington, and the southwestern Great Plains. Moist soils dominate the Northern Plains.

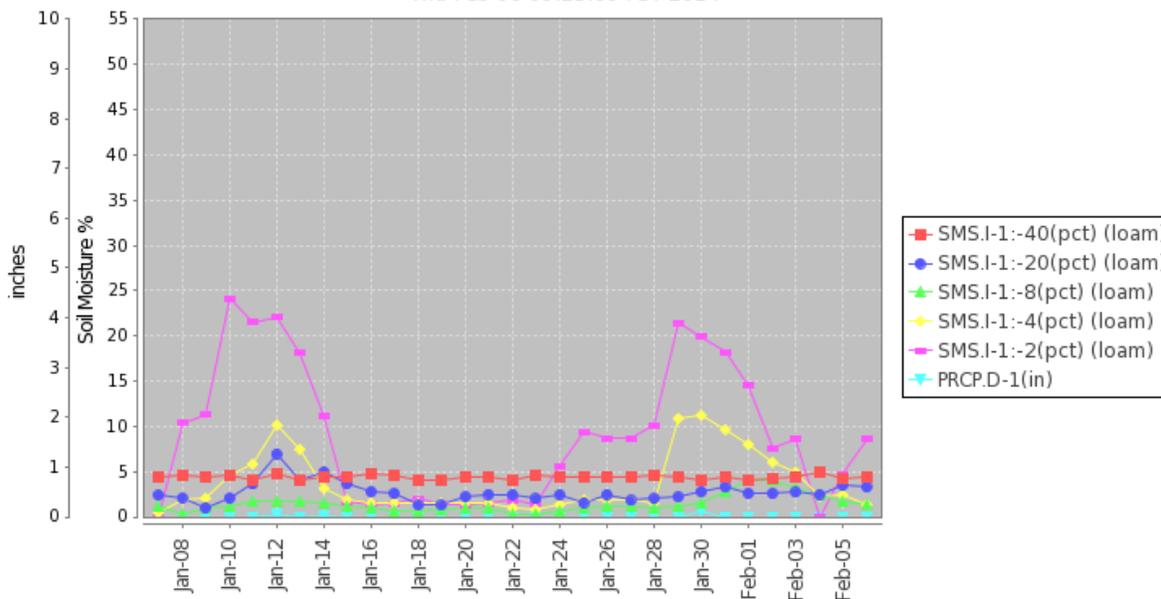
Useful Hydrological Links: [Crop Moisture Index](#); [Palmer Drought Severity Index](#); [Standardized Precipitation Index](#); [Surface Water Supply Index](#); [Weekly supplemental maps](#), [Minnesota Climate Working Group](#); [Experimental High Resolution Drought Trigger Tool](#); [NLDAS Drought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

[Soil Health-unlock your farm's potential](#)

Note: As the ground freezes, accuracy of measured moisture decreases.

Soil Climate Analysis Network ([SCAN](#))

Station (2192) MONTH=2014-01-07 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Thu Feb 06 09:23:09 PST 2014



This NRCS resource shows soil moisture data at a SCAN site located in [northern California](#) with relatively dry soils. There has been no substantial precipitation in this region for quite a while.

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](#). [Monthly Wild Fire Forecast Report](#).

Weekly Snowpack and Drought Monitor Update Report

[National Drought Summary for February 4, 2014](#)

Author: Anthony Artusa, NOAA/NWS/NCEP/CPC

National Drought Summary for February 4, 2014 Summary

"During the past 7-days, the persistent, amplified ridge that had dominated weather conditions across the western contiguous U.S. (CONUS) collapsed, which allowed Pacific storm systems to move eastward across the region. Moderate to heavy precipitation (0.5-3.0 inches liquid equivalent, locally heavier) was observed over the higher elevations of the Coastal Ranges, the Cascades, the Sierras, the Bitterroots, the Wasatch, and near the Colorado Front Range. Lower elevations across much of the West generally received light precipitation (0.5-inch or less), including the coastal areas of far southern California. Moderate to heavy precipitation (0.5-3.0 inches liquid equivalent, locally heavier) was also observed across portions of the Midwest, Ohio Valley, Great Lakes, southern New England, mid-Atlantic and southern Atlantic Coast states, Gulf Coast region, Tennessee Valley, Lower Mississippi Valley, and the ArkLaTex region. Temperatures during the past week were primarily below-normal east of the Continental Divide, and above-normal west of the Divide, though there were a few exceptions. East of the Divide, New England and Florida reported above-normal mean temperatures, while west of the Divide, Washington state was below-normal for the week.

