



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

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## Weekly Report - Snowpack / Drought Monitor Update

Date: 31 January 2013

### SNOTEL SNOWPACK AND PRECIPITATION SUMMARY

**Temperature:** [SNOTEL](#) and ACIS 7-day temperature anomaly ending 30 January shows generally warmer than normal conditions across the West; especially east of the Continental Divide. However, cooler than normal temperatures dominated the Northern Cascades this week (Fig. 1a). [ACIS](#) 7-day average temperature anomalies show the greatest positive temperature departures over eastern New Mexico ( $>+12^{\circ}\text{F}$ ). The greatest negative departures occurred over western Utah ( $<-9^{\circ}\text{F}$ ) (Fig. 1b). For January, exceptionally cold temperatures have dominated the Interior West (e.g., Nevada and Utah). Warmer than normal conditions were confined to the Eastern Slopes of Continental Divide in Montana (Fig. 1c).

**Precipitation:** [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows typically moderate precipitation over the Cascades of Oregon and Washington and heavier precipitation for the normally dry region of center Arizona (Fig. 2a). In terms of percent of normal, it was clearly a wetter than average week for the Southwest, Cascades, other parts of the Pacific Northwest, and northern Wyoming (Fig. 2b). However, several exceptions were noted over central-eastern Washington, northern California eastward into the Great Basin, much of Montana, southern Wyoming, and the eastern Plains of Colorado and New Mexico where dryness prevailed. SNOTEL [month to date](#) precipitation percent of normal for January shows a generally dry month with some notable exceptions: Arizona Mountains, the San Juans of southwest Colorado, and the Cheyenne River Basin over eastern Wyoming. The Sierra, Cascades, and most of the Rockies (Fig. 2c). For the [2013 Water-Year](#) that began on 1 October 2012, statistics continue to favor the Northern Tier States and the Northern Sierra with surpluses. Significant deficits dominate over Sweetwater-North Platte River Basins in central-southeastern Wyoming, and over Colorado and New Mexico. Arizona is the surplus exception over the southern stretches of the West. However, note that there is some difference between snow water equivalent values and total precipitation values thus far for this water year in several regions of the West (e.g., eastern Oregon and all of Idaho) (Fig. 2d).

**Snow:** [Snow depths](#) changes for the week revealed that many stations reported gains. Several regions in the San Juans of southwest Colorado reported between 2 to 4 feet of snowfall earlier in the week with avalanches resulting under all that new weight (Fig. 3a). As for [snow water-equivalent](#), the largest deficits continue over much of New Mexico, most of Colorado, eastern Wyoming, and the northeastern Great Basin. Significant surpluses exist over the Northernmost Cascades, Sierra, mountain of Arizona, and Central Snake River Basin. However, since last week, many regions saw significant gains (blue markings) although not enough to raise values to normal at many SNOTEL sites (Fig. 3b).

**The West:** The West saw a mixed bag on both the temperature and precipitation fronts last week as much of the Rocky Mountain spine region and the Southwest experienced well above normal temperatures. The Pacific Northwest remained the exception by staying cooler and wetter. The big winner this week was seen across central Arizona, where anywhere from 2-4 inches or more was observed, bringing about 1-category improvements to the D1-D3 drought. Longer-term dryness/drought is still a concern, but this system provided a much-needed shot-in-the-arm of moisture. Northwestern New Mexico shared in the bounty of this same system, but

## Weekly Snowpack and Drought Monitor Update Report

not nearly to the degree seen in central Arizona and southwestern Colorado. However, this was enough to remove the D3 from New Mexico, although many basins are still running below normal with regard to snow water equivalent (SWE) levels, meaning the severe drought (D2) remains. Same goes for southwestern Colorado, where the system helped boost SWE values, but not enough to move them out of D2 given the chronic dryness stretching back to last winter. Ample rains along the southern coast of California lead to a 1-category improvement from D1 to D0 and a push of the D1 westward off the coast from San Diego to Santa Barbara. Finally, well to the north in and around the Idaho Panhandle and northwestern Montana, precipitation last week leads to a trimming of the D0, primarily on the Montana side of the Divide, although the D0 is still left intact (albeit in a diminished state given the lagging SWE). Author: Mark Svoboda, National Drought Mitigation Center

***A comprehensive narrative describing drought conditions for the nation can be found at the end of this document.***

### Drought Impacts Definitions

The possible impacts associated with **D4 (S, L)** drought include widespread crop/pasture losses and shortages of water in reservoirs, streams, and wells creating water emergencies. The possible impacts associated with **D3 (S, L)** drought include major crop/pasture losses and widespread water shortages or restrictions. Possible impacts from **D2 (S, L)** drought are focused on water shortages common and water restrictions imposed and crop or pasture losses likely. The possible impacts associated with **D1 (S, L)** drought are focused on water shortages developing in streams, reservoirs, or wells, and some damage to crops and pastures (Figs. 4 through 4d).

### Soil Moisture

Soil moisture (Fig. 5), is simulated by the [VIC macroscale hydrologic model](#). The detailed, physically-based VIC model is driven by observed daily precipitation and temperature maxima and minima from approximately 2130 stations, selected for reporting reliably in real-time and for having records of longer than 45 years (and various other criteria). Another good resource can be found at: <http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>.

### Soil Climate Analysis Network (SCAN)

Figure 6 provides supplemental data on soil conditions (moisture and temperatures at various depths from 2 inches to 80 inches. For more information about SCAN see ([brochure](#)).

### U.S. Historical Streamflow

This map, (Fig. 7) shows the 7-day average streamflow conditions in hydrologic units of the United States and Puerto Rico for the day of year. The colors represent 7-day average streamflow percentiles based on historical streamflow for the day of the year. Thus, the map shows conditions adjusted for this time of the year. Only stations having at least 30 years of record are used. Sub-regions shaded gray indicate that insufficient data were available to compute a reliable 7-day average streamflow value. During winter months, this situation frequently arises due to ice effects. The data used to produce this map are provisional and have not been reviewed or edited. They may be subject to significant change.

### **State Activities**

State government drought activities can be tracked at the following URL: <http://drought.unl.edu/mitigate/mitigate.htm>. NRCS SS/WSF State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SS/WSF information - <http://www.wcc.nrcs.usda.gov/cqibin/bor.pl>.

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Additional information describing the products available from the Drought Monitor can be found at the following URL: <http://drought.unl.edu/dm/> and <http://www.drought.gov>.

### **For More Information**

The National Water and Climate Center Homepage provide the latest available snowpack and water supply information. Please visit us at <http://www.wcc.nrcs.usda.gov>. This document is available from the following location on the NWCC homepage - <http://www.wcc.nrcs.usda.gov/water/drought/wdr.pl>. Reports from 2007 are available on-line while ones from 2001-2006 can be acquired upon request.

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

/s/

Micheal L. Golden

Deputy Chief, Soil Science and Resource Assessment

# Weekly Snowpack and Drought Monitor Update Report

## SNOTEL (solid) and ACIS (dot-filled) Networks 7-Day Average Temperature Anomaly (Degrees F)

Jan 30, 2013

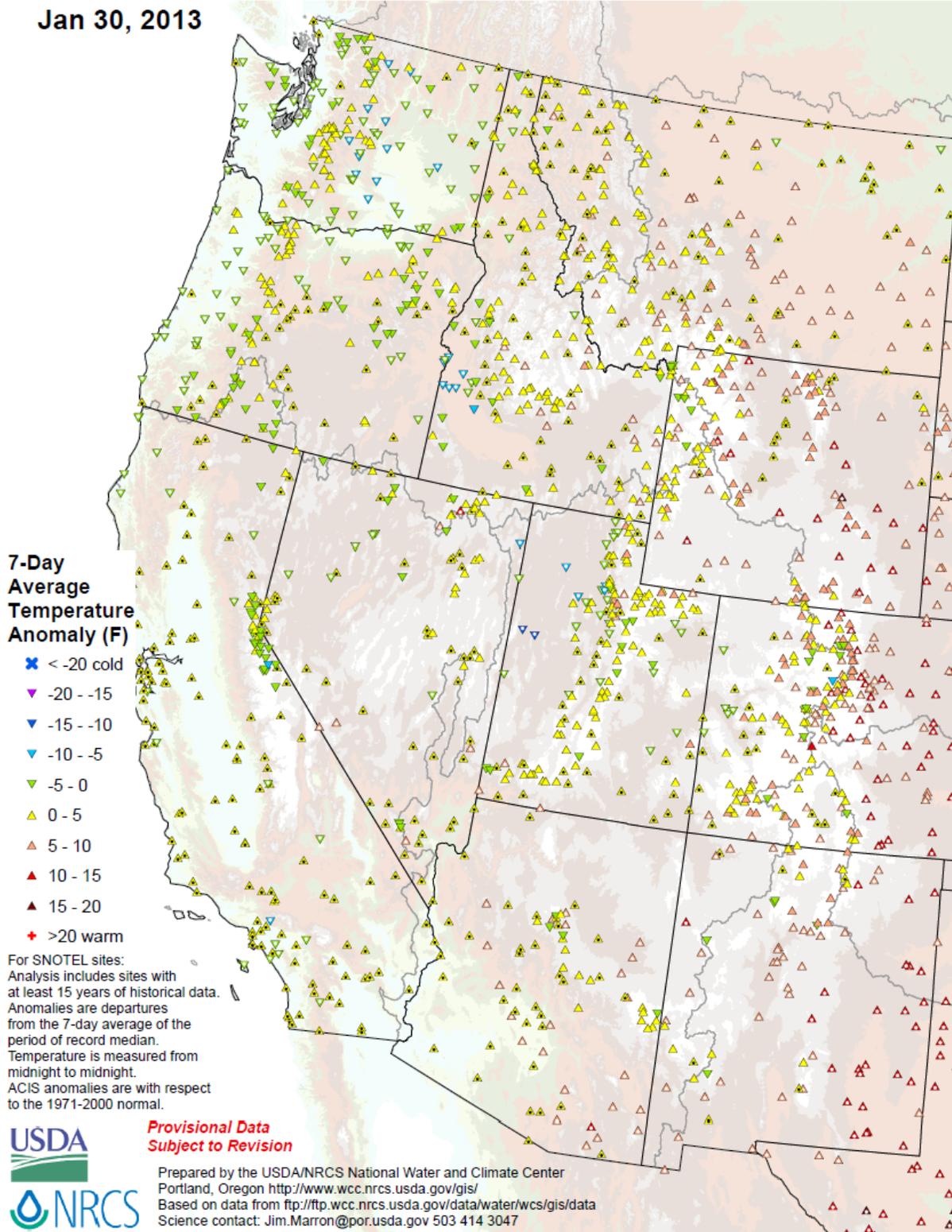
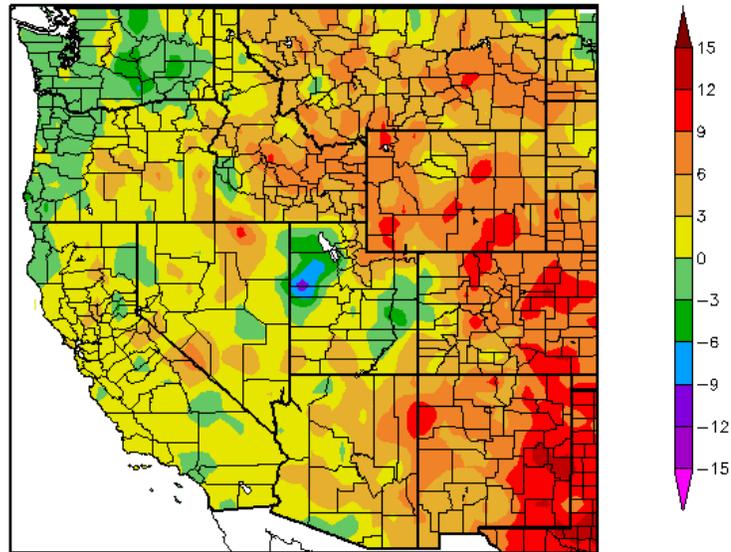


