

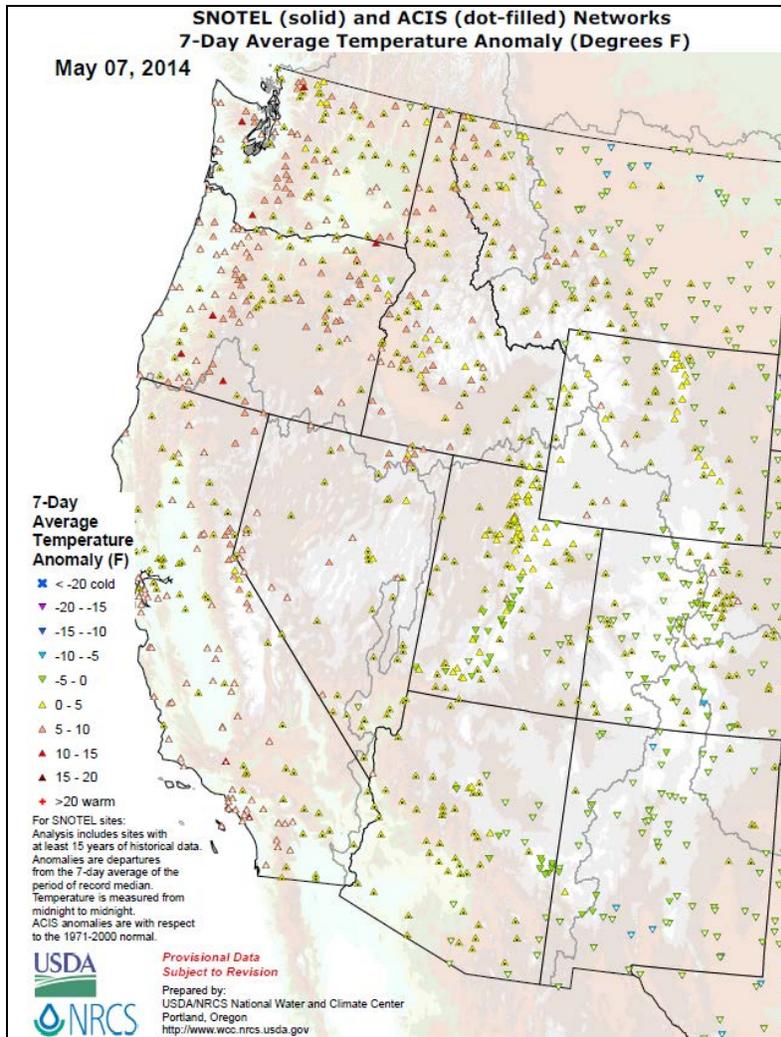


Natural Resources Conservation Service  
 P.O. Box 2890  
 Washington, D.C. 20013

## Weekly Snowpack / Drought Monitor Update May 8, 2014

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### Temperature



[SNOTEL](#) and [ACIS 7-day temperature anomaly](#) shows temperatures well above normal over the Pacific West and below normal generally east of the Continental Divide.

*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

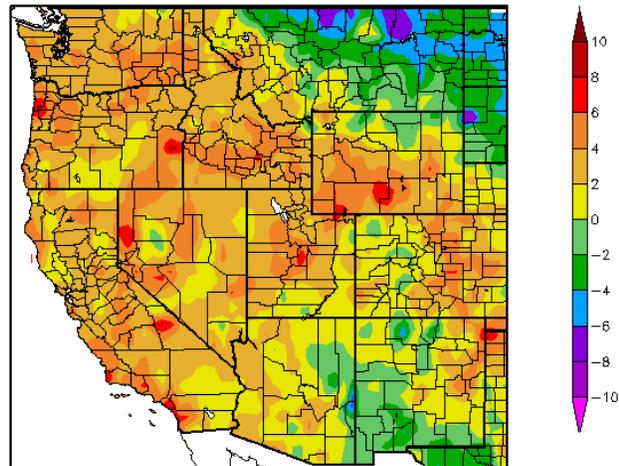
An Equal Opportunity Employer

# Weekly Snowpack and Drought Monitor Update Report

ACIS 7-day average temperature anomalies, ending May 7, show the greatest negative temperature departures over northern Montana (<-6°F). The greatest positive temperature departures occurred the northwest and central east portions of Oregon (>+8°F).

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

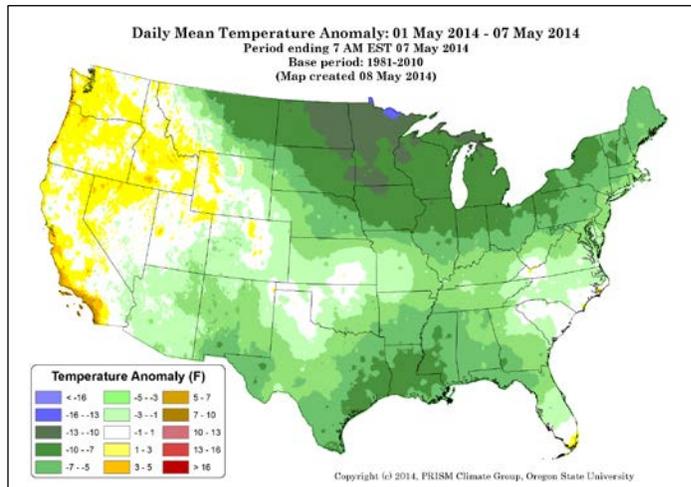
Departure from Normal Temperature (F)  
5/1/2014 - 5/7/2014



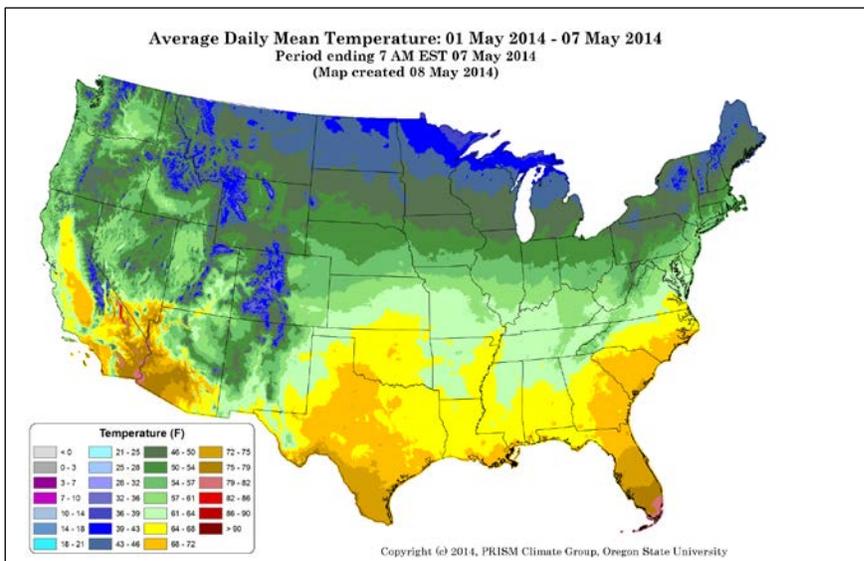
Generated 5/8/2014 at HPRCC using provisional data.

Regional Climate Centers

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



← For the first week of May 2014, the temperature anomaly map shows a cold pattern over the eastern two-thirds of the country, especially over northern Minnesota (<-13°F). Above normal temperatures dominated parts of coastal California (>+5°F).



Forecasting the start of the spring snowmelt and subsequent runoff depends, in part, on when average temperatures warm to above freezing. Monitoring this type of climate map is a useful way to gauge when this onset is likely to occur.