Alaska, Hawaii, and Puerto Rico

The state of Alaska received relatively little precipitation during the past week, with most sites reporting 0.5-inch or less. Moderate to heavy precipitation (0.5-2.0 inches) fell at only a few locations in the southern Cook Inlet vicinity, and Dutch Harbor in the Aleutians. Though the drought depiction in Alaska was not modified this week, it will be necessary to monitor the extent of significantly reduced snowpack at higher elevations in the southern Panhandle during the next few months. This, of course, will determine the amount of water (snowmelt) available for reservoirs in the late spring and early summer. In Hawaii, recent rain events have been beneficial for the eastern half of the state still in drought. Moderate to heavy precipitation (0.5-3.0 inches in most areas still in drought, with a few locales in northeastern Maui at or above 5 inches) fell during the past 7-days. According to the U.S. Department of Agriculture's (USDA) Farm Service Agency (FSA) field reports, improving pasture conditions have been noted across most of Maui and the Big Island. This suggests a 1-category improvement is warranted for most areas. The Kualapuu Reservoir water level (Molokai) has been rising slowly, but to date is not enough to significantly ease water restrictions in this area (hence the D3 area on Molokai remains). Atop Mauna Kea, on the Big Island of Hawaii, a foot of snow was reported during the past week, showing that winter weather is not only confined to the continental U.S. In Puerto Rico, rainfall amounts ranged from 0.5-3.0 inches over the eastern half of the island, and largely a half-inch or less over the western half of the island, though a few spotty locations reported 0.5-2.0 inches of rain. No alterations were deemed necessary to the drought depiction in Puerto Rico.

Mississippi Valley

With significant precipitation deficits mounting in Louisiana, it was decided to expand abnormal dryness (D0) across nearly all of the state, with the exception of far southeastern Louisiana (Grand Isle vicinity), where ACIS 60-day, 90-day, and 180-day PNPs ranged from 98-128 percent of normal. Moderate drought (D1) was expanded throughout much of central and southern Louisiana. An area of severe drought (D2) was introduced over the southwest part of the state (just west of Vermilion Bay) where precipitation deficits (out through 180-days on AHPS) are more of a concern, and the 60-day Standardized Precipitation Index (SPI) is -2.08. For example, AHPS PNPs for the last 90-days range

Weekly Snowpack and Drought Monitor Update Report

between 25-50 percent of normal. In northwestern and north-central Missouri, significant reductions in public water supply have been noted. One example is Lake Stanberry (a shallow water supply lake in Gentry County in northwestern Missouri), while farm pond levels continued to drop (since the summer) in and around the Cameron area (in Clinton and DeKalb Counties). The Missouri River near Boonville (Cooper County) was also down substantially. ACIS 30-day and 60-day PNPs ranged between 40-60, and 45-80 percent of normal, respectively. Accordingly, all of Gentry, DeKalb, and Clinton Counties in the northwestern portion of the state were degraded from D0 to D1, while Cooper County (north-central Missouri) was degraded from no dryness to abnormal dryness (D0).

Northeast and mid-Atlantic

Despite some areas receiving moderate to heavy precipitation (0.5-3.0 inches liquid equivalent, locally heavier) during the past 7-days, most of the Northeast still has Percent of Normal Precipitation (PNP) values ranging from 25-50 percent of normal for the period (AHPS), with central portions of both New York state and New England (and extreme northwestern Maine) in the 10-25 percent range. A small area of abnormal dryness (D0) was added to the drought depiction in northwestern Maine, where significant precipitation deficits appear at all time-scales going back at least 180-days (AHPS). Much of the mid-Atlantic region has seen precipitation surpluses out through at least 60 days, though Pennsylvania has not fared so well. Accordingly, abnormal dryness (D0) was expanded across portions of south-central Pennsylvania. Towards the end of the period, a snowstorm brought anywhere from 3-10 inches of snow (preliminary reports) to the Tri-State area of southeastern New York, northern New Jersey, and Connecticut, beginning only hours after the conclusion of the Super Bowl. East Rutherford, New Jersey, where the game was played, reported 8 inches of snow from this event.

Southeast

After last week's introduction of abnormal dryness (D0) to much of northern and northwestern Alabama and northern Mississippi, in response to rapidly deteriorating conditions, the area received 1.5 inches (or more in some locales) of precipitation. Given the situation, it was deemed appropriate to remove much (but not all) of the D0 introduced last week. Abnormal dryness (D0) was expanded in southwestern Alabama as far east as Dallas County, based on increasing precipitation deficits.