Fig. 1a: **SNOTEL** and ACIS 7-day temperature anomaly ending 30 January shows generally warmer than normal conditions across the West; especially east of the Continental Divide. Cooler than normal temperatures dominated over the Northern Cascades this week.

## Weekly Snowpack and Drought Monitor Update Report

Departure from Normal Temperature (F)  
1/24/2013 – 1/30/2013

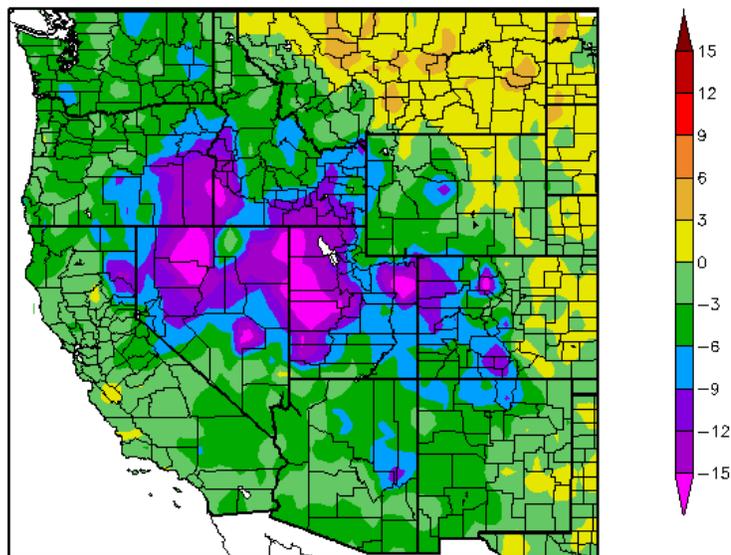


Generated 1/31/2013 at HPRCC using provisional data.

Regional Climate Centers

**Fig. 1b:** ACIS 7-day average temperature anomalies show the greatest positive temperature departures over eastern New Mexico (>+12°F). The greatest negative departures occurred over western Utah (<-9°F).

Departure from Normal Temperature (F)  
1/1/2013 – 1/30/2013



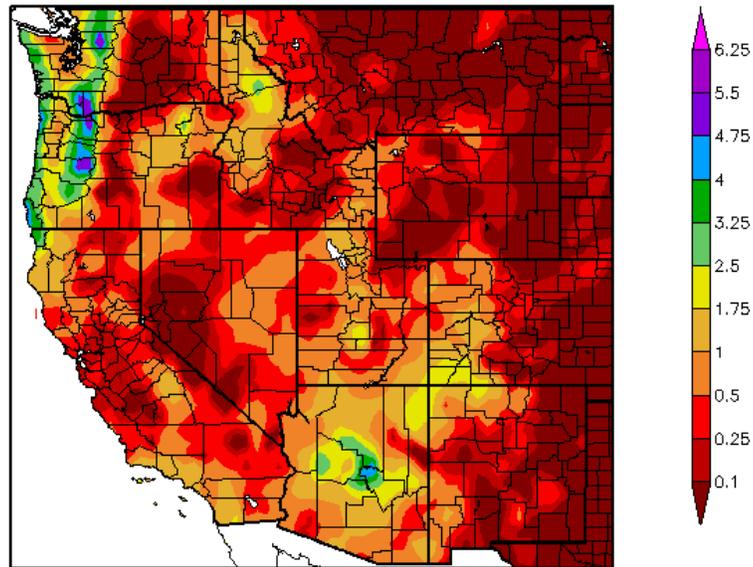
Generated 1/31/2013 at HPRCC using provisional data.

Regional Climate Centers

**Fig. 1c:** Since the beginning of January, exceptionally cold temperatures have dominated the Interior West (e.g., Nevada and Utah). Warmer than normal conditions were confined to the Eastern Slopes of Continental Divide in Montana.

## Weekly Snowpack and Drought Monitor Update Report

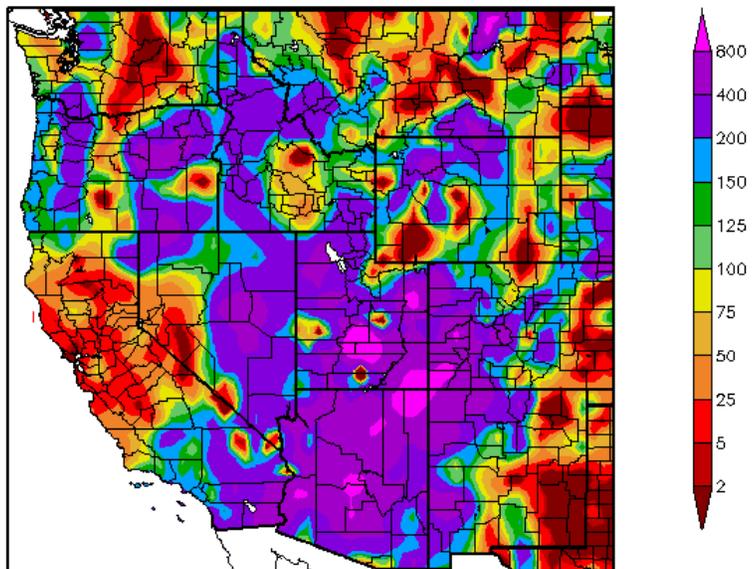
Precipitation (in)  
1/24/2013 - 1/30/2013



Generated 1/31/2013 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)  
1/24/2013 - 1/30/2013



Generated 1/31/2013 at HPRCC using provisional data.

Regional Climate Centers

**Fig. 2a and 2b:** [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows typically moderate precipitation over the Cascades of Oregon and Washington and heavier precipitation for the normally dry region of center Arizona (Fig. 2a). In terms of percent of normal, it was clearly a wetter than average week for the Southwest, Cascades, parts of the Pacific Northwest, and northern Wyoming (Fig. 2b). However, several exceptions were noted over central-eastern Washington, northern California eastward into the Great Basin, much of Montana, southern Wyoming, and the eastern Plains of Colorado and New Mexico.