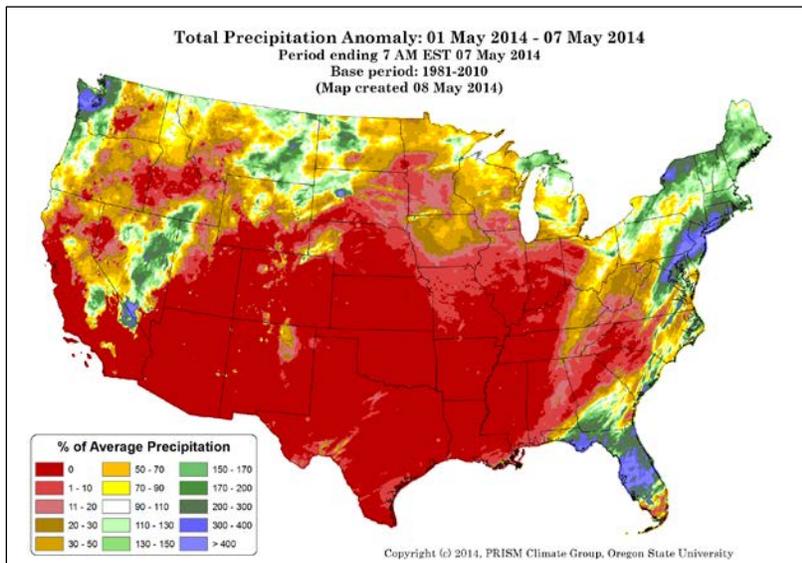
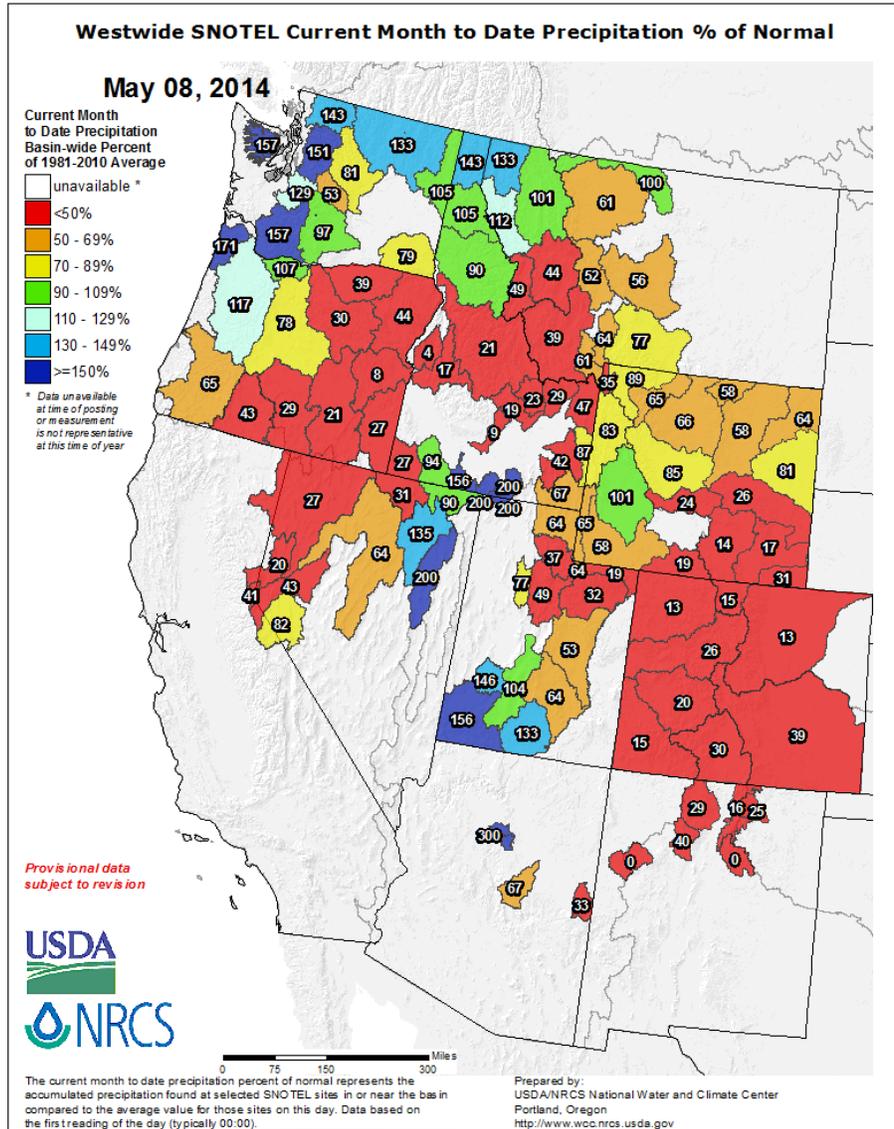
Note that for the first week in May, average temperature is finally above freezing everywhere except the highest peaks in the Rockies.

# Weekly Snowpack and Drought Monitor Update Report

## Precipitation

The early May [SNOTEL](#) precipitation percent of normal map shows predominately deficit conditions over much of the West.

Surpluses are noted over the northern half of the Cascades, coastal ranges of Washington, northern and southern Idaho, northeast Nevada, and southwest Utah.



← The early May precipitation anomaly pattern reveals surplus moisture over parts of the East Coast, including Florida and northwest Washington. Extensive areas across the country have seen little precipitation. As a result, drought is rapidly intensifying over the southern Great Plains.

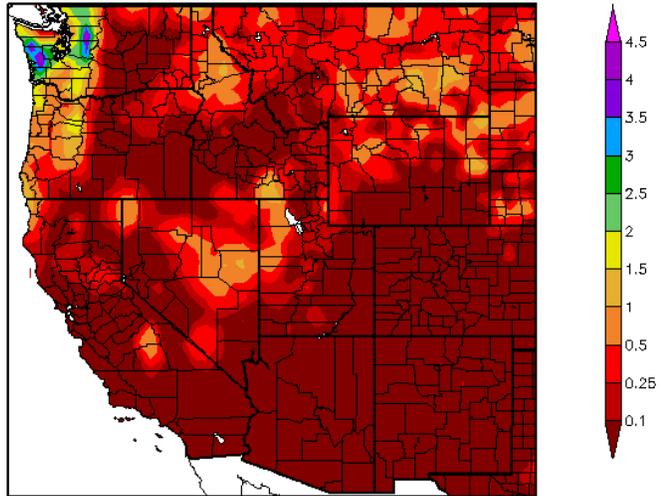
*This preliminary daily PRISM precipitation map contains all available network data, including SNOTEL data, and is updated periodically as additional data become available and are quality controlled.*

# Weekly Snowpack and Drought Monitor Update Report

The [ACIS 7-day](#) total precipitation map shows continued abundant moisture falling over western Washington and Oregon, with lesser amounts over the eastern Great Basin, northern Rockies, and northern Great Plains.

No precipitation occurred over vast areas of the West including the Southwest, much of California, and the Snake River drainage.

Precipitation (in)  
5/1/2014 - 5/7/2014

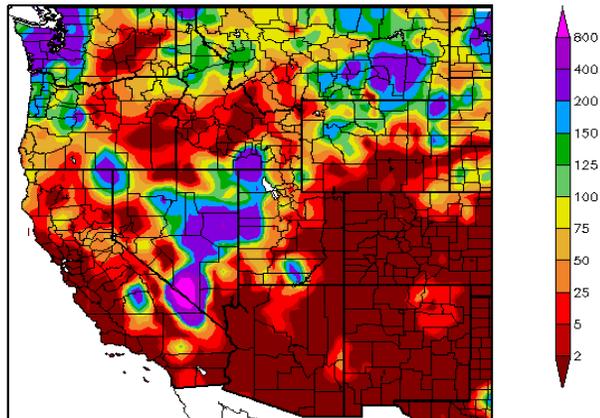


Generated 5/8/2014 at HPRCC using provisional data.

Regional Climate Centers

As would be expected based on the map above, this [map](#) reflects a similar pattern of precipitation that fell across the West during the week. →

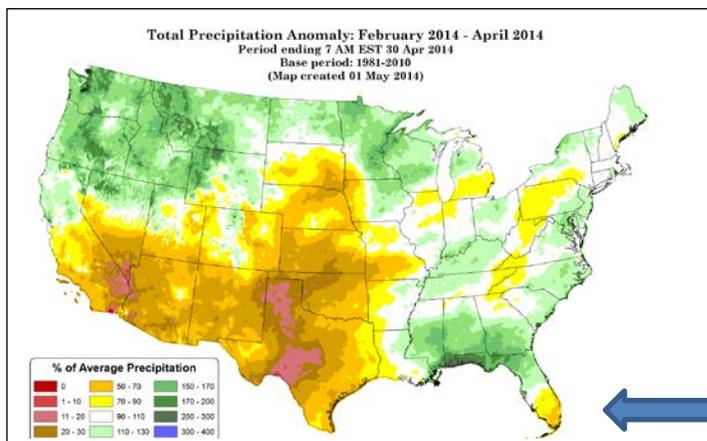
Percent of Normal Precipitation (%)  
5/1/2014 - 5/7/2014



Generated 5/8/2014 at HPRCC using provisional data.

Regional Climate Centers

Last week was moderately wet across the northern Pacific Coast, half of Nevada, parts of Utah and Idaho, and central Montana.



← The February through April 2014 [precipitation](#) anomaly map indicates large regions across the country with significant moisture including the northwest and southeast U.S., and the upper Midwest. Significant deficits are noted over the Lower Colorado River and the southern Great Plains.

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

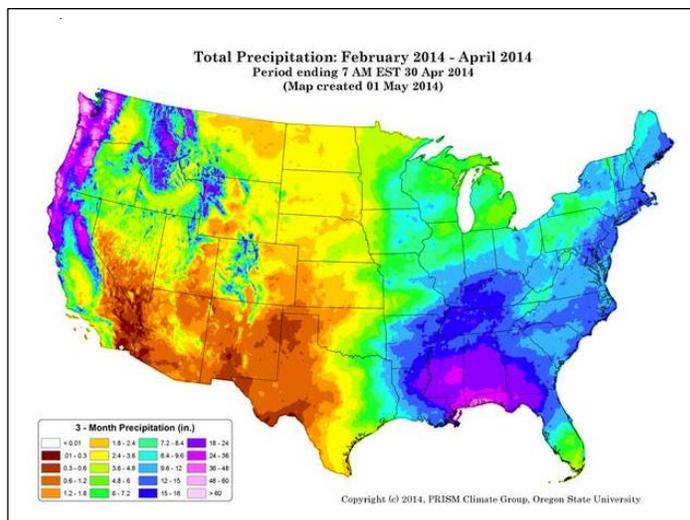
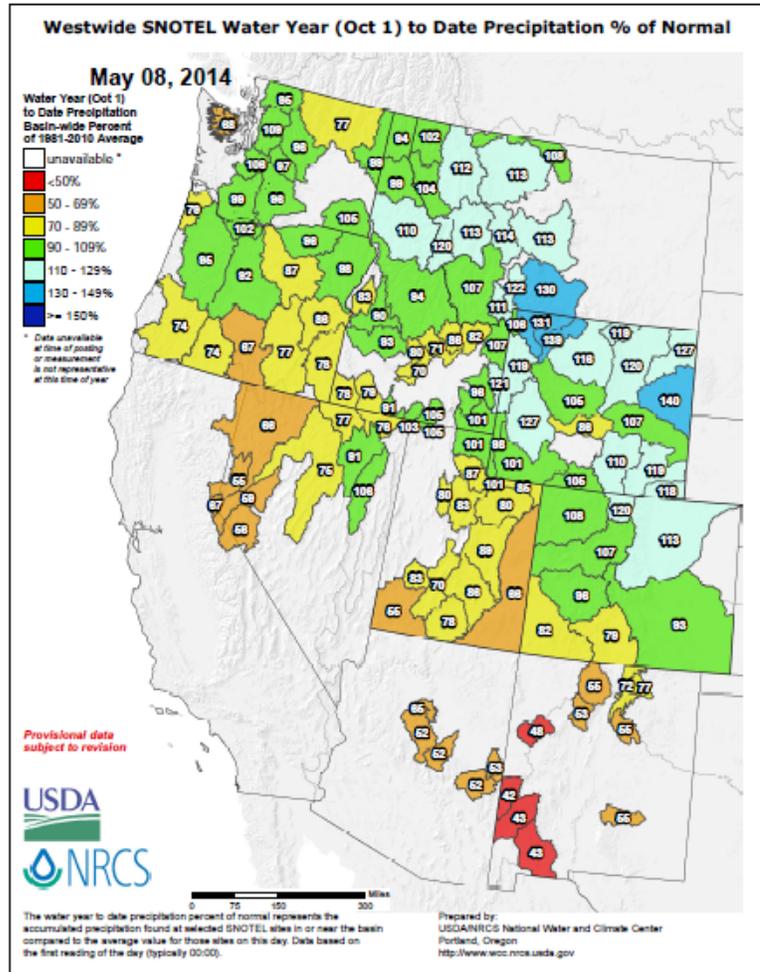
## Weekly Snowpack and Drought Monitor Update Report

For the [2014 Water Year](#) that began on October 1, 2013, only central Montana, most of Wyoming, and northern Colorado are experiencing surpluses.