In central and southern Florida, widespread 2-4 inch rains fell this week, with generally 1-2 inch rains reported elsewhere across the Peninsula. This rainfall brings the dry season precipitation up to normal for these areas (especially following such a wet summer). The Keetch-Byram Drought Index (KBDI) and the wildfire risk improved significantly. These factors prompted the removal of D0 conditions across most of central, and all of southern, Florida.

In North Carolina, short-term dryness has been the rule after a relatively wet November-December period. The winter storm that moved across eastern North Carolina last week did not produce sufficient precipitation to warrant the removal of abnormal dryness (D0) from the southeastern Coastal Plain region. No changes were rendered to the drought depiction this week, but a pattern of dryness for the central portion of the state will need to be monitored next week.

Southern and Central Plains

Though light to moderate precipitation (under 2.0 inches) fell over parts of western, far southern, eastern, and northern Texas, many areas received little to no precipitation during the past week (though a few locations in the ArkLaTex region received 2-3 inches of rain). The precipitation that did fall helped to alleviate some of the short-term dryness. However, reservoirs along the Colorado River, as a whole, are at their lowest level (as a percent of normal) for this time of year ever, as is true of total water

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storage across the state. These factors prompted a number of 1-category improvements and degradations to the Texas drought depiction. In far western Oklahoma, extreme drought (D3) was expanded northward to include Roger Mills County. The latest precipitation event produced only about a tenth of an inch (radar estimated) from Roger Mills County southward across southwestern Oklahoma. There were a high number of days in January with extremely low relative humidity, mean temperatures close to normal, and wind. The January PNP was 20 percent of normal for the state as a whole (Mesonet), and the state-wide average precipitation was 0.29-inch. This was the 8th driest January on record. In Kansas, the state-wide average precipitation (PNP) for January was only 34 percent of normal. Reassessment of conditions will be needed next week after this current storm system passes through the area. In south-central Nebraska, a small drought-free area was downgraded to abnormal dryness (D0), in response to continuing dryness.

Southwest

Most of Arizona and New Mexico received little if any precipitation during the past 7-days. A predominantly dry pattern has been in place since the very beneficial and welcome late-season monsoon rains last September. Impacts are somewhat limited at this time due to lower evapotranspiration (ET) rates during winter, but an increased snowpack in the next two months is needed to preclude more serious problems. SNOTEL Snow Water Equivalent (SWE), as of February 5, 2014, is mostly well below normal across the Mogollon Rim area (ranging from 14-41 percent), and in the White Mountains of eastern Arizona (SWE 26-36 percent of normal). The mountainous terrain of western and central Colorado received moderate to heavy precipitation (0.5-4.0 inches) during the past week, while the high plains of eastern Colorado generally received less than a half-inch of precipitation. As time is needed to evaluate regional impacts across the Southwest, it was decided not to alter the depiction this week.

The West

Though several inches of precipitation (liquid equivalent) fell over the northern one-half to two-thirds of California this week (locally 3-4 inches in the central Sierras), significantly more precipitation will be needed to justify improvement with the depiction. The central and southern Sierras report up to 4 inches of SWE, while the northern Sierras report only an inch. The precipitation received this week only keeps the snowpack/water supply from falling further behind. Reservoirs continue to go down. An 8-station index for the northern Sierras (which represents an average of 8 precipitation gauges that span the area from Lake Tahoe to up above Lake Shasta), indicates precipitation amounts of 4.5 inches since the beginning of the Water Year (Oct 1). Last year at this time, 34.3 inches of precipitation fell, while the average to date is 26.4 inches. The only change to the depiction in California this week was to slightly increase the coverage of exceptional drought (D4) conditions across most of San Luis Obispo County. Two of the larger reservoirs in the County, near the border with Monterey County, are at 5-percent capacity (Lake Nacimiento and Lake San Antonio). The City of Cambria is implementing water restrictions for residents, while many cattle owners are selling off their herds due to lack of feed and water. The higher elevations of western Washington and western Oregon received 2-5 inches of precipitation (liquid equivalent, locally heavier) during the past week, though as is the case with California, significantly more precipitation will be needed to overcome longer-term deficits. Finally, in western Montana, the valley areas have been fairly dry recently, while the mountainous areas have received significant precipitation. Given support from the latest short-term and long-term drought blends, and the recent dryness (ACIS 30-day and 60-day PNPs ranging from about 20-50 percent of normal in this area), the drought-free area in southwestern Montana was downgraded to abnormal dryness (D0).