Weekly Snowpack and Drought Monitor Update Report

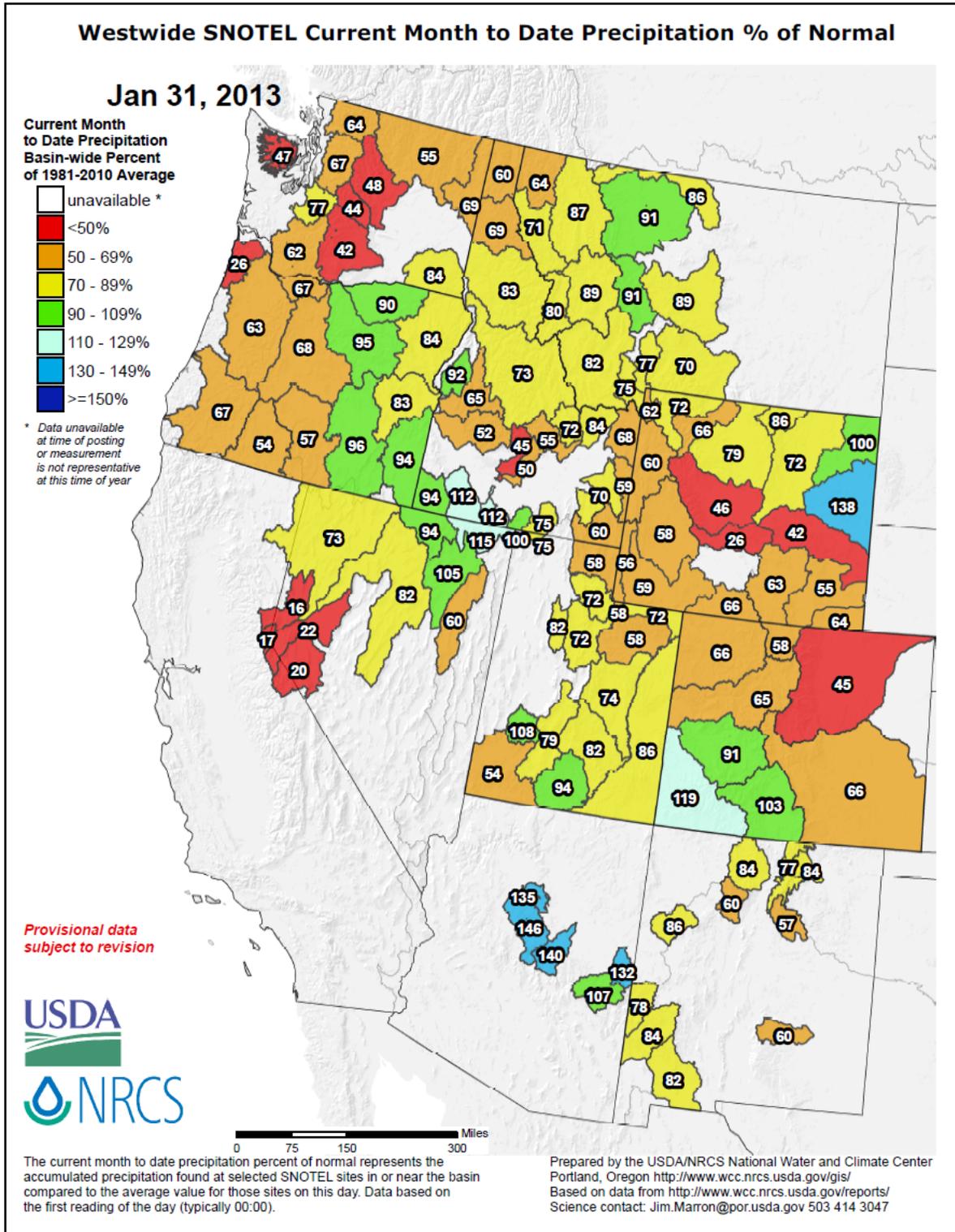
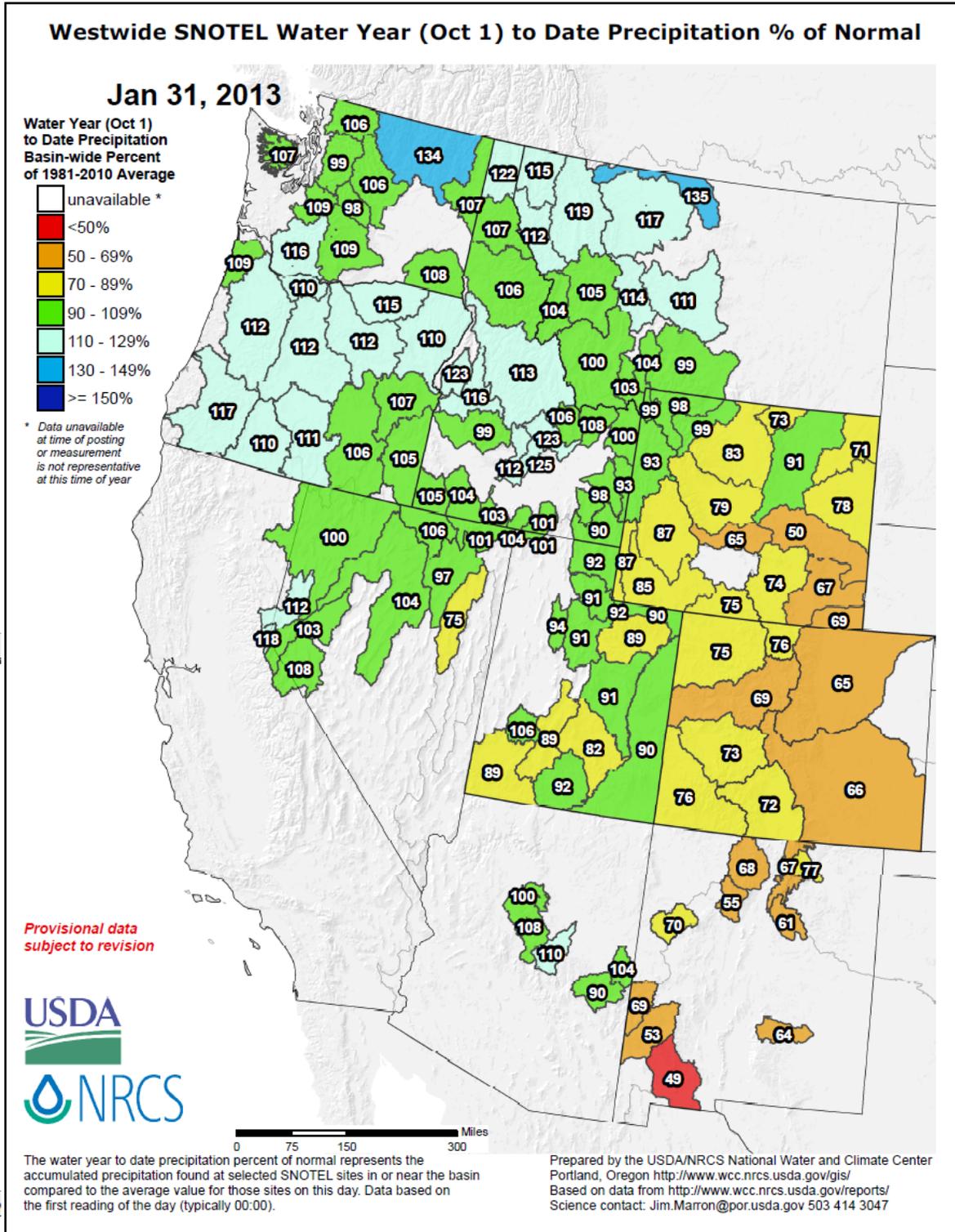


Fig. 2c: SNOTEL month to date precipitation percent of normal for January shows a generally dry month with some notable exceptions: Arizona Mountains, the San Juans of southwest Colorado, and the Cheyenne River Basin over eastern Wyoming. The Sierra, Cascades, and most of the Rockies.

*Note: New 1981-2010 SNOTEL Normals are now being used and in many cases, these values are significantly different than the 1971-2000 Normals.*

## Weekly Snowpack and Drought Monitor Update Report



**Fig. 2d:** For the [2013 Water-Year](#) that began on 1 October 2012, statistics continue to favor the Northern Tier States and the Northern Sierra with surpluses. Significant deficits dominate over Sweetwater-North Platte River Basins in central-southeastern Wyoming, and over Colorado and New Mexico. Arizona is the surplus exception over the southern stretches of the West. However, note figure 3b below shows a somewhat different picture where snow water equivalent values do not match total precipitation values thus far for this water year. Daily reports by SNOTEL sites can be acquired by clicking [here](#).