Near average conditions dominated the northern half of the Cascades, the northern half of Idaho, westernmost Montana, the Lower Bear River in eastern Utah and southeast Idaho, and parts of the southern half of Colorado.

The largest deficits are centered over southern Oregon, western Nevada, southern and eastern Utah, Arizona, and New Mexico.

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

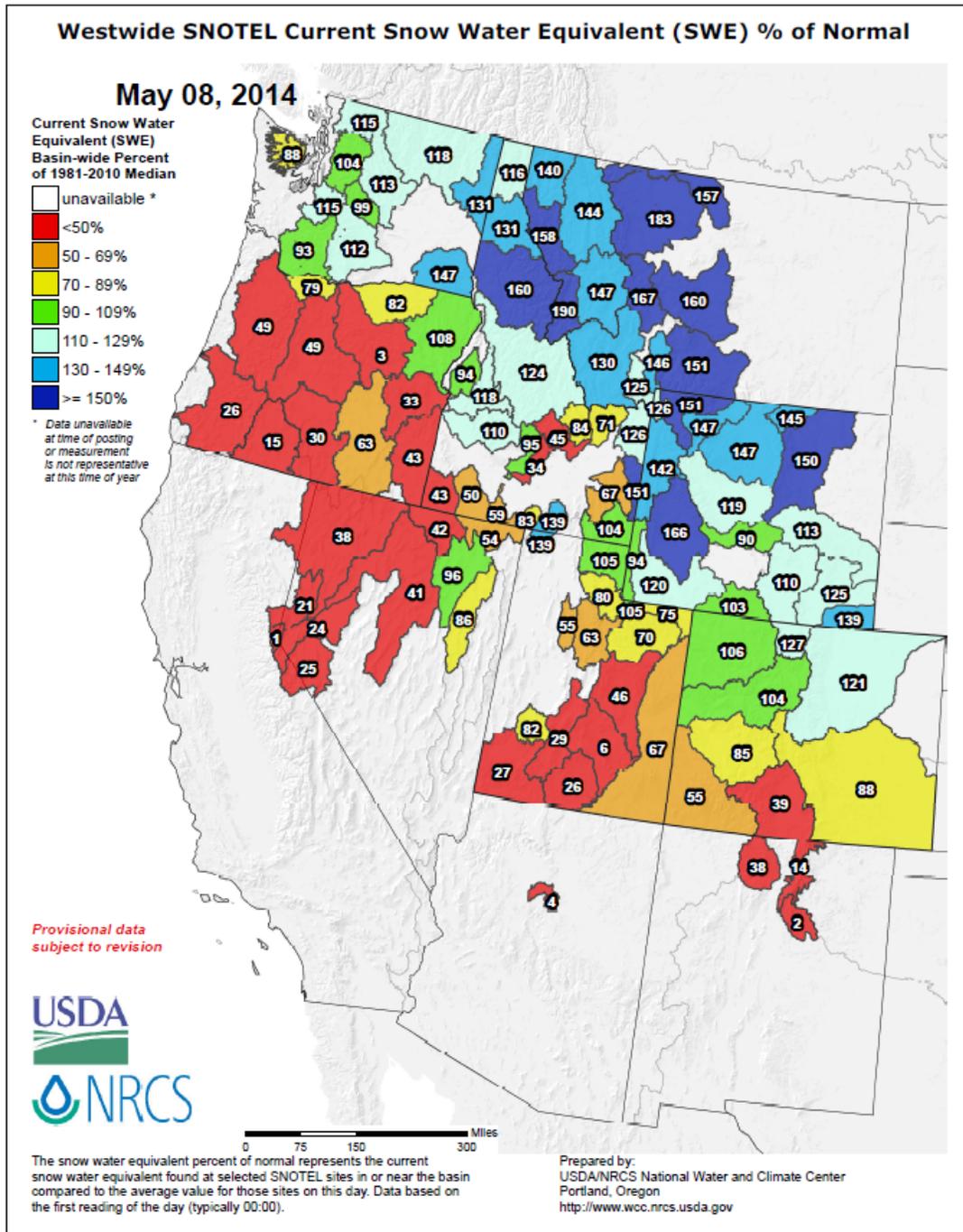


← The February through April 2014 [total precipitation](#) map shows extensive dryness across the Great Plains and the Southwest.

Extensive moisture is noted over the northern half of the Rockies and parts of the Pacific Northwest. The central gulf states were well above normal for this three-month period. Parts of Texas and the lower Colorado River area experienced less than 20% of normal monthly precipitation.

# Weekly Snowpack and Drought Monitor Update Report

## Snow



[Snow Water Equivalent](#) (SWE) values are generally higher east of the Continental Divide, with the exception of New Mexico. During this time of year, the percent of normal can increase without additional moisture if the melt of the snowpack is delayed by colder than normal conditions (as was the case this past week) over the Northern Rockies.

The water supply forecasts issued by the [National Water and Climate Center](#) for the spring and summer months are [now available](#).

See the latest:

- [National Snow Analysis](#)
- [West-Wide Water Supply Forecast Tables](#)

# Weekly Snowpack and Drought Monitor Update Report

## Weather and Drought Summary

### National Drought Summary – May 6, 2014

The following **Weather and Drought Summary** is provided by this week's NDMC Drought Author: Mark Svoboda, NDMC

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

"For the contiguous 48 states, the U.S. Drought Monitor showed 40.06 percent of the area in moderate drought or worse, compared with 38.43 percent a week earlier. D4 has increased to 4.45 from 3.88 percent.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 33.47 percent of the area in moderate drought or worse, compared with 32.11 percent a week earlier."

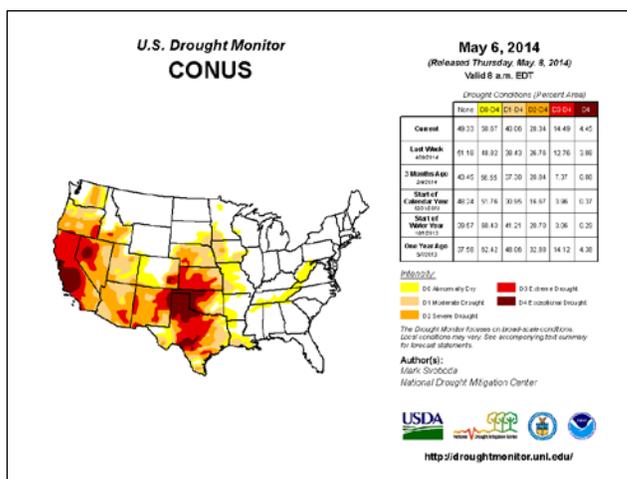
[Current Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, CO, TX, OK, and NM.

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](#).

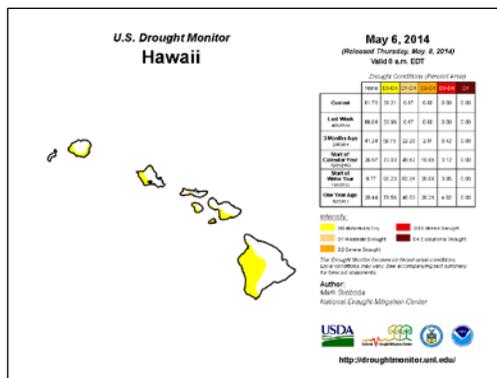
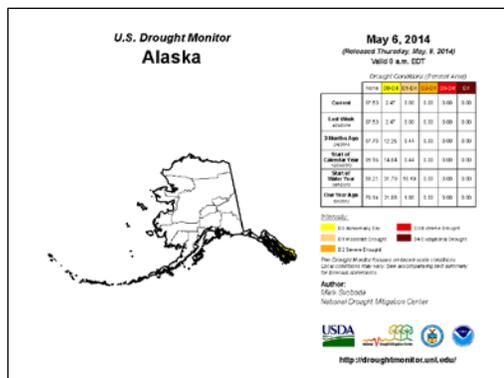
### Drought Management Resources (v):

- ✓ [Watch AgDay TV](#)
- ✓ [Drought Impacts Webinar Series](#)
- ✓ [Quarterly Climate Summary and Outlooks for the Great Lakes, Midwest and Missouri Basin States](#)
- ✓ [The Spring 2014 edition of DroughtScope](#)



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

- [Freezing Winter Kills About 75 Percent of Grape Plant at Local Vineyard](#) – May 4
- [Annual Wheat Crop Tour Estimates Low Yields](#) - May 2
- [Tree rings reveal nightmare droughts in the West](#) - May
- "A 576-Year Weber River Streamflow Reconstruction from Tree Rings for Water Resource Risk Assessment in the Wasatch Front, Utah" can be found [here](#).
- [Increased drought portends lower future Midwest crop yields](#)



"The [49<sup>th</sup>](#) and [50<sup>th</sup>](#) States show relatively benign drought conditions. No changes noted for Alaska and Hawaii has increased D0 by 5 percent this week.