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Looking Ahead

During February 6-10, 2014, very heavy precipitation (as much as 7-9 inches, liquid equivalent) is predicted in northern California, and 3-4 inches in western Oregon. This will go a long way in helping to mitigate some of the drought conditions in these areas, though reassessment of conditions next week will be needed to determine the extent of any potential improvements in the Drought Monitor depiction. Along the Southeast coast including northern Florida, 1.0-1.5 inches of rain is expected during the period which will be beneficial to the small areas of abnormal dryness (D0) in that region. With the exception of 3-4 inches of precipitation anticipated over the central Rockies and Wasatch Range, most other areas of the CONUS can expect a half-inch or less of precipitation within the next 5 days.

For the ensuing 5-day period, February 11-15, 2014, there are elevated odds of above-median precipitation for most of the northern and eastern Lower 48 states, and the Alaska Panhandle. Probabilities for above-median precipitation rise up to 60-percent in the Pacific Northwest, and 50-percent over the Gulf and Atlantic Coast states. Below-median precipitation is favored for southern California, much of the Southwest and southern Rockies, the central and southern High Plains, and most of Alaska."

State Activities

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

More Information

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

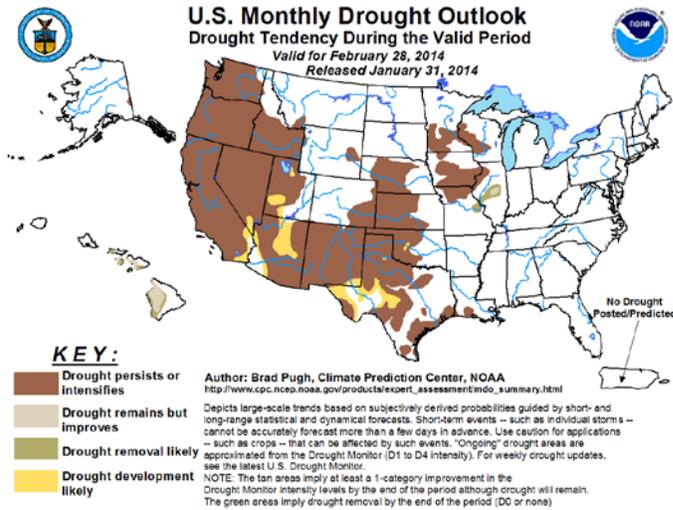
This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