**SNOTEL 7-Day Snow Depth Change (Inches)**

Jan 31, 2013

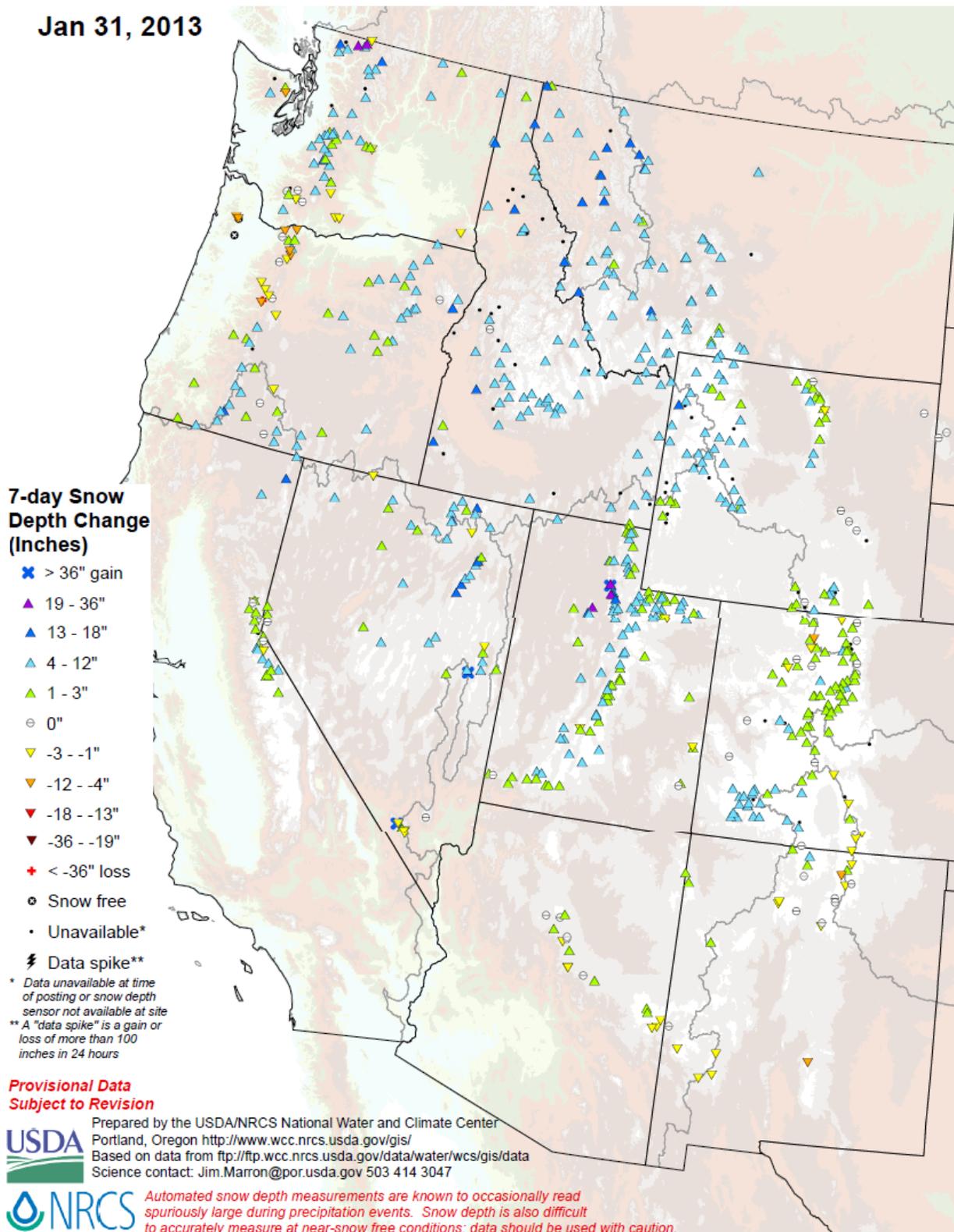
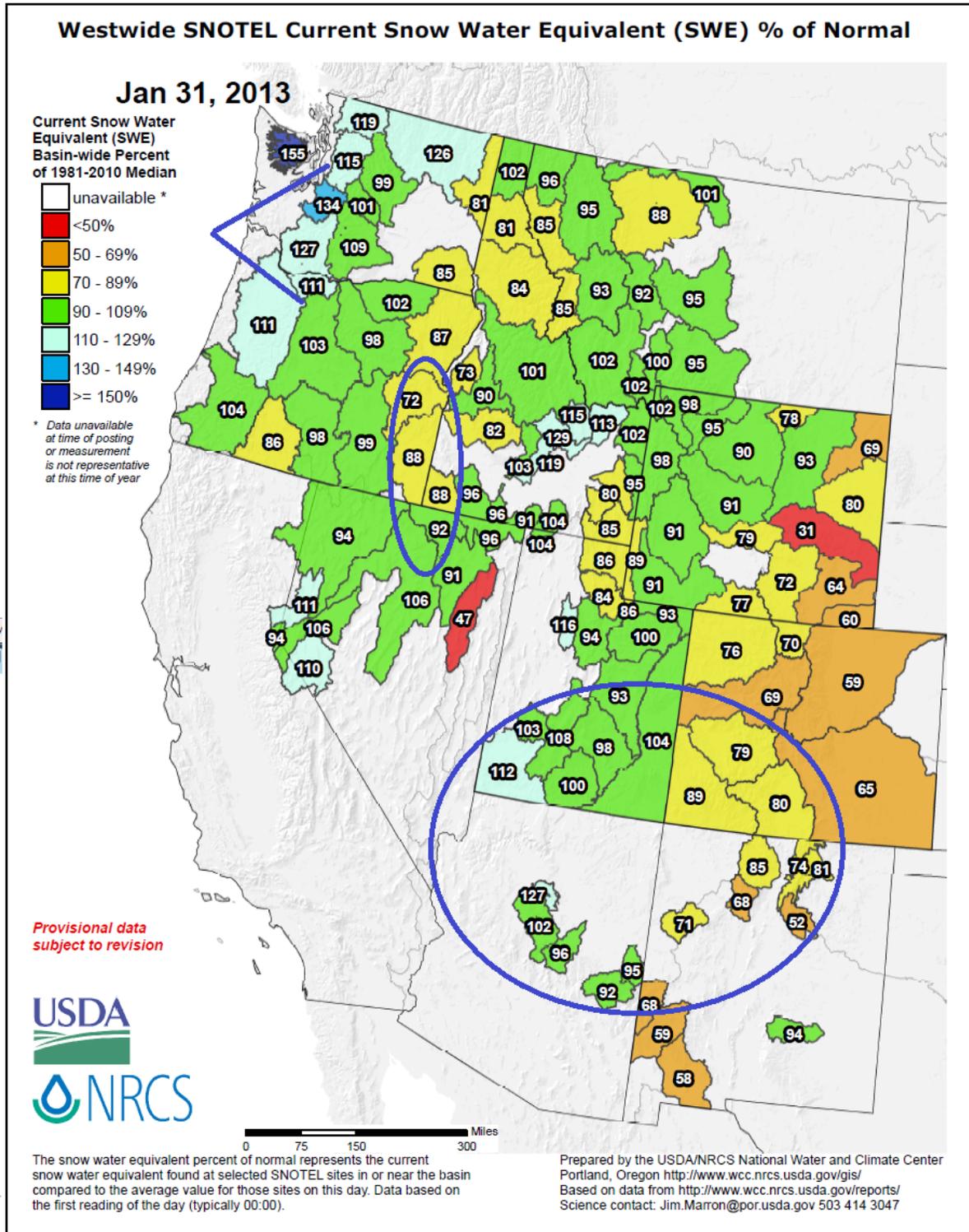


Fig. 3a: Snow depths changes for the week revealed that many stations reported gains. Several regions in the San Juans of southwest Colorado reported between 2 to 4 feet of snowfall earlier in the week with avalanches as a result.

## Weekly Snowpack and Drought Monitor Update Report



**Fig. 3b: Snow Water-Equivalent:** Largest deficits continue over much of New Mexico, most of Colorado, eastern Wyoming, and the northeastern Great Basin. Significant surpluses exist over the Northernmost Cascades, Sierra, mountain of Arizona, and Central Snake River Basin. However, since last week, many regions saw significant gains (blue markings) although not enough to raise values to normal at many SNOTEL sites. For expected snowfall amounts, click [here](#). A useful basin by basin assessment of SWE to date can be viewed by state at [here](#) and [here](#).

Weekly Snowpack and Drought Monitor Update Report

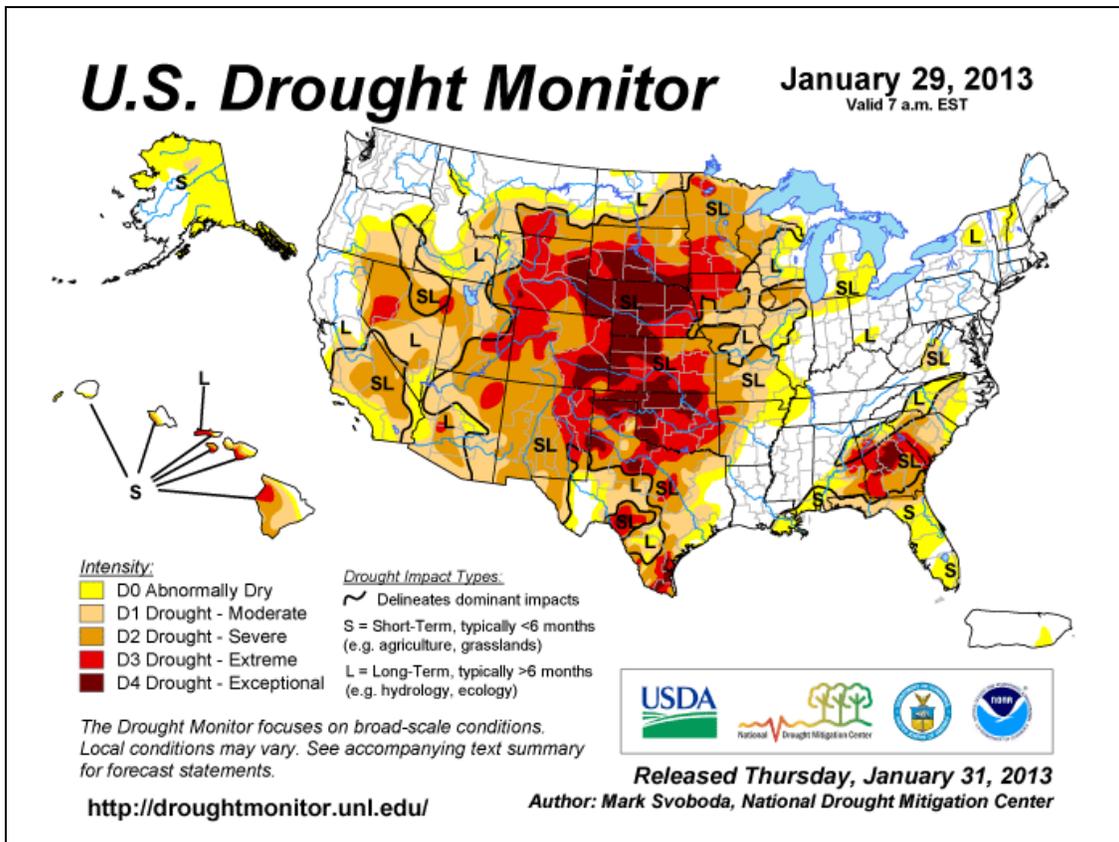


Fig. 4: Current [Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are found over Georgia, and scattered across the western corn belt of the Plains into southeastern Colorado and Wyoming, easternmost New Mexico, and southward into Texas. For more drought news, see [Drought Impact Reporter](#). Click for the latest statistics for [California Reservoirs](#). The latest [drought indicator blend and component percentiles](#) spreadsheet is a great resource for climate division drought statistics. See Fig. 8 for the latest [Drought Outlook](#) (forecast). The Winter 2013 edition of DroughtScope, the quarterly newsletter of the National Drought Mitigation Center, is now available at <http://drought.unl.edu/Portals/0/docs/DroughtScope/Winter2013.pdf>

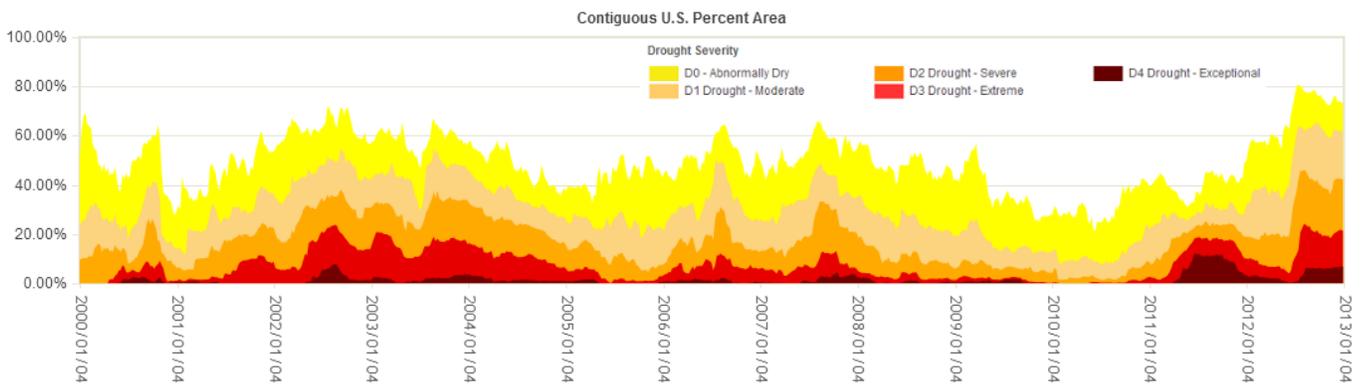


Fig. 4.1: History since 2000 of drought categories by percent of coverage for the Lower-48. Note a somewhat cyclic nature of US drought over the past dozen years.