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

# Weekly Snowpack and Drought Monitor Update Report

## Risk Management Web Resources

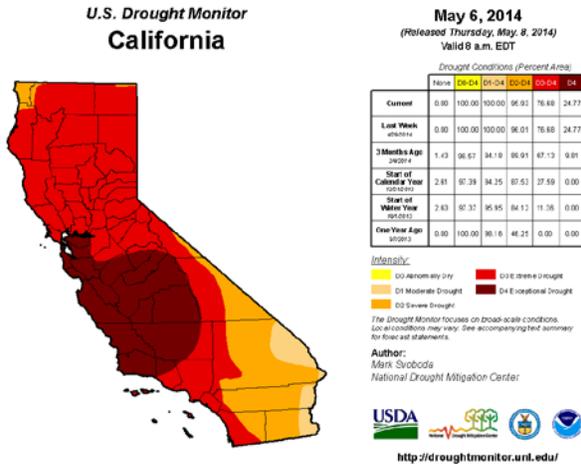
- ✓ Drought Monitor for the [Western States](#)
- ✓ Drought Impact Reporter for [New Mexico](#)
- ✓ [California Data Exchange Center](#) & [Flood Management](#)
- ✓ [Intermountain West Climate Dashboard](#)
- ✓ [Great Basin Dashboard](#)
- ✓ [CLIMAS January 2014 Climate Summary](#)
- ✓ [California Sierra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

## U.S. Impacts during the past week

- [Drought emergency declared for county](#) - May 2, Idaho

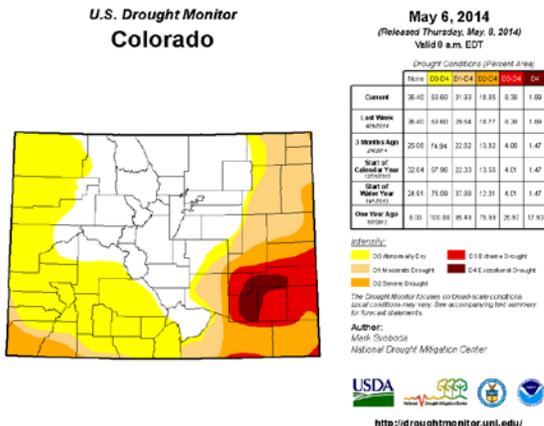
[Click to enlarge maps](#)

## State with D-4 Exceptional Drought



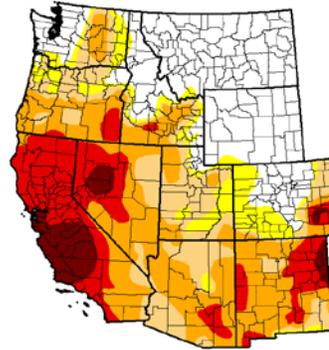
No changes occurred this past week.

## State with D-4 Exceptional Drought



No changes occurred this past week.

## U.S. Drought Monitor West



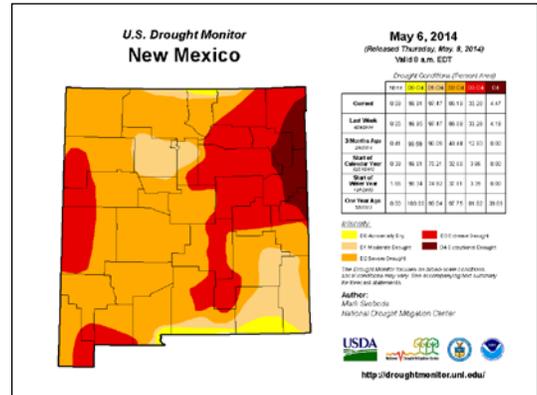
No changes occurred this past week.

## CA Drought Information Resources

### Drought News from California

- [Water cutbacks looming for California farmers, water agencies](#) - April 30
- [Drought sends California cattle packing - to Texas](#) - April 28
- [Cal Fire declares burn ban in Bay Area counties](#) - May 2.
- [Scientists: California drought threatens animals](#) - April 27
- [California drought impacting pro rodeo circuit](#) - May 1
- [Sailors in Camellia Cup regatta race for time on Folsom Lake](#) - April 27.
- [A few California cities start water-waste patrols](#) - April 27
- [California drought: Sierra snowpack is barely there](#) - May 2
- [California Drought Spurs Bonds for 30-Mile Water Tunnels](#) - April 27
- [In California Drought, Desperation May Make Water Flow Uphill](#) - April 22
- [Livermore approves emergency water conservation rates to address drought](#) - April 29

## U.S. Drought Monitor New Mexico

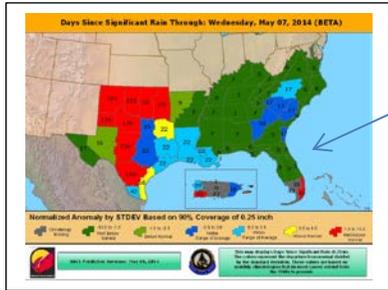


Slight deterioration in D4 occurred during this past week

# Weekly Snowpack and Drought Monitor Update Report

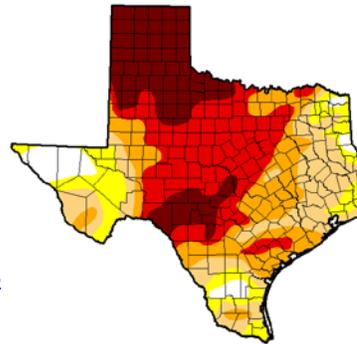
## State with D-4 Exceptional Drought

- ✓ Texas Drought [Website](#).
- ✓ [Texas Reservoirs](#).
- ✓ [Texas Drought Monitor Coordination Conference Call](#): on Monday's 2:00 PM - 3:00 PM CST
- [History repeating itself? Conditions right for more dust, NWS says](#)
- [Lubbock wells run dry as cotton irrigation starts](#) - April 28,
- [Cattle Rustling on the Rise in Texas](#) - May 2



[Days Since Significant Rain Summary](#)

## U.S. Drought Monitor Texas



May 6, 2014  
(Released Thursday, May 8, 2014)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D4	D5	D6
Current	5.11	94.89	83.35	65.13	46.17	21.28
Last Week 4/29/14	9.88	90.12	74.47	52.91	27.86	17.75
3 Months Ago 2/20/14	14.35	85.65	59.68	22.34	7.95	0.71
Start of Calendar Year 1/1/14	28.48	71.52	43.84	21.15	5.82	0.79
Start of Water Year 10/1/13	6.62	93.38	70.95	25.88	4.01	0.12
One Year Ago 5/20/13	1.40	98.59	92.13	72.82	40.58	12.88

**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 more statements.

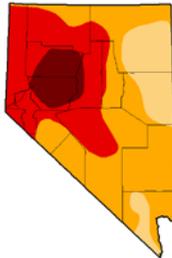
Author: Mark Svoboda  
National Drought Mitigation Center

USDA  
http://droughtmonitor.unl.edu/

**Significant increase** in all categories occurred during this past week.

## State with D-4 Exceptional Drought

### U.S. Drought Monitor Nevada



May 6, 2014  
(Released Thursday, May 8, 2014)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D4	D5	D6
Current	0.00	100.00	100.00	100.00	80.73	0.28
Last Week 4/29/14	0.00	100.00	100.00	100.00	80.73	0.28
3 Months Ago 2/20/14	0.00	100.00	100.00	100.00	80.73	0.28
Start of Calendar Year 1/1/14	0.00	100.00	100.00	100.00	80.73	0.28
Start of Water Year 10/1/13	0.00	100.00	100.00	100.00	80.73	0.28
One Year Ago 5/20/13	0.00	100.00	100.00	100.00	80.73	0.28

**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 more statements.

Author: Mark Svoboda  
National Drought Mitigation Center

USDA  
http://droughtmonitor.unl.edu/

No changes have occurred during this past week.