David W. Smith
Acting Deputy Chief, Soil Science and Resource Assessment

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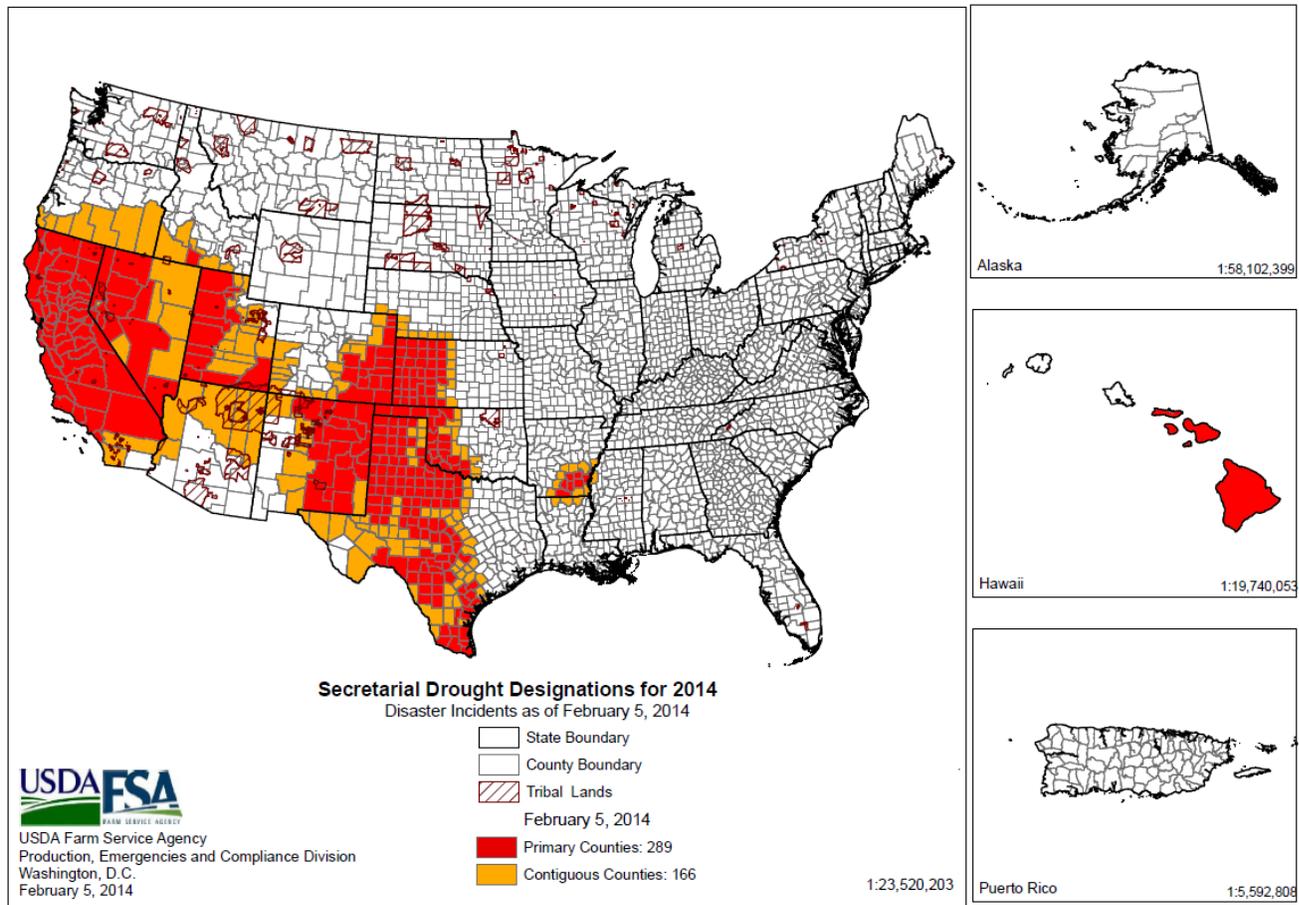
Drought Outlook



U.S. Seasonal Drought Outlook For February:

- Drought is expected to deteriorate over parts of the Southwest and southern Texas. Much of the West and south-central plains including the upper Mississippi River Valley are expected to have persistent drought.
- ✓ 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.

2014 Secretarial Drought Designations - All Drought



Refer to the USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#). Read about the new [USDA Regional Climate Hubs](#).

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Supplemental Drought News

Summary by Brad Rippey, USDA Meteorologist

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

Archived "U.S. Crops in Drought" files can be downloaded at:

<http://drought.unl.edu/Planning/Impacts/USAginDroughtArchive.aspx>.

- "During the four-week period ending on February 4, 2014, U.S. drought coverage increased more than four percentage points to 37.38%. Drought coverage had fallen to 30.28% on December 10, 2013; that figure represented the smallest drought coverage since December 27, 2011.

- In addition, U.S. coverage of the two most serious drought categories—extreme to exceptional (D3 to D4) drought—nearly doubled in the last four weeks from 4.13 to 7.37%. That change was driven by deteriorating conditions in California. During the four-week period ending February 4, California's coverage of extreme to exceptional drought surged from 27.59 to 67.13%. California also experienced its first-ever coverage of exceptional drought (D4) in the nearly 15-year history of the U.S. Drought Monitor, beginning on January 28. By February 4, nearly one-tenth (9.81%) of California was considered to be in D4.

- The Western winter wet season has largely been a bust, not just in California. Drought covers more than half of eight of the eleven Western States—all but Colorado, Montana, and Wyoming. California, nearing the end of a third consecutive year of drought, has been drier this winter than each of the previous two. According to the California Department of Water Resources, the average water content of the high-elevation Sierra Nevada snowpack stands at three inches, just 15% of the early-February normal. Currently, a favorably wetter pattern is developing across California, but a sustained period of late-winter precipitation will be needed to dent huge moisture deficits.

- Meanwhile on the Plains, winter wheat condition declined during January due to dry, windy weather and sharp temperature fluctuations. During several January cold outbreaks, some of the Plains' wheat was exposed to sub-zero temperatures without the benefit of snow cover. According to USDA, the portion of the wheat rated good to excellent fell during January from 70 to 60% in South Dakota; 65 to 46% in Nebraska; 60 to 46% in Montana; 63 to 36% in Oklahoma; and 58 to 35% in Kansas. Texas wheat, already stressed by drought, was rated 19% good to excellent and 41% very poor to poor by the end of January.