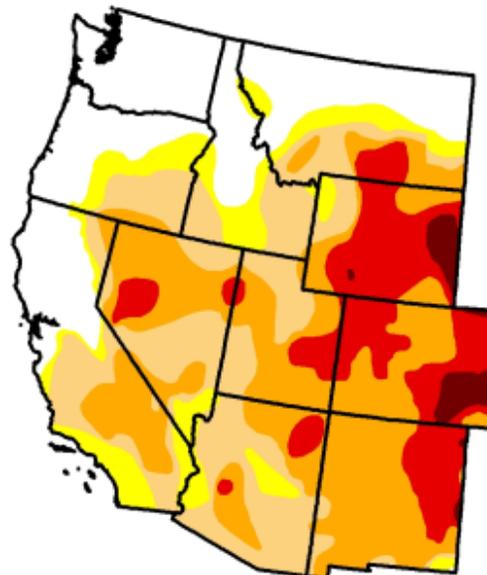
# U.S. Drought Monitor

## West

January 29, 2013  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

|   | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|---|-------|-------|-------|-------|-------|------|
| Current                                       | 23.58 | 76.42 | 66.52 | 44.01 | 16.39 | 2.15 |
| Last Week<br>(01/22/2013 map)                 | 22.60 | 77.40 | 68.24 | 44.51 | 17.27 | 2.15 |
| 3 Months Ago<br>(10/30/2012 map)              | 14.06 | 85.94 | 76.17 | 44.59 | 17.54 | 1.93 |
| Start of<br>Calendar Year<br>(01/01/2013 map) | 24.39 | 75.61 | 69.31 | 45.04 | 18.01 | 2.15 |
| Start of<br>Water Year<br>(09/25/2012 map)    | 15.12 | 84.88 | 77.15 | 43.65 | 16.85 | 1.77 |
| One Year Ago<br>(01/24/2012 map)              | 34.41 | 65.59 | 35.66 | 10.98 | 2.68  | 0.77 |



**Intensity:**

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

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

<http://droughtmonitor.unl.edu>



Released Thursday, January 31, 2013  
Mark Svoboda, National Drought Mitigation Center

Fig. 4a: Drought Monitor for the [Western States](#) with statistics over various time periods. No significant changes occurred this past week. See latest [Western Water Assessment Report](#).

In California, there are cooperative snow survey made up of 35 or so utilities, water agencies, government agencies and the Department of Water Resources. The NRCS is one of the cooperating agencies. Through this cooperative, California has over 200 manual snow surveys and has a similar number of snow pillows. With this data they publish a Bulletin 120 every month from February through May which provides a forecast of April through July runoff. We provide daily snow reports through the California Data Exchange Center (which also posts the Bulletin 120 at <http://cdec.water.ca.gov/snow/bulletin120/index2.html>) through the following links:

- Current PAGE6 report: <http://cdec.water.ca.gov/cgi-progs/snow/PAGE6>
- Current DLYSWEQ report: <http://cdec.water.ca.gov/cgi-progs/snow/DLYSWEQ>
- Current Regional Snowpack Plots: [http://cdec.water.ca.gov/cgi-progs/snow/PLOT\\_SWC](http://cdec.water.ca.gov/cgi-progs/snow/PLOT_SWC)

California also hosts a statewide water conditions page at:

[http://cdec.water.ca.gov/water\\_cond.html](http://cdec.water.ca.gov/water_cond.html) which has links to precipitation, reservoir storage, snowpack, runoff, and summary reports.

# Weekly Snowpack and Drought Monitor Update Report

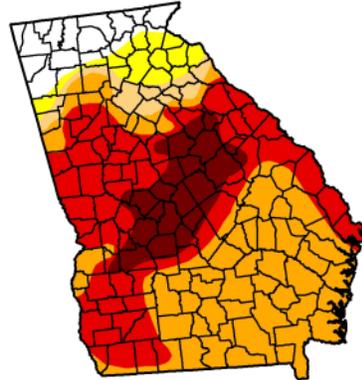
## U.S. Drought Monitor Georgia

January 29, 2013  
Valid 7 a.m. EST

|   | Drought Conditions (Percent Area) |       |       |       |       |       |
|---|-----------------------------------|-------|-------|-------|-------|-------|
|   | None                              | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4    |
| Current                                       | 8.30                              | 91.70 | 86.57 | 82.44 | 43.58 | 11.99 |
| Last Week<br>(01/22/2013 map)                 | 8.12                              | 91.88 | 87.51 | 61.29 | 34.57 | 10.64 |
| 3 Months Ago<br>(10/30/2012 map)              | 19.23                             | 80.77 | 53.00 | 40.78 | 23.25 | 10.03 |
| Start of<br>Calendar Year<br>(01/01/2013 map) | 1.63                              | 98.37 | 89.49 | 64.87 | 36.96 | 10.25 |
| Start of<br>Water Year<br>(09/25/2012 map)    | 37.30                             | 62.70 | 52.44 | 42.66 | 34.04 | 17.18 |
| One Year Ago<br>(01/24/2012 map)              | 14.41                             | 85.59 | 83.07 | 77.34 | 67.38 | 4.34  |

**Intensity:**

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



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

<http://droughtmonitor.unl.edu>



Released Thursday, January 31, 2013  
Mark Svoboda, National Drought Mitigation Center

Fig. 4b: D4 conditions are over Georgia. Note deterioration in D-2 to D-4 this past week.

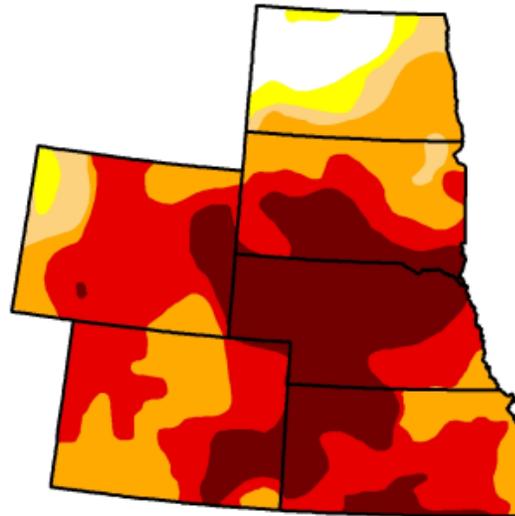
## U.S. Drought Monitor High Plains

January 29, 2013  
Valid 7 a.m. EST

|   | Drought Conditions (Percent Area) |        |       |       |       |       |
|---|-----------------------------------|--------|-------|-------|-------|-------|
|   | None                              | D0-D4  | D1-D4 | D2-D4 | D3-D4 | D4    |
| Current                                       | 4.79                              | 95.21  | 92.08 | 87.25 | 61.29 | 27.02 |
| Last Week<br>(01/22/2013 map)                 | 4.79                              | 95.21  | 92.08 | 87.25 | 61.30 | 27.02 |
| 3 Months Ago<br>(10/30/2012 map)              | 0.00                              | 100.00 | 98.20 | 83.87 | 57.02 | 27.44 |
| Start of<br>Calendar Year<br>(01/01/2013 map) | 1.54                              | 98.46  | 93.01 | 86.20 | 60.25 | 26.99 |
| Start of<br>Water Year<br>(09/25/2012 map)    | 0.00                              | 100.00 | 98.91 | 83.80 | 61.28 | 24.35 |
| One Year Ago<br>(01/24/2012 map)              | 40.03                             | 59.97  | 22.86 | 6.33  | 2.22  | 0.04  |

**Intensity:**

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



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

<http://droughtmonitor.unl.edu>



Released Thursday, January 31, 2013  
Mark Svoboda, National Drought Mitigation Center

Fig. 4c: Drought Monitor for the [High Plains](#) with statistics over various time periods. Conditions remained unchanged for the week.