## State with D-4 Exceptional Drought

Related area news:

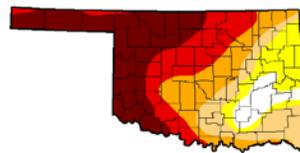
- ✓ [2014 Kansas Drought Report and Summary](#)
- [Dust blamed for fatal car accident in central Kansas](#) - April 29
- [Kansas Wheat Turning Brown Shows Drought Damage for Winter Crops](#) - April 29
- [Kansas wheat already stressed as hot weather looms](#) - May 2
- [Past 30 days precipitation totals](#)
- [Past 30 days precipitation percent of normal](#)
- [Calendar Year precipitation totals](#)
- [Calendar Year precip percent of normal](#)
- [Short Crop ET](#)

### Oklahoma drought news

- [East, west, north and south: Drought's impact extends beyond farmers](#) - April 30
- [Oklahoma wheat farmers brace for poor harvest](#) - May 1
- [Update: Oklahoma farmers asked to avoid plowing fields](#) - April 29
- [Blowing dust caused multi-car accident near Liberal](#) - April 28

**Significant increase** in D4 occurred this week.

### U.S. Drought Monitor Oklahoma



May 6, 2014  
(Released Thursday, May 8, 2014)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D2-D3	D4	D5	D6
Current	6.67	93.33	80.96	59.94	49.18	29.85
Last Week 4/29/14	7.18	92.81	79.21	54.81	38.03	20.38
3 Months Ago 2/20/14	20.77	79.23	46.74	20.91	12.07	3.40
Start of Calendar Year 1/1/14	50.84	49.16	36.17	18.99	4.84	2.40
Start of Water Year 10/1/13	21.74	78.26	42.30	17.62	4.42	1.40
One Year Ago 5/20/13	17.32	82.68	67.92	52.91	32.05	8.62

**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 more statements.

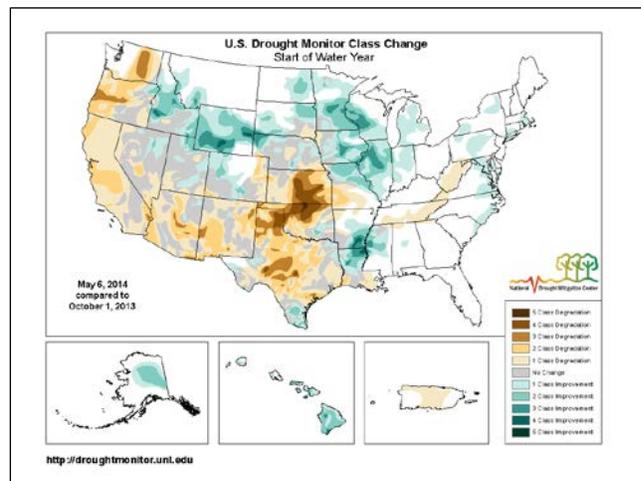
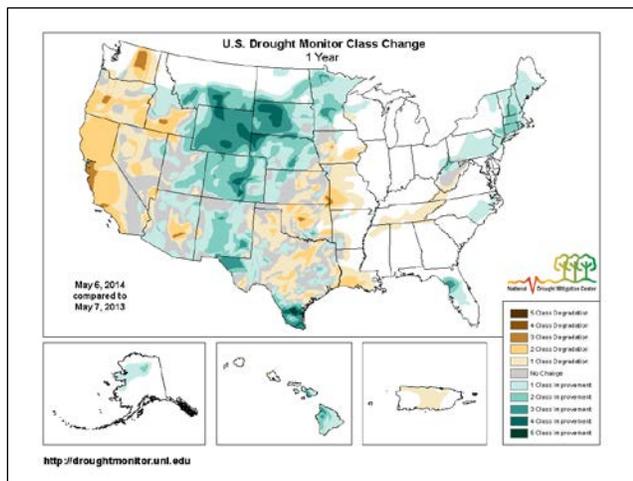
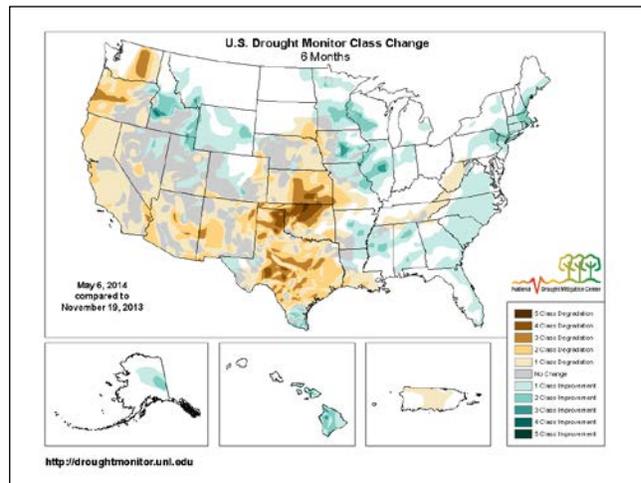
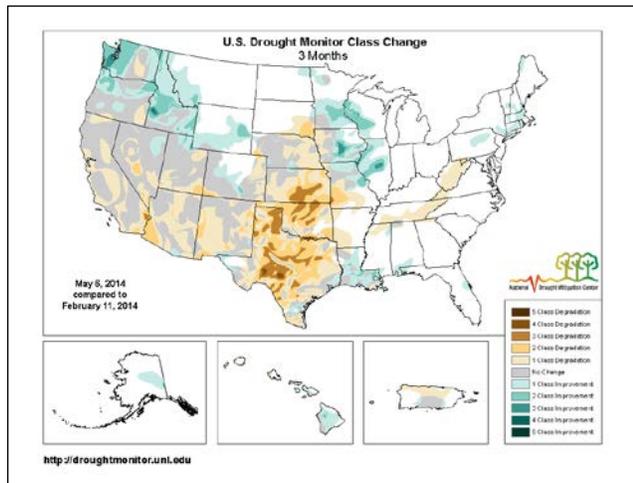
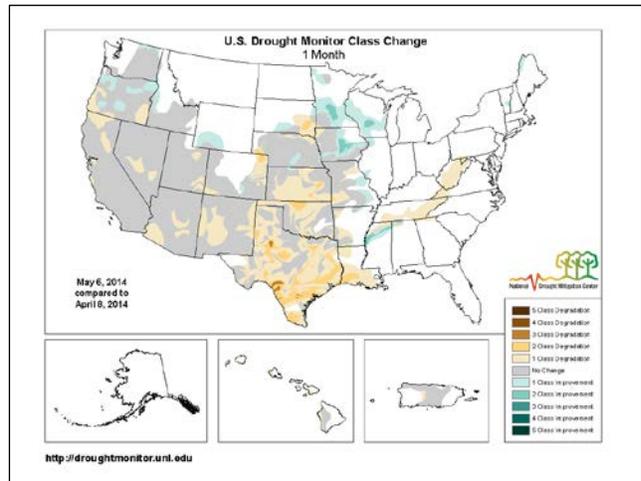
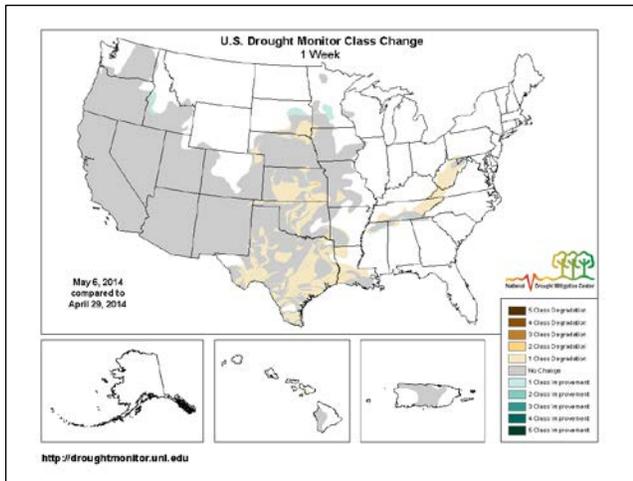
Author: Mark Svoboda  
National Drought Mitigation Center

USDA  
http://droughtmonitor.unl.edu/

**Significant deterioration** in all categories has occurred this past week.

# Weekly Snowpack and Drought Monitor Update Report

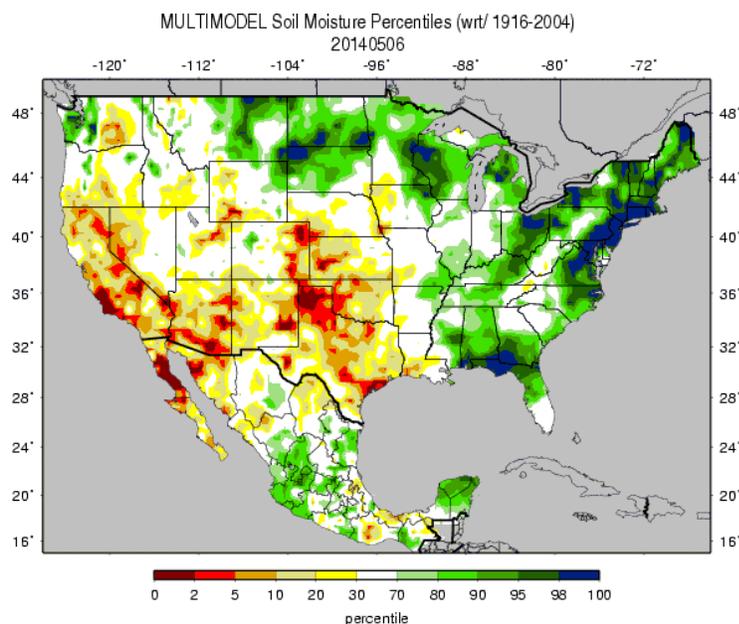
## Changes in Drought Monitor Categories (over various time periods)