- Although the decline in wheat condition was not entirely driven by drought, the portion of the U.S. winter wheat crop in drought rose to 49% by February 4—up from 34% on January 7 and 30% as recently as December 3, 2013. There have been less significant, but still noteworthy, rises recently in domestic cattle inventory in drought (40% on February 4) and U.S. hay in drought (26%).

- Weather outlook: Frigid conditions will persist across much of the Plains and Midwest into next week. During the weekend, however, warm weather will return to the West—excluding the northern tier of the region. Aside from some generally light, late-week rain and snow across the South and East, the focus for significant precipitation will be the West. In fact, five-day precipitation totals could reach four to eight inches in drought-stricken northern California. Somewhat lighter but still highly beneficial precipitation—as much as two to four inches—may occur in the southern Cascades and northern Intermountain West."

This is a collection of drought-related news stories from the past week. 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.

All eyes remained on California as part of the state moved into exceptional drought on the U.S. Drought Monitor. More than 16,500 drought-related articles have rolled in this week as drought threatens the state that produces nearly half of the nation's fruits, vegetables and nuts.

California governor urging conservation, preparing for drought preparations

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Governor Jerry Brown urged continued water conservation by shortening shower times, flushing less and turning the water off while brushing teeth. He previously encouraged Californians to curb their water use by 20 percent.

President Obama called Gov. Brown on Jan. 29 "to receive an update on the situation in California and express his concern for the citizens impacted by the historic drought conditions facing the state - conditions that are likely to have significant impacts on the state's communities, economy and environment in the coming months," according to a release from the White House.

Dwindling water supplies

The California Department of Public Health listed 17 communities that have 60 to 120 days' worth of drinking water remaining. The water systems are located in Amador, Fresno, Kern, Madera, Mariposa, Mendocino, Nevada, Placer, Santa Cruz and Sonoma counties and range in size from serving just 39 people to 11,000 people. The state health department checked with the more than 3,000 water agencies in the state to assess the status of the systems and will revise their list of communities weekly.

State health officials were also consulting with the state Office of Emergency Services and the Federal Emergency Management Agency to provide assistance when it is needed, such as trucking in water, handing out emergency funds for new wells or connecting struggling systems to neighboring water systems.

Meanwhile, average snowpack in the Sierra Nevada amounted to just 12 percent of normal for late January, the lowest amount since 1960 when California began recording snowpack levels.

Reduction in agricultural production

Farmers across California were planting fewer crops and selling livestock in anticipation of continued drought and poor water allocations. Lost revenue in 2014 from farming and agriculture-related businesses, like processing and trucking, could come to \$5 billion, according to estimates by the 300-member California Farm Water Coalition, a Sacramento-based group of farmers, water district managers and farm-related businesses. Farmers may leave up to 500,000 acres unplanted, which is 12 percent of the principal crops grown in 2013, because they will not have sufficient water to bring the crop to harvest, according to Mike Wade, executive director of the California Farm Water Coalition.

Steps to protect wildlife

The California Department of Fish and Wildlife closed some rivers and streams to fishing in Monterey, Santa Cruz and Santa Clara counties to protect salmon and steelhead populations while river flows are low. The CDFW is also considering additional river closures, including sections of the American River and Russian River.

"Two-thirds of the wettest part of winter is now behind us and conditions are looking increasingly grim. Under these extreme drought conditions, it is prudent to conserve and protect as many adult fish as possible to help ensure the future of fishing in California," said CDFW Director Charlton H. Bonham.

Societal concern about drought

The number of Californians concerned about water shortages and drought is at a new high, according to a poll released by the Public Policy Institute of California. Seven percent of Californians felt that water and drought ought to be the primary concerns of the governor and state Legislature, while the respondents in the Central Valley felt most strongly about the issue as 18 percent listed drought as the top concern.

Tiny silver lining?

Gold prospectors were taking advantage of low river levels in Placer County to look for gold along river banks that have not been exposed in more than 100 years. A man panning for gold along the Bear River in Colfax found a chip of gold about one-fourth the size of a pea.

California has 60 impacts listed for the past month in the [Drought Impact Reporter](#), far more than any other state.

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The “U.S. Crops in Drought” products are produced on a weekly basis, and archived “U.S. Crops in Drought” files can be downloaded [here](#).

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)