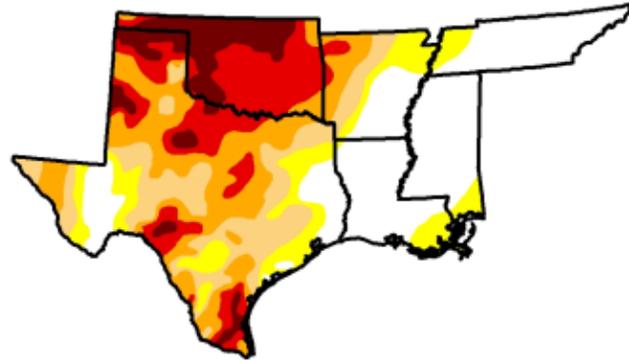
# U.S. Drought Monitor

## South

January 29, 2013  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

|   | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4    |
|---|-------|-------|-------|-------|-------|-------|
| Current                                       | 31.46 | 68.54 | 56.21 | 41.73 | 24.00 | 8.59  |
| Last Week<br>(01/22/2013 map)                 | 31.00 | 69.00 | 55.13 | 41.37 | 23.50 | 8.66  |
| 3 Months Ago<br>(10/30/2012 map)              | 30.27 | 69.73 | 53.05 | 37.39 | 20.81 | 5.53  |
| Start of<br>Calendar Year<br>(01/01/2013 map) | 21.18 | 78.82 | 63.69 | 50.50 | 32.80 | 10.98 |
| Start of<br>Water Year<br>(09/25/2012 map)    | 24.13 | 75.87 | 66.61 | 51.50 | 29.86 | 9.11  |
| One Year Ago<br>(01/24/2012 map)              | 28.47 | 71.53 | 64.62 | 52.75 | 37.37 | 13.27 |



Intensity:

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

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



Released Thursday, January 31, 2013  
Mark Svoboda, National Drought Mitigation Center

<http://droughtmonitor.unl.edu>

Fig. 4d: Drought Monitor for the [South-Central Region](#) with statistics over various time periods. Note no improvement over the past 7 days. Check out the Texas Drought [Website](#).

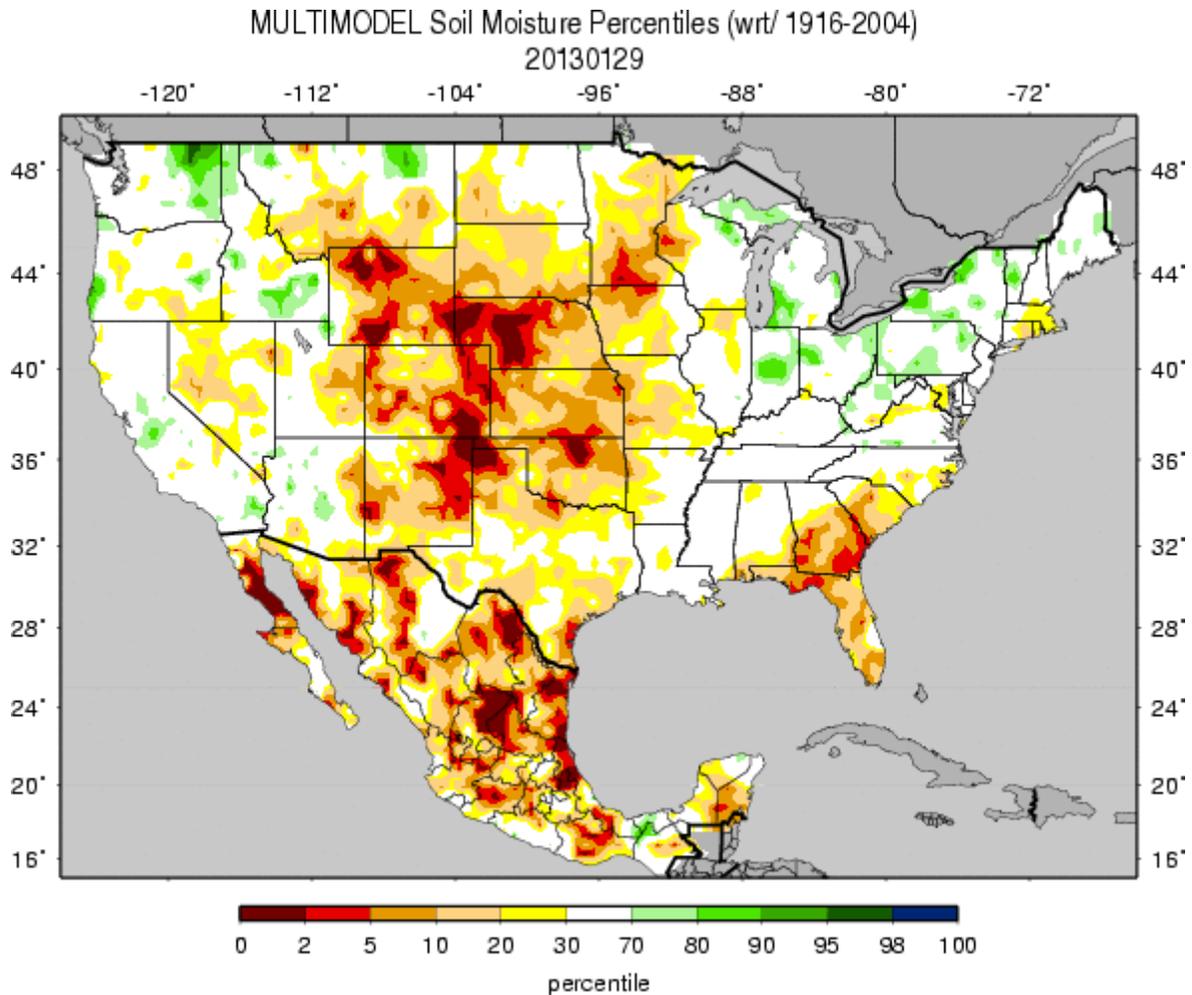
**Agriculture and Drought in the News**

- [Iowa corn yield, production fell 20% last year](#)
- [U.S. Feedlots Bought Fewer Cattle in December Compared With 2011](#)
- [US Hay Stocks at Lowest Level Since 1957](#)
- [U.S. Loses Korea Corn Sales to Cheaper Supplies From Brazil](#)

**Water Supply & Quality in the News**

- [Barge traffic moving again on Mississippi River](#)
- [Iowa may curtail water use if drought worsens, DNR director warns](#)
- [LCRA likely to build intake and water treatment plant for Spicewood Beach](#)
- [Water war roiling Pecos River Valley](#)

## Weekly Snowpack and Drought Monitor Update Report



**Figs. 5:** Soil Moisture ranking in [percentile](#) as of 29 January shows dryness scattered across Plains, much of the Rockies, and over New Mexico. Wetness dominates northeastern Washington. Freezing soils will distort actual moisture values, making them less than reliable over the Northern States.

### *Useful Hydrological Links:*

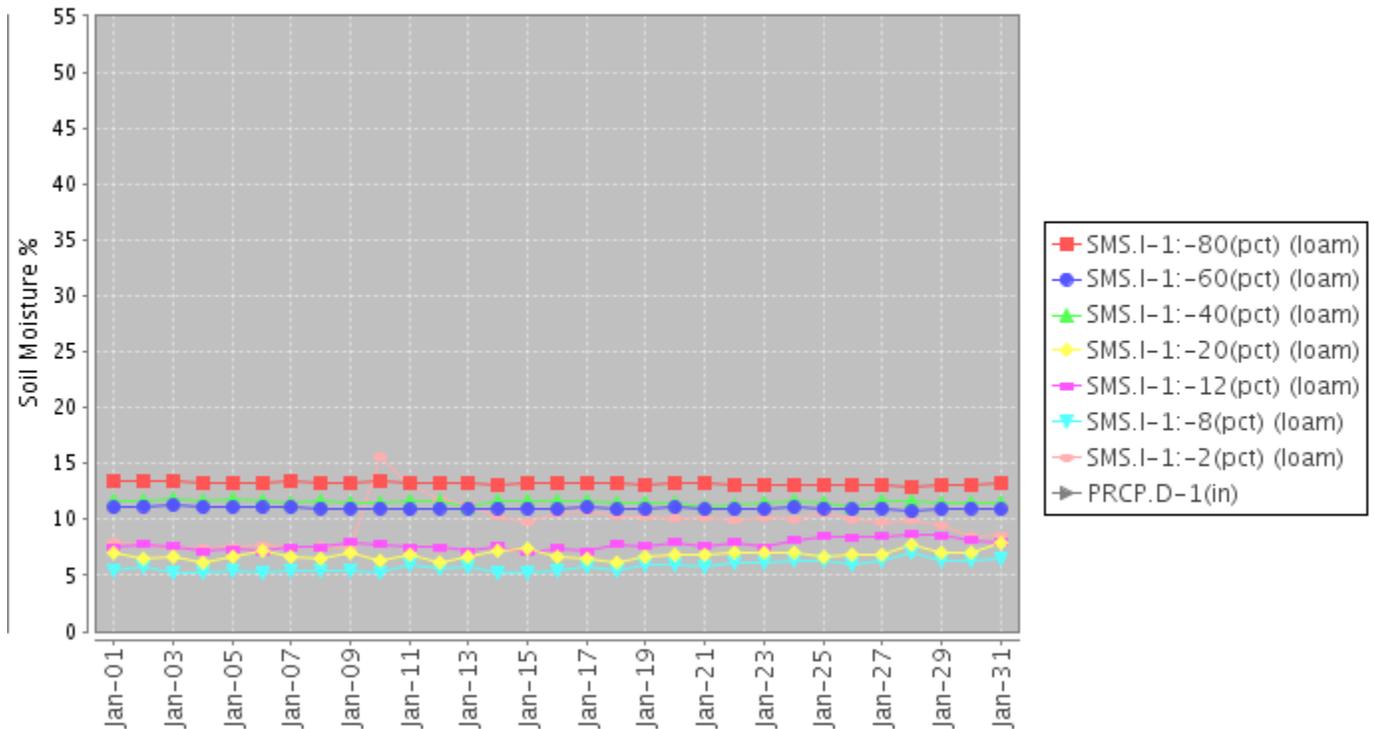
USDA western U.S. mountain snow water content anomaly map.