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

# Weekly Snowpack and Drought Monitor Update Report

## Soil Moisture



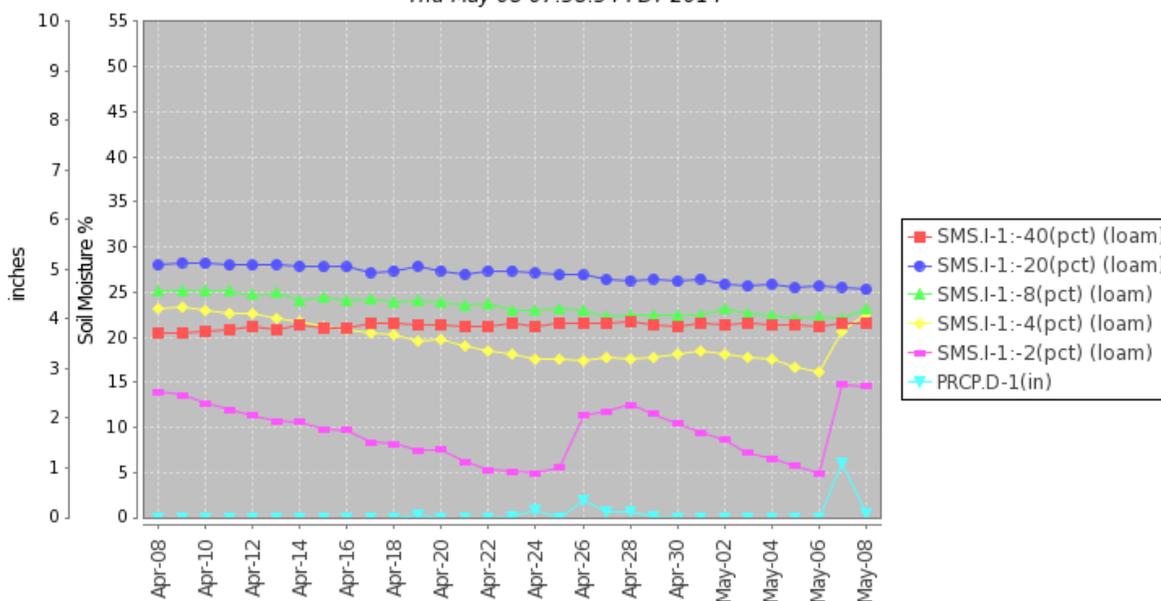
Soil moisture ranking in [percentile](#) as of May 6 shows dryness over central California, southern Arizona, eastern New Mexico, and the southcentral Great Plains (i.e., northern Texas to northeast Colorado). Moist soils dominated the Gulf Coast states, eastern seaboard, central Montana, and northern Great Plains. With abundant snowpack in Montana, concern exists about potential Missouri River flooding in the coming weeks.

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](#).

**Note:** Northernmost states at high elevation may still have soils with sub-freezing temperatures. Caution should be exercised when using these data.

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

Station (2160) MONTH=2014-04-08 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision Thu May 08 07:58:54 PDT 2014

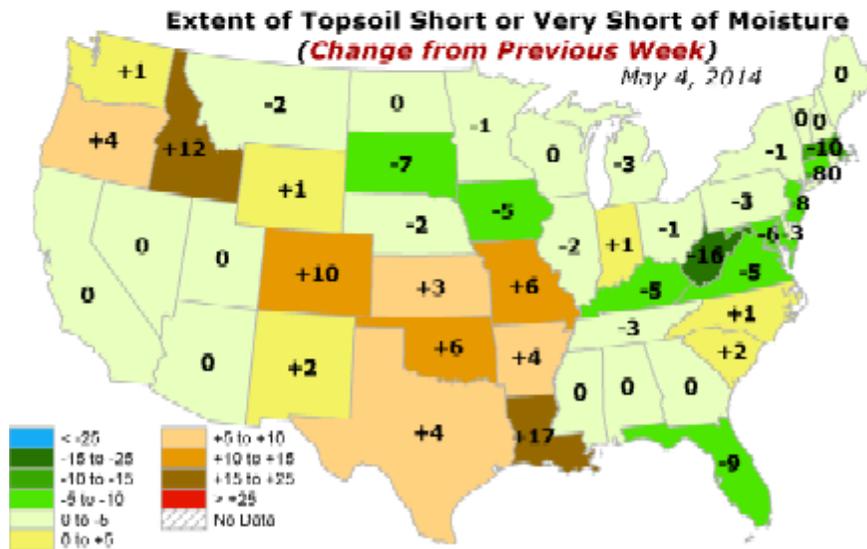
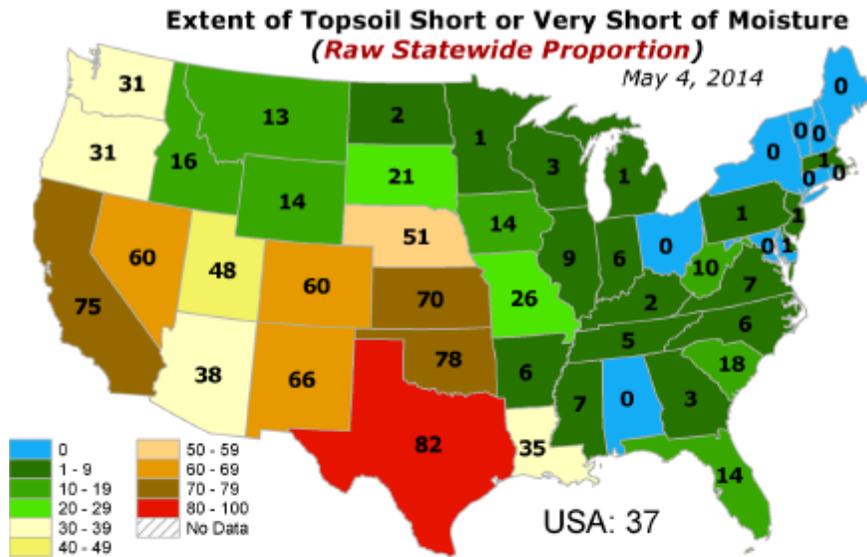


This NRCS resource shows soil moisture data at a SCAN site located in [northwest Utah](#). Note with recent rains, a temporary improvement in soil moisture at shallower depths.

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

# Weekly Snowpack and Drought Monitor Update Report

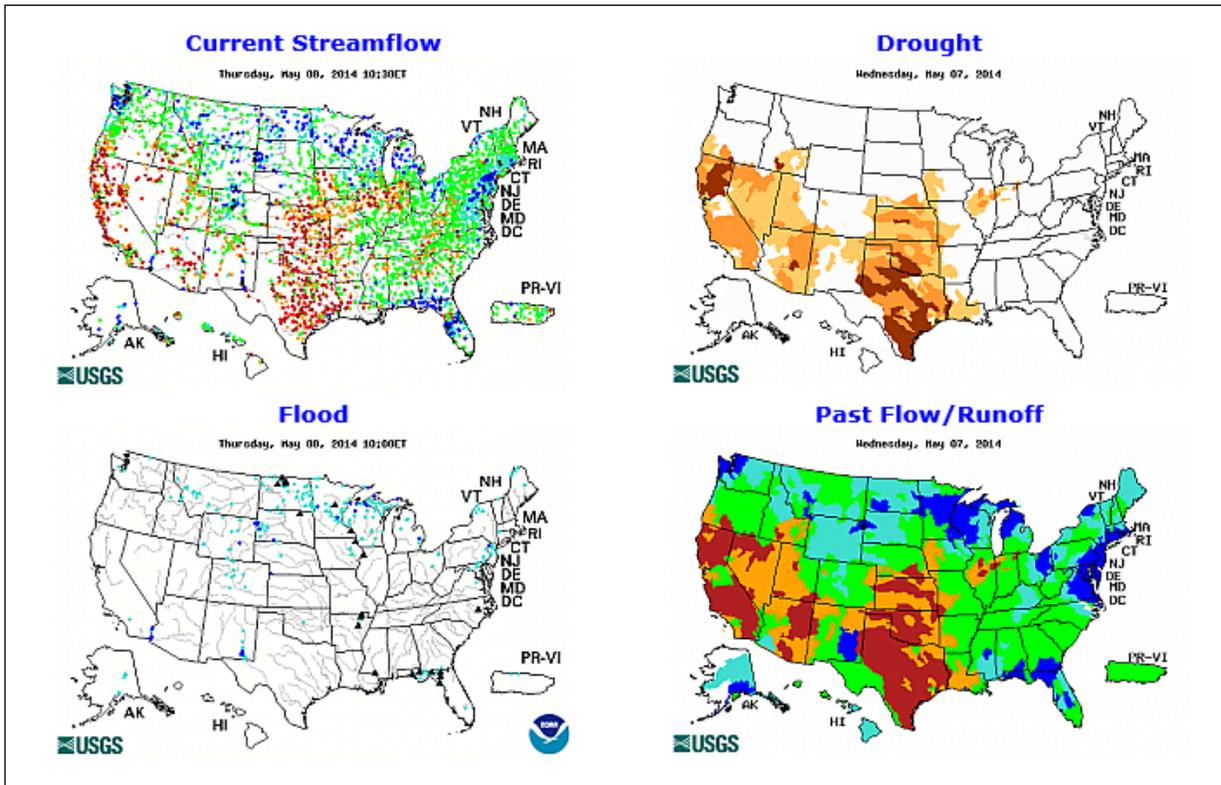
## Topsoil Moisture



As noted in the top map, the southern and central Great Plains westward to California are experiencing low topsoil moisture. Conditions improved over the northern Rockies across to New England, from the Mississippi River states eastward, and over West Virginia. Conditions worsened over Louisiana during the first week in May (bottom map).

# Weekly Snowpack and Drought Monitor Update Report

## Streamflow



Streams are high over western Washington and very low over California and the Southern Great Plains (left maps). Some flooding is occurring over North Dakota and parts of the Mississippi River (lower left map).

[Click maps to enlarge and update](#)

### [Weather hazards](#)



Heavy snow is expected over Wyoming. Heavy rains are expected over parts of the Midwest, western Texas, and the central Gulf States between May 10 and 12.

### [National Long Range Outlook](#)



During the next three months, flooding is possible over the Red River Valley in North Dakota, the upper Midwest, and the middle Mississippi River Valley. Currently, 2 gauges have a greater than 50% chance to experience major flooding; 207 gauges for moderate flooding; 121 gauges for minor flooding.

These numbers represent a slight change since last week.

## Weekly Snowpack and Drought Monitor Update Report

### [National Drought Summary for May 6, 2014](#)

Prepared by: Drought Monitor Author: Mark Svoboda, NDMC

#### **Hawaii, Alaska, and Puerto Rico**

"The windward recovery across most of Hawaii hasn't included the leeward areas as much after a dry April and beginning to May. As was the case last week for parts of the islands, D0 has expanded across parts of Kauai, Oahu, Lanai, Kahoolawe and Maui. This is in stark contrast to locales on the windward reaches as many saw their wettest April in at least a decade, according to the National Weather Service.

Conditions in both Alaska and Puerto Rico remain unchanged on this week's map.

#### **Midwest**

After some improvement last week for parts of Missouri and Iowa, dryness returned in earnest this past week, bringing some slight expansion of D0-D1 to parts of western and southern Missouri as well as western Iowa. The dryness has been welcomed for planting activities, but moisture will be needed soon in order to help sustain crops through the coming summer. The cooler than normal temperatures have also been helping offset the seasonal dryness across most of the western reaches of the region. Minnesota continues to slowly recover, and further improvement is noted this week with more removal of D0 in the south-central part of the state.

#### **The Northeast and Mid-Atlantic**

The most notable change on this week's map is the introduction of a band of D0 that runs from northern West Virginia southward along the Appalachians and into the Tennessee Valley, which also results in an expansion of the preexisting D0 found last week across northern Georgia, northern Alabama, southern Tennessee and northern Mississippi. The past week's heaviest rains fell to the north and east of this abnormally dry band. The cool start to the spring has suppressed much in the way of impacts to this point, but with warmer temperatures on the way there are concerns about fire, and some low streamflow levels are beginning to become more pronounced up and down the Appalachians within the depicted D0 area covering eastern West Virginia, southwestern Virginia, and extreme western North Carolina.

#### **The Plains**

After good rains last week across parts of the northern Plains, dryness followed this week across most of eastern South Dakota, Nebraska and Kansas. Unseasonably cool weather continues to delay impacts thus far as 30-90 day deficits (25-75% of normal across the region) are starting to mount considerably for many parts of these states heading into summer. This has led to some changes this week in the form of expanding D1-D2 in eastern Nebraska as well as in the southern Panhandle out west. D1 also expanded in southeastern South Dakota, although some trimming of D0 on the northernmost flank of D0 in eastern South Dakota is also noted this week as they have been wetter than those counties in the southeast. Kansas continues to set the southern edge of the intense drought that seems to be waking up and pushing rapidly north along with warmer temperatures. A large expansion of D3 now covers nearly the entire southern half of Kansas and D4 is slowly pushing north out of Oklahoma. Soil moisture and groundwater levels are hurting well in front of the peak demand season as the cumulative impacts of such an intense multi-year drought are already glaringly evident, and it's only early May. Precipitation totals on the year are running just 25-50% of normal, or worse, for many locales across southern Kansas.

The story is even bleaker in the southern Plains, where the heat and drought described above for Kansas are even more pronounced and entrenched across western Oklahoma and much of Texas as well. Expansion has begun to happen in earnest now that Mother Nature has turned up the furnace, which will do the landscape no favors with summer not here yet. Expansion of D2-D4 is noted across western Oklahoma and all changes in Texas are for the worse this week as well, with expansion of D0-D4 found statewide and D3 and D4 covering large portions of southern, central, north-central and the Panhandle of Texas. Streamflow and groundwater levels are hurting given the long duration and sustained intensity of this drought, which is now going on close to four years. Winter wheat has also been hard hit by hard freezes and the more recent triple-digit heat. Lack of range and pasture land, as well as fire, are the other main impacts already being reported early this year.

## Weekly Snowpack and Drought Monitor Update Report

### The South

After seeing some spotty wet stuff last week, virtually the entire region went bone dry, and triple-digit heat was returning to parts of western Oklahoma and the Texas Panhandle regions as of early this week. This is not the recipe for recovery as the calendar pushes toward summer. What winter wheat wasn't damaged or killed off by recent hard freezes was left to bear the brunt of the heat and dryness this week, with little in the way of relief on the horizon.

In Louisiana, D0 and D1 continue to expand this week, covering more of the southern and western parishes as the dry spring continues. Deficits aren't just limited to the past 30-60 days, though, as year-to-date precipitation is now running at around 50-70% of normal in the dry/drought areas, and that trend continues when looking back to last October as deficits of 6-12 inches (typically 50-75%) or more are found behind the recent dryness as well, particularly in southwestern locales. Some slight expansion of D0 is also noted this week in parts of western Arkansas. Unseasonably cool weather has kept things from worsening more quickly in both Louisiana and Arkansas.

### The Southeast

The improvement last week was short-lived as D0 gained a bigger toehold in the region across northern Mississippi, northern Alabama, southern and eastern Tennessee and extreme southeastern Kentucky. In addition, D0 pushed across a bit more of northern Alabama and northeastern Georgia given the slightly above-normal temperatures coupled with little, if any, precipitation last week. Most of the long-term dryness beyond six months has eroded, leaving the region labeled as "S" for shorter-term impact potential as we head into the heart of the growing season.

### The West

Most of the West remains in status quo after a relatively dry but warmer than normal week. For the drought-affected regions, the general lack of snow pack and water equivalent totals (as reported by USDA-NRCS) leaves a lot to be desired, with many locations falling at, or below, 50% of normal, and many areas have already melted out that shouldn't have at this time of year. As the dry season settles in and demand peaks, water supplies will quickly follow suit as many in the region have already turned their attention to what the monsoon or potential El Niño may bring, knowing that the tap is about to go dry.

Some minor changes were made this week, with some slight expansion of D1 in extreme northeastern Colorado, where the drought in the Plains continues to slowly push westward toward the Front Range of the Rockies. Farther west and north, a late-season push of moisture brought some recovery to year-to-date totals in western Idaho, leading to some minor improvement of D0-D2 there.

### Looking Ahead

Over the next 5 days (May 8-13), the National Weather Service is calling for a system to potentially bring some relief to the Pacific Northwest along with parts of the central Rockies and Front Range. Heavy precipitation is possible in northeastern Colorado and in the Nebraska Panhandle along with heavier, but spottier, totals expected in a band running north to south from Minnesota, western Iowa, western Missouri, eastern Kansas, eastern Oklahoma, western Arkansas and parts of north-central and southern Texas along with southern Louisiana as well. In addition, above-normal rains appear to be likely for Mississippi and northern Alabama along with the western reaches of the Tennessee Valley, northern Georgia and the extreme western counties in the Carolinas. As for temperatures, below-normal readings (5 to 10 degrees) are expected over roughly this same time period for the northern Plains, central/northern Rocky Mountain states, Idaho and parts of the Intermountain Basin region. The opposite is forecast for parts of all states east of the Mississippi River, except for Florida, with readings expected to run 3 to 9 degrees above normal.

The 6-10 day (May 13-17) and 8-14 (May 15-21) day outlooks are both consistent in showing a greater likelihood of above-normal temperatures across the West and below-normal temperatures east of the Mississippi River valley as well as the Great Lakes and Gulf Coast region, including coastal Texas. As for precipitation, below-normal rainfall is more likely across western Alaska, much of the West (not as likely in the Pacific NW), the central and southern Great Plains and the Mississippi Valley and over into the Southeast as well. Above-normal precipitation is likely only in the Northeast and New England regions, with lower chances stretching south into the northern Mid-Atlantic region."

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# Weekly Snowpack and Drought Monitor Update Report

## 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.

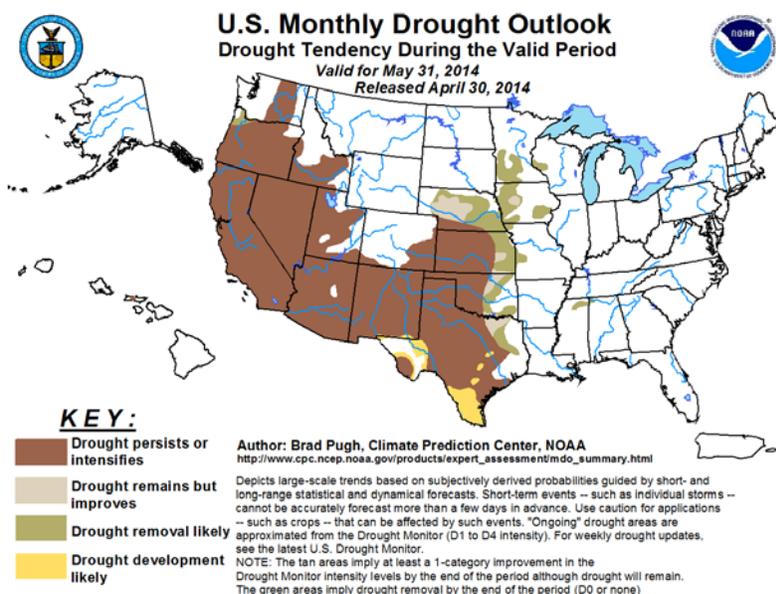
This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

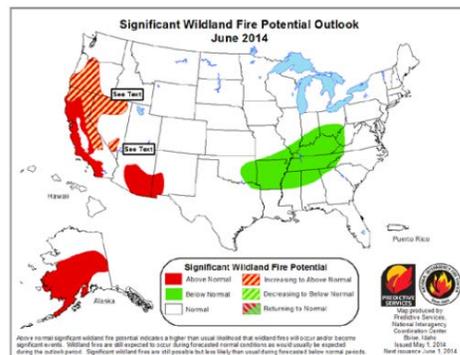
David W. Smith  
Acting Deputy Chief, Soil Science and Resource Assessment

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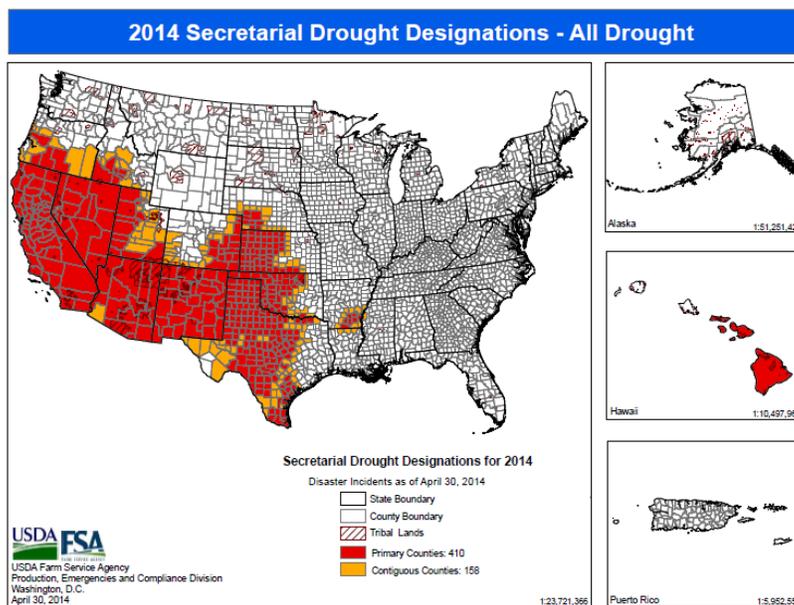
## Drought Outlook For May 2014



- Drought is expected to persist over much of the West. Southern and western Texas are expected to see drought development. The eastern half of the Great Plains is expected to see some improvement.
- ✓ 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.