USGS (U.S. Geological Service) [observed streamflow](#); NOAA Climate Prediction Center (CPC) modeled runoff [anomalies](#) and [percentiles](#); VIC (University of Washington Variable Infiltration Capacity macro scale hydrologic model) [1-](#), [2-](#), [3-](#), and [6-](#)month and [water year-to-date](#) runoff percentiles; NLDAS (North American Land Data Assimilation System) modeled streamflow [anomalies](#) and [percentiles](#); NLDAS model runoff [anomalies](#) and [percentiles](#); USGS groundwater observations ([real-time network](#), [climate response network](#), [total active network](#)); USDA snow water content observations for the West (SNOTEL station [percentiles](#) and [percent of normal](#), SNOTEL basin [percent of normal](#) and [percent of average](#)) and Alaska ([SNOTEL station percent of normal](#), [SNOTEL basin percent of normal](#)); USDA reservoir storage as [percent of capacity](#).

## Weekly Snowpack and Drought Monitor Update Report

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

107) MONTH=2013-01-01 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu Jan 31 07:43:46 PST 2013



**Fig. 6:** This NRCS resource shows a site over the [southeastern New Mexico](#) with marginally moist soil at most levels during the past month.

#### Useful Agriculture Links:

USDA (U.S. Department of Agriculture) [observed soil moisture conditions](#), [departures and percentiles](#), and comparison to [5-year average](#) and [10-year average](#); the Palmer [Crop Moisture Index \(CMI\)](#), which intensified during the month in the West and Lower to Mid-Mississippi Valley (weeks [1](#), [2](#), [3](#), [4](#), [5](#)); CPC modeled soil moisture [anomalies](#) and [percentiles](#) for end of May, and [soil moisture anomaly change](#) compared to previous month; CPC's Leaky Bucket model [soil moisture percentiles](#); NLDAS modeled soil moisture percentiles for the [top soil layer](#) and [total soil layer](#); VIC modeled [soil moisture percentiles](#), and [soil moisture percentile change](#) compared to previous month; USDA observed [pasture and rangeland conditions](#); [Vegetation Drought Response Index \(VegDRI\)](#); the NOAA/NESDIS satellite-based [Vegetation Health Index \(VHI\)](#); the USGS agro-hydrologic model ([Soil Water Index](#), [Water Requirement Satisfaction Index](#)); Selected SNOTEL Sites (measured [2"](#), [4"](#), [8"](#), [20"](#), and [40"](#) soil moisture depths); Monthly [SCAN Report](#) from Utah.

## Weekly Snowpack and Drought Monitor Update Report

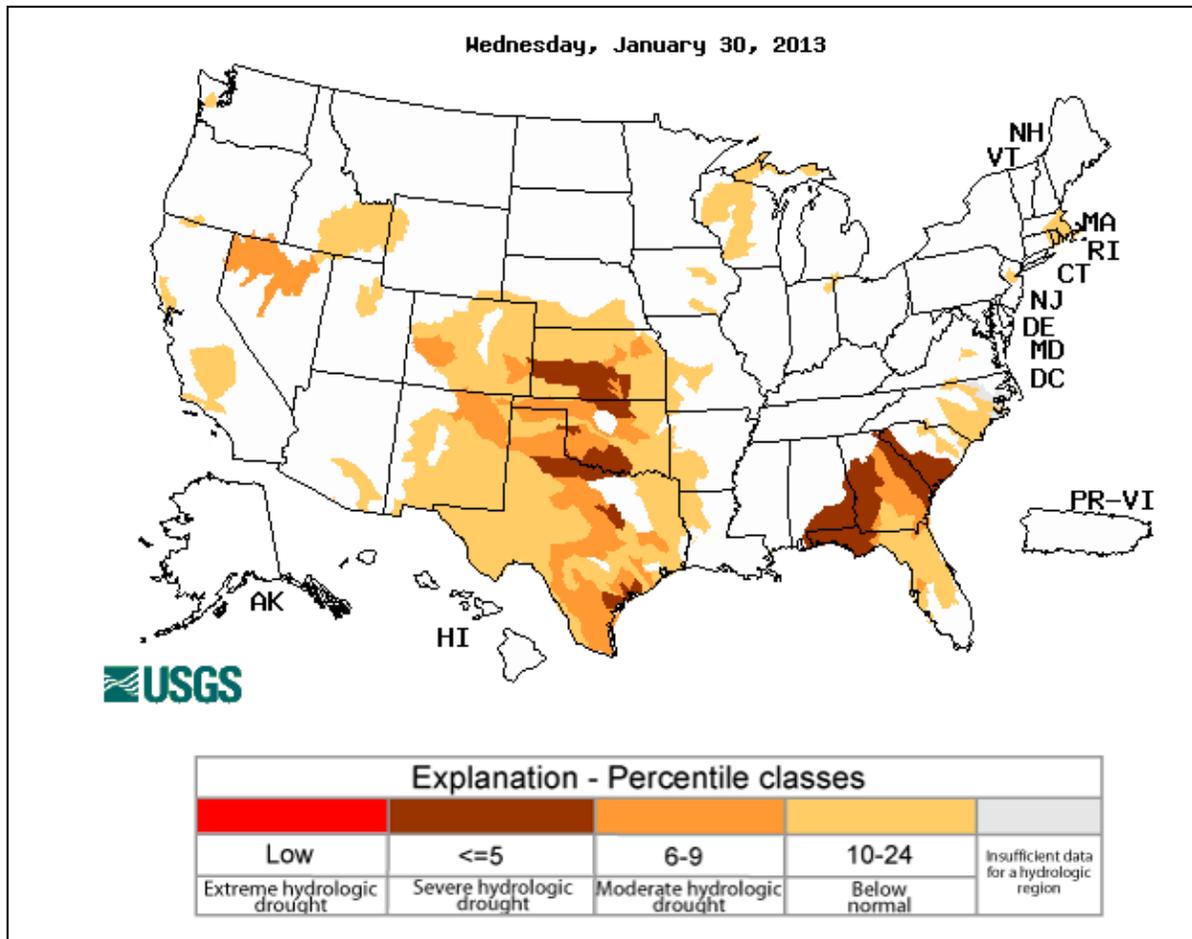


Fig. 7: Map of below normal 7-day average [streamflow](#) compared to historical streamflow for the day of year. **Severe** conditions exist over northern Kansas, northern Texas/southern Oklahoma, and parts of the Southeast States. As with soil moisture, streamflow data can be severely compromised by prolonged freezing temperatures. See the USGS [National Water Information System Mapper](#).

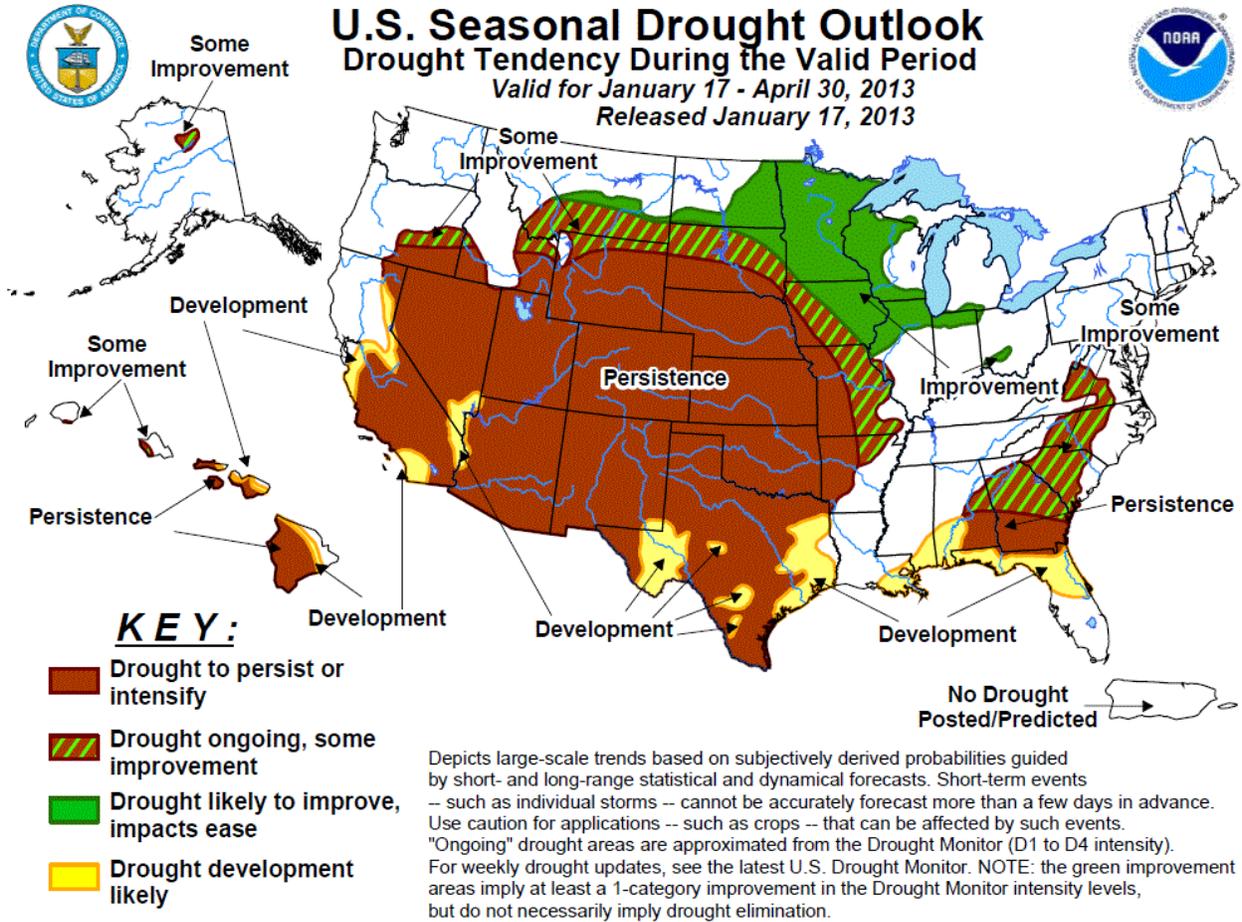


Fig. 8: U.S. seasonal [Drought Outlook](#) released 17 January.