## Weekly Snowpack and Drought Monitor Update Report



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](#)

### Additional Maps

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

The regional zooms of ACIS station data percent-of-normal precipitation can be found at: <http://dmcommunity.unl.edu/maps/All-CONUS-ACIS-PNP.pptx>.

### 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.

### California

#### Curtailed orders for junior water rights holders

The California Water Resources Control Board posted data on its website estimating the date that curtailments may be requested in various watersheds, depending upon runoff conditions, water demand and the type of water rights. Hundreds of water agencies, farmers and other property owners will soon have to stop diverting water from rivers in which they have long had water rights. Specific curtailment orders are expected within days. Junior water rights holders will be affected first and must stop using water from the stream or river or limit the diversion. Sufficient water must be left in streams and rivers to fulfill senior water rights holders' needs and for the environment. Curtailment orders are pending for junior water rights—issued after 1914—on nine rivers and their watersheds, including the Stanislaus, Tuolumne, Merced, Yuba, Kern, Kings, Kaweah, Tule and Middle Fork Eel. Sacramento could be affected as soon as May 15 if curtailment orders come for the Sacramento, American and Russian River above Healdsburg and the Sacramento and San Joaquin river watersheds. The board expects that even senior water rights holders may be under curtailment orders by June to save water for essential health and safety purposes, and for wildlife and habitat.

#### May 1 snowpack

The last snow survey of the season on May 1 found that the snow water content was 18 percent of average. Some snow survey sites had no snow to measure.

#### Groundwater levels

The drought ravaging California has dropped water levels to historic lows in thousands of wells surveyed across the state, according to the California Department of Water Resources. About half of the 5,400 wells assessed have dropped since 2008 to points lower than they have been in the previous century. The San Joaquin Valley was in the worst shape, with groundwater levels declining up to 100 feet below historical norms, while in the Sacramento Valley, the Sonoma Valley and the Los Angeles basin, levels fell up to 50 feet. The especially disturbing aspect of this report is that the analysis was done in the spring when groundwater levels are usually at their highest.

## Weekly Snowpack and Drought Monitor Update Report

### California cattle

Many cattle producers in California were loading thousands of animals onto trucks to ship them to Nevada, Texas, Kansas and Nebraska as stunted grass and depleted water sources warn producers of what they already know: they cannot wait out the drought. Reuters reviewed California agriculture department records filed when livestock cross state lines and discovered that up to 100,000 California cattle have left the state in just the past four months. Most cattle have gone to Texas and Nebraska.

### Wheat production estimates

#### Kansas

Scouts with the Hard Red Winter Wheat Quality Tour found that Kansas' wheat was behind schedule, short and needing rain soon. The projected yield is 33.2 bushels per acre, the lowest in 13 years. Production is expected to be 260.6 million bushels, the lowest estimate since 2011.

#### Colorado

The average wheat yield in Colorado was projected to be 32.0 bushels per acre, according to Darrell Hanavan, executive director of the Colorado Wheat Administrative Committee. This yield would be considerably more than the 2013/14 crop.

#### Nebraska

The average wheat yield in Nebraska is expected to be 45.0 bushels per acre, beating the state's 10-year average of 41.4 bushels per acre, said Royce Schaneman, executive director of the Nebraska Wheat Board.

#### Oklahoma

The average production in Oklahoma is anticipated to be 18.52 bushels per acre with a total production of 66.5 million bushels, which would be about half of last year's production of 115 million bushels, said Mark Hodges, executive director of Plains Grains, Inc.

### Cattle rustling in Texas

Historically high beef prices are bringing an increase in cattle rustling in Texas, forcing ranchers to invest in new security technologies to keep a close eye on the cattle.

"...while you see cattle, rustlers see the animals as 'ATMs with hooves.'"

### Oklahoma soil conservation

Oklahoma farmers were urged to forego plowing the soil this spring because blowing dust is already a problem, said the president of the Oklahoma Association of Conservation Districts. The National Weather Service has issued blowing dust warnings in recent days, due to the exceedingly dry conditions and strong winds.

### Blowing dust in Kansas, Oklahoma

At least two accidents this past week were blamed on poor visibility due to blowing dust.

In central Kansas, a 30-year old man collided with a stopped semi-trailer truck, which had stopped due to other accidents, blowing dust and poor visibility on U.S. 56. As authorities tried to reach the site of the accident, visibility was zero, prompting them to close the highway from Great Bend to Pawnee Rock.

A traffic pile-up, involving six cars and trucks and six tractor trailers, occurred in the Oklahoma Panhandle near Tyrone on April 27. It was reported that blowing dust reduced visibility to less than five feet. Injuries were minor.

### Idaho drought declarations

Drought declarations have been made for Butte, Clark and Custer counties, with the recent additions of Blaine and Lincoln counties. Boards of county commissioners requested the designation to allow quicker transfers of water rights, changes in points of diversion, and the place and purpose of water use.

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### Tea Cup reservoir depictions:

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

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NWCC's Surface Water Supply Index (SWSI) maps are located [here](#).

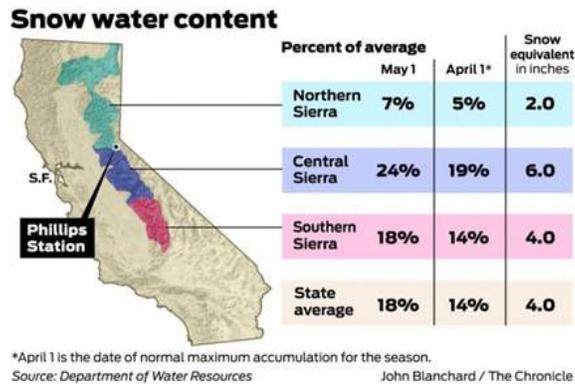
# Weekly Snowpack and Drought Monitor Update Report

## Supplemental Data

[Report: Well water under strain across California](#) - May 1



Image produced by John Blanchard of the *San Francisco Chronicle* with data from the California Department of Water Resources.



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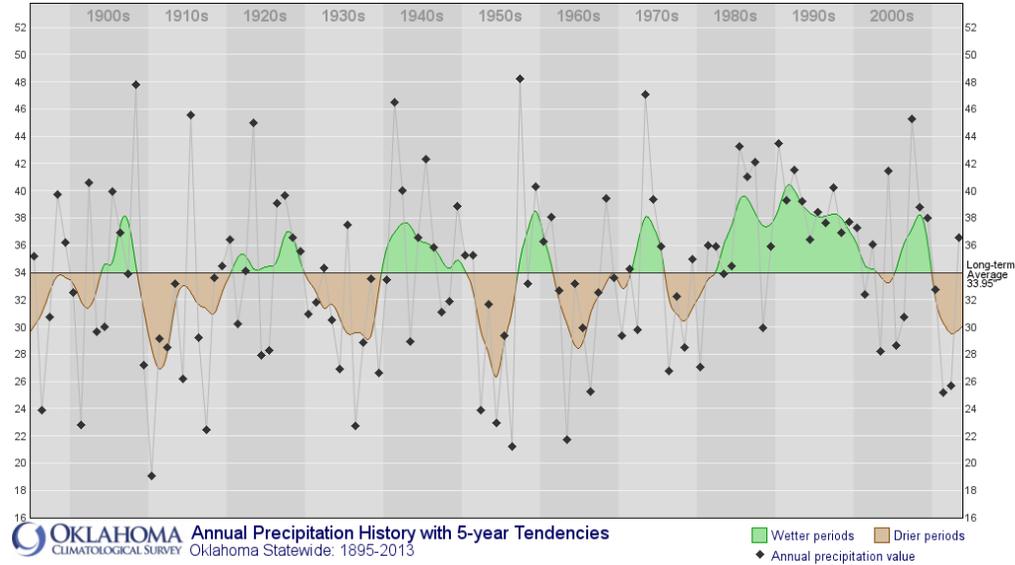
The “[U.S. Crops in Drought](#)” products and [archived files](#) are provided by Brad Rippey, USDA Meteorologist, Office of the Chief Economist, World Agricultural Outlook Board. Brad states:

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## Weekly Snowpack and Drought Monitor Update Report

**Oklahoma Winter Wheat Yield** – Chart provided by Gary McManus, State Climatologist, Oklahoma Mesonet, Oklahoma Climatological Survey

“Drought, late freezes, and current heat wave (average temperatures >20°F above normal on Monday over OK) have hurt this year’s wheat crop. Current crop conditions may produce the 1950s drought yields.



Oklahoma’s previous dry period was in the late 1970s. Values centered around the 34” line is The 5-year running average.”