**See USDA Drought Assistance [website](#).**

## Weekly Snowpack and Drought Monitor Update Report

### National Drought Summary -- January 29, 2013

*The discussion in the Looking Ahead section is simply a description of what the official national guidance from the National Weather Service (NWS) National Centers for Environmental Prediction is depicting for current areas of dryness and drought. The NWS forecast products utilized include the HPC 5-day QPF and 5-day Mean Temperature progs, the 6-10 Day Outlooks of Temperature and Precipitation Probability, and the 8-14 Day Outlooks of Temperature and Precipitation Probability, valid as of late Wednesday afternoon of the USDM release week. The NWS forecast web page used for this section is: <http://www.cpc.ncep.noaa.gov/products/forecasts/>.*

**The Northeast:** Last week brought with it well below normal temperatures and virtually no precipitation across the region, leading to no changes with regard to the remaining D0.

**Mid Atlantic:** After back-to-back wet weeks for most of the region, things dried out and cooled down considerably this past week, resulting in a status quo depiction on the map.

**The Southeast:** The Southeast also turned predominantly dry and warmer this week. The most notable changes occurred in Georgia, South Carolina and Florida. The border region along the Savannah River between Georgia and South Carolina saw an expansion of D3 to the coast along with a deepening of D2 in southern South Carolina and southern Georgia. Florida saw a 1-category expansion in D0 across most of the Florida Peninsula along with D1 and D2 expansion also noted in the Panhandle. In addition, there was also a slight pushing south and west of D1 and D2 in southern Alabama where recent rains have missed and the dry trend continues to intensify.

**The South:** Very warm temperatures (10 to 15 degrees above normal was commonplace) and dryness marked last week's weather across most of the region. That, coupled with a return to drier times, leads to mostly minor shifts and slight deterioration across most of Texas and southwestern Oklahoma as well. Arkansas remains unchanged from last week but the recent wet pattern continues to bode well for them, particularly in central and northeastern reaches.

**Midwest:** There was some late period precipitation across northeastern Iowa, northern Illinois and southern Wisconsin this past week, but given the deficits, lack of impacts and frozen top soils, it isn't enough to move the drought off its mark, so status quo is the word this week.

**The Plains:** The region remained unseasonably warm except for the Dakotas, but all shared in the all-too-common persistent dryness with no major precipitation outbreaks occurring last week. As such, the drought is firmly entrenched as we roll toward February. The relative lack of winter in back-to-back years will certainly place a much greater emphasis on well above-normal spring rains if the region is to have any real chance of shaking this drought. Same song, fifth verse with no changes of note on the map this week in what is now becoming the epicenter of the 2013 drought.

**The West:** The West saw a mixed bag on both the temperature and precipitation fronts last week as much of the Rocky Mountain spine region and the Southwest experienced well above normal temperatures. The Pacific Northwest remained the exception by staying cooler and wetter. The big winner this week was seen across central Arizona, where anywhere from 2-4 inches or more was observed, bringing about 1-category improvements to the D1-D3 drought. Longer-term dryness/drought is still a concern, but this system provided a much-needed shot-in-the-arm of moisture. Northwestern New Mexico shared in the bounty of this same system,

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but not nearly to the degree seen in central Arizona and southwestern Colorado. However, this was enough to remove the D3 from New Mexico, although many basins are still running below normal with regard to snow water equivalent (SWE) levels, meaning the severe drought (D2) remains. Same goes for southwestern Colorado, where the system helped boost SWE values, but not enough to move them out of D2 given the chronic dryness stretching back to last winter. Ample rains along the southern coast of California lead to a 1-category improvement from D1 to D0 and a push of the D1 westward off the coast from San Diego to Santa Barbara. Finally, well to the north in and around the Idaho Panhandle and northwestern Montana, precipitation last week leads to a trimming of the D0, primarily on the Montana side of the Divide, although the D0 is still left intact (albeit in a diminished state given the lagging SWE).

**Hawaii, Alaska, and Puerto Rico:** The rains of recent weeks have brought some improvements to parts of the Hawaiian Islands and this trend seems to still be occurring, but this week's map remains unchanged as local impact assessments continue to weigh short-term improvement vs. the long-term chronic drought that has persisted since 2008.

Conditions remain unchanged in Alaska and on Puerto Rico.

**Looking Ahead:** The NWS HPC 5-Day forecast calls for a nice potential storm system to bring moisture to the Pacific NW and into the northern Rockies. Another system will push eastward, bringing with it good chances for 1-2 inches of rain, or more, to the Gulf Coast region, and up the Appalachian spine into the Northeast. Temperatures are expected to be above normal across most of the West and central-southern Plains. Below-normal readings will be most pronounced in the Great Lakes region and unseasonably cool weather is expected to encroach across the rest of the East Coast and down into Florida.

The CPC 6–10 day outlook (February 5 thru February 9) is showing a strong likelihood for above-normal temperatures across the Southwest, South, Great Plains and Midwest. The New England region and north coast of California and south coast of Oregon can expect below-normal readings. As for precipitation, the wet trend is expected to continue across a good portion of the Desert Southwest and within the Midwest and Northeast. Drier times are to be expected along the Gulf Coast and into the coastal Carolinas, enveloping all of Florida as well.

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### Dryness Categories

D0 ... Abnormally Dry ... used for areas showing dryness but not yet in drought, or for areas recovering from drought.

### Drought Intensity Categories

D1 ... Moderate Drought

D2 ... Severe Drought

D3 ... Extreme Drought

D4 ... Exceptional Drought

### Drought or Dryness Types

S ... Short-Term, typically <6 months (e.g. agricultural, grasslands)

L ... Long-Term, typically >6 months (e.g. hydrology, ecology)

*Updated January 30, 2013*

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### USDA Highlights

Highlights for the drought-monitoring period ending 7 am EST on January 22 include:

- Overall U.S. drought coverage decreased to 57.64% of the contiguous U.S., down 1.23% from last week and down 5.01% in the last eight weeks. Last week's decrease came on the strength of additional heavy precipitation (rain and snow) in the lower Midwest and the Southeast—excluding the southern Atlantic region.

- The portion of the contiguous U.S. in the worst category – D4, or exceptional drought – was nearly steady at 6.36%. D4 coverage has ranged from 5 to 7% for 24 consecutive weeks (August 14 – January 22).

- The percent of hay in drought (59%) and cattle in drought (68%) fell two percentage points from a week ago. Winter wheat in drought (59%) was down a point. The last time “hay in drought” was less than 60% was July 3, 2012.

- For the 29<sup>th</sup> consecutive week (July 10, 2012 – January 22, 2013), drought encompassed more than two-thirds of the domestic cattle inventory.

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<http://www.reuters.com/article/2013/01/22/usa-agriculture-insure-idUSL1N0ARG2E20130122>

\* Corn gets 63 percent of indemnities, soybeans 13 percent

\* Persistent drought sparks fear for this year's crops

\* Farm bill issue: crop insurance reforms

WASHINGTON, Jan 22 (Reuters) - Corn farmers are getting the lion's share of U.S. crop insurance payments on losses caused mainly to drought last year - 63 percent of the record \$12.3 billion paid so far, the Agriculture Department said on Monday.

Some experts say indemnities could top \$20 billion, nearly double the old record set in 2011. Record-high payments would drive up the program's cost to the federal government, which subsidizes the insurance policies and shares the burden of heavy losses.

At its peak, drought covered two-thirds of the continental United States, including prime crop territory in the Plains and Corn Belt. Persistent drought imperils this year's winter wheat crop and may mean a dry start for corn, soybeans and other spring-planted crops.

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Crop insurance is the major federal farm support, ahead of traditional subsidies, due in part to sky-high commodity prices and the popularity of so-called revenue policies that shield growers from low prices and poor yields.

### ILLINOIS, IOWA TOPS IN PAYMENTS

So far, corn farmers have collected \$7.85 billion in indemnities, compared with \$1.62 billion for soybean growers. The crops often are planted in side-by-side fields in the Farm Belt. Hot, dry weather withered the corn crop but late-arriving rains limited soybean losses.

Claims are expected to arrive for several more weeks.

Iowa and Illinois, the top corn and soybean states, led the nation in insurance payments. Illinois growers have received \$1.8 billion and Iowans \$1.5 billion.

Corn is the most widely grown field crop in the country. Growers bought \$53 billion in policies on the crop out of \$116 billion in total liability on nearly 282 million acres.

The rising cost of federally subsidized crop insurance is likely to make the program an issue in Congress this year.

That cost could top \$10 billion on the 2012 crop. The government pays 62 cents of each \$1 in premium, pays part of the cost of delivering insurance to growers and pays roughly three-fourths of indemnities that exceed the amount paid in premiums to insurers.

### SENATE, HOUSE DIFFER ON CROP INSURANCE

Senate Majority Leader Harry Reid of Nevada on Tuesday put a new farm bill on his list of priorities for this year. Last year, the Senate voted to scale back the premium subsidy by 15 points for the wealthiest farmers and to require policy holders to practice soil conservation.

Senate Agriculture Committee chairwoman Debbie Stabenow says she plans for the committee to draft an updated version of the bill early this year.

In its version of the farm bill last year, the House Agriculture Committee refused to make either of the reforms proposed by the Senate. Chairman Frank Lucas said there was no support for the ideas.

Crop insurers range from privately held companies to subsidiaries of large corporations, such as Wells Fargo, Ace Limited, Deere and QBE Insurance Group.

### TOP STATES, CROPS FOR INDEMNITIES

Leading states for payments to date:

- Illinois, \$1.813 billion.
- Iowa, \$1.493 billion.
- Kansas, \$1.245 billion.
- Nebraska, \$1.222 billion.
- Texas, \$1.213 billion.
- South Dakota, \$1.014 billion.

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Leading crops for payments:

- Corn, \$7.848 billion.
- Soybeans, \$1.616 billion.
- Cotton, \$917 million.
- Wheat, \$722 million.
- Sorghum, \$370 